APPENDICES

Appendix A – Substantive File Documents
Appendix B – Marin County LUP Agriculture Resource and Public Services policies, and applicable chapters of the Marin County LCP Zoning Code
Appendix C – Marin County LCP Zoning Code Chapter 22.56.130 (streams, wetlands, and environmentally sensitive habitat)
Appendix D – Marin County LCP Zoning Code Chapters 22.56.130 and 22.57.024 (water quality and erosion control)
Appendix E – John Dixon, Ph.D., Ecologist, February 5, 2013, Memorandum on Magee Project (Including color-coded habitat Figure 1 and Figure 2)
Appendix F – Wetland Delineation, Magee Property, Marshall, Marin County, Zander Associates, October 2012
Appendix G – Conditions of Project Approval for CP-09-39, Brader-Magee Coastal Permit, Design Review, and Use Permit, County of Marin, May 10, 2010
Appendix H – Federal and State Agency Letters Regarding the Magee Farm Project
Appendix H - Federal and State Agency Comment Letters on the Magee Farm Project
Appendix I – Comment Letters and Reports Submitted by the Appellants and their Consultants after the September 15, 2010, Commission Finding of Substantial Issue and prior to Publication of the Commission's February 21, 2013, staff report
Appendix J – Comment Letters Supporting, Opposing, and Taking No Position on the Project, Submitted by Individuals other then the Appellants and their Consultants, after the September 15, 2010, Commission Finding of Substantial Issue and prior to Publication of the Commission's February 21, 2013, staff report

Appendix K – Comment letters Submitted after Publication of the Commission's February 21, 2013, staff report

APPENDIX A

1. Brader-Magee Project File, including materials associated with Marin County Coastal Permit CP-09-39, the Coastal Commission Substantial Issue Determination Appeal A-2-MAR-10-022, and the Coastal Commission's De Novo review, including materials submitted by the project applicant and associated consultants, as well as materials submitted by the Brader-Magee project opponents and associated consultants.
2. John D. Dixon, Ph.D., Memorandum on Magee Project, February 5, 2013, including all documents reviewed and cited in this memorandum.
3. Marin County Unit II Local Coastal Program.
4. May 3, 2012, Letter from Jane M. Hicks, Chief, Regulatory Division, San Francisco District, U.S. Army Corps of Engineers, to Mr. Tony Magee.
5. January 10, 2013, Memorandum from Scott Wilson, Acting Regional Manager, Bay Delta Region, California Department of Fish and Wildlife, to Mr. Larry Simon, California Coastal Commission.
6. California Coastal Commission, Coastal Development Permit 2-11-011 to California Department of Transportation for Rock Slope Protection along Highway 1 at Reynold's Cove, Marshall, Marin County, September 8, 2011.

APPENDIX B

Marin County LUP Agriculture Resource and Public Services policies, and applicable chapters of the Marin County LCP Zoning Code

1. General Policy. Marin County intends to protect the existing and future viability of agricultural lands in its coastal zone, in accordance with Sections 30241 and 30242 of the Coastal Act. The County's LCP policies are intended to permanently preserve productive agriculture and lands with the potential for agricultural use, foster agricultural development, and assure that non-agricultural development does not conflict with agricultural uses or is incompatible with the rural character of the County's coastal zone. These policies are also intended to concentrate development in suitable locations, ensure that adequate public services are available to serve new development, and protect coastal wildlife, habitat, and scenic resources, in accordance with Sections 30240, 20250, and 30251 of the Coastal Act.

2. Agricultural Production Zone. To implement the goals stated in Policy #1 above, the County shall adopt a planned district zone for all privately owned lands in the Unit II coastal zone currently zoned A-60 or other agricultural zoning district, such as A-20, which are outside of the community expansion boundaries identified in the LCP. Agricultural lands in Unit I which are zoned A-60 shall also be included. The planned district zone shall be known as the Agricultural Production Zone (APZ) and shall have a maximum density of 1 unit per 60 acres. The actual density of permitted development may be less and shall be determined based on the standards in Policy #4 below. The County recognizes that parcel sizes of 60 acres are too small, generally, to independently support existing agricultural operations in the coastal zone. However, 60-acre densities, when combined with the protective standards in Policy #4, do on balance adequately protect agriculture on the coast. The APZ should be reviewed in 5 years to determine its effectiveness, and necessary changes considered at that time.

3. Intent of the Agricultural Production Zone. The intent of the Agricultural Production Zone is to preserve lands within the zone for agricultural use. The principal use of lands in the APZ shall be agricultural. Development shall be accessory, incidental, or in support of agricultural land uses, and shall conform to the policies and standards in #4 and #5 below.

4. Development standards and requirements. All land divisions and developments in the APZ shall require an approved master plan showing how the proposed division or development would affect the subject property. In reviewing a proposed master plan and determining the density of permitted units, the County shall make all of the following findings:

a. The development would protect and enhance continued agricultural use and contribute to agricultural viability.

b. The development is necessary because agricultural use of the property is no longer feasible. The purpose of this standard is to permit agricultural landowners who face economic hardship to demonstrate how development on a portion of their land would ease this hardship and enhance agricultural operations on the remainder of the property.

c. The land division or development would not conflict with the continuation of agriculture on that portion of the property which is not developed, on adjacent parcels, or those within one mile of the perimeter of the proposed development.

d. Adequate water supply, sewage disposal, road access and capacity and other public services are available to service the proposed development after provision has been made for existing and continued agricultural operations. Water diversions or use for a proposed development shall not adversely impact stream habitats or significantly reduce freshwater inflows to Tomales Bay, either individually or cumulatively.

e. Appropriate public agencies are able to provide necessary services (fire protection, police protection, schools, etc.) to serve the proposed development.

f. The proposed land division and/or development will have no significant adverse impacts on environmental quality or natural habitats, including stream or riparian habitats and scenic resources. In all cases, LCP policies on streams and natural resources shall be met.

g. Development consists of permitted and conditional uses as authorized in the APZ.

5. <u>Conditions</u>. As part of the approval of a master plan, the following conditions shall be required:

a. All development shall be clustered to retain the maximum amount of land in agricultural production or available for agricultural use. Development, including all land converted from agricultural use such as roads and residential support facilities, shall be clustered on no more than five percent of the gross acreage, to the extent feasible, with the remaining acreage to be left in agricultural production and/or open space. Development shall be located close to existing roads and shall be sited to minimize impacts on scenic resources, wildlife habitat and streams, and adjacent agricultural operations.

b. Permanent conservation easements over that portion of the property not used for physical development or services shall be required to promote the long-term preservation of these lands. Only agricultural uses shall be allowed under the easements. In addition, the County shall require the execution of a covenant not to divide for the parcels created under this division so that they are retained as a single unit and are not further subdivided.

c. The creation of a homeowner's or other organization and/or the submission of agricultural management plans may be required to provide for the proper utilization of agricultural lands and their availability on a lease basis or for the maintenance of community roads or mutual water systems

6. <u>Definitions and Uses</u>. The definition of agricultural uses in the APZ is given below, along with permitted and conditional uses.

a. Definitions. For the purposes of the Agricultural Production Zone, agricultural uses shall be defined as uses of land to grow and/or produce agricultural commodities for commercial purposes, including:

c. Livestock and poultry – cattle, sheep, poultry, goats, rabbits, horses unless they are the primary animals raised.

d. Livestock and poultry products – milk, wool, eggs.

e. Field, fruit, nut, and vegetable crops – hay grain, silage, pasture, fruits, nuts, and vegetables.

f. Nursery products – nursery crops, cut plants.

b. Permitted Uses. Permitted uses include the following:

g. Agricultural uses as defined above.

h. One single-family dwelling per parcel. "Parcel" is defined as all contiguous assessor's parcels under common ownership

i. Accessory structures or uses appurtenant and necessary to the operation of agricultural uses, other than dwelling units of any kind, but including barns, fences, stables, corrals, coops and pens, and utility facilities.

c. Conditional Uses. Conditional uses include the following:

. . .

s. Facilities for processing or retail sales of agricultural products

t. Greenhouses

. . . .

Marin County LUP Public Services policies, in part:

1. General Policy. Prior to the issuance of a coastal development permit, the County shall make the finding, based on information provided by environmental documents, staff analysis, and the applicant, that adequate public services and resources (i.e. water supply, sewage disposal, and road access and capacity) are available to serve the proposed development. Lack of available services or resources shall be grounds for denial of the project or for a reduction in the density otherwise indicated in the land use plan.

2. Water Supply.

a. Type of service. Except as provided herein, new development, including land divisions, outside the service area of a community or mutual water system may utilize individual wells or other private on-site water sources. . . . Additionally, wells or water sources shall be at least 100 feet from property lines, or a finding shall be made that no development constraints are placed on neighboring properties. . . . All new development shall be required to incorporate low flow water fixtures and other water-saving devices.

. . .

e. Development standards for wells and other sources.

(1) Permit required. A coastal permit shall be required to drill any well, including individual and community wells, and exploratory wells. A permit shall also be required to tap other water sources, such as springs or streams.

(2) Individual sources. In areas where individual water wells or other individual domestic water sources are permitted, the applicant shall demonstrate from on-site tests that a sustained water yield of at least 1.5 gpm per residential unit is available prior to the issuance of a building permit or tentative map. Higher yields may be required for fire protection purposes, as recommended by the appropriate fire protection agency.

. . .

f. Fire protection. All proposed building permits and land divisions shall be reviewed by the County Fire Chief or other appropriate fire protection agency prior to the issuance of a coastal development permit so that additional requirements for fire protection, including water storage facilities, sprinkler systems, or fire hydrants, may be added as necessary.

3. Sewage Disposal.

a. On-site sewage disposal. All on-site sewage disposal systems in the coastal zone shall be evaluated as follows:

(1) Septic systems. All septic systems shall meet the standards contained in either the Minimum Guidelines for the Control of Individual Wastewater Treatment and Disposal System adopted by the Regional Water Quality Control Board on April 17, 1979 or the County's revised septic system code, when approved by the Regional Board. No waivers shall be granted unless a public entity has formally assumed responsibility for inspecting, monitoring, and enforcing the maintenance of the system in accordance with criteria adopted by the Regional Board, or such waivers have otherwise been reviewed and approved by the Regional Board. (See Appendix C)

The applicable Marin County LCP Zoning Code sections, in part:

Chapter 22.56.026: COASTAL MASTER PLAN DISTRICTS

The following C districts shall be subject to the requirements of Chapter 22.45 in addition to the requirements of this chapter:

C-ARP C-RSP C-RMP C-CP C-APZ C-RSPS C-RMPC C-RCR

All coastal project permits in coastal master plan districts, including approval of a master plan, are appealable under Section 30603(a) of The Coastal Act. The conceptual land uses approved in any master plan shall not be considered subject to appeal to the California Coastal Commission upon issuance of any subsequent coastal project permit within the master plan district.

The requirements of Chapter 22.45 may be waived by the Planning Director when:

A. One single family dwelling unit is proposed for construction on a legal building site.
B. A tentative map requiring a parcel map for four parcels or less is proposed, except in C-APZ districts.

C. The Planning Director determines that a proposed development is minor or incidental in nature and within the intent and objectives of the Local Coastal Plan.

In granting a waiver from the requirements of Chapter 22.45, the Planning Director may designate such conditions therewith as will, in the opinion of the Planning Director, secure substantially the objectives of the regulation or provision for which such waiver is granted.

If Master Plan requirements are waived, a proposal shall be submitted which meets the requirements of Chapter 22.82 (Design Review).

Chapter 22.57.024: DESIGN STANDARDS

1. Project Design:

(a) Clustering. Buildings shall be clustered or sited in the most accessible, least visually prominent portion or portions of the site. Clustering or siting buildings in the least visually prominent portion or portions of the site is especially important on open grassy hillsides. In these areas, the prominence of construction shall be minimized by placing buildings so that they will be screened by existing vegetation, rock outcroppings or depressions in topography. In areas with wooded hillsides, a greater scattering of buildings may be preferable to save trees and minimize visual impacts. In areas where usable agricultural land exists, residential development shall be clustered or sited so as to minimize disruption of existing or possible future agricultural uses.

. . .

(d) Roads, Driveways and Utilities. The development of roads, driveways and utilities shall conform to the applicable standards contained in Title 24 of Marin County Code, including but not limited to Sections 24.04.020 through 24.04.320 (Roads and Driveways), and Sections 24.04.840 through 24.04.860 (Utilities). In areas with undeveloped agricultural land, efforts shall be made to keep road and driveway construction, grading and utility extensions to a minimum. This shall be accomplished through clustering and siting development so as to minimize roadway length and maximize the amount of undivided agricultural land.

. . .

(i) Agricultural and Open Spaces Uses. Agricultural uses shall be encouraged in ARP zones. As part of the development review process, usable agricultural land should be identified and efforts made to preserve and/or promote its use. Agricultural land, not presently in use, may be preserved as undeveloped private

open space to be made available, on a lease basis, in the future, for compatible agricultural uses. The primary intent shall be to preserve open lands for agricultural use, not to provide open space/recreational land uses which will interfere or be in conflict with agricultural operations. Lands to be preserved for agricultural and/or open space use may require the creation of a homeowner's association or other organization for their maintenance. The nature and intensity of large scale agricultural uses should be described in the form of an Agricultural Management Plan.

Management plans should consider intensity of grazing, runoff protection, chemical and fertilizer use and, in order to preserve agricultural land practices, separation from existing or proposed residential uses . . . .

Chapter 22.57.030: C-APZ DISTRICTS, COASTAL, AGRICULTURAL PRODUCTION ZONE DISTRICTS

Chapter 22.57.031: Purpose: The purpose of the Agricultural Production Zone is to preserve lands within the zone for agricultural use. The principal use of lands in the C-APZ Districts shall be agricultural. Development shall be accessory, incidental, or in support of agricultural land uses, and shall conform to the policies and standards as set forth herein.

Chapter 22.57.032: PRINCIPAL PERMITTED USES

The following uses are permitted in all C-APZ Districts subject to an approved Master Plan:

1. Agricultural Uses. For the purposes of the Coastal Agricultural Production Zone, agricultural uses shall be defined as uses of land to grow and/or produce agricultural commodities for commercial purposes, including:

- *a. Livestock and poultry: cattle, sheep, poultry, goats, rabbits, horses unless they are the primary animals raised.*
- *b. Livestock and poultry products: milk, wool, eggs.*
- *c. Field, fruit, nut, and vegetable crops: hay, grain, silage, pasture, fruits, nuts, and vegetables.*
- *d. Nursery products: nursery crops, cut plants.*

2. One single-family dwelling per parcel. Parcel is defined as all contiguous assessor's parcels under common ownership (unless legally divided as per Title 20, Marin County Code).

3. Accessory structures or uses appurtenant and necessary to the operation of agricultural uses, other then dwelling units of any kind; but, including barns, fences, stables, corrals, coops and pens, and utility facilities.

Chapter 22.57.033: CONDITIONAL USES

The following uses are permitted in all Coastal Agricultural Production Zone Districts, subject to the securing of a Use Permit in each case. When it is determined by the Planning Director that any of the following uses constitute a major land use change, a Master Plan submitted in accordance with 22.45 may be required.

. . .

9. Facilities for processing or retail sale of agricultural products.

10. Greenhouses.

Chapter 22.57.034: DENSITY

The ordinance adopting a C-APZ District shall specify the minimum number of acres per dwelling unit, which will be required within the C-APZ District. The C-APZ District shall have a maximum density of one unit per 60 acres; actual density shall be determined through the master plan process.

Chapter 22.57.035: DEVELOPMENT STANDARDS AND REQUIREMENTS

All development permits in the C-APZ shall be subject to the following standards and requirements:

2. *All development shall be clustered to retain the maximum amount of land in agricultural production or available for agricultural use. Developments, including all land converted from agricultural use such as roads and residential support facilities, shall be clustered on no more than five percent of the gross acreage, to the extent feasible, with the remaining acreage to be left in agricultural production and/or open space. Development shall be located close to existing roads and shall be sited to minimize impacts on scenic resources, wildlife habitat and streams, and adjacent agricultural operations.*

3. *Permanent conservation easements over that portion of the property not used for physical development or services shall be required to promote*

the long-term preservation of these lands. Only agricultural uses shall be allowed under the easements. In addition, the County shall require the execution of a covenant not to divide the parcels created under this division so that they are retained as a single unit and are not further subdivided.

. . .

4. Design standards as set forth in 22.57.024

Chapter 22.57.036: REQUIRED FINDINGS

Review and approval of development permits, including a determination of density shall be subject to the following findings:

1. The development will protect and enhance continued agricultural use and contribute to agricultural viability.

2. The development is necessary because agricultural use of the property is no longer feasible. The purpose of this standard is to permit agricultural landowners who face economic hardship to demonstrate how development on a portion of their land would ease this hardship and enhance agricultural operations on the remainder of the property.

3. The land division of development will not conflict with the continuation or initiation of agriculture, on that portion of the property which is not proposed for development, on adjacent parcels, or those within one mile of the perimeter of the proposed project.

4. Adequate water supply, sewage disposal, road access and capacity and other public services are available to service the proposed development after provision has been made fro existing and continued agricultural operations. Water diversions or use for a proposed development shall not adversely impact stream habitats or significantly reduce freshwater inflows to Tomales Bay, either individually or cumulatively.

5. Appropriate public agencies are able to provide necessary services (fire protection, police protection, schools, etc.) to serve the proposed development.

6. The proposed land division and/or development will have no significant adverse impacts on environmental quality or natural habitats, including stream or riparian habitats and scenic resources. In all cases, LCP policies on streams and natural resources shall be met.

Chapter 22.56.130: DEVELOPMENT REQUIREMENTS, STANDARDS AND CONDITIONS

A. Water Supply: Coastal project permits shall be granted only upon a determination that water service to the proposed project is of an adequate quantity and quality to serve the proposed use.

. . .

2) Prior to the authorization of subdivision or construction of projects utilizing individual water wells, the applicant shall demonstrate a sustained water –well yield of at least 1 gallon per minute per residential unit. Additional requirements for fire protection, including increased yield rates, water storage facilities and fire hydrants shall be installed as recommended by the applicable fire protection agency.

. . .

4) New development shall be required to incorporate low-flow water fixtures and other water saving devices.

B. Septic System Standards: The following standards apply for projects which utilize septic systems for sewage disposal.

1) All septic systems within the coastal zone shall conform with the Minimum Guidelines for the Control of Individual Wastewater Treatment and Disposal Systems adopted by the Regional Water Quality Control Board of April 17, 1979 or, Marin County Code whichever is more stringent. No waivers shall be permitted except where a public entity has formally assumed responsibility for inspecting, monitoring and enforcing the maintenance of the system in accordance with criteria adopted by the Regional Water Quality Control Board, or where such waivers have otherwise been reviewed and approved under standards established by the Regional Water Quality Control Board.

APPENDIX C

Marin County LCP Zoning Code Chapter 22.56.130 (streams, wetland resources, and environmentally sensitive habitat)

Chapter 22.56.130: DEVELOPMENT REQUIREMENTS, STANDARDS AND CONDITIONS

G. Streams and Wetland Resources

The following standards shall apply to all development within or adjacent to streams identified as blue-line streams on the most recent edition of 7 ½ minute quadrangle map(s) for the project area.

. . .

3) For proposed projects located adjacent to streams, application submittals shall include the identification of existing riparian vegetation as a riparian protection area. No construction, alteration of land forms or vegetation removal shall be permitted within such riparian protection area. Additionally, such project applications shall identify a stream buffer area which shall extend a minimum of 50 feet from the outer edge of riparian vegetation, but in no case less than 100 feet from the banks of a stream. Development shall not be located within this stream buffer area. When a parcel is located entirely within a stream buffer area, design review shall be required to identify and implement the mitigation measures necessary to protect water quality, riparian vegetation and the rate and volume of stream flows. The design process shall also address the impacts of erosion and run-off, and provide for the restoration of disturbed areas by replacement landscaping with plant species naturally found on the site. Where a finding based upon factual evidence is made that development outside a riparian protection or stream buffer area would be more environmentally damaging to the riparian habitat than development within the riparian protection or stream buffer area, development of principal permitted uses may occur within such area subject to design review and appropriate mitigation measures.

4) Development applications on lands surrounding Bolinas Lagoon and other wetlands as identified on the appeals area map(s) shall include the designation of a wetland buffer area. The buffer area shall include those identified or apparent wetland related resources but in no case shall be less than a minimum of 100 feet in width from the subject wetland. To the maximum extent feasible, the buffer area shall be retained in a natural condition and development located outside the buffer area. Only those uses

dependent upon the resources of the wetland shall be permitted within the wetland buffer area.

5) The diking, filling, dredging and other alterations of wetlands shall occur only for minor, public works projects and shall be in conformance with the Coastal Act Section 30233. No physical improvements along the County Parklands surrounding Bolinas Lagoon shall occur. Land uses in and adjacent to wetlands shall be evaluated as follows:

a. Filling of wetlands for the purposes of single-family residential development shall not be permitted.

b. Allowable resource-dependent activities in wetlands shall include fishing, recreational clamming, hiking, hunting, nature study, birdwatching and boating.

c. No grazing or other agricultural uses shall be permitted in wetlands except in those reclaimed areas presently used for such activities.

d. A buffer strip 100 feet in width, minimum, as measured landward from the edge of the wetland, shall be established along the periphery of all wetlands. Where appropriate, the required buffer strip may be wider based upon the findings of the supplemental report required in (e). Development activities and uses in the wetland buffer shall be limited to those allowed pursuant to Section 30233 of the Coastal Act of 1976.

e. As part of the application for a coastal development permit on any parcel adjacent to Tomales Bay, except where there is no evidence of wetlands pursuant to the Coastal Commission's adopted guidelines, the applicant shall be required to submit supplemental biological information prepared by a qualified ecologist at a scale sufficient to identify the extent of the existing wetlands, based on Section 30121 of the Coastal Act and the area of the proposed buffer areas.

f. All conditions and standards of the LCP, relating to diking, filling and dredging shall be met.

The applicable LCP Zoning Code sections state in part:

<u>Chapter 22.56.130</u>: DEVELOPMENT REQUIREMENTS, STANDARDS AND CONDITIONS

I. <u>Wildlife Habitat Protection</u>

1) Proposals to remove significant vegetation on sites identified on the adopted natural resource map(s) and generally described in Section 2 of the LCP shall require a coastal permit. Significant alteration or removal of such vegetation shall not be permitted except where it poses a threat to life or property.

2) Siting of New Development. Coastal project permit applications shall be accompanied by detailed site plans indicating existing and proposed construction, major vegetation, water courses, natural features and other probable wildlife habitat areas. Development shall be sited to avoid such wildlife habitat areas and to provide buffers for such habitat areas. Construction activities shall be phased to reduce impacts during breeding and nesting periods. Development that significantly interferes with wildlife movement, particularly access to water, shall not be permitted.

J. Protection of Native Plant Communities

Where the officer or body reviewing a coastal project application determines that a project site contains a significant number or type of nonindigenous, invasive plant species which would threaten the preservation or re-establishment of native plant species, either on or off site, the project's approval shall be conditioned upon the removal of such non-indigenous plant material.

Chapter 22.57.024: DESIGN STANDARDS

2. Site Preparation.

(d) Trees and Vegetation. In all instances, every effort shall be made to avoid removal, changes or construction which would cause the death of trees or rare plant communities and wildlife habitats.

APPENDIX D

Marin County LCP Zoning Code Chapters 22.56.130 and 22.57.024 (water quality and erosion control)

Chapter 22.56.130: DEVELOPMENT REQUIREMENTS, STANDARDS AND CONDITIONS

C. Grading and Excavation: The following standards shall apply to coastal projects which involve the grading and excavation of 150 cubic yards or more of material.

1) Development shall be designed to fit a site's topography and existing soil, geological, and hydrological conditions so that grading, cut and fill operations, and other site preparation are kept to an absolute minimum and natural landforms are preserved. Development shall not be allowed on sites, or areas of a site, which are not suited to development because of known soil, geology, flood, erosion or other hazards that exist to such a degree that corrective work, consistent with these policies (including but not limited to the protection of natural landforms) is unable to eliminate hazards to the property endangered thereby.

2) For necessary grading operations, the smallest practicable area of land shall be exposed at any one time during development and the length of exposure shall be kept to the shortest practicable time. The clearing of land shall be discouraged during the winter rainy season and stabilizing slopes shall be in place before the beginning of the rainy season.

3) In addition to such standards as may be imposed under MCC Chapter 23.08.090, the following standards shall be required:

a) Sediment basins (including debris basins, desilting basins, ponding areas or silt traps), shall be installed at the beginning of grading operations and maintained throughout the development process to remove sediment from runoff waters. Temporary vegetation, seeding, mulching, or other suitable stabilization methods shall be used to protect soils which have been exposed during grading or development. Cut and fill slopes shall be permanently stabilized as soon as possible with native plants or other suitable landscaping techniques.

b) The extent of impervious surfaces shall be minimized to the greatest degree possible. Water runoff beyond natural levels shall be retained on-site whenever possible to facilitate maximum groundwater recharge. In

order to prevent gullying on-site and down-stream erosion of existing stream channels, the velocity of runoff on and off the site shall be dissipated through the application of appropriate drainage controls so that the runoff rate does not exceed the storm water runoff from the area in its natural or undeveloped state. Grassed or natural waterways are preferred to concrete storm drains for runoff conveyance.

c) Pollutants such as chemicals, fuels, and other harmful materials shall be collected and disposed of in an approved manner.

d) Where topsoil is removed by grading operations, it shall be stockpiled for subsequent re-use, where appropriate.

e) All debris shall be removed from the site upon the completion of the project.

f) Permit applications for grading which involve cut slopes in excess of 8 feet or fill in excess of 5 feet shall include a report from a registered soils or civil engineer.

Chapter 22.57.024: DESIGN STANDARDS

2. Site Preparation.

(b) Erosion Control. Grading plans shall include erosion control and revegetation programs. Where erosion potential exists, silt traps or other engineering solutions may be required. The timing of grading and construction shall be controlled by the Department of Public Works to avoid failure during construction.

APPENDIX E

John Dixon, Ph.D., Ecologist

February 5, 2013, Memorandum on Magee Project

CALIFORNIA COASTAL COMMISSION
NORTH COAST DISTRICT
710 "E" STREET, SUITE 200
EUREKA, CA 95501
(707) 445-7873

MEMORANDUM

FROM: John D. Dixon, Ph.D.
Ecologist

TO: Larry Simon

SUBJECT: Magee Project

DATE: February 5, 2013

Documents reviewed:

Barbour, M.G. and J. Major, eds. 1988. Terrestrial vegetation of California. Sacramento, California Native Plant Society.

Barbour, M.G., T. Keeler-Wolf, and A.A. Schoenherr, eds. 2007. Terrestrial vegetation of California. 3rd Edition. Berkeley, University of California Press.

EMC Planning Group Inc. 2011. Draft Environmental Initial Study/Policy Consistency Analysis, Magee Distrillery Project (A-2-Mar-10-022). A report prepared for J. Bridges (Fenton & Keller) dated September 6, 2011.

Goggin, W. (EMC). 2011a. Letter to L. Simon (California Coastal Commission) dated June 6, 2011 regarding "Follow-up letter to biological site visit – Local Coastal Program permit application, A-2-Mar-10-022 (Magee Project), West Marin County, California."

Goggin, W. (EMC). 2011b. Letter to J. Bridges (Fenton & Keller) dated October 21, 2011 regarding "Comments on Zander Associates' October 2011 Biological Resources Report – Local Coastal Program permit application, A-2-Mar-10-022 (Magee Project), West Marin County, California."

Goggin, W. (EMC). 2012a. Memorandum to J. Bridges (Fenton & Keller) dated February 13, 2012 regarding "Outstanding unresolved biological resource issues, Local Coastal Program permit application, A-2-Mar-10-022 (Magee Project), West Marin County, California."

Goggin, W. (EMC). 2012b. Memorandum to J. Bridges (Fenton & Keller) dated April 4, 2012 regarding "Identification of western pond turtle on adjacent property and habitat connectivity issues, Local Coastal Program permit application, A-2-Mar-10-022 (Magee Project), West Marin County, California."

Goggin, W. (EMC). 2012c. Memorandum to J. Bridges (Fenton & Keller) dated May 16, 2012 regarding "Response to Zander Associates letter, A-2-Mar-10-022 (Brader-Magee Project), West Marin County, California."

Goggin, W. (EMC). 2012d. Letter to J. Dixon (California Coastal Commission) dated September 12, 2012 regarding "Summary of biological concerns, Local Coastal Program Permit Application, A-2-Mar-10-022 (Magee Project), West Marin County, California."

Goggin, W. (EMC). 2012e. Compact Disk (CD) sent to J. Dixon (California Coastal Commission) dated September 12, 2012 containing "Magee Site Hydrology Videos" of unknown provenance.

Hicks, J. (U.S. Army Corps of Engineers). 2012. Letter to T. Magee dated May 03, 2012 regarding possible wetland fill and approval of a jurisdictional wetland delineation at 17900 Shoreline Highway, Marshall, CA.

Herzog, C. (Herzog Geotechnical). 2011. Letter report dated March 24, 2011 to T. Magee regarding the impact of water flowing on to the Magee property from the neighboring property to the north.

Holland, R.F. 1986. Preliminary descriptions of the terrestrial natural communities of California. California Department of Fish and Game.

Jennings, M. (Rana Resources). 2011. Ocular surveys and habitat assessment for the California red-legged frog (*Rana draytonii*), foothill yellow-legged frog (*R. boylii*), and western pond turtle (*Actinemys marmorata*) on the Magee farm project site, Marin County, California. A report prepared for Leslie Zander (Zander Associates) dated September 7, 2011.

Sissem, R. (EMC). 2011a. Letter report to S. Kivel dated April 22, 2011 regarding "Supplemental information regarding to Coastal Act and responsible agency permit violations at 17990 Shoreline Highway (State Route 1), Marshall, Marin County, CA.

Sissem, R. (EMC). 2011b. Letter report to S. Kivel dated May 5, 2011 regarding "Supplemental information regarding additional Coastal Act and Marin County Local Coastal Program/Development Standard violations at 17990 Shoreline Highway (State Route 1), Marshall, Marin County, CA.

Sissem, R. (EMC). 2011c. Letter report to J. Bridges (Fenton & Keller) dated May 6, 2011 regarding "Preliminary biological issues review letter – Local Coastal Program permit application, A-2-Mar-10-022 (Magee Project), Marin County, California."

U.S. Fish and Wildlife Service. 2001. Endangered and Threatened Wildlife and Plants; Final Determination of Critical Habitat for the California Red-legged Frog; Final Rule. 66 Federal Register 49 (March 13, 2001), pp. 14626-14674.

U.S. Fish and Wildlife Service. 2006. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the California Red-Legged Frog, and Special Rule Exemption Associated With Final Listing for Existing Routine Ranching Activities; Final Rule. 71 Federal Register 71 (April 13, 2006), pp. 19244-19292.

U.S. Fish and Wildlife Service. 2010. Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for the California Red-Legged Frog. Final Rule. 75 Federal Register 51 (March 17, 2010), pp. 12816-12959.

Zander Associates. 2012. Wetland delineation, Magee Property, Marshall, Marine County, California. A report dated October 2012 prepared for T. Magee.

Zander, L. (Zander Associates). 2008. Letter report to T. Magee dated October 29, 2008 regarding a Biological Resources Assessment at 17990 State Route 1, Marshall, CA.

Zander, L. (Zander Associates). 2009a . Letter to T. Magee dated March 30, 2009 regarding a special-status plant survey at 17990 State Route 1, Marshall, CA.

Zander, L. (Zander Associates). 2009b. Letter to T. Magee dated June 30, 2009 regarding an additional plant survey at 17990 State Route 1, Marshall, CA.

Zander, L. (Zander Associates). 2010. Letter to V. Corella-Pearson (Marin County) dated March 29, 2010 regarding the biological resources at 17990 State Route 1, Marshall, CA relative to a development project referred to as "Brader-Magee."

Zander, L. (Zander Associates). 2011a. Letter to T. Magee dated May 22, 2011 regarding vegetation surveys, technical wetland delineation, and sensitive wildlife surveys at 17990 State Route 1, Marshall, CA, with an attached letter from Herzog Geotechnical dated March 24, 2011 regarding water flowing onto the property from 18400 State Route 1, Marshall, CA.

Zander, L. (Zander Associates). 2011b. Letter to L. Simon (California Coastal Commission) dated September 27, 2011 regarding biological resources at 17990 State Route 1, Marshall, CA.

Zander, L. (Zander Associates). 2012a. Memorandum to J. Dixon & L. Simon (California Coastal Commission) dated January 12, 2012 transmitting a map (titled Figure 3) of wetlands and other waters with buffer zones in a portion of the property at 17990 State Route 1, Marshall, CA.

Zander, L. (Zander Associates). 2012b. Letter dated February 10, 2012 to L. Kennings (LAK Associates) responding to the October 21, 2011 letter from EMC Planning Group concerning Zander Associates September 27, 2011 letter report.

Zander, L. (Zander Associates). 2012c. Letter to J. Dixon (California Coastal Commission) dated April 26, 2012 regarding "Additional grassland data, Magee property, Marshall, California."

Zander, L. (Zander Associates). 2012d. Letter to J. Dixon (California Coastal Commission) dated November 2, 2012 regarding "Additional information, Magee property, Marshall, California."

Zander, L. (Zander Associates). 2012e. Field Notes from November 12, 2012 site visit to Magee property with Sandra Meyers and John Dixon. Includes the vegetation map that resulted from the vegetation analysis and GPS mapping conducted during the site visit.

In addition to reading relevant reports and literature, I have visited the 150-acre Magee property on three occasions. On May 24, 2011, I visited the site with Commission staff, Mr. Magee and his representatives, including biologist Leslie Zander, and with Bill Goggin, a biologist for the appellants, Mr. Kivel and Ms. Lund. We visited the following areas at or near proposed sites of development on the north side of the blue-line stream: 1) the area proposed for a road), 2) the area of an animal enclosure[1] where water enters the Magee property from the Kivel-Lund property and where a water diversion structure (ditch & diversion pipe) was placed along the property line, 3) the area proposed for a barn, 4) the area proposed for a vineyard, 5) the area next to the stream where an old road enters the property, and the area proposed for a brandy distillery. We also visited a large wetland swale adjacent to Highway 1 on the south side of the stream. The purpose of the visit was to generally familiarize myself with the portions of the property proposed for development, to search for evidence of wetlands and rare vegetation communities, and to give Mr. Goggin an opportunity to identify biological issues that he felt were important.[2] On February 14, 2012, I visited the property with Commission staff, biologist Tim Dodson from the California Department of Fish and Game[3], and Mr. Magee and his representatives, including Ms. Zander. The purpose of the visit was to assess potential wetland areas, including several problem areas[4], and to provide Mr. Dodson an opportunity to familiarize himself with the biological resources on the property. On November 12, 2012, I visited the site with Ms. Zander and Sandra Myers of Zander Associates to characterize and map the

[1] The animal enclosure has not been used except for several days in September 2010, when it held pigs.

[2] The concerns Mr. Goggin expressed during the site visit were general: the effects of the water diversion structure, the delineation of seeps and other wetlands, possible fill of the blue line stream adjacent to Highway 1, the identification of rare plants and animals, and provision of adequate buffers around important natural resources.

[3] Now the Department of Fish and Wildlife.

[4] The 1987 Army Corps of Engineers Wetland Delineation Manual defines "problem areas" as areas where conditions make difficult the application of field indicators of one or more wetland parameters (wetland vegetation, wetland soils, and wetland hydrology). Because the Corps requires evidence of all three parameters there is little risk of false positives. The Corps' sole focus is on false negative determinations where a wetland is present but indicators of one or more parameters may not be apparent. However, the wetland definition in Section 13577 of the Coastal Commission's Regulations requires only a single parameter as evidence of a wetland. As a result, the Commission is also concerned with false positives where an indicator of a parameter is present in an upland area. On the Magee property there are several areas where indicator plants that are common in both uplands and wetlands are growing in areas that do not appear to have wetland hydrology.

boundaries of the vegetation communities present in the general area proposed for development north of the blue-line stream.

The appellant's consultants (EMC 2011) have questioned whether there have been adequate biological surveys to properly identify wetlands and Environmentally Sensitive Habitat Areas, such as areas that support rare plants or animals or rare vegetation communities. The applicant's biologists, particularly Ms. Leslie Zander and Dr. Mike Zander, have conducted biological surveys of the property on 29 separate occasions that included all seasons (Appendix A). Besides myself, participants in some of these surveys included Mr. Bryan Matsumoto from the Army Corps of Engineers, Mr. Tim Dodson from the California Department of Fish and Game, and Dr. Mark Jennings, a herpetologist with particular expertise in the study of California red-legged frogs and western pond turtles. Based on the appropriate biological focus and areal extent of the surveys documented in Appendix A, it is my professional opinion that the biological surveys that have been conducted are sufficient in number, type, and quality to identify and locate the important resources on the site.

There are three major resource categories of biological concern on the Magee property. These are: 1) the presence of open coastal waters (a pond & stream) and wetlands; 2) the presence of rare species; and, 3) the presence of rare vegetation communities.

Rare Vegetation Communities

The identified vegetation communities (Figure 1) on the Magee property are (1) grasslands, including (i) non-native grasslands that are variously dominated by wild oats (*Avena fatua*), velvet grass (*Holcus lanatus*), rye grass (*Lolium perenne*), dogtail grass (*Cynosurus echinatus*) and rattlesnake grass (*Briza maxima*) with scattered native species, and (ii) native coastal prairie that is variously dominated by blue wild rye (*Elymus glaucus*), purple needlegrass (*Nassella pulchra*), red fescue (*Festuca rubra*), and California melic (*Melica californica*) in addition to non-native grasses, (2) coastal scrub, generally dominated by coyote bush (*Baccharis pilularis*), (3) riparian communities, including arroyo willow (*Salix lasiolepsis*) scrub, and mixed riparian woodland vegetation dominated by California bay laurel (*Umbellularia californica*), wax myrtle (*Myrica californica*), and hazelnut (*Corylus cornuta*), (4) upland California bay forest with coast live oak (*Quercus agrifolia*), (5) ruderal vegetation dominated by poison hemlock (*Conium maculatum*), and (6) ornamental trees (incense cedar and Monterey pine). Of these, riparian habitats and native coastal prairie meet the definition of an Environmentally Sensitive Habitat Area (ESHA) in the Coastal Act.

Coastal Prairie

Native grassland is one the most severely impacted vegetation communities in California. Both the California prairie characteristic of the Central Valley and southern California, and the coastal prairie characteristic of the fog zone in central and northern California have been so reduced that there no longer exist large pristine areas of these

communities. The California Department of Fish and Game considers native grasslands to be rare and "highly imperiled." They have been destroyed or degraded by the introduction of non-native annual grasses and other exotic species, increased grazing pressure from the introduction of domestic animals, the elimination of annual fires, cultivation, and urban and residential development. Coastal terrace prairie is both a rare habitat and easily degraded by human activities and therefore meets the definition of an Environmentally Sensitive Habitat Area (ESHA) in Section 30107.5 of the Coastal Act. I recommend that development adjacent to coastal prairie be setback at least 100 feet from the ESHA.

Historically, coastal prairie was probably a dominant habitat on the coastal hillsides throughout this area adjacent to Tomales Bay. There are still extensive stands of this community type on the Magee property. South of the blue-line stream and riparian corridor, there are areas of coastal prairie that are remarkable for the unusually high cover (30% - 90%) of native grasses, with a significant admixture of other native herbaceous species in some areas (Table 1). Four small agricultural structures[5] are proposed for the area south of the stream (Figure 1). As a result of the almost universal admixture of non-native grasses in stands of native grassland, delineating a discrete boundary for native grassland ESHA is technically difficult. Therefore, rather than asking the applicant to embark on a large and detailed mapping effort in order to provide a line from which a 100-foot buffer could be measured, I have instead recommended that the agricultural structures south of the stream be located such that each development footprint and the area within 100 feet of the footprint is clearly not native grassland or other ESHA. This has been done. The data in Table 2 demonstrate that the development footprints and the habitats within 100 feet of the developments are properly characterized as non-native grassland or coastal scrub and do not include coastal prairie ESHA.

The grasslands north of the stream (Figure 2) are overwhelmingly dominated by non-native species, especially velvet grass (*Holcus lanatus*), Italian rye grass (*Lolium perenne=Festuca perrenis*), rattlesnake grass (*Briza maxima*), dogtail grass (*Cynosurus echinatus*), and wild oats (*Avena fatua*). There are also scattered individuals of native species. The grassland types were broadly characterized in the field (Table 3) and their boundaries estimated (Figure 2). Although mapped in discrete polygons, these non-native vegetation communities do not have sharp edges, but rather are bounded by transition areas where the relative cover and dominance shifts from one suite of species to another. In addition to mapping community types over broad areas, visual estimates of vegetative cover were made in 17 discrete, approximately 100-m^2 plots (Figure 2, Table 4). The average cover of native grasses was 3% and the maximum observed cover was 10% in two of these small plots. The highest cover of native grasses in or adjacent to the proposed development footprints was 5%. The upland habitats north of the stream in the general area proposed for development are most appropriately characterized as either non-native grassland or ruderal and do not meet the definition of ESHA in the Coastal Act.

[5] From left to right in Figure 1: sheep shelter 1, greenhouse & garden, hopyard shelter, sheep shelter 2.

Riparian Habitats

There was once over one million acres of riparian habitat in the California central valley alone. By 1979, 90% of that habitat was destroyed[6] and by 1989 the estimate had risen to 99%[7]. Riparian habitat throughout the rest of the state has also suffered from degradation associated with urban development and poor agricultural and forestry practices. Riparian habitats are rare, provide many especially valuable ecosystem services[8], are easily degraded by human activities, and therefore meet the definition of ESHA in the Coastal Act.

The willow scrub and mixed riparian woodland along the blue-line stream and tributaries are ESHA. I recommend that all development be set back a minimum of 100 feet from the drip line of the trees and shrubs that define these riparian habitats, as is required by the Marin County Local Coastal Plan.

Rare Species

The applicant's biologists conducted a standard search of the California Department of Fish and Game's California Natural Diversity Database (CNDDB) for rare species occurrences within a 5-mile radius of the Magee Property. The appellant's biologists conducted a search of the four U.S. Geological Survey quadrangles closest to the property, which produced additional regional occurrences of rare species of plants and animals. At my request, the applicant's biologist included these additional species in a revised analysis (Zander 2012c and Appendix B, below). Of the 63 species that have been identified as potentially present, 59 have never been observed on the site and are not likely to occur there because of lack of suitable habitat, or the species is extremely rare and its only known occurrences are localized elsewhere, or it is presumed extinct.

The appellants' consultants have suggested that focused surveys should be conducted for nearly all the sensitive animals identified in the CNDDB searches (Sissem 2011c). Typically, intensive surveys are only conducted for those species for which there is a reasonable probability of actual occurrence and where knowledge of their presence or distribution can contribute to the protection of the species or their habitat. Protocol surveys were conducted for the California red-legged frog (present), the foothill yellow-legged frog (not present), and the western pond turtle (present). I do not recommend that additional focused surveys be required either for the American badger or for those rare species that have not been observed on the site.

---

[6] http://www.dfg.ca.gov/wildlife/nongame/publications/bm_research/docs/86_27.pdf

[7] Abell, D.A. 1989. Preface to Proceedings of the California Riparian Systems Conference: protection, management, and restoration for the 1990s. General Technical Report PSW-110. Berkeley, Pacific Southwest Forest and Range Experiment Station, Forest Service, USDA.

[8] For example, see Faber, P.M., E. Keller, A. Sands, and B.M. Massey. 1989. The ecology of riparian habitats of the southern California coastal region: A community profile. U.S. Fish and Wildlife Service Biological Report 85.; Warner, R.E. and K.M. Hendrix, eds. 1984. California Riparian Systems. Berkely, U.C. Press; Vagnti, M.G. and S.E. Greco. 2007. Riparian vegetation of the great valley. Pages 425-455 in M.G. Barbour, T. Keeler-Wolf, and A.A. Schoenherr, eds. Terrestrial vegetation of California. Berkeley, U.C. Press.

All the sensitive animal species identified in the CNDDB searches are discussed in Appendix B. Here I will address briefly those species not known to be present, but for which the appellants' biologists have suggested focused surveys. The rationales for not expecting them on the Maggee property are presented in Appendix B and are summarized as follows. Bats may use the area for foraging but appropriate roosting habitat is not present. There is also foraging habitat for a variety of birds of prey. Although, roosting or nesting near the areas proposed for development is unlikely, I recommend that construction during the nesting season (February 1 – August 15) occur no closer than 500 feet from active raptor nests[9]. Heron rookeries are conspicuous features and have not been observed in the areas of appropriate habitat on the site. Some portions of the site may contain physical habitat that is appropriate for the Point Reyes jumping mouse (*Zapus trinotatus orarius*), a California Species of Special Concern. This small rodent is a subspecies of the Pacific jumping mouse (*Z. trinotatus*). According to the Department of Fish and Game, this subspecies is restricted to the Point Reyes Peninsula in southern and western Marin County[10]. The presence of anadromous fish is very unlikely due to barriers to movement and none were observed during aquatic surveys. No Myrtle's silverspot butterflies have been observed and their larval food plant is not present. The stream habitat is not appropriate for California freshwater shrimp due to an inappropriate gradient and none were observed during the aquatic surveys. Tricolored blackbirds are conspicuous and were not observed in the appropriate habitats associated with the onsite pond and stream course.

The following sensitive species are known to be present on the Magee property (Table 5).

American Badger

The four subspecies of the American badger (*Taxidea taxus*) inhabit grasslands, meadows, and open scrub habitats with friable soils in 24 central and western U.S. states, central and northern Mexico, including Baja California, and central and western Canada[11]. In several areas, including California, there has been a decline in badger populations and the species has been designated a California Species of Special Concern. There is appropriate habitat for badgers in the grasslands facing Tomales Bay and there are reports by Mr. Magee and the appellants of its presence on their properties. Potential burrows have been observed in the southeast portion of the Magee property and have also been reported by the appellant, Ms. Lund, as occurring on the portion of her property near the proposed vineyard (Goggin 2011a, b). Although badgers appear to be present in the area, their life history and behavior[12] are such that

[9] Interior work that does not result in loud noises could continue during this period.
[10] http://www.dfg.ca.gov/wildlife/nongame/ssc/docs/mammal/species/41.pdf
[11] Long, C.A. 1972. Taxonomic Revision of the North American Badger, *Taxidea taxus*. Journal of Mammalogy 53(4):725-759; Long, C.A. 1973. *Taxidea taxus*. Mammalian Species 26:1-4
[12] Hoodicoff, C.S., K.W. Larsen, and R.D. Weir. 2009. Home range size and attributes for badgers (*Taxidea taxus jeffersonii)* in south-central British Columbia, Canada. American Midland Naturalist 162:305–317; Goodrich, J.M. and S.W. Buskirk. 1998. Spacing and ecology of North American Badgers (*Taxidea taxus*) in a

defining a particular area of habitat as especially valuable for this species is not feasible and the habitat itself is not rare. Badgers are solitary except during the breeding season and occupy large home ranges[13] that commonly vary from about 400 to 2000 acres. They feed on small grassland mammals such as ground squirrels, gophers, rabbits and mice. Badgers may periodically occupy dozens of burrows within their home range, sometimes digging a new one, sometimes occupying an existing one, and typically[14] move from one to another on a daily basis, generally traveling 1/4 mile to a mile between burrows. Burrows are very seldom occupied twice in succession. All grassland habitat in this part of Marin is probably suitable badger habitat and much of it is probably periodically occupied. There is no basis upon which to identify areas that are especially valuable. I do not recommend that a focused survey for badgers be required since the results would not inform any action. However, I recommend that before any ground disturbing activities take place that a biologist ensure that badgers are not present.

California Red-Legged Frog

The California red-legged frog (*Rana draytonii*) is listed as "Threatened" by the U.S. Fish and Wildlife Service and as a "Species of Special Concern" by the California Department of Fish and Game. In their designations of critical habitat, the U. S. Fish and Wildlife Service (2001, 2006, 2010) found that the habitats necessary to sustain the frog ("primary constituent elements") were aquatic breeding habitat, non-breeding aquatic and riparian habitats, associated uplands, and barrier-free dispersal corridors between nearby breeding ponds. In order to complete metamorphosis, the red-legged frog requires standing water for an average of 20 weeks, generally at least through August. On the Magee property, the dammed pond along the blue-line stream meets this criterion and focused surveys have demonstrated that the pond is actually used as breeding habitat by the frog (Jennings 2011). This pond and nearby stream pools are the only potential breeding sites on the property. There are no other records of California red-legged frogs on the east side of Tomales Bay less than 4 miles from this breeding pond.

The dammed pond on the Magee property performs an important ecosystem function for this rare species, could be easily disturbed or degraded by human activities, and meets the definition of an Environmentally Sensitive Habitat Area in the Coastal Act. In prior actions, the Commission has found that documented breeding habitat for the California red-legged frog is ESHA.

In the 2001 critical habitat designation, a primary constituent element of critical habitat was upland habitat in a 300-foot radius around breeding ponds. This was changed to

---

prairie-dog (*Cynomysleucurus*) complex. Journal of Mammalogy 79(1):171-179; Lindzey, F.G. 1978. Movement patterns of badgers in northwestern Utah. Journal of Wildlife Management 42(2):418-422; Sargeant, A.B. and D.W. Warner. 1972. Movements and denning habits of a badger. Journal of Mammalogy 53(1):207-210

[13] Home range is that area used by an individual in its normal activities of food gathering, mating and caring for young but does not include dispersal movements.

[14] Except during the winter in areas with cold winters when badgers are relatively inactive.

200 feet in the 2006 designation and a case-by-case determination was substituted for a specific distance in the 2010 critical habitat rule. Although California red-legged frogs are capable of moving several hundred yards from aquatic habitats, most individuals remain within around 100 feet (Jennings 2011). The applicant proposes no development within 300 feet of the documented breeding pond and I believe that this is appropriately and adequately protective of the California red-legged frogs that occupy the site and is sufficient to prevent impacts that would degrade the ESHA.

The various seasonal wetlands on the property meet the definition of non-breeding aquatic habitat and have the potential to be used by dispersing frogs. California red-legged frogs may migrate up to about two miles from breeding habitat in a single season and this movement can occur in straight lines across considerable expanses of uplands. However, the average seasonal movement of a dispersing frog is around one mile and dispersal is affected by landscape characteristics. The U.S. Fish and Wildlife Service finds, for example, that where an area is crossed by a riparian corridor surrounded by drier habitat, frogs tend to avoid the drier area and use the riparian area as a movement corridor (USFWS 2010). On the Magee property, the blue-line stream course and associated riparian corridor is the most likely dispersal avenue. I recommend that development be set back at least 100 feet from riparian vegetation or 150 feet from the stream bank, whichever distance is greater. I believe that such a setback is adequately protective of the dispersal requirements of the California red-legged frog and is sufficient to prevent impacts that would degrade the ESHA. In this regard, Jennings (2011) notes that the goal of the U.S. Fish and Wildlife Service is to ensure that the frogs can freely move between aquatic habitats and between aquatic and adjacent upland habitats, and concludes that "...the project does that by limiting its total development footprint, siting all facilities well over 100 feet away from the edge of the central riparian corridor on site and by not creating any potential barriers to direct overland movements by CRLF to off site aquatic and riparian habitats or to potential on site refugia."

Although no development is intended within the riparian and stream buffer, the corner of a parking lot is shown to intrude a few feet into the buffer in Figures 1 and 2. The plans need to be corrected prior to construction.

Western Pond Turtle

The western pond turtle (*Actinemys marmorata*) was once found in most Pacific slope drainages from Washington to northern Baja California. Although not formally listed, it is now considered Threatened or Endangered throughout California and has been designated a "Species of Special Concern" by the California Department of Fish and Game[15]. Western pond turtles inhabit quiet or slow-moving waters with ample basking sites in the form of emergent rocks or large woody debris. Although they periodically move to upland habitats as a refuge from drying or flooding, for nesting, for hibernation,

[15] Jennings, M.R. and M.P. Hayes. 1994. Amphibian and reptile species of special concern in California. (http://www.dfg.ca.gov/habcon/info/herp_ssc.pdf).

or for resting and basking, they generally remain in aquatic habitats, frequently moving substantial distances along streams.

The nearest documented occurrence of western pond turtles in the California Natural Diversity Database is about four miles northeast at the bridge over Walker creek on the Marshall-Petaluma road. In addition, a western pond turtle was recently reported to have been observed on a neighbor's property about 1,400 feet north of the Magee parcel (Goggin 2012b). Focused surveys of the project site conducted in 2011 documented the presence of western pond turtles in the dammed stock pond (Jennings 2011). The stock pond and blue-line stream on the Magee parcel provide important ecosystem functions for both the California red-legged frog and the western pond turtle, and could be easily disturbed or degraded by human activities. Therefore, the pond and stream meet the definition of an Environmentally Sensitive Habitat Area in the Coastal Act. No development is proposed within the ESHA and the minimum development setback from the pond is 300 feet and from the stream is 150 feet.

Based on his habitat analysis, Jennings (2011) concluded that the proposed project would not impact any potential nesting habitat and would not impede the movement of western pond turtles between occupied habitats on the Magee property and suitable nearby aquatic habitats. Therefore, based on the width of the setbacks and Jennings's expert analysis, the proposed development is sited and designed to prevent impacts that would degrade the ESHA or negatively affect the western pond turtle.

Marin Checker Lily

The Marin checker lily (*Fritillaria lanceolata* var. *tristulis*) is designated "1B.1" (Rare, threatened or endangered in California and elsewhere, and seriously threatened in California) by the California Native Plant Society. It is rare and it and its habitat are easily disturbed or degraded by human activities. Therefore, the habitat that supports this rare lily meets the definition of ESHA under the Coastal Act. Typically, the Commission designates as ESHA the maximum convex polygon that includes all current and known historical local occurrences of a rare plant and requires a 100-foot development setback. One small population has been found near the dammed pond along the blue-line stream (Figure 1). The distance from the lily population to the proposed greenhouse is over 200 feet and the distance to the location proposed for a brandy barn is over 400 feet. Therefore, these proposed developments are sited and designed such that they will not have impacts that would significantly degrade the ESHA and they are compatible with the continuance of the ESHA.

Wetlands and Other Waters of the State[16]

The wetland delineation (Zander Associates 2012) was appropriately conducted following the wetland definitions in Section 30121 of the Coastal Act and Section 13577 of the Commission's Regulations, and appropriately utilized the methods developed by the Army Corps of Engineers and promulgated in the 1987 Wetland Delineation Manual and the 2008 Regional Supplement for the Arid West. At my request, the wetland indicator status[17] of plants observed during the field surveys was revised[18] for the wetland delineation report to reflect the indicator status contained in the recently adopted National Wetland Plant List.[19] The wetland boundaries are accurate based on my review of the report and data sheets, and on my field assessments in 2011 and 2012. The boundaries of wetland areas delineated according to the Federal wetland definition have been verified by the Army Corps of Engineers (Hicks 2012). These areas are also wetlands as defined by the Coastal Act and the Commission's Regulations. In addition, several areas of wet meadow meet the Coastal Commission's wetland definitions but not that of the Corps (Figure 1).

In the areas proposed for development, there are several "problem areas" that merit a separate discussion, which requires some background information. For an area to meet the wetland definition in Section 13577 of the Commission's Regulations, it must be wet enough long enough and frequently enough to promote the formation of hydric soils[20] or to support the growth of hydrophytes[21] and the hydric soils or hydrophytic vegetation must be "predominant." In most cases, it is the predominance of hydrophytes that defines a wetland for the Coastal Commission. However, no methods for identifying "hydrophytes" or for determining their "predominance" are included in California law.

Given this void, delineators rely on methods developed by the Army Corps of Engineers in the context of various federal laws. These federal procedures require positive evidence of all three wetland criteria or "parameters": wetland hydrology, hydric soils, and a "prevalence"[22] of hydrophytes. Under federal procedures, species listed as OBL,

---

[16] "Waters of the state" means any surface water or groundwater, including saline waters, within the boundaries of the state. Water Code section 13050(e).

[17] Obligate Wetland (OBL) - Almost always is a hydrophyte, rarely in uplands; Facultative Wetland (FACW) - Usually is a hydrophyte but occasionally found in uplands; Facultative (FAC) - Commonly occurs as either a hydrophyte or non-hydrophyte; Facultative Upland (FACU) - Occasionally is a hydrophyte but usually occurs in uplands; Obligate Upland (UPL) - Rarely is a hydrophyte, almost always in uplands; NL – not listed because never observed growing as a hydrophyte.

[18] The delineator originally used the wetland status found in: Reed, P.B. Jr. 1988. National list of plant species that occur in wetlands: California (Region 0). U.S. Fish and Wildlife Service Biological Report 88 (26.10). This has since been revised with the new list effective June 1, 2012.

[19] http://wetland_plants.usace.army.mil/

[20] Soils that formed under conditions of inundation or saturation long enough to develop anaerobic conditions in the upper part.

[21] "Hydrophytes" are plants that grow in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content.

[22] "Prevalence" and "predominance" are equivalent. According to the 1987 Corp of Engineers Delineation Manual, the "prevalent vegetation" has the character of the majority of the dominant plant species in the community and "Dominant species" are those that define the character of the community because of their high relative ground cover, basal area, or other measure of standing stock.

FACW, or FAC are defined as "hydrophytes," despite the fact that, for any individual species, occurrence in upland may vary from "rare" to "common."[23] In other words, "hydrophyte" is an individualistic concept; individuals of the same species may grow in soil that is frequently saturated and on a nearby dry hillside. The former are hydrophytes; the latter are not. This causes no conflict for the Corps because even those FAC species that commonly occur in uplands[24] can be assumed to be growing as hydrophytes where the presence of hydric soils and indicators of hydrology provide independent evidence of wetness. In past actions, the Coastal Commission has also recognized OBL, FACW, and FAC species as *presumptively* hydrophytic and, in general, a preponderance of those species has been accepted as *presumptive* evidence of a wetland. However, where the wetland character of a site is ambiguous because of the presence of substantial upland features, characterizing a species as "hydrophytic" requires professional judgment[25]. In such cases, the wetland presumption can be rebutted by substantial evidence of upland conditions, the most persuasive of which is soil moisture similar to nearby uncontested uplands and unlike nearby delineated wetlands following significant rainfall.

There are several areas at or near the sites proposed for development that appear from topography and soil conditions to be uplands but that support small to quite large patches of wetland indicator species. For example, an earlier wetland map (Zander 2011b) included as a wetland a tiny (2 ft x 6 ft) depression (sample point S-18 in Figure 2) along the edge of a larger swale dominated by blackberry. Using the 2012 National Wetland Plant List that changed the status of blackberry from FACW to FACU, the sample point does not have a preponderance of wetland vegetation. Also, on February 14, 2012 following an inch of rainfall during the previous week, I sampled the soil to a depth of 28 inches in a low point in the blackberry patch. There were no hydric soil indicators and the soil was little more than moist throughout and similar to the soil in nearby upland grassland. A nearby delineated wetland had standing water at 10 inches below the surface. The evidence indicates that the wetland indicator species that were present were not growing as hydrophytes and this area is properly characterized as upland.

Large areas in the general vicinity of proposed development north of the blue-line stream are non-native grasslands, some of which include Italian ryegrass (FAC) or velvet grass (FAC) as a dominant (Figure 2). In general, upland species are also relatively abundant and there generally is not a predominance (>50%) of potential hydrophytes among the dominant plant species (Table 4). However, within these non-native grasslands there are small patches (SP 17, 19, 24, 26, 27, 29 & 30 in Figure 2)

[23] Previously estimated as between 1% and 67% of occurrences in upland. The distinction between being included in a list of species that occur in wetlands or being defined by the Corps as a "hydrophyte" for methodological purposes and actually growing as a hydrophyte is an important one.

[24] Some species designated "FAC" may actually occur more frequently in uplands than in wetlands.

[25] Professional judgment takes into account such factors as recent rainfall patterns, comparisons to obvious upland and wetland areas after significant rainfall, topography, drainage patterns, soil permeability, presence of a shallow confining layer in the soil, technical indicators of hydrology or hydric soils, adjacency to obvious wetland areas, number of associated FACW or OBL species, and presence of facultative adaptations to inundation such as adventitious roots.

with a predominance of wetland indicator species, generally FAC grasses mixed with FACW rushes (*Juncus* sp.). However, these small patches are not distinguishable in terms of topography, soil characteristics, and soil moisture following rainfall from the immediately adjacent substrate that supports upland vegetation. For these reasons, I believe these areas are properly characterized as "upland."

Two areas require additional discussion. The area within and adjacent to the pig pen along the northern property line has been identified by the appellants and their consultants as potential Coastal Act wetlands and the disturbed area proposed for the brandy barn supports a large patch of poison hemlock (*Conium maculatum*), a FACW species, intermixed with velvet grass (FAC), teasel (Dipsacus fullonum, FAC) and blackberry (FACU).

The dominant species growing in the area proposed for a brandy barn are common in moist disturbed areas. Poison hemlock is a weed that is common in uplands, particularly where there has been ground disturbance, and it has invaded both dry and wet areas in all but two of the conterminous United States. Teasel is an invasive species[26] also common in disturbed areas and characterized by the Jepson Manual (the standard California flora) as sometimes occurring in moist areas. The applicant's biological consultant, Ms. Zander, observed this area on December 29, 2010, one day after about 2 inches of rain and there was no standing water or shallow soil saturation. On May 24, 2011, after one inch of rainfall during the previous week, I observed that the shallow soil moisture was essentially the same within the *Conium* patch and within the adjacent upland grassland. On February 14, 2012, I compared the soil profile from a low area within the stand of poison hemlock and in a nearby area dominated by upland grasses. Within the poison hemlock, the sandy clay loam soil was dry to a depth of 28 inches with no hydric soil indicators until a depth of 24 inches, suggesting that long-term soil saturation occurs at depth but does not take place in the shallow ($\leq$2") soil where saturation is necessary to support wetland species. The shallow soil profile was similar at nearby areas dominated by upland grasses. These observations provide ample evidence to rebut the wetland presumption and to demonstrate that at this site the wetland indicator species that are present are growing as upland plants and not as hydrophytes.

The area where an animal pen was constructed along the northern property line includes a portion of a gentle swale that directs water from the appellants' (Kivel and Lund) property onto the northwest corner of the Magee parcel. December 2010 was an extremely wet month with around 10 inches of rainfall that resulted in substantial surface flow across the area that includes the pig pen (L. Zander, personal communication on January 13, 2013). Sometime in January 2011, Mr. Magee constructed along the property line a short (c. 50-ft), plastic-lined ditch that captures runoff from the neighboring property and directs it into a PVC pipe that runs along the western property line and discharges into a shared driveway. The appellants' consultants suggest that this water diversion may have modified a potential wetland, altered the composition of the vegetation, and reduced the size of wetlands downslope

[26] Characterized as a "moderate threat" by the California Invasive Plant Council.

(Sissem 2011a, Goggin 2012d). Between March 20 and March 26, 2011, the appellants documented the effects of this diversion in a video (Goggin 2012e). A substantial amount of water from the appellants' property was flowing into the newly-constructed ditch and being diverted to the driveway. Despite this diversion, there was standing water in the animal pen. Without question, the northwest corner of the Magee property would have experienced more flooding in 2011 in the absence of the water diversion and wetland W1 may have had a larger area of saturated soils for a longer period during the winter of 2010-2011 than is usually the case. However, in the context of a wetland delineation, the significance of the events captured in the video is not obvious because they occurred following an extraordinary period of rainfall. In the 12 days from March 15 through March 26, 2011 there was about 11 inches of rain.

Wetlands are relatively persistent features of the landscape and are not defined by unusual or ephemeral events. For example, the Corps defines wetland hydrology as inundation or shallow soil saturation for at least 14 continuous days during most years. Hydric soils take many years to develop; and, wetland vegetation is generally present year after year, although the species composition may change and the boundaries fluctuate in response to inter-annual variability in the moisture regime. Therefore, construction of the water diversion would not cause a wetland to disappear or change significantly in the short term. As part of the wetland delineation, sample points in the vicinity of the pig pen were examined in January, in May, or in June 2011. A reduction in the amount of water flowing across the area during a portion of the winter of 2010-2011 is unlikely to have biased the technical wetland delineation conducted a few months later. As a test of the notion that this water diversion altered the vegetation in the area, I asked Leslie Zander to sample paired plots across the property line. On November 12, 2012, we placed one sample pair across the water diversion ditch and another sample pair just east of the beginning of the ditch (respectively, PP1 and PP2 in Figure 2). If the ditch affected the vegetation, one would expect a difference in the vegetation at the first location and no difference at the second location. There was no difference in the wetland characteristics of the vegetation at either location (Table 6). Based on the weight of the evidence, I conclude that the construction of the water diversion structure did not have any short-term effects on the character of the vegetation and did not affect the accuracy of the wetland delineation. Even if, in the absence of the water diversion, there would have been a short-term increase in the area of saturated soils at wetland W1, the larger area of saturated soils would have occurred downslope; and, even if an additional downslope area were categorized as new wetland, the altered buffer zone would not affect any proposed development.

Summary and Conclusions

Numerous and detailed biological surveys have been conducted on the Magee property. As a result, the wetlands, vegetation communities, and sensitive species that are on the property have been identified and their locations have been accurately mapped. The footprints of the proposed development have been adjusted so as to avoid all sensitive natural resources on the property and have been set back at least 100 feet from

wetlands, riparian vegetation, and rare plants, 150 feet from streams, and 300 feet from the pond that supports California red-legged frogs and western pond turtles. I conclude that the proposed development has been sited and designed to prevent impacts that would degrade environmentally sensitive habitat areas and wetlands, and is compatible with the continuance of those habitats.

TABLES

Table 1. Vegetation characteristics within haphazardly placed, approximately 80-m^2 circular sample plots (Figure 1) along a transect from the eastern to the western boundary of the Magee property on the south side of the blue-line stream (from Zander 2011b).

Sample Point	Grassland Description
G-1	Dominant species is *Cynosurus echinatus* (50% cover) with *Lolium perenne* (20% cover), *Briza maxima* (10% cover) and *Avena fatua* (10% cover). *Nassella pulchra* and *Elymus glaucus* present but less than 5% cover.
G-2	Native species more dominant. *Elymus glaucus* (30% cover), *Nassella pulchra* (30% cover). *Lolium perenne* (20% cover) and *Cynosurus echinatus* (10% cover) also present but not as dominant as above. Herbaceous species more prominent; *Lessingia filaginifolia* (5% cover) and *Hypochaeris radicata* (5% cover).
G-3	Natives also dominant here but associates a little different than G-2. *Nassella pulchra* (40% cover), *Festuca rubra* (30% cover). More open grassland. Herbaceous species include *Cirsium quercetorum* (15% cover) and *Lessingia filaginifolia* (10% cover).
G-4	Dense stand of *Holcus lanatus* (60% cover) with some *Vulpia bromoides* (20% cover). Minor associates all at 5% cover include *Cynosurus echinatus*, *Linum usitatissimum*, *Nassella pulchra* and *Elymus glaucus*.
G-5	*Avena fatua* dominant (60% cover) with *Cynosurus echinatus* (20 % cover and *Briza maxima* (15% cover). Some *Nassella pulchra* (5% cover).
G-6	*Nassella pulchra* (40% cover) and *Elymus glaucus* (30% cover) dominant with *Festuca rubra* (20% cover) and *Cirsium quercetorum* (5% cover).
G-7	*Nassella pulchra* still dominant (40% cover) but new associate *Melica californica* (30% cover). *Festuca rubra* (10% cover) and *Lolium perenne* (10% cover) also present. Associated herbs include *Cirsium quercetorum* (5% cover) and *Lessingia filaginifolia* (5% cover).
G-8	*Nassella pulchra* still dominant (40% cover) but associated with *Festuca rubra* (20% cover), *Briza maxima* (15% cover) and *Cynosurus echinatus* (15% cover). Associate herbs include *Hypochaeris radicata* (5% cover) and *Lessingia filaginifolia* (5% cover).
G-9	*Avena fatua* (50% cover) and *Briza maxima* (35% cover) dominated stand. Minor associates include *Cynosurus echinatus* (5% cover), *Bromus carinatus* var. *maritimus* (5% cover) and *Nassella pulchra* (5% cover).
G-10	Even mix of native and non-native species. *Nassella pulchra* (30% cover), *Cynosurus echinatus* (30% cover), and *Avena fatua* (20% cover. Herbs include *Plantago lanceolata* (5% cover), *Linum usitatissimum* (5% cover), and *Hypochaeris radicata* (5% cover). At edge of drainage with dense bay tree canopy.
G-11	Around drainage and at western edge of bay tree canopy. Back to *Avena fatua* dominant (70% cover). *Briza maxima* (15% cover), *Bromus carinatus* var. *maritimus* (10% cover), and *Nassella pulchra* (5% cover)

Table 1 (continued).

Sample Point	Grassland Description
G-12	Mixture of native and non-native again with *Nassella pulchra* (40% cover), *Avena fatua* (40% cover), *Lolium perenne* (10% cover) and *Bromus carinatus* var. *maritimus* (10% cover).
G-13	Non-natives dominant. *Avena fatua* (40% cover), *Lolium perenne* (20% cover), *Briza maxima* (10% cover), *Bromus hordeaceus* (10% cover), *Cynosurus echinatus* (10% cover), *Carduus pycnocephalus* (5% cover), *Hypochaeris radicata* (5% cover).
G-14	Natives more prominent. *Nassella pulchra* (30% cover), *Elymus glaucus* (20% cover), *Lolium perenne* (20% cover), *Cynosurus echinatus* (20% cover), and *Bromus carinatus* var. *maritimus* (10% cover).
G-15	Relatively dense *Nassella pulchra* (50% cover) with *Lolium perenne* (20% cover) and *Cynosurus echinatus* (20% cover). Herbs include *Hypochaeris radicata* (5% cover) and *Linum usitatissimum* (5% cover)
G-16	Dense *Briza maxima* (60% cover) with mostly non-native associates. *Avena fatua* (20% cover), *Holcus lanatus* (20% cover), *Nassella pulchra* (2% cover), *Elymus glaucus* (2% cover).
G-17	Dense stand of *Holcus lanatus* (80% cover). Some *Briza maxima* (10% cover) and *Cynosurus echinatus* (10% cover). Few herbs.
G-18	Even distribution of non-natives. *Briza maxima* (30% cover), *Avena fatua* (30% cover), *Holcus lanatus* (20% cover), *Lolium perenne* (15% cover). Some *Nassella pulchra* (2% cover).
G-19	Small patch where natives occur in more or less equal amounts with non-natives. *Elymus glaucus* (30% cover), *Nassella pulchra* (20% cover), *Holcus lanatus* (20% cover), *Briza maxima* (20% cover), and *Lolium perenne* (10% cover). Doesn't extend far.
G-20	*Holcus lanatus* dominant (60% cover) with *Cynosurus echinatus* (30% cover), *Danthonia californica* (5% cover), *Carex densa* (2% cover), *Carex praegracilis* (2% cover). Close to large seep.

Table 2. Vegetation characteristics (percent ground cover) within the development footprints (and adjacent 100 feet) proposed for the area south of the blue-line stream on the Magee property (after Zander 2012c). Due to layering, ground cover can exceed 100%. These areas are appropriately characterized as non-native grassland or coyote bush scrub and do not meet the definition of ESHA in the Coastal Act. i = introduced (non-native); n = native.

Species	Sheep Shelter 1	Sheep Shelter 2	Hopyard Shelter#	Greenhouse & Garden
Wild oats (i)	0	30%	10%	10%
Velvet grass (i)	0	30%	0	50%
Rattlesnake grass (i)	30%	20%	20%	10%
Italian ryegrass (i)	20%	15%	0	0
Dogtail grass (i)	30%	0	30%	0
Hair barley (i)	10%	0	0	0
Soft chess (i)	0	0	0	0
Purple needlegrass (n)	0	<5%	<5%	0
Italian thistle (i)	10%	0	0	0
Bull thistle (i)	0	0	0	30%
Cat's ear (i)	0	0	0	0
Coyote bush scrub*	0	0	50%	0
Douglas iris (n)	0	0	0	10%
Common aster (n)	0	0	0	10%
Total Non-native Species:	100%	95%	60%	100%
Total Native Grasses:	0	<5%	<5%	0
Total Native Species:	0	<5%	~50%	20%

*Comprised of coyote bush (n), French broom (i), poison oak (n), and bracken fern (n)
#A few Bay trees are also present in this plot but are not included in cover estimates

Table 3. General characterization of the non-native grasslands, ruderal vegetation, and mixed shrub vegetation in the area north of the blue-line stream that is proposed for development (after Zander 2012e). These vegetation communities are mapped in Figure 2. The actual boundaries of these communities are generally not discrete but tend to be zones of transition from one group of dominant plants to another.

***Lolium*-Dominated Non-Native Grassland.** These areas contain >50% cover of Italian ryegrass (*Lolium perenne=Festuca perennis*) and about 20% cover both of rattlesnake grass (*Briza maxima*) and of dogtail grass (*Cynosurus echinatus*). Associated forbs[2] include English plantain (*Plantago lanceolata*), bull thistle (*Cirsium vulgare*), cat's ear (*Hypochaeris radicata*), and bristly ox tongue (*Picris echioides=Helminthotheca echioides*), all non-native species.
***Holcus*-Dominated Non-Native Grassland**. These are dense stands of velvet grass (*Holcus lanatus*) with a thick thatch. Most stands approach 100% cover of velvet grass. The patch adjacent to the proposed residence is an exception. It was previously dominated by rattlesnake grass and dogtail grass, but is now about 60% velvet grass and 40% rattlesnake grass. Blackberry (*Rubus ursinus*) and coyote bush (*Baccharis pilularis*), both native shrubs, occur in patches within these stands. There are few associated forbs in this grassland type, probably as a result of the thick thatch.
***Avena*-Dominated Non-Native Grassland**. Wild oats (*Avena fatua*) is the dominant component of this grassland stand, comprising > 50% cover. Italian rye grass is a common associate, occurring in varying densities throughout the stand. Forbs observed include English plantain, soap lily (*Chlorogalum pomeridianum*) and bull thistle (*Cirsium vulgare*).
***Conium* Patch**. This is a patch of non-native poison hemlock (*Conium maculatum*) that includes areas where velvet grass and teasel (*Dipsacus fullonum*) are abundant. Each of the three species tend to dominate separate areas, with the poison hemlock dominant in approximately 70% of the overall patch, velvet grass dominating 20% and teasel dominating 10%. Poison hemlock seedlings were very abundant.
***Briza/Cynosurus*-Dominated Non-Native Grassland**. Together, rattlesnake grass and dogtail grass comprise about 50-80% of the ground cover, with Italian rye grass occurring at about 20% cover. Velvet grass is also present, particularly at the transition zone between *Briza/Cynosurus*-dominated and *Holcus*-dominated grasslands. Associated forbs are similar to those in wild oats stands but appear to occur at higher densities, possibly due to the lower stature of the grassland.
Shrubland/Non-Native Grassland Mix. This area consists of a mixture of scattered native shrubs and non-native grasses. The shrub component is primarily coyote bush. The dominant grasses are wild oats, rattlesnake grass and, to a lesser extent, dogtail grass. The grasses are less dense in and around the scattered shrubs.

Table 4. Estimated abundance (percent ground cover) of various species and groups of species in approximately 100-m^2 sample plots (Figure 2) within the non-native grassland and ruderal areas north of the blue-line stream that are proposed for development (from Zander 2012c). Cover for dominant species is bold. For there to be a "preponderance" of wetland indicator species, greater than 50% of the dominant species present must listed as OBL, FACW, or FAC (see footnote 17) in the National Wetland Plant List.

Species	Plot Identification in Figure 2 (G/_)														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Native grasses	5	5	0	5	0	5	0	2	5	0	5	10	0	0	10
Other native graminoids & forbs[27]	7	5	10	7	0	7	10	0	2	10	5	5	20	10	0
Native shrubs	0	0	0	0	5	0	0	0	0	0	0	0	0	10	10
Total natives:	12	10	10	12	5	12	10	2	7	10	10	15	20	20	20
Wild oats (*Avena fatua*,NL[14])	0	0	**30**	**40**	**50**	**20**	0	0	0	0	0	0	0	0	0
Rattlesnake grass (*Briza maxima*, NL)	**50**	**35**	0	0	0	**30**	10	**40**	**40**	0	**20**	**70**	**40**	**25**	**40**
Velvet grass (*Holcus lanatus*, FAC)	0	**50**	0	0	10	0	**70**	15	0	**45**	10	0	0	0	**40**
Dogtail grass (*Cynosurus echinatus*, NL)	5	0	0	0	0	10	0	**40**	20	0	0	0	**30**	**50**	0
Italian ryegrass (*Lolium perenne*, FAC)	**20**	0	**55**	**40**	**30**	**30**	0	0	**30**	0	**50**	15	0	0	0
Poison Hemlock (*Conium maculatum*, FACW)	0	0	0	0	0	0	0	0	0	**45**	0	0	0	0	0
Other non-native grasses and forbs	15	6	5	10	5	0	10	5	5	0	10	0	10	5	0
Total non-natives:	90	91	90	90	95	90	90	100	95	90	90	85	80	80	80
Percentage of dominant species that are potential hydrophytes (OBL, FACW, or FAC):	50	50	50	50	50	33	100	0	50	100	50	0	0	0	50

[27] Graminoids are grass-like plants and include grasses, sedges and rushes. Forbs are all other herbaceous (non-woody) species.

Table 5: Special Status Species Observed on the Magee Property (after Zander 2012c).

Animal Species	Status[28] Fed/CA/ CNPS	Habitat	Findings[3]
Fritillaria lanceolata var. tristulis (Marin checker lily)	--/--/1B.1	Coastal bluff scrub, coastal scrub and coastal prairie, often on serpentine, 30-300 meters; February – May.	Small population observed in grassland near pond. Location mapped using GPS.
Rana draytonii (California red-legged frog)	T/SSC/--	Lowlands and foothills in or near permanent sources of deep water, preferring shorelines with extensive vegetation (disperses far during and after rain); larvae require 11-12 weeks of permanent water to develop	Found 1 adult and two subadults in onsite pond during directed surveys.
Emys marmorata marmorata (Western pond turtle)	--/SSC/--	Associated with permanent or nearly permanent water in a wide variety of habitats	Found one turtle in onsite pond during directed surveys.
Taxidea taxus (American badger)	--/SSC/--	Principal habitat requirements include sufficient food, friable soils, and relatively open, uncultivated ground. Grasslands, savannas, and mountain meadows near timberline are preferred. Prey primarily consists of burrowing rodents such as gophers, ground squirrels, marmots, and kangaroo rats.	Potential to occur in the grasslands on the property. Potential burrows observed in dry grasslands in southeast portion of property. Anecdotal observations by local residents. Assumed present.

[28] "1B.1" = California Native Plant Society designation as rare in California and elsewhere, and seriously threatened in California; "T" = federally threatened; "SSC" = California Species of Special Concern

Table 6. Comparison of vegetation in adjacent, approximately 40-ft^2 plots across the line separating the Magee and Kivel-Lund properties (Figure 2). The paired plots were separated by a water diversion ditch at PP1 but not at PP2. Vegetative cover was visually estimated in a half circle of about a 5-ft radius. The Prevalence Index[29] is a useful way of comparing the wetland characteristics of the whole plant community rather than just the dominant plants. A prevalence index ≤3.0 is usually indicative of wetland vegetation.

A. PP1 (plots separated by diversion ditch)

Species (Wetland Status)	Percent Cover (Kivel-Lund)	Percent Cover (Magee)
Holcus lanatus (FAC)	90	90
Cirsium vulgare (FACU)	2	10
Cupressus sp. (UPL)	10	0
Plantago lanceolata (FAC)	2	0
Linum usitatissimum (UPL)	0	present
Prevalence Index:	3.2	3.1

B. PP2 (no diversion ditch)

Species (Wetland Status)	Percent Cover (Kivel-Lund)	Percent Cover (Magee)
Rubus ursinus (FACU)	50	50
Holcus lanatus (FAC)	30	40
Cotoneaster sp. (UPL)	5	5
Cupressus sp. (UPL)	10	0
Cirsium vulgare (FACU)	0	2
Festuca arundinaceae (FACU)	0	2
Carex sp. (FAC-OBL)	present	0
Prevalence Index:	3.8	3.7

[29] The Prevalence Index (PI) is a weighted average, ranging from 1 to 5, obtained by assigning weights to the wetland indicator categories (UPL=5, FACU=4, FAC=3, FACW=2, & OBL=1). PI=Σ(% Cover * Weight)/Total Cover. The smaller the value of the prevalence index, the "wetter" the vegetation.

Appendix A

Biological Survey Effort by the Applicant's Consultants

Appendix A: Summary of Biological Surveys Conducted on Magee Property during the Period of March 19, 2008 through November 12, 2012 (after Zander 2012c)

Survey Date	Area Surveyed /Personnel	Purpose / Focus	Method
March 19, 2008	Entire property / L. Zander, Tony Magee (applicant)	Initial site reconnaissance. Evaluate existing conditions and identify potentially sensitive habitats.	General reconnaissance. Visual observations of entire property via vehicle and on foot.
April 30, 2008	Entire property / L. Zander, M. Zander	Characterize and generally map plant communities, including potential wetlands. Plant survey and general wildlife observations.	Focused on ponded and saturated areas and riparian corridor to evaluate vegetation composition and map habitat boundaries. By vehicle and on foot.
May 29, 2008	Grassland, seep and scrub habitats on entire property. / L. Zander	Plant survey and general wildlife observations	Walked meandering transects starting at higher elevations and working towards Hwy 1. Both sides of main stream corridor. All plant species encountered recorded and wildlife observations noted.
July 22, 2008	Main stream corridor. Grassland, seep and scrub habitats on entire property. / L. Zander, M. Jennings	Evaluated aquatic habitat for CRLF, FYLF, WPT and fisheries. Plant survey and general wildlife observations.	Aquatic surveys focused around perimeter of pond and up and down main stream course. Plant and wildlife survey - walked meandering transects starting at higher elevations and working towards Hwy 1. Both sides of main stream corridor. All plant species encountered recorded and wildlife observations noted.
September 16, 2008	Grassland, seep and scrub habitat on entire property. / L. Zander	Plant survey and general wildlife observations.	Walked meandering transects starting at higher elevations and working towards Hwy 1. Both sides of main stream corridor. All plant species encountered recorded and wildlife observations noted.
March 12, 2009	Proposed development area north of main stream corridor. Area bordered by property boundary to the north, Hwy 1 to the west, main stream corridor to the south and about elevation 200 to the east. / L. Zander	Late winter / early spring survey for special status plants. Focused on proposed development area.	Walked meandering transects through the survey area. All plant species encountered recorded. Incidental wildlife observations noted.
June 30, 2009	Proposed development area north of main stream corridor. Area bordered by property boundary to the north, Hwy 1 to the west, main stream corridor to the south and about elevation 200 to the east. / L. Zander	Late spring / summer survey for special status plants. Focused on proposed development area.	Walked meandering transects through the survey area. All plant species encountered recorded and. Incidental wildlife observations noted.

Appendix A (continued).

Survey Date	Area Surveyed /Personnel	Purpose / Focus	Method
January 24, 2010	Area surrounding central spring north of main stream corridor (W-2 on wetland map). / L. Zander	Evaluate water flowing from central spring and surrounding habitat conditions.	Focused wetland hydrology assessment.
March 10, 2010	Proposed development area north of main stream corridor. Area bordered by property boundary to the north, Hwy 1 to the west, main stream corridor to the south and about elevation 200 to the east. / L. Zander, M. Zander	Begin collecting vegetation, soils & hydrology data for CCC wetland delineation focused on proposed development area.	Wetland delineation.
December 29, 2010	Northwest corner of property. / L. Zander	Evaluate storm runoff originating from adjacent property upslope and observe where surface water or ponding present following 2" rain event.	Focused wetland hydrology assessment.
January 26, 2011	Proposed development area north of main stream corridor. Area bordered by property boundary to the north, Hwy 1 to the west, main stream corridor to the south and about elevation 200 to the east. / L. Zander, M. Zander	Continue data collection for CCC wetland delineation	Wetland delineation.
February 2, 2011	Proposed development area north of main stream corridor. Area bordered by property boundary to the north, Hwy 1 to the west, main stream corridor to the south and about elevation 200 to the east. Also, area of proposed vineyard and leach field. / L. Zander, J. Valerius	Late winter / early spring survey for special status plants. Revisit wetland data points to further identify plant species.	Walked meandering transects through the survey area. All plant species encountered recorded. Incidental wildlife observations noted.
May 20, 2011	Proposed locations of vineyard, homesite, barns, hopyard, and ancillary agricultural structures (sheep shelters and hopyard shelter) and for an area approximately 500 feet beyond. / L. Zander, M. Zander, J. Valerius	Spring survey for special status plants..	Walked meandering transects through survey area. All plant species encountered recorded. Incidental wildlife observations noted.

Appendix A (continued).

Survey Date	Area Surveyed /Personnel	Purpose / Focus	Method
May 24, 2011	Proposed development area north of main stream corridor. Area bordered by property boundary to the north, Hwy 1 to the west, main stream corridor to the south and about elevation 200 to the east. Also, area of proposed vineyard and large seep and grassland south of main stream course. / L. Zander, M. Zander, Larry Simon (CCC), John Dixon (CCC), Tony Magee (Applicant), Bill Goggin (EMC Planning – biologist for appellants), David Weinsoff and Ralph Faust (Counsel for applicant), Larry Kennings (Planning Consultant for applicant), Craig Herzog (Geotechnical consultant for applicant)	Site visit with CCC staff. General habitat assessment. Review of riparian/wetland boundary along main stream course; evaluation of nature and extent of wetlands; evaluation of reported swale near northern property boundary; assessment of habitat in proposed vineyard location; assessment of wetland associated with large seep south of main stream course; assessment of lower elevation grassland south of main stream course.	Focused on specific areas for review.
June 2, 2011	Proposed development area north of main stream corridor. Area bordered by property boundary to the north, Hwy 1 to the west, main stream corridor to the south and about elevation 200 to the east. Proposed locations of vineyard, homesite, barns, hopyard and ancillary agricultural structures (sheep shelters and hopyard shelter) and for an area approximately 500 feet beyond. / L. Zander, J. Valerius, S. Meyers.	Additional data collection for wetland delineation as requested by CCC. Survey of adjusted riparian boundary determined in the field with CCC on 5/24/11. Spring survey for special status plants.	Wetland delineation. GPS riparian boundary. Plant survey – walked meandering transects through survey area. All plant species encountered recorded.
June 9, 2011	Entire length of stream channel from eastern property boundary to Highway 1. / M. Jennings	Daytime surveys for FYLF, CRLF and WPT. General survey of aquatic habitat.	Following accepted protocol for CRLF and methods employed by surveyor for other species based on years of experience conducting such surveys.

Appendix A (continued).

Survey Date	Area Surveyed /Personnel	Purpose / Focus	Method
June 22, 2011	Proposed development area north of main stream corridor. Area bordered by property boundary to the north, Hwy 1 to the west, main stream corridor to the south and about elevation 200 to the east. / L. Zander, M. Zander	Quantitative sampling of grassland as requested by CCC Staff.	Quantitative sampling of grassland. One 12' x 20' plot and two meter square plots – point intercept. All flora encountered recorded.
June 24, 2011	Main stream corridor and pond. Upstream and downstream. / M. Jennings.	Nighttime survey for CRLF.	Following accepted protocol for CRLF.
June 25, 2011	Main stream corridor and pond. Upstream and downstream. / M. Jennings.	Nighttime survey for CRLF	Following accepted protocol for CRLF.
June 26, 2011	Main stream corridor and pond. Upstream and downstream. / M. Jennings.	Nighttime survey for CRLF	Following accepted protocol for CRLF.
July 1, 2011	Main stream corridor and pond. Upstream and downstream. / M. Jennings.	Daytime surveys for FYLF, CRLF and WPT. General survey of aquatic habitat	Following accepted protocol for CRLF and methods employed by surveyor for other species based on years of experience conducting such surveys
July 7, 2011	Grasslands within proposed agricultural areas south of main stream corridor - hopyard, sheep shelters and hopyard shelter - and for an area approximately 500 feet beyond footprint. / L. Zander	Generally characterize grasslands south of main stream corridor and evaluate composition of grasslands where structures proposed. Summer survey for special status plants.	Systematic transect from top to bottom of property. Visual estimate of relative percent cover of all plants in ±15 foot radius plot at points along transect. Visual estimate of relative percent cover of grassland species in area of proposed agricultural structures. All plant species encountered while walking through site recorded.
July 20, 2011	Main stream corridor and pond. Upstream and downstream. / M. Jennings	Daytime surveys for FYLF, CRLF and WPT. General survey of aquatic habitat	Following accepted protocol for CRLF and methods employed by surveyor for other species based on years of experience conducting such surveys.
February 8, 2012	Development area north of the main stream corridor in the areas where the homesite, barns, driveway and vineyard are proposed. / L. Zander, M. Zander	Characterize grasslands north of main stream corridor.	Walked east/west transects through the survey area. Sampled seventeen 10-meter-square plots and estimated percent absolute cover for each species identified in the plot.

Appendix A (continued).

Survey Date	Area Surveyed /Personnel	Purpose / Focus	Method
February 14, 2012	Potential wetland areas north of main stream corridor. / L. Zander, John Dixon, Larry Simon, Cassidy Teufel (CCC staff), Tim Dodson (DFG), Tony Magee (applicant).	Revisit sample points in blackberry patch and collect additional data. Evaluate conditions of reported swale/drainage at northern property boundary.	Focused on wetland delineation sample points and area of reported swale/drainage.
March 7, 2012	Wetlands within 122 acre study area defined by Corps. / L. Zander, Bryan Matsumoto (Corps), Tony Magee (applicant).	Verification of Section 404 CWA jurisdictional wetlands and waters	Evaluation of nature and extent of wetlands following procedures in Corps Manual and Arid West Supplement
September 24, 2012	Wetlands and grasslands south of main stream corridor. / L. Zander, ILS Engineers – survey crew	Additional data collection for wetland delineation. Relocate sheep shelter #2 to non-native grassland area.	Wetland delineation - collection of data at upland/wetland boundary where wetland within 200 feet of any ancillary structure. Identify non-native grassland stands, locate and stake structure footprint.
October 1, 2012	Wetlands and grasslands south of main stream corridor. / L. Zander, ILS Engineers – survey crew	Relocate hopyard shelter to non-native grassland/scrub area.	Identify non-native grassland stands, locate and stake structure footprint.
November 12, 2012	Area north of blue-line stream in area proposed for development. / L. Zander, Debra Meyers and John Dixon.	Map vegetation communities, especially non-native grasslands.	Generally characterize vegetation communities, mark edges with flags, and map with GPS; also sample soils and plants across community boundaries and examine vegetation uphill and downhill from water diversion on Magee property.

APPENDIX B.

Sensitive species with a potential to occur on the Magee property but not observed.

Appendix B. Sensitive species with some potential to occur on the Magee property but not observed.

Plant Species	Status[2] Fed/CA/CNPS	Habitat/Blooming Period	Findings[3]
Agrostis blasdalei (Blasdale's bent grass)	--/--/1B.2	Coastal dunes, coastal bluff scrub, coastal prairie on sandy or gravelly soils close to rocks, often on nutrient poor soil with sparse vegetation, 5-150 meters; May-July.	No suitable habitat. Not observed during field surveys.
Alopecurus aequalis var. sonomensis (Sonoma alopecurus)	E/--/1B.1	Wet areas, freshwater marshes and swamps, riparian banks; May – July.	Potential habitat along stream channel. Not observed during field surveys.
Amsinckia lunaris (Bent-flowered fiddleneck)	--/--/1B.2	Annual herb found in coastal bluff scrub, cismontane woodland, and valley and foothill grassland; March-June.	Potential habitat in grasslands. Not observed during field surveys.
Arctostaphylos virgata (Marin manzanita)	--/--/1B.2	Broad leafed upland forest, closed-cone coniferous forest and chaparral on sandstone or granitic soil at 60-700 meters; January -March.	No suitable habitat. Not observed during field surveys and no *Arctostaphylos* observed on the property.
Blennosperma nanum var. robustum (Point Reyes blennosperma)	--/R/1B.2	Coastal prairie and coastal scrub on open hills in sandy soil, 10-145 meters; February-April.	No suitable habitat. Not observed during field surveys.
Calystegia purpurata ssp. saxicola (Coastal bluff morning glory)	--/--/1B.2	Coastal dunes and scrub. Known only from southern Sonoma County and Pt. Reyes peninsula.; May – September.	Habitat marginal. Not observed during field surveys. Found *C. purpurata* ssp. *purpurata* in grassland on property during field surveys.
Campanula californica (Swamp harebell)	--/--/1B.2	Perennial rhizomatous herb found in bogs and fens, closed-cone coniferous forest, coastal prairie, meadows and seeps, freshwater marshes and swamps, and mesic north coast coniferous forests; June-October.	Potential habitat in seeps. Not observed during field surveys.
Castilleja ambigua ssp. humboldtiensis (Humboldt Bay owl's-clover)	--/--/1B.2	Coastal salt marsh, generally with *Spartina, Distichlis, Salicornia* and *Jaumea* at 0-3 meters; April-August.	No suitable habitat. Not observed during field surveys.
Ceanothus masonii (Mason's ceanothus)	--/R/1B.2	Chaparral on serpentine ridges or slopes, 180-460 meters; March-April.	No suitable habitat. Not observed during field surveys
Chorizanthe cuspidate var. cuspidate (San Francisco Bay spineflower)	--/--/1B.2	Sandy soil on terraces and slopes; coastal dunes, bluff scrub, scrub and prairie; April-July.	No suitable habitat. Not observed during field surveys.
Chorizanthe cuspidate var.villosa (Wooly-headed spineflower)	--/--/1B.2	Sandy places near the beach; coastal dunes, scrub and prairie; April-July.	No suitable habitat. Not observed during field surveys.

Appendix B (continued).

Plant Species	Status2 Fed/CA/CNPS	Habitat/Blooming Period	Findings3
Chorizanthe robusta var. robusta (Robust spineflower)	E/--/1B.1	Sandy soils in cismontane woodland openings and coastal dune and scrub habitats; May- September	No suitable habitat. Not observed during field surveys.
Cirsium andrewsii (Franciscan thistle)	--/--/1B.2	Coastal bluff scrub, broadleaf upland forest, coastal scrub; sometimes serpentine seeps; May-July.	Potential habitat but not observed during field surveys. Found *Cirsium quercetorum* – a close relative - in the southeast portion of the property during field surveys.
Clarkia concinna ssp. raichei (Raiche's red ribbons)	--/--/1B.1	Coastal bluff scrub; highly exposed rocky bluffs with a near vertical slope. April-May.	Only known from one location in Marin County. No suitable habitat and not observed during field surveys.
Chloropyron maritimum ssp. palustris (Point Reyes bird's-beak)	--/--/1B.2	Coastal salt marsh, generally with *Spartina, Distichlis, Salicornia* and *Jaumea* at 0-15 meters; June-October.	No suitable habitat and not observed during field surveys.
Delphinium bakeri (Baker's larkspur)	E/E/1B.1	Coastal scrub and grasslands, 90-205 meters; March-May.	Known from only one occurrence along Salmon Creek, Marshall Petaluma Road; fewer than 70 individuals known as of 2000. Not observed during field surveys.
Delphinium luteum (Yellow larkspur)	E/R/1B.1	Chaparral, coastal prairie and coastal scrub habitats; March – May.	Known occurrence SW of Tomales at HWY marker 44.92. Potential habitat in grassland and scrub. Not observed during field surveys.
Eriogonum luteolum var. caninum (Tiburon buckwheat)	--/--/1B.2	Chaparral, coastal prairie, valley and foothill grassland, serpentine; June-September	Potential habitat in scrub and grassland . Not observed during field surveys.
Fritillaria liliacea (Fragrant fritillary)	--/--/1B.2	Coastal scrub, valley/foothill grassland, and coastal prairie; February – April.	Mapped along the south side of Marshall-Petaluma Road in vicinity of Marshall School. Potential habitat in grassland and coastal scrub. Not observed during field surveys.
Gilia capitata ssp. chamissonis (Blue coast gilia)	--/--/1B.1	Coastal dunes and coastal scrub at 2-200 meters; April-July.	No suitable habitat and not observed during field surveys.
Gilia millefoliata (Dark-eyed gilia)	--/--/1B.2	Coastal dunes at 2-20 meters; April-July.	No suitable habitat and not observed during field surveys.

Appendix B (continued).

Plant Species	Status2 Fed/CA/CNPS	Habitat/Blooming Period	Findings3
Grindelia hirsutula var. □aritime (San Francisco gumplant)	--/--/3.2	Sandy or serpentine slopes in coastal scrub, bluff scrub, valley and foothill grassland; June-September.	No suitable habitat and not observed during field surveys.
Hemizonia congesta ssp. congesta (Pale yellow hayfield tarplant)	--/--/1B.2	Grassy valleys and hills, often in fallow fields in coastal scrub and valley and foothill grasslands; April-November.	Potential habitat in grassland and scrub. Not observed during field surveys.
Hesperevax sparsiflora var. brevifolia (Short-leaved evax)	--/--/1B.2	Sandy bluffs and flats in coastal bluff scrub and coastal dunes; March-June.	No suitable habitat and not observed during field surveys.
Hesperolinon congestum (Marin western flax)	T/T/1B.1	Often on serpentine soil in chaparral or valley/foothill grassland; May – July.	Potential habitat in scrub and grassland. Not observed during field surveys.
Horkelia cuneata ssp. *sericea* (Kellogg's horkelia)	--/--/1B.1	Perennial herb found in closed-cone coniferous forest, chaparral, and coastal scrub habitats, old dunes and coastal sand hills; April-September.	Soils not suitable and not observed during field surveys.
Horkelia marinensis (Point Reyes horkelia)	--/--/1B.2	Sandy flats and dunes near the coast in grassland or scrub plant communities; May-September	Soils not suitable and not observed during field surveys.
Lasthenia californica ssp. macrantha (Perennial goldfields)	--/--/1B.2	coastal slopes and mesas in coastal bluff scrub, coastal dunes, coastal scrub; January-November.	Habitat marginal and not observed during field surveys.
Leptosiphon rosaceus (Rose leptosiphon)	--/--/1B.1	Sandy slopes and downs of the Point Reyes peninsula, 0-100 meters; April-July.	No suitable habitat and not observed during field surveys.
Lilium maritimum (Coast lily)	--/--/1B.1	In Marin only known from marshy areas on Point Reyes Peninsula where it is at southern limit. May-August.	No suitable habitat present onsite and not observed during field surveys..
Lupinus tidestromii (Tidestrom's lupine)	E/E/1B.2	Partially stabilized dunes immediately near the ocean; April-June	Known in Marin only from the dunes on the Pt. Reyes Peninsula. No suitable habitat and not observed during field surveys.
Microseris paludosa (Marsh microseris)	--/--/1B.2	Open grassy slopes or on the edge of brush, many plant communities; April-June	Potential habitat but not observed during field surveys.
Navarretia leucocephala ssp. bakeri (Baker's navarretia)	--/--/1B.1	Cismontane woodland, lower montane coniferous forest, vernal pools, seeps, meadows, and valley/foothill grassland; May – July.	Potential habitat in seeps. Not observed during field surveys.
Phacelia insularis var. continentis (North coast phacelia)	--/--/1B.2	Open maritime bluffs in coastal bluff scrub or coastal dune, 10-160 meters; March-May.	No suitable habitat and not observed during field surveys.
Plagiobothrys mollis var. vestitus (Petaluma popcorn-flower)	--/--/1A	Valley and foothill grasslands and coastal salt marshes; June – July.	Not observed since 1938, presumed extinct. No Plagiobothrys observed during field surveys.

Appendix B (continued).

Plant Species	Status2 Fed/CA/C NPS	Habitat/Blooming Period	Findings3
Rhynchospora californica (California beaked-rush)	--/--/1B.1	Marshes and swamps, lower montane coniferous forest, 45-1000 meters; May-July.	Recorded from Point Reyes near Ledum Swamp in 1945, not observed there since. Potential habitat around pond but not observed during field surveys.
Sidalcea calycosa ssp. rhizomata (Point Reyes checkerbloom)	--/--/1B.2	Freshwater marshes and swamps near the coast, 5-75(245) meters; April-September.	Potential habitat around perimeter of pond and wetlands associated with the stream. Not observed during field surveys.
Trifolium amoenum (Showy Indian clover)	E/--/1B.1	Valley and foothill grassland, sometimes on serpentine soils; April – June.	Potential habitat in grasslands. Not observed during field surveys.
Triphysaria floribunda (San Francisco owl's-clover)	--/--/1B.2	Coastal prairie, valley and foothill grassland on serpentine and non-serpentine substrate, 10-160 meters; April-June.	Potential habitat in grasslands. Not observed during field surveys.
Animal Species	**Status[2] Fed/CA**	**Habitat**	**Findings[3]**
Syncaris pacifica (California freshwater shrimp)	E/E	Endemic to gentle gradient (less than 1%), low elevation streams in Marin, Napa and Sonoma Counties. Inhabits quiet portions of the tree-lined streams with underwater vegetation and exposed tree roots.	Not observed during surveys of aquatic habitat in main stream course and pond. Stream gradient too steep. No crayfish found in stream.
Speyeria zerene myrtleae (Myrtle's silverspot butterfly)	E/--	Medium sized butterfly found in coastal dune or prairie habitat. Violets (typically *Viola adunca)* are the larval food plants.	No *Viola adunca* found onsite. No suitable habitat for butterfly.
Oncorhynchus kisutch (Coho Salmon) Central California ESU	E/E	Naturally spawning populations in streams between Punta Gorda, Humboldt Co. and the San Lorenzo River, Santa Cruz County.	No fish observed in main stream during directed aquatic surveys. Steep gradient below pond and barrier at culvert under HWY 1 preclude fish moving into stream. Steep gradient and waterfalls above pond prevent fish from moving upstream. Not identified as Coho salmon or steelhead stream on Marin County watershed map.

Appendix B (continued).

Animal Species	**Status[2] Fed/CA**	**Habitat**	**Findings[3]**
Oncorhynchus mykiss irideus (Steelhead) *Central California DPS*	T/--	Coastal basins from the Russian River south to Soquel Creek.	No fish observed in main stream during directed aquatic surveys. Steep gradient below pond and barrier at culvert under HWY 1 preclude fish moving into stream from Ocean. Steep gradient and waterfalls above pond prevent fish from moving upstream. Not identified as Coho salmon or steelhead stream on Marin County watershed map.
Lavinia symmetricus (Tomales roach)	--/SSC	Habitat generalist. Found in warm intermittent streams as well as cold well-aerated streams.	Found in Walker Creek on Walker Creek Ranch. No fish observed in main stream during directed aquatic surveys.
Rana boylii (Foothill yellow-legged frog)	--/SSC	Partially shaded, shallow streams and riffles with a rocky substrate in a variety of habitats; need at least some cobble-sized substrate for egg-laying; need at least 15 weeks to attain metamorphosis	Not found onsite during directed surveys.
Ardea spp and Egretts thula (Great Egret, Great blue heron, Snowy Egret) (nesting colonies)	--/--	These birds nest in colonies in large trees nearby feeding areas; ponds, marshes, mudflats. The nest are large and are typically a platform of sticks placed at least 1 to 2m above ground to avoid predators. Males go through elaborate displays during all stages of the breeding season. Sensitive to human disturbance during breeding/nesting season (.February through May).	No herons or egrets observed on the property during nesting season. No nests or evidence of nesting (pruned/cleaned trees, broken egg shells) observed in or below trees along Hwy 1 frontage and trees along main stream corridor or around pond. Heron and Egret Atlas for the Bay Area identifies nearest rookery at Blake's Landing, about 4 miles north.
Aquila chrysaetos (Golden eagle) (nesting and nonbreeding wintering)	--/FP	Rolling foothills, mountain areas, sage-juniper flats and desert.	Potential foraging habitat but unlikely to nest in project area.
Falco peregrinus anatum (American peregrine falcon) (nesting)	--/FP	Near wetlands, lakes, rivers or other water; on cliffs, banks, dunes, mounds. Also human-made structures. Nest consists of a scrap on a depression or ledge in an open site.	Potential foraging habitat but unlikely to nest in project area.

Appendix B (continued).

Animal Species	Status2 Fed/CA	Habitat	Findings3
Laterallus jamaicensis coturniculus (California black rail)	--/T	Requires high marshes with little annual and/or daily fluctuations in water levels. Prefers marshlands with unrestricted tidal influence	Not likely to occur. No suitable habitat present. Not found during surveys.
Rallus longirostris obsoletus (California clapper rail)	E/E	Perennial inhabitant of tidal salt marshes of the greater San Francisco Bay. Some individuals use brackish marshes during spring breeding season.	Not likely to occur. No suitable habitat present. Not found during surveys
Charadrius alexandrinus nivosus (western snowy plover)	T/SSC	Found along beach above the high tide limit; also uses shores of salt ponds and alkali or brackish inland lakes. Intermittent nesting sites along the Pacific Coast from Washington to Baja California	Not likely to occur. No suitable habitat present. Not found during surveys
Athene cunicularia (California burrowing owl)	--/SSC	Ground nester in open dry annual or perennial grasslands, deserts and scrublands with low-growing vegetation, dependent upon burrowing mammals (i.e. California ground squirrel)	Potential to occur in grasslands. No owls or evidence of owl use found during surveys.
Strix occidentalis caurina (Northern spotted owl)	T/SSC	Evergreen forests including old growth redwood as well as second growth coast redwood, Douglas fir, bishop pine, and mixed hardwood forests. Most coniferous forests include a significant component of hardwood trees but often with a limited understory of shrubs and ferns. Need large trees with existing nest structure and prefer many layers of branch cover.	Not likely to nest on the property. Bay forest canopy dense with dense understory and forest fragmented. No occurrences nearby on east side of Tomales Bay.
Geothlypis trichas sinuosa (Saltmarsh common yellowthroat)	--/SSC	Freshwater marshes, coastal swales, swampy riparian thickets, brackish and salt marshes, and edges of disturbed weed fields and grasslands that border soggy habitats.	Potential to occur in emergent wetland and riparian habitats associated with pond and stream course. Not found during surveys.
Agelaius tricolor (Tricolored blackbird)	--/SSC	Breeds near fresh water, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, tall herbs. Feeds in grassland and cropland habitats	Potential to occur in emergent wetland and riparian habitats associated with pond and stream course. Not found during surveys.
Antrozous pallidus (Pallid bat)	--/SSC	Variety of habitats, most common in open, dry habitats with rocky areas for roosting	Potential day roost habitat in California bay forest. No suitable night roost or maternity roost sites.
Corynorhinus townsendii (Townsend's western big-eared bat)	--/SSC	Humid coastal regions of northern and central California; roosts in caves, mines, buildings, etc.	Potential foraging but no suitable roosting habitat.

Appendix B (continued).

Animal Species	Status2 Fed/CA	Habitat	Findings3
Lasiurus blossevilli (Western red bat)	--/SSC	Broad-leafed woodlands, usually in riparian areas	Only one occurrence recorded in Marin County. Typically roosts in large diameter cottonwood, sycamore and orchard trees. Potential to roost in California bay forest.
Zappas trinotatus orarius (Point Reyes jumping mouse)	--/SSC	Inhabits moist meadows, marshlands, open, shrubby grasslands and riparian areas	Potential to occur on the property. Not found during surveys.

1. Species list developed from a query of the CNDDB and Spotted Owl Observations Database (Drakes Bay, Inverness, Tomales and Point Reyes NE USGS 7.5 Minute quadrangles), and review of CNPS lists for Marin County.

2. Status Explanations

Federal (Fed):

E	Listed as endangered under the federal Endangered Species Act
T	Listed as threatened under the federal Endangered Species Act
--	No designation.

California State (CA):

R	Listed as rare under the California Endangered Species Act
E	Listed as endangered under the California Endangered Species Act
T	Listed as threatened under the California Endangered Species Act
SSC	California Department of Fish and Game species of special concern
FP	Fully Protected
--	No designation

California Native Plant Society (CNPS):

1A	Presumed extinct in California
1B	Rare, threatened or endangered in California and elsewhere
3	Plants for which more information is needed

Threat Rank

0.1-Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

0.2-Fairly threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

3. Findings based on knowledge of species habitat requirements, results of numerous seasonally-timed field surveys and species-specific and habitat-specific surveys conducted during the period of March 2008 through September 2012.

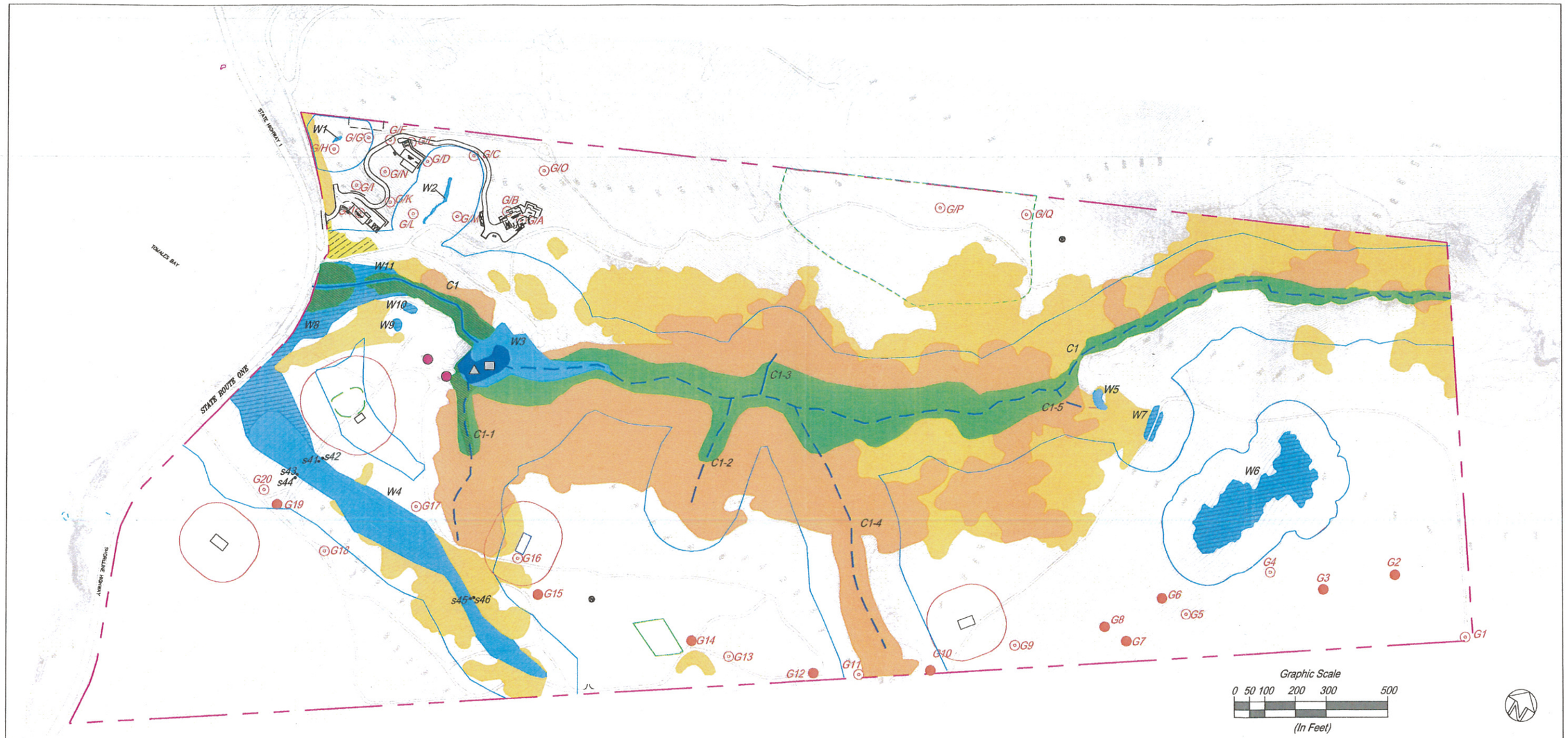
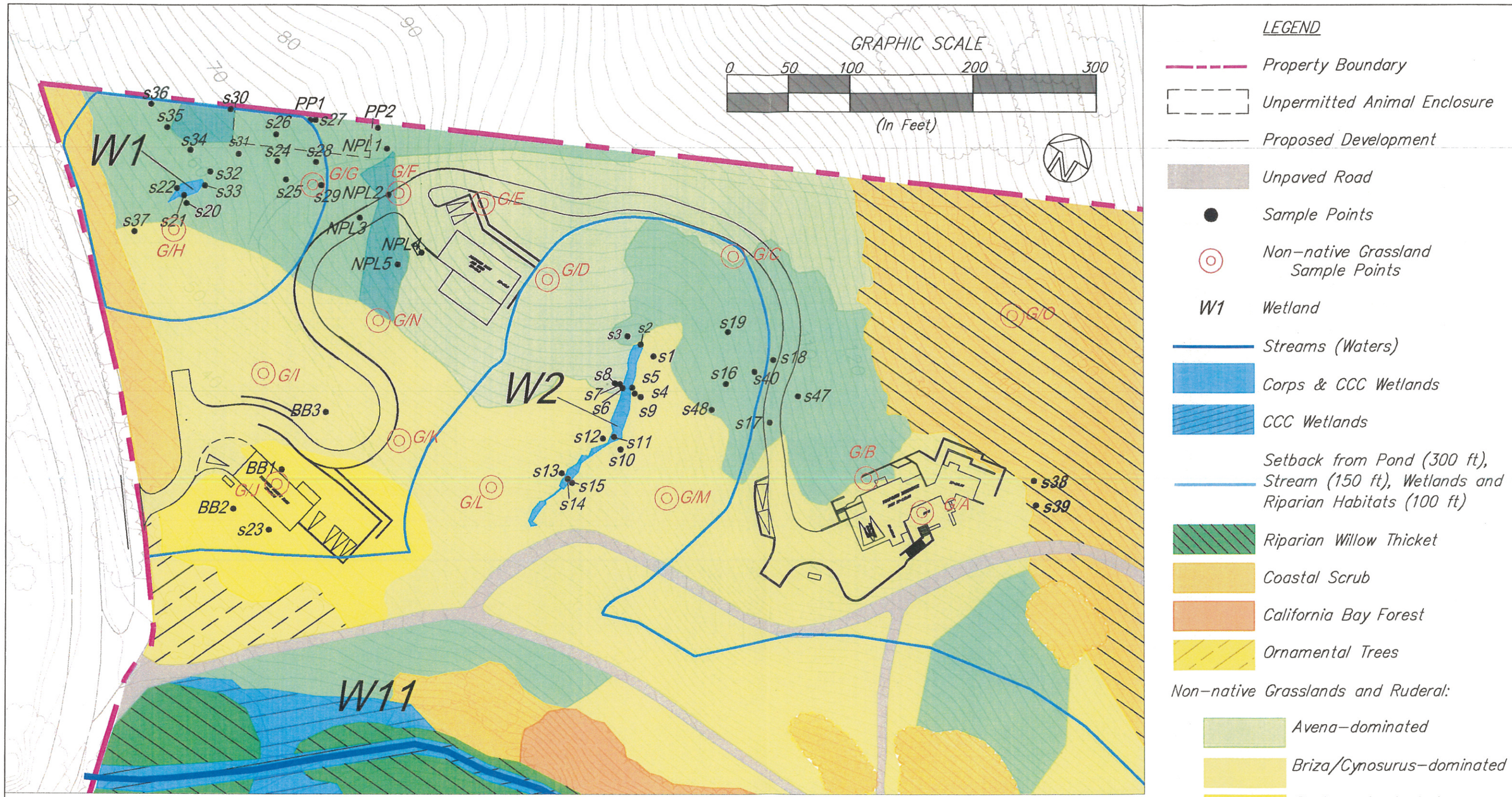


Figure 1. Proposed development on the Magee property in relation to natural resources.

California Coastal Commission
All Locations Approximate.
For Illustrative Purposes Only.
Source: Zander Associates..

LEGEND

- Native Grassland Sample Point
- Non-native Grassland Sample Point
- W1 Wetland
- s1 Wetland Sample Point
- C1 Main Stream Channel
- C1-1 Tributary Channel
- Streams (Waters)
- Intermittent Streams (Waters)
- Unpermitted Animal Enclosure
- Unpaved Road
- Marin Checker Lily
- California Red-legged Frog
- Western Pond Turtle
- Existing Well
- Pond (Waters)
- Corps & CCC Wetlands
- CCC Wetlands
- Mixed Riparian Woodland
- Riparian Willow Thicket
- Grassland
- Coastal Scrub
- California Bay Forest
- Ornamental Trees
- 100-Ft. Setback Around Agricultural Facilities
- Setback from Pond (300 ft), Stream (150 ft), Wetlands and Riparian Habitats (100 ft)
- Existing Hayyard
- Proposed Vegetable Garden
- Proposed Vineyard
- Proposed Site Plan
- Property Boundary



California Coastal Commission
All Locations Approximate.
For Illustrative Purposes Only.
Source: Zander Associates.

Figure 2. Proposed development in the northwest corner of the Magee property in relation to natural resources.

APPENDIX F

Wetland Delineation
Magee Property
Marshall, Marin County, California
Zander Associates
October 2012

(Note: Due to space limitation, Plate 1 and Appendices A-E of the Wetland Delineation are not included in this CCC staff report **Appendix F**)

Wetland Delineation
Magee Property
Marshall
Marin County, California

Prepared for:
Tony Magee

Represented by:
Larry Kennings
LAK Associates
3030 Bridgeway Blvd., Suite 103
Sausalito, CA 94965

Prepared by:
Zander Associates
4460 Redwood Hwy, Suite 16-240
San Rafael, CA 94903

October 2012

TABLE OF CONTENTS

1.0 INTRODUCTION 1

1.1 Background 1

2.0 WETLAND DELINEATION OVERVIEW 2

2.1 Section 404 Wetlands 2
2.2 Coastal Act Wetlands 2
2.3 Streams 3
2.4 Riparian Habitats 4

3.0 STUDY AREA DESCRIPTION 4

3.1 Vegetation 5
3.2 Soils 6
3.3 Hydrology 6

4.0 METHODS 7

4.1 Vegetation 8
4.2 Soils 9
4.3 Hydrology 10

5.0 RESULTS 12

5.1 Section 404 Jurisdictional Wetlands and Other Waters 12
5.2 CCC wetlands 12
5.3 Streams 14
5.4 Riparian Habitat 15

6.0 REFERENCES 16

List of Figures and Plates

Figure 1	Site Location
Figure 2	Study Area for 2011 Wetland Delineation
Figure 3	Plant Communities, Magee Property
Figure 4	Wetland Delineation in Development Area
Figure 5	USGS Topographic Map
Plate 1	Wetland Delineation, Magee Property

Appendices

Appendix A	Wetland Determination Data Forms (S-1 through S-48)
Appendix B	Natural Resources Conservation Service Soil Map for the Magee Property
Appendix C	U.S. Army Corps of Engineers Section 404 Jurisdictional Determination
Appendix D	Daily Rainfall Totals at Oceana Marina, Pt. Reyes Station and Hog Island California
Appendix E	Plant List for Wetland Delineation

1.0 INTRODUCTION

This report was prepared by Zander Associates in response to a request from California Coastal Commission staff (email from John Dixon dated September 5, 2012) for a formal wetland delineation for the Magee property in Marshall, California (Figure 1). It is intended to provide a compilation of all of the data and information previously submitted to CCC staff with respect to wetland areas on the Magee property and includes a textual description of the methods used and an explanation of the wetland boundary decisions that were made in the field.

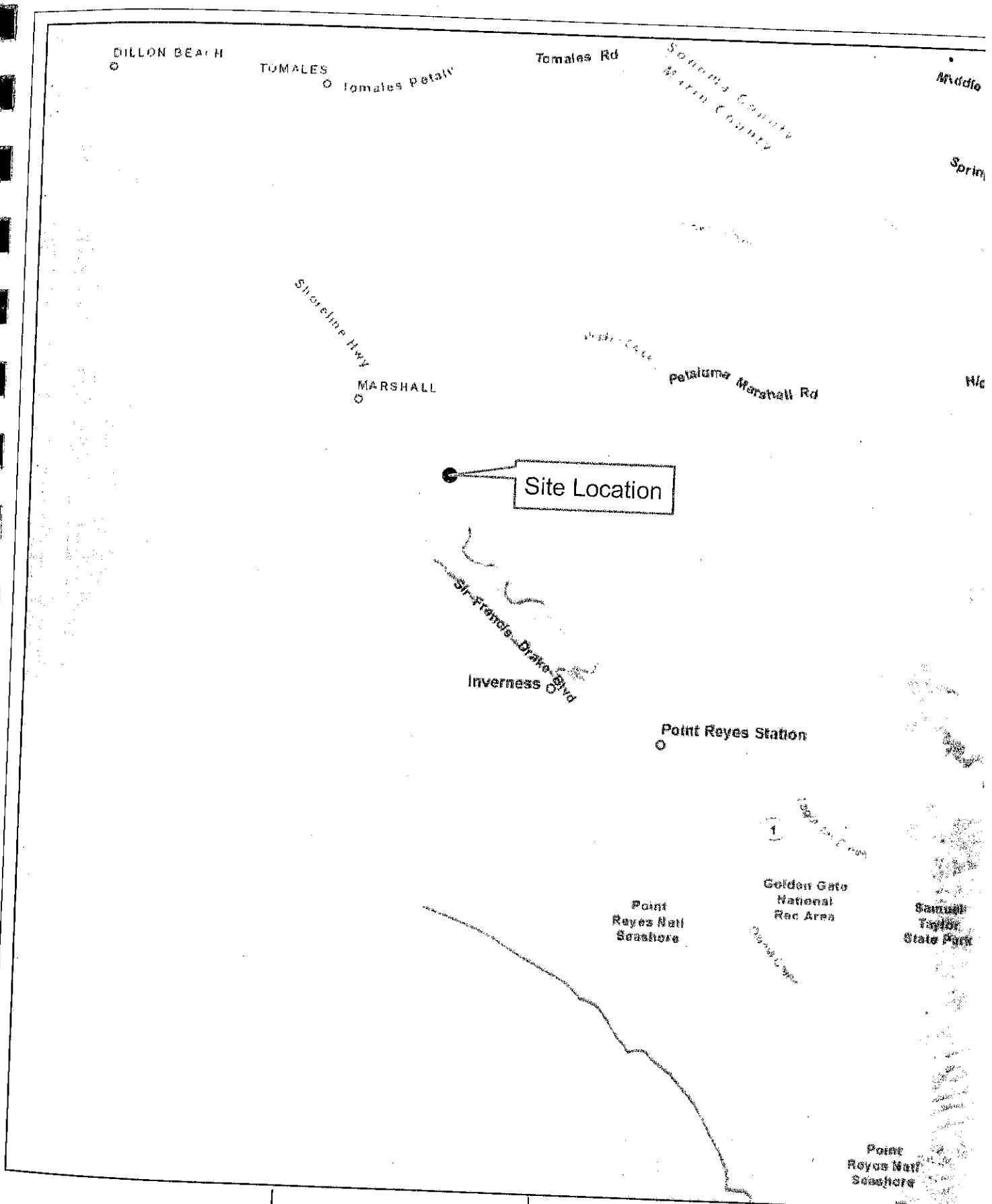
1.1 Background

Zander Associates first visited the Magee property in 2008 to evaluate existing conditions and identify potentially sensitive habitats. Between March and September, 2008, we conducted five site visits (March 19, April 30, May 29, July 22, September 16), each time walking the property to characterize and map vegetation types present. We observed two relatively large areas south of the main stream within the grasslands that had surface water present in March and a predominance of hydrophytic vegetation. Since both areas were on slopes and not associated with drainages, we assumed the water supporting them originated from underground seeps. These areas were mapped in March and April based on the extent of surface water observed, soil saturation, and presence of hydrophytic plant species – which formed a distinct boundary from the adjacent grasslands. Two spring boxes were located north of the main drainage but no surface water or predominance of hydrophytic vegetation was observed around these boxes during our 2008 site visits.

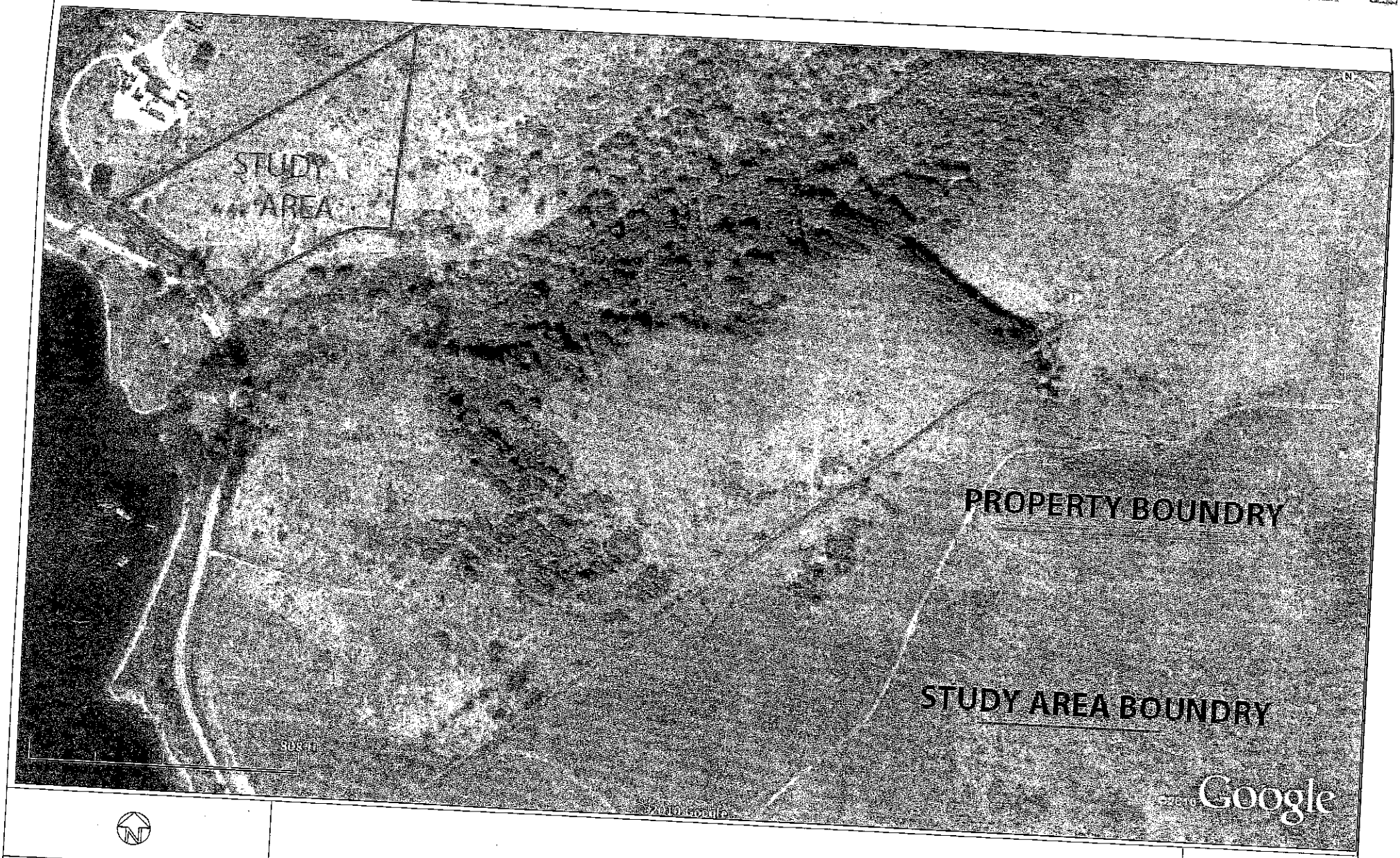
The product of the 2008 field work was a biological resources assessment that described existing conditions, evaluated potential special status species habitat and provided recommendations with respect to future uses of the property. A map generally delineating the various plant communities identified, including wetlands (seeps, channel, pond, emergent wetland) accompanied that assessment.

In March, 2010, following email correspondence with CCC staff, Zander Associates began collecting data for a wetland delineation in the area that had been designated for development of a new residence and barn – the study area (Figure 2). We returned to the site on January 26, 2011 in response to a specific request from CCC staff for a technical wetland delineation in general areas proposed for development (e.g., around the generally mapped existing springs) in the vicinity of the proposed homesite and barns. The data sheets and a map indicating the location of each corresponding sample point completed for the delineation in this area of the property were submitted to CCC staff on May 22, 2011 in preparation for a May 24, 2011 site visit with CCC staff to review site conditions. The data, map, and sampling procedures were discussed with CCC Ecologist, Dr. John Dixon during the May 24, 2011 site visit. Additional wetland data were collected during and subsequent to this site visit with Dr. Dixon and those data sheets, along with a map indicating the location of all of the points sampled within the study area were provided to CCC staff on September 27, 2011.

On February 14, 2012, another site visit with CCC staff (John Dixon and Cassidy Teufel) was conducted to re-visit specific sample points (e.g. S-18 and S-19), collect additional data around



Zander Associates Environmental Consultants 4460 Redwood Hwy, Suite 16-240 San Rafael, CA 94903	N 0 1 2 Miles	Site Location Magee Property Marin County, California Date: 10/12	Figure 1



Zander Associates
Environmental Consultants
4460 Redwood Hwy, Suite 16-240
San Rafael, CA 94903

Study Area for 2011 Wetland Delineation
Magee Property
Marin County, California

Date: 10/12

Figure
2

those points, and to further evaluate a swale originating on the neighboring property to the north and crossing the northern boundary of the Magee property. Tim Dodson, a biologist from the California Department of Fish and Game, also attended this site visit.

On March 7, 2012, Bryan Matsumoto of the U.S. Army Corps of Engineers, Regulatory Division, conducted a site visit to investigate potential fill activity and to confirm the extent of Section 404 jurisdictional wetlands and other waters occurring within a defined study area on the Magee property. The Corps' study area included approximately 121 acres of the 150-acre property and was determined based on where the majority of waters/wetlands were previously mapped and considering where new development or agricultural activities were being proposed. The Corps issued an approved jurisdictional determination for the defined study area, date certified April 27, 2012, based on field verification of existing conditions, review of available photographic imagery, and review of other data included in its files (copy provided in Appendix C)

2.0 WETLAND DELINEATION OVERVIEW

The delineation work for this report was conducted in accordance with the wetland definition in the California Coastal Commission Regulations (Section 13577). The Corps jurisdictional determination was based on the wetland definition contained in Section 404 of the federal Clean Water Act. A brief summary of the definitions and general procedures followed for Corps and CCC delineations is presented below.

2.1 Section 404 Wetlands

The Corps defines the term "wetlands" as follows:

> *Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.* (33 CFR 328.3).

The Corps has provided standard methods, procedures and data reporting forms for wetland delineation in its *U.S. Army Corps of Engineers Wetlands Delineation Manual* ("Corps Manual"; Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* ("Arid West Supplement"; Corps 2008). Three parameters are typically used by the Corps to determine the presence of wetlands. They are: (1) hydrophytic vegetation, (2) wetland hydrology, and (3) hydric soils. According to the Corps Manual:

> *....[E]vidence of a minimum of one positive wetland indicator from each parameter (hydrology, soil, and vegetation) must be found in order to make a positive wetland delineation.*

2.2 Coastal Act Wetlands

The Coastal Act (Section 30121) defines wetlands as follows:

Wetland means lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, or fens.

Furthermore, the California Coastal Commission Administrative Regulations (Section 13577 [b]) provide the following definition:

Wetlands are lands where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent or drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salt or other substance in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during each year and their location within, or adjacent to, vegetated wetlands or deepwater habitats.

There are no manuals published by the Coastal Commission, the Department of Fish and Game, or the County on the procedures used to determine wetland boundaries using this definition. However, the Corps Manual referenced above contains guidance on the use of the National Wetland Plant List (Corps, 2012) (NWPL), the use of hydric soil maps and hydric soil indicators, and descriptions of hydrologic methods to determine wetland hydrology. While the Corps Manual states that jurisdictional wetlands occur where all three criteria (hydrophytic vegetation, wetland hydrology, and hydric soils) are met, the Coastal Commission administrative definition cited above expresses that wetlands occur where hydrology is sufficient to support either hydrophytic vegetation or hydric soils, or both. In the absence of specific objective evidence regarding hydrologic conditions (e.g. shallow monitoring wells), the prevalence of hydrophytic vegetation or presence of hydric soils ("one parameter approach") is often used to define Coastal Act wetlands.

The Coastal Commission's regulations do not provide guidance on defining what constitutes hydrophytic vegetation. Guidance documents such as the National Wetland Plant List (Corps, 2012) (NWPL) are used but there are situations where plants included on that list (primarily FAC and FACW species) are not growing in wetland conditions and therefore do not meet the definition of hydrophyte; any plant growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content (Cowardin et al, 1979) or, plants that grow in water or on a substrate that is saturated at a frequency and duration during the growing period sufficient to affect plant occurrence (Tiner, 2012).

2.3 Streams

As a subset of waters of the United States and wetlands ("other waters"), streams (and, in many cases, associated riparian areas) are also considered in wetland delineations. According to California Coastal Commission statewide interpretive guidelines (CCC 1981),

A stream or river is a natural watercourse as designated by a solid line or dash and three dots symbol shown on the United States Geological Survey map most recently published,

or any well-defined channel with distinguishable bed and bank that shows evidence of having contained flowing water as indicated by scour or deposit of rock, sand, gravel, soil, or debris.

The cross-sectional limits of a stream (exclusive of adjacent wetlands or riparian habitat) typically extend to the ordinary high water mark (OHW), which has been defined as follows:

The term "ordinary high water mark" means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impresses on the bank, shelving, changes in the characteristics of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

(Federal Register Vol. 51, No. 219, Part 328.3 (d). November 13, 1986).

2.4 Riparian Habitats

The Statewide Interpretive Guidelines (CCC 1981) state:

"For the purpose of interpreting Coastal Act policies, another important distinction is between "wetland" and "riparian habitat." While the Service's classification system includes riparian areas as a kind of wetland, the intent of the Coastal Act was to distinguish these two areas. "Riparian habitat" in the Coastal Act refers to riparian vegetation and the animal species that require or utilize these plants. The geographic extent of a riparian habitat would be the extent of the riparian vegetation.

...For the purposes of this guideline, riparian vegetation is defined as that association of plant species which grows adjacent to freshwater watercourses, including perennial and intermittent streams, lakes, and other freshwater bodies. Riparian plant species and wetland plant species either require or tolerate a higher level of soil moisture than dryer upland vegetation, and are therefore generally considered hydrophytic. However, riparian vegetation may be distinguished from wetland vegetation by the different kinds of plant species... "

The guidelines include a list of representative riparian plants which are meant to help distinguish wetland areas from riparian areas. The list includes many common riparian trees and shrubs such as willows, cottonwood, alders, and sycamores. Therefore, under the Coastal Act, riparian areas do not have to be wetlands, and are determined based primarily on vegetation and that vegetation's ability to provide habitat to animal species.

3.0 STUDY AREA DESCRIPTION

The Magee property comprises approximately 150 acres of mostly hilly terrain located on the east side of Tomales Bay in Marin County (Figure 1). The site rises from an elevation of close to 20 feet on the western boundary along Highway 1 to a high of 490 feet at the eastern property line. It is bisected by a densely vegetated stream corridor that flows in a westerly direction towards the bay. An earthen dam constructed in the stream course has created a relatively large

pond with open water area and emergent wetland vegetation around the perimeter. The dam has a manual weir with a long rock-lined spillway that grades into the natural channel below. The National Wetlands Inventory maps this feature as a freshwater pond but does not identify any other wetlands on the property.

3.1 Vegetation

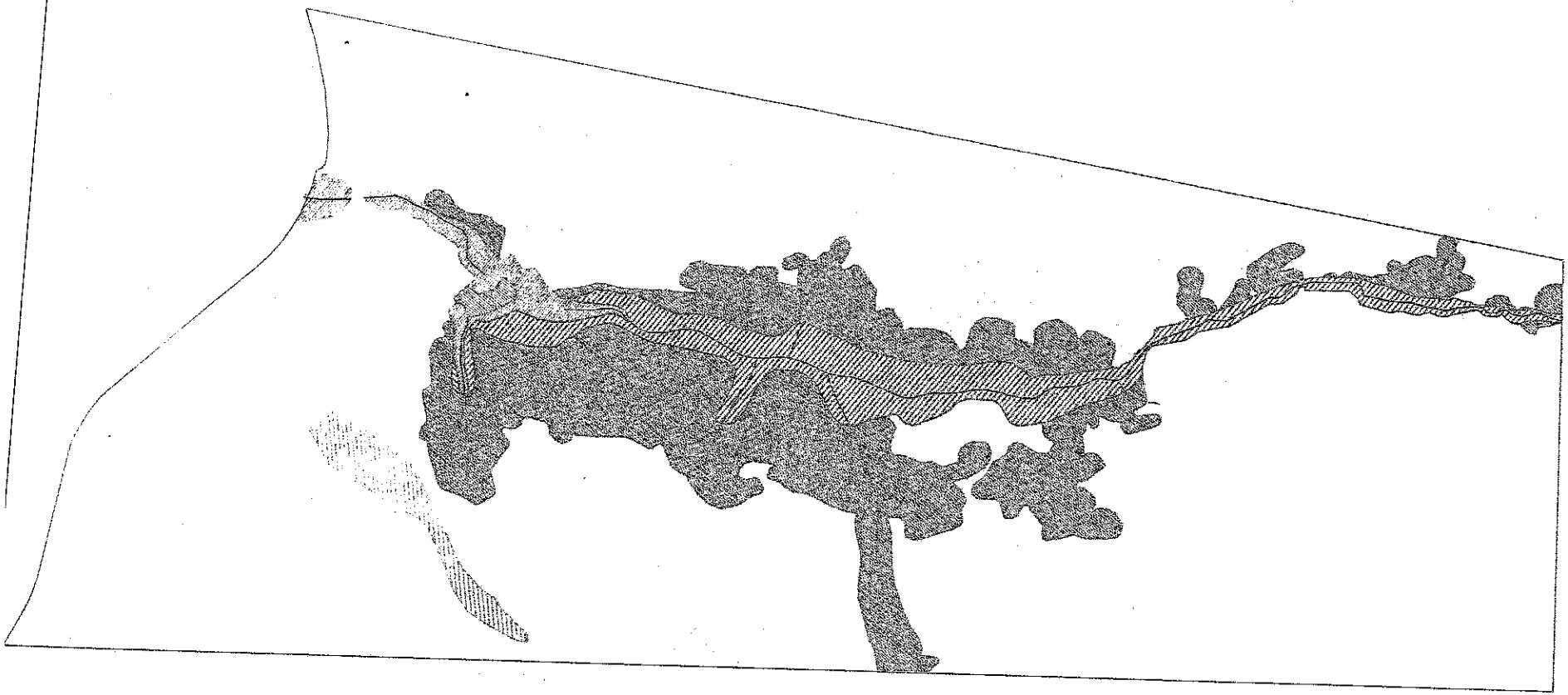
Four main plant communities occur on the property; grassland, coyote brush scrub, California bay forest, arroyo willow thicket and riparian woodland (Figure 3). Aquatic and emergent wetland communities are associated with the pond and other areas of the stream course. Seasonal wetlands are associated with two hillside seeps and two developed springs on the property.

The grasslands are a patchy mosaic of native and non-native species throughout the property. Non-native grassland stands are dominant in the area north of the main stream corridor and at lower elevations south of the main stream corridor while native grassland stands are primarily found at higher elevations in the southeast portion of the property. Non-native stands consist of dense (almost monotypic) stands of velvet grass (*Holcus lanatus),* rattlesnake grass (*Briza maxima),* Italian rye grass (*Lolium perenne*), or wild oat (*Avena fatua*) with very few herbaceous associates and native stands are dominated by purple needlegrass (*Nassella pulchra*) with wild rye (*Elymus glaucus),* California melic grass (*Melica californica*), red fescue (*Festuca rubra*), and a variety of herbaceous species as associates in varying densities.

Coastal scrub vegetation occurs in patches within the grasslands and on the south-facing slope of the canyon that follows the main drainage through the property. The primary species in this vegetation type are coyote brush (*Baccharis pilularis* ssp. *consanguinea*), California blackberry (*Rubus ursinus*), poison oak (*Toxicodendron diversilobum*), and coffeeberry (*Rhamnus californica*).

The California bay forest, arroyo willow thicket and riparian woodland are found along the main stream course running east to west through the property and up the adjacent canyon. The arroyo willow thickets and riparian woodland are found down along the channel bottom and the vegetation transitions to California bay forest moving up the north-facing slopes of the canyon and coastal scrub and grassland vegetation moving up the south-facing slope. The riparian woodland vegetation consists of California bay laurel (*Umbellularia californica*), California buckeye (*Aesculus californica*), hazelnut (*Corylus cornuta* var. *californica*), and California wax myrtle (*Myrica californica*). Going upslope and away from the creekbed, the canopy is dominated by California bay laurel and coast live oak (*Quercus agrifolia*).

The aquatic habitats on the property include the east-west trending stream and the pond created in the stream course. Both of these features have open water areas with some aquatic and emergent wetland vegetation. Portions of the stream above the pond have associated wetland terraces that support emergent wetland plants such as horsetail (*Equisetum arvense*) and sedge (*Carex* spp.) and the pond has stands of cattail (*Typha latifolia*) and bulrush (*Scirpus* sp.) around the perimeter.



Scale: 1" = 450'

LEGEND

- Springs
- Channels
- Pond
- Hydrophytic-dominated Grassland
- Hydrophyte/Scrub Mix
- Arroyo Willow Thicket
- Riparian/Woodland
- Grassland
- Coyote Brush Scrub
- California Bay Forest
- Property Boundary

Zander Associates
Environmental Consultants
90 Redwood Hwy, Suite 16-240
San Rafael, CA 94903

Plant Communities
Magee Property
Marin County, California

Date: 09/11
Revised 10/12

Figure 3

Seeps located south of the main stream corridor surface at a point on the hillside and water moves downslope saturating soils and creating conditions suitable for the establishment of hydrophytic plants. The largest seep originates within coastal scrub vegetation and continues downslope into grasslands. The area within the scrub influenced by the seep contains horsetail, rush (*Juncus* spp.) and sedge (*Carex* spp.) intermixed with coyote brush, blackberry and coffeeberry. The grasslands below are dominated by rush, sedge and associated wetland herbs including pennyroyal (*Mentha pulegium*) and coyote thistle (*Eryngium armatum*). The area influenced by the seep varies seasonally and annually based on the extent of surface water and soil saturation. The other seeps are within grasslands and contain a similar palette of hydrophytic species.

There are two springs north of the main stream corridor that have been developed (spring boxes present) and that periodically have surface water flowing out and downslope of the spring. When these areas were first observed in 2008, there was no surface water or wetland vegetation present in or around the spring. In 2010, water was observed flowing out of one of the springs in response to a relatively large storm event but no wetland vegetation had established. Since 2010, some wetland vegetation has established around both springs but both areas are completely dry by summer.

3.2 Soils

There are four different soil series identified on the property by the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS); Felton Variant-Soulajule Complex, Tocaloma-Saurin, Yorkville Clay Loam, and Olompali Loam (Appendix B). The Felton Variant-Soulajule and Yorkville Clay Loam series are both well-drained soils derived from sandstone or shale with moderately slow permeability. The Tocaloma-Saurin is also well-drained soil derived from shale with rapid permeability. Olompali Loam is somewhat poorly drained and is typically found on coastal terraces. It formed in alluvium derived from various kinds of rocks, has very slow permeability below 13 inches, and can have a seasonal perched water table.

There are three phases of the Felton Variant-Soulajule complex mapped on the property; 9 to 15% slopes, 15 to 30% slopes and 30 to 50% slopes. Combined, these map units cover most of the property. Yorkville Clay Loam 15 to 30% slopes is found only in the northwest corner of the property, where the new homesite is proposed. The Tocaloma-Saurin, Very Steep phase follows the steep slopes of the main drainage through the property and the Olompali Loam, 15 to 30% Slopes occurs along the Highway 1 frontage.

3.3 Hydrology

The Magee property ranges in elevation from approximately 20 feet to 490 feet above mean sea level. The mean annual temperature for Marshall, 1.5 miles to the north, is reported to be 58.5°F and the mean annual rainfall is cited as 44.4 inches.[1] Frequent fog moderates temperatures at the site and for several miles inland (Miller, 1972).

[1] Source: http://www.usa.com/marshall-ca-weather.htm

Water enters the property as direct precipitation or as runoff from the watershed for the main stream course; which is about 280 acres and includes most of the property. Water is conveyed off the site primarily through the main stream which flows westward towards Tomales Bay. The small pond built within the stream outfalls through a rock spillway to continue flows off the property under Highway 1 and into the bay. Four springs have been mapped on the property. Two of these have been developed and have water at the surface periodically. The other two have no evidence of surface water. There are two areas south of the main stream corridor where groundwater surfaces seasonally and has created conditions suitable for establishment of hydrophytic plants (see Section 3.1). The extent of surface water and soil saturation downslope of the point where groundwater surfaces fluctuates, probably linked to annual and seasonal rainfall amounts.

4.0 METHODS

A reconnaissance survey of the entire property was conducted in March 2008 to generally identify and locate potential wetland and riparian areas. Follow up visits were completed in April and May, 2008 to field verify the location and extent of the pond, main stream channel and tributaries, approximate extent of riparian habitat, and to delineate general wetland boundaries around the seeps and other areas where we observed a predominance of hydrophytic plant species. The stream channels and riparian habitats were mapped using a combination of topographic maps, aerial photographs and field observations. Wetland areas were mapped based on field observations of vegetation and hydrology. The primary indicator for determining the wetland/upland boundary was the occurrence of hydrophytic plants such as *Juncus* spp., *Carex* spp., or *Scirpus* sp. at greater than 50% cover. The map produced from this effort was used to identify constraints and to sight general areas suitable for development of the proposed single family residence and ancillary structures.

After building sites were selected and a study area was defined, a wetland delineation was initiated. This delineation was focused on the northwest portion of the property in areas that were found to have standing water or soil saturation during a preliminary evaluation conducted on March 10, 2010[2] in the vicinity of the proposed homesite and barns. The methods and procedures for data collection described in the 1987 Corps Manual and the 2008 Arid West Supplement were used in this delineation. Although state agencies have regulatory responsibilities based in state rather than federal law, the Corps wetland determination methods have been accepted by the California Department of Fish and Game and the California Coastal Commission for data observations used in determining whether one or more of the wetland criteria are satisfied at sites within the coastal zone. We relied on the Corps' data collection methods, but applied the wetland definition in the CCC Regulations (Section 13577) in delineating the wetland boundary.

At the request of CCC staff, additional data were collected south of the main stream corridor in 2012 where structures associated with anticipated farming operations (e.g. greenhouse, sheep shelters, hopyard shelter) are proposed within 200 feet of any wetland previously mapped in that

[2] This site visit followed a December and January of greater than average rainfall and was preceded by a week of about 2.5 inches of recorded rainfall.

area. Paired points were sampled at the wetland boundary nearest to the proposed structure to document the accuracy of the boundary determination. Data were collected as described above.

The methods applied in our delineation for evaluating wetland indicators under each of the three parameters established by the Corps are summarized in the following sections.

4.1 Vegetation

For the data collected in 2010 and 2011, plant species identified in the study area were assigned a wetland status primarily following the U.S. Fish and Wildlife Service list of plant species that occur in wetlands (Reed 1988). In 2012, the Corps issued an update to that list and as requested by CCC staff, we reevaluated our original vegetation data and assigned a wetland status using the new National Wetland Plant List (Corps, 2012) for this report. While some species may be assigned a different status in the 2012 NWPL, the wetland classification system remains the same and is based on the expected frequency of occurrence in wetlands as follows:

OBL Always found in wetlands >99% frequency
FACW(±) Usually found in wetlands 67-99%
FAC Equal in wetland or non-wetlands 34-66%
FACU Usually found in non-wetlands 1-33%
UPL/NL Upland/Not listed (upland) <1%

Plants with OBL, FACW, and FAC classifications are usually considered wetland vegetation but are not necessarily hydrophytes. The National Technical Committee for Wetland Vegetation (NTCWV) (Tiner 2012) proposes the following definition of hydrophyte:

> *"Hydrophytes grow in water or on a substrate that is saturated at a frequency and duration during the growing period sufficient to affect plant occurrence*

While only evidence of wetland hydrology needs to be confirmed for OBL species to be considered hydrophytes, wetland soil and hydrology indicators must be verified in order for FACW and FAC types to be considered hydrophytes (Tiner 2012). Particularly in coastal California, FAC plants may be responding to the foggy coastal environment and not necessarily to wetland conditions (NPS, 2009).

Therefore, in situations where FAC and/or FACW plants comprise more than 50 percent of the dominant species, wetland soil and hydrology indicators must be verified in order for these plants to be considered hydrophytes. If positive evidence of upland soil and hydrology is demonstrated, then these plants are not growing as hydrophytes and the hydrophytic vegetation criterion is not met. Positive evidence of upland hydrology includes steep slopes that drain rapidly, permeable soil with no confining layer, and dry soil following significant rainfall. Observed interannual changes in hydrology and floral composition as well as comparisons of soil wetness with nearby uplands and wetlands following documented rainfall provide good field evidence of positive upland conditions.

For this delineation, if positive evidence of upland conditions was found where FAC and FACW plants comprised more than 50 percent of the dominant species, the vegetation was not

considered hydrophytic. This situation primarily occurred where there was a predominance of velvet grass (*Holcus lanatus*)(FAC), Italian ryegrass (*Lolium perenne*)(FAC), poison hemlock (*Conium maculatum*)(FACW) and spreading rush (*Juncus patens*)(FACW); species that are commonly found in upland habitats throughout coastal California. In all cases where these plants were among the dominant species, positive evidence of upland conditions was found: they were growing on hillsides underlain by well-drained soils with no confining layer; soils were dry or moist and consistent with adjacent areas dominated by upland species following documented rainfall; no surface ponding or soil saturation was observed at these sample points during repeated site visits.

The vegetation criterion was re-evaluated for sample points S-1 through S-39 using the 2012 National Wetland Plant List. Revised data forms for each of those points are provided in Appendix A in front of the scanned original data sheet.

4.2 Soils

The Marin County Soil Survey (USDA, Soil Conservation Service 1978), the online U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) Web Soil Survey (http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm), the annually updated online NRCS *National List of Hydric Soils in the United States* (http://soils.usda.gov/use/hydric/), and the *Field Office Official List of Hydric Soil Map Units in Marin County, California* (March 27, 1992) were all consulted as guides for determining the general distribution of hydric soils in the study area. The NRCS defines a hydric soil as:

> *"A hydric soil is a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part."*
>
> (Federal Register July 13, 1994, U.S. Department of Agriculture, Natural Resource Conservation Service.)

Two of the soils mapped on the Magee property have components that are rated as hydric on the Marin County hydric solis list prepared by the NRCS (March 27, 1992). The Felton Variant-Soulajule Complex, 9 to 15 percent slopes and the Tocaloma-Saurin Association, very steep both have unnamed inclusions that occur in upland seeps listed as hydric. All of the other soils found on the property are not listed as hydric.

For the purposes of this delineation, hydric soils were determined to occur at a data point only if positive field indicators were present and/or an aquic moisture regime was observed or confidently inferred to occur on the basis of surface hydrologic indicators. Aquic moisture regime was considered to mean long-duration ponding or saturation to within less than 12 inches of the surface.

Soils test pits were excavated to depths of about 12-14 inches below the surface. Soils observed were evaluated from the surface through the lower layers where texture, color, and other characteristics such as indications of oxygen reduction (redoximorphic) conditions, gleyed or depleted matrix conditions, a hydrogen sulfide (rotten egg) odor, or high organic matter content were recorded. Soils (non-sandy) formed under wetland (anaerobic) conditions typically have a

characteristic low chroma matrix color, designated 0, 1, or 2, used to identify them as hydric soils. Chroma designations are determined by comparing a soil sample with a standard Munsell soil color chart (Gretag/Macbeth 2000). Soils with a chroma of 0 or 1 are considered hydric; soils with a chroma of 2 must also have other indicators (e.g. "redox concentrations") to be considered hydric.

Hydric soils were determined to be present if any of the soils samples met one or more of the hydric soil indicators described by NRCS, including saturation within less than 12 inches of the surface (observed or inferred from previous observations) for a prolonged period of time.

4.3 Hydrology

The Corps jurisdictional wetland hydrology criterion is satisfied if an area is inundated or saturated for a period sufficient to create anoxic soil conditions during the growing season (a minimum of 14 consecutive days in the Arid West Supplement). Evidence of wetland hydrology can include direct observation of surface water or groundwater during a site visit or indicators of flooding, ponding or saturation in the absence of direct observations (e.g. water marks, drift deposits, oxidized root channels, algal mats and salt crusts). Primary and secondary wetland hydrology indicators have been identified in the Arid West Supplement based on their reliability in the region. Only one primary indicator is required to meet the wetland hydrology criterion; however, if secondary indicators are used, at least two secondary indicators must be present to conclude that an area has wetland hydrology.

Rainfall data were obtained to evaluate conditions in and around the time of our field visits relative to precipitation trends and events. Data were obtained from two sources for three different stations: Weather Underground data for Hog Island Cove near Marshall and Marin County Flood Control and Water Conservation District data for Point Reyes Station and Oceana Marin at Dillon Beach. The Hog Island Cove station is closest to the site, but we were unable to obtain records prior to December 17, 2010 for that station. For comparison and a longer period of record, we used Marin County data from the two nearest stations both north and south of the site. Available data for December 2010, and January through May 2011 for all stations, and the 7-year average for those six months from the two Marin County stations are summarized on the table below.[3] Available daily rainfall data from all three stations for those six months are included in Appendix D.

[3] Gaps in the data record for the Dillon Beach station for the 2008-2009 rain year were filled by extrapolating from the Point Reyes Station record.

Table 1: Available Rainfall Data for Three Stations in the Vicinity of the Magee Property

	Hog Island	Pt. Reyes Station		Dillon Beach	
	2010/2011	2010/2011	7 yr avg	2010/2011	7 yr avg
Dec. 1-16	na	2.49 in	2.77 in	3.31 in	2.52 in
Dec. 17-31	6.92 in	8.27 in	6.31 in	6.45 in	5.36 in
January	1.65 in	1.92 in	6.27 in	1.8 in	4.52 in
February	3.99 in	6.88 in	7.34 in	4.88 in	4.86 in
March	8.20 in	12.92 in	5.99 in	8.07 in	4.27
April	0.64 in	1.11 in	2.76 in	0.63 in	2.06
May	2.12 in	1.81 in	1.84 in	1.99 in	1.8

Rainfall amounts at Point Reyes Station (approximately 7.5 miles south of the site) for the second half of December 2010 were well over an inch above both the Hog Island and Dillon Beach stations, but amounts at all stations exceeded the 7-year average for that period. January 2011 rainfall was more or less comparable at all stations and well below the 7-year average based on the County records. February was slightly below average at Point Reyes, about average at Dillon Beach, but lower than both at the Hog Island station. March was well above average at all stations and April and May were slightly below and about average, respectively. Total rainfall amounts for the 2010-2011 rain year for both Dillon Beach and Point Reyes Station (and for Hog Island, by extrapolation) were well above (by at least 3.5 inches) the 7-year average.

Measurable rain events occurred about 13 days prior to the January 26, 2011 site visit (a little more than 0.5 inch) and 2 days before the February 2, 2011 site visit (about 0.5 inch). About one week prior to the May 24, 2011 site visit, over an inch of rain fell in the Marshall area, and an additional 0.25 inch was recorded prior to the June 2, 2011 site visit.

Observations of surface flow, shallow ponding, surface saturation and other hydrology indicators were made during multiple site visits and when the data sheets were being completed for this delineation. In several cases, points sampled on January 26, 2011 were revisited on February 2, 2011 or May 24, 2011 to evaluate hydrology indicators such as the duration and extent of surface ponding and soil saturation following documented rainfall. Notations of multiple site visits to specific data points are made on the corresponding wetland determination data form (Appendix A). At many of the sample locations for this assessment, the hydrology criterion was evident from direct observation (e.g. where ponding or soil saturation was apparent).

5.0 RESULTS

The Corps Section 404 jurisdictional wetlands and other waters, and the CCC wetlands, streams and riparian habitats identified on the Magee property are delineated on Plate 1. All of the areas mapped as Section 404 jurisdictional wetlands and other waters are also considered CCC wetlands and streams. There are additional CCC wetland and riparian areas identified over which the Corps did not assert jurisdiction.

Wetlands identified in the vicinity of the proposed homesite and barns were mapped based on paired sample points (Figure 4). Wetlands identified south of the main stream corridor were mapped based on field observations of the limits of hydrophytic vegetation and hydrology indicators. Paired sample points were taken at the upland/wetland boundary wherever structures associated with proposed agricultural operations would be within 200 feet of these wetlands (Plate 1). Data sheets corresponding to all sample points identified on Figure 4 and Plate 1 are included in Appendix A.

5.1 Section 404 Jurisdictional Wetlands and Other Waters

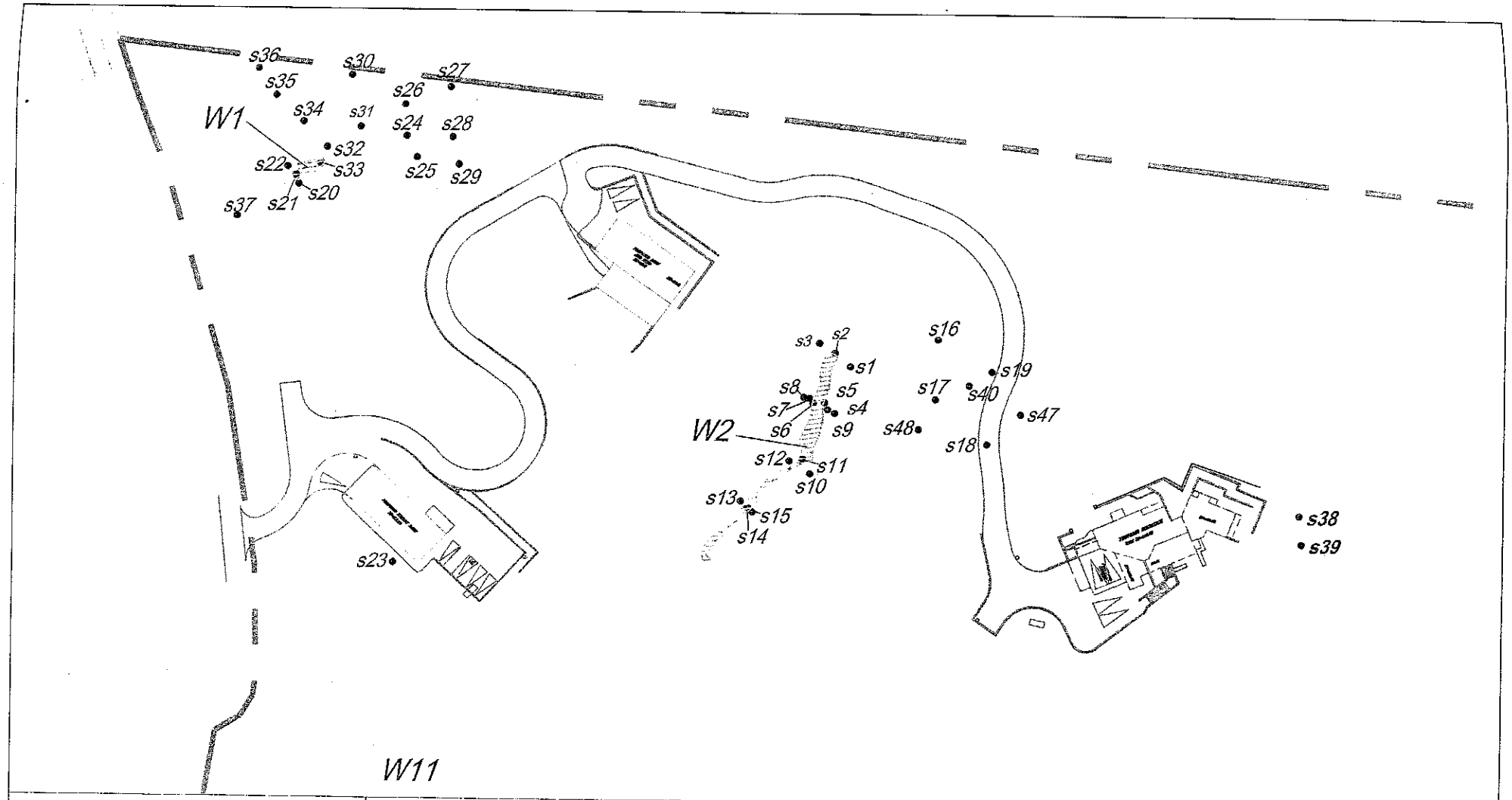
On March 7, 2012, Bryan Matsumoto of the U.S. Army Corps of Engineers, Regulatory Division, conducted a site visit to verify the location and extent of waters of the United States occurring within a defined study area on the Magee property. The Corps study area included approximately 121 acres of the 150-acre property and was determined based on where the majority of waters/wetlands were previously mapped and considering where new development or agricultural activities were being proposed. The Corps issued an approved jurisdictional determination for the defined study area, date certified April 27, 2012. A copy of the jurisdictional determination is provided in Appendix C and those jurisdictional areas are identified separately on Plate 1.

Five areas were identified as Section 404 jurisdictional wetlands within the Corp's study area. These areas met all three parameters used by the Corps to determine the presence of wetlands; they are hydrologically connected to a traditional navigable water; and they appear to be of natural origin. These wetland areas were dominated by hydrophytes and primary hydrology indicators (standing water / saturated soils / algal matting) were observed during the March 7, 2012 site visit. Hydric soil indicators such as redox concentrations were also observed in these areas.

The main stream channel, its tributaries and the in-stream pond were identified as Section 404 jurisdictional waters. The limit of jurisdiction in the stream was placed at the boundary of the ordinary high water mark. The pond limit was mapped at the margins of open water with the adjacent emergent wetland designated as jurisdictional wetland.

5.2 CCC wetlands

The CCC wetlands include all five areas mapped by the Corps and six additional areas that met the CCC wetland definition. The six additional areas were mapped based on a predominance of hydrophytic vegetation (as defined in Section 4.1) and direct evidence of hydrology (standing



Scale: 1" = 100'

Zander Associates
Environmental Consultants
4460 Redwood Hwy, Suite 16–240
San Rafael, CA 94903

LEGEND

- s2 ● Sample Point
- Streams (Waters)
- Corps & CCC Wetlands
- CCC Wetlands
- Riparian
- Development Plan (ILS Associates 04/18/12)
- Property Boundary

Wetland Delineation in Development Area
Magee Property
Marin County, California

Date: 10/12

Figure 4

water or saturated soil) at some point during the growing season[4]. Hydric soils were assumed where saturation was found at the surface. The dominant plants consisted of a combination of facultative wetland (FACW) or obligate wetland (OBL) species, including; *Juncus effusus, J. phaeocephalus, J. occidentalis, Carex obnupta, C. praegracilis, C. densa, and Mentha arvensis*, and the vegetation formed a distinct boundary from the adjacent upland grasses.

All of the CCC wetlands north of the main stream corridor and the lower wetlands south of the stream were evaluated in the field with CCC Ecologist Dr. John Dixon during a May 24, 2011 site visit and a subsequent field meeting on February 14, 2012.

Due to the proximity to Tomales Bay and the frequent presence of a coastal marine layer (fog), moisture-tolerant non-native grasses such as velvet grass (*Holcus lanatus*), perennial rye (*Lolium perenne*), and foxtail fescue (*Vulpia bromoides*), are common components of the upland grasslands throughout the low-lying hillsides on the Magee property. All of these are listed as facultative (FAC) species on the NWPL, which means they are equally likely to occur in wetlands or uplands, with an estimated probability of between 34% and 66%. Several sample points taken on the hillside in the northwest portion of the property contained a predominance of these species but because of positive evidence of upland conditions, these plants do not meet the NTCWV definition of hydrophyte (Tiner 2012) as discussed in Section 4.1 above, and therefore do not constitute hydrophytic vegetation.

Sample points S-24, S-26, S-27, S-29, S-30, and S-31, are within a group of 13 points taken on a hillside near the northwest property line along the previous driveway alignment for the proposed residence. During storm events, water sheet flows from the adjacent property through this area towards a culvert near the frontage with Highway 1. As confirmed with Dr. John Dixon on May 24, 2011, Dr. Dixon and Tim Dodson with the Department of Fish and Game on February 14, 2012, and Bryan Matsumoto with the Corps on March 7, 2012, there is no defined channel and no rilling or vegetation matting indicating that water flows consistently through the area. No extended ponding or soil saturation has been observed in this area during numerous site visits conducted March 2008 through March 2012.

Data for sample points S-24 and S-26 were taken with Dr. Dixon on May 24, 2011, one week following a rain event of over one inch in the Marshall area. Data for sample points S-27, S-29, S-30 and S-31 were taken nine days later on June 2, 2011. Over one-half inch of rain was measured in the area between May 24 and June 2. The hillside is underlain by Yorkville Clay Loam, a well-drained soil derived from sandstone or shale with moderately slow permeability (USDA 1985). There is no confining layer and the topography of the slope is such that water sheet flows off it during storm events; direct evidence of which was observed 12/29/10 the day after a storm event in which almost 2 inches of rain fell in one 24 hour period. Additionally, all of the soils examined were very dry and uniform in texture; consistent with samples taken in the same vicinity on the same day that had a predominance of upland plants. The topography, soil texture and permeability, and comparison of soil wetness with nearby uplands following documented rainfall at all these sample locations provide positive evidence of upland conditions, supporting the conclusion that the dominant plant species do not meet the NTCWV definition of hydrophyte.

[4] Based on multiple site visits

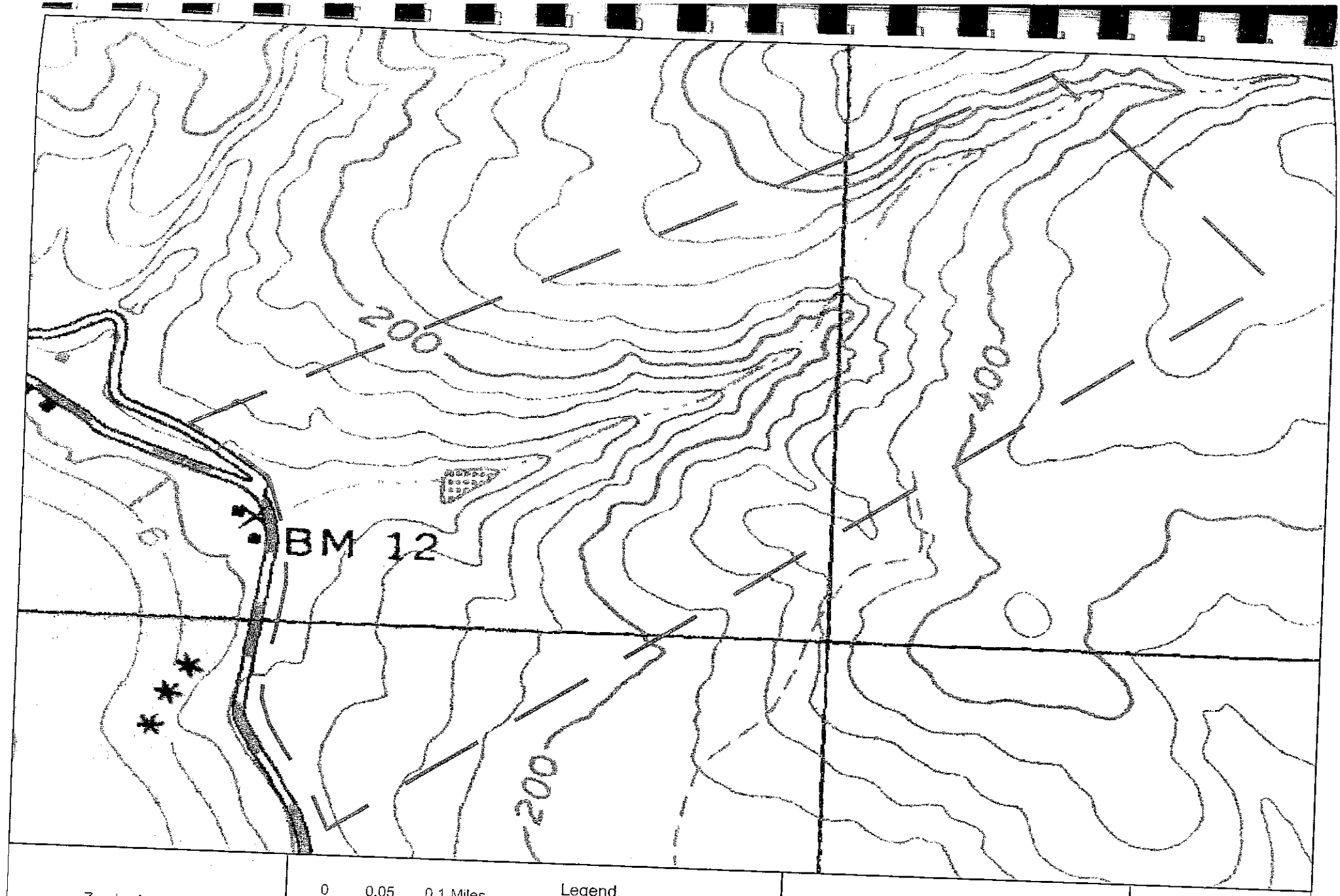
Sample S-20 is located at the upland edge of wetland W1, on the same hillside as the points discussed above. It is about two feet above the slump area associated with the spring and out of the area influenced by the water from the spring. The dominant plants are *Holcus lanatus* (FAC) and *Dipsacus fullonum* (FAC), which was not listed on the previous NWPL. Soil moisture, texture and color were consistent with upland areas sampled concurrently on 1/26/11 and 2/2/11 after recorded rain events. Based on the evidence of upland conditions, *Holcus* and *Dipsacus* are not growing as hydrophytes at this location.

Poison hemlock (*Conium maculatum*) is a non-native noxious weed that is found throughout California. Although it is listed as FACW on the NWPL, it commonly colonizes disturbed upland habitats in the coastal zone. Sample S-23 is located within a patch of poison hemlock that has colonized a disturbed area just north of the main stream corridor and near the abandoned road entrance to the property. The primary water source for this area is direct rainfall and no ponding or soil saturation has been observed here at any time during numerous site visits; including 12/29/10, the day after a storm event in which almost 2 inches of rain fell in one 24 hour period. Soils sampled at this location on 1/26/11 and 5/24/11 were dry, loamy in texture and had evidence of significant earthworm activity. The 5/24/11 site visit was conducted with Dr. John Dixon, one week following a rain event of over one inch in the Marshall area. Soil pits were dug to a depth of 28" within the *Conium* patch and in an adjacent area within the same landscape position that was dominated by *Avena fatua*, an upland grass. No ground water or soil saturation was encountered and we confirmed with Dr. Dixon that the soils in the two pits were identical in soil wetness and that no hydric indicators were present. The data confirm upland conditions and therefore *Conium maculatum* is not growing as a hydrophyte at this location.

An isolated blackberry patch located on the hillside north of the main stream corridor was sampled in January and February 2011 (S-16, S-17, S-18 and S-19). The data indicated upland soils and hydrology at all locations except S-18 where a small depression approximately 2 feet wide and 6 feet long along the edge of the blackberry had surface water on 1/26/11 and was vegetated with *Juncus effusus* (FACW). At the suggestion of Dr. John Dixon, we re-sampled this area using a standard 5-foot-radius plot centered at S-18 and including the depression. In this plot, the dominant plants are *Rubus ursinus* (FACU), *Cirsium vulgare* (FACU), and *Briza maxima* (NL). No wetland indicator species are among the dominants. The re-sampling data are provided on a revised determination form for sample point S-18 in Appendix A. No ponding or soil saturation has been observed in the depression since 1/26/11 and the extent of *J. effusus* has been significantly reduced. Additional samples were taken in the center of the blackberry patch with Dr. Dixon on 2/14/12 (S-40) and in the grasslands around the perimeter of the patch on 9/24/12 (S-47 and S-48). All these samples confirm upland conditions at this location.

5.3 Streams

The main stream on the Magee property is shown as a blue-line creek on the USGS map (Point Reyes NE 7.5 Minute Quadrangle)(Figure 5) and as an intermittent stream in the Marin Countywide Plan (Map 2-3). The main stream and its tributary channels were identified as Section 404 jurisdictional waters by the Corps and are considered CCC streams. Stream widths were measured bank-to-bank at the ordinary high water mark.



Zander Associates
Environmental Consultants
4460 Redwood Hwy, Suite 16-240
San Rafael, CA 94903

0 0.05 0.1 Miles

N

Legend

Property Boundary

Point Reyes NE, 7.5 Minute Quadrangle

USGS Topographic Map
Magee Property
Marin County, California

Date: 10/12

Figure
5

5.4 Riparian Habitat

The CCC riparian habitat is found along the main stream corridor and for a distance up the tributaries. These areas are dominated by a riparian shrub, arroyo willow (*Salix lasiolepis*) around the pond and in the lower reaches below the pond. Above the pond, the riparian habitat consist of a mixture of arroyo willow, hazelnut (*Corylus cornuta* var. *californica*), California wax myrtle (*Myrica californica*), and California bay laurel (*Umbellularia californica*). The extent of riparian habitat was mapped based on aerial photographs and field verification and with GPS for the reach below the pond.

6.0 REFERENCES

California Coastal Commission. 1981. Statewide Interpretive Guidelines for Wetlands and Other Wet Environmentally Sensitive Habitat Areas.

County of Marin. 1980. Marin County Local Coastal Program Unit II. Certified by the California Coastal Commission on April 1, 1981, amendment currently under review.

_____. 2007. Marin Countywide Plan. Marin County Community Development Agency, San Rafael, CA. November 6, 2007.

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.

Federal Register. November 13, 1986. Department of Defense, Corps of Engineers, Department of the Army, 33 CFR Parts 320 through 330, Regulatory Programs of the Corps of Engineers; Final Rule. Vol. 51, No. 219; page 41217.

_____. July 13, 1994. USDA Soil Conservation Service. Changes in Hydric Soils of the United States. Vol. 59, No 133; page 35680.

_____. January 6, 2011. Department of Defense, Department of the Army, Corps of Engineers. National Wetland Plant List. Notice. Vol. 76, No. 4, page 777.

Gretag/Macbeth. 2000. Munsell Soil Color Charts. New Windsor, NY.

Hickman, J. C. (editor). 1993. The Jepson Manual: Higher Plants of California. University of California Press, Berkeley, California.

Robert W. Lichvar and John T. Kartesz. 2009. North American Digital Flora: National Wetland Plant List, version 2.4.0 (https://wetland_plants.usace.army.mil). U.S. Army Corps of Engineers, Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, NH, and BONAP, Chapel Hill, NC.

Reed, P. B., Jr. 1988. National List of Plant Species That Occur in Wetlands: California (Region 0) U.S. Fish and Wildlife Service Biological Report 88(26.10).

Tiner, Ralph W. 2012. Defining Hydrophytes for Wetland Identification and Delineation. Prepared for the U.S. Army Corps of Engineers, Engineering Research and Development Center, Cold Regions Research and Engineering Labrotory. January 2012.

U.S. Army Corps of Engineers (Corps). 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region. September 2008

_____. 2012. National Wetland Plant List.

U.S. Department of Agriculture, Natural Resources Conservation Service. 2006. Field Indicators of Hydric Soils in the United States, A Guide for Identifying and Delineating Hydric Solis, Version 6.0.

U.S. Department of Agriculture, Soil Conservation Service. 1985. Soil Survey of Marin County, California. Prepared in cooperation with the U. S. Forest Service and University of California Agricultural Experiment Station.

U.S. Fish and Wildlife Service. 1997. National List of Plant Species That Occur in Wetlands: 1996 National Summary. Document published on the Internet by the Ecology Section of the National Wetlands Inventory.

U.S. Geological Survey (USGS). 1971. Point Reyes NE. 7.5 minute topographic map

APPENDIX G

Conditions of Project Approval for CP-09-39
Brader-Magee Coastal Permit, Design Review, and Use Permit
County of Marin
May 10, 2010

SECTION II: CONDITIONS OF PROJECT APPROVAL

NOW, THEREFORE, BE IT RESOLVED that the Marin County Board of Supervisors hereby approves the Dillon Vision (Brader-Magee) Coastal Permit, Design Review, and Use Permit pursuant to Marin County Code Chapters 22.57I (Coastal Permit), 22.82I (Design Review) and 22.88I (Use Permit), subject to the following conditions:

Marin County Community Development Agency, Planning Division

1. This Coastal Permit, Design Review, and Use Permit approval authorizes the construction of the following agricultural and residential improvements.

   Approval for the construction of a new single-family residence and garage, equipment barn, brandy production barn, two sheep shelters, green house, and hop barn on the 149.76-acre parcel. The lot will be managed for the following agricultural uses: livestock production, hop production, grape and limited brandy production, and crops for local farmers' markets, A new road will be constructed near the northwestern entrance, off of the private access road, and will traverse the northern property line, and will serve the equipment barn and residence. Also approved is a new well located near the northern property line, five 4,950 gallon water tanks for fire suppression, agricultural use, and domestic use, and three 250-gallon propane tanks near the equipment barn, residence, and brandy barn. The proposed structures will maintain the following setbacks from the nearest property lines: 1) residence, side (north) 223 feet; 2) equipment barn, side (north) 71 feet; 3) brandy barn, front (west) 86 feet; 4) sheep shelter #1,

side (south) 133 feet sheep; 5) hopyard shelter, side (south) 289 feet; and 6) shelter #2, front (west) 166 feet. The below chart summarizes the approved size of all new structures.

Table 1: Summary of Development Characteristics

	Floor Area (Sq.Ft.)	Coverage (Sq.Ft)	Maximum Height (Feet)
Residence			
Single-family Residence Attached Garage	3,165 648		22
Agricultural Structures			
Brandy Barn	1,456	496	14.8
Equipment Barn Shed	1,792	 960	15 13.5
Hops Shelter	N/A	896	15
Sheep Shelters # 1 and # 2	N/A	1,500	7
Greenhouse	N/A	600	8.5
Land Use			
Hop Cultivation	N/A	6 +/- acres	
Grazing	N/A	50 +/- acres	
Vineyard	N/A	6 acres	
Greenhouse and Crop Garden	N/A	2.3 acres	
Hopyard	N/A	6 acres	

Residential Development

The residence will be finished in batten-board/shiplap wood siding that will be dark tan in color, and the window trim and roof will be dark green.

Agricultural Operation

The brandy barn and equipment barn will be finished in colors and materials similar to the proposed residence, and all exterior lighting will be downward directed and hooded. The equipment barn will be used to store implements and equipment for the agricultural operation. The hops shelter and sheep shelters will have non-reflective metal roofing colored green.

Brandy Production

Use Permit approval is granted to allow for the grapes grown on site to be distilled and aged to produce an estate brandy that can be sold and distributed during on-site, reservation-only educational tours. The only educational tours permitted by this approval are those associated with the brandy facility. The appointment-only tours are limited to a maximum of three tours per week, between the hours of 11:00 am and 3:00 pm, with a maximum per tour of eight adults (only) ages 21 and over. No on-site consumption is allowed.

Site Improvements

Site improvements include construction of: (1) an approximately 850 foot long driveway off a private driveway that parallels State Route One, leading to the equipment barn and residence; (2) a sewage disposal system; (3) five 4,950-gallon water storage tanks; (4) new well near the northern property line; and (5) underground utilities. Coastal Permit approval is granted for the new domestic well. The existing well will be used for agricultural activities, and the proposed new well will serve the residence, brandy barn, equipment barn, and vineyard. In addition, a

new septic field is approved to be installed near the northern property line, and all sewage produced from the brandy facility, equipment barn, and residence will be pumped uphill to this location. The new driveway will be constructed of a coarse aggregate base and out-sloped to a grass-lined swale that will allow for water infiltration.

The property is located at 17990 State Route One, Marshall, and is further identified as Assessor's Parcel 106-22-20.

2. Plans submitted for a Building Permit shall substantially conform to plans identified as "Exhibit A," entitled, "Brader-Magee Farm" prepared by ILS Associates, dated August 24, 2009 and received on October 16, 2009, consisting of 14 sheets, and with plans prepared by Ronald L. Casassa, entitled "Brader-Magee Farm," dated May 19, 2009, and received on October 16, 2009, consisting of 16 sheets, with revisions received on January 6, 2010, consisting of 5 sheets, and on file with the Marin County Community Development Agency.

3. PRIOR TO ISSUANCE OF ANY BUILDING PERMIT, the applicant shall revise the site plan or other first sheet of the office and job site copies of the Building Permit plans to list these Conditions of Approval as notes.

4. PRIOR TO ISSUANCE OF A GRADING PERMIT, the proposed berm shown on plans prepared by ILS Associates shall be eliminated. All references to the berm on Sheets 2 through 4, and 6 shall be removed from building permit plans. All road grading shall be consistent with the natural contours of the landscape, and fill shall not be placed near the adjacent property at APN 106-210-72 or within the Stream Conservation or Wetland Conservation Areas.

5. PRIOR TO FINAL INSPECTION OF THE RESIDENCE,, the applicant must receive a Final Inspection approval of the equipment barn and a sheep shelter.

6. PRIOR TO FINAL INSPECTION OF THE RESIDENCE, the applicant shall revise the Agricultural Management Plan (Agriculture Production and Stewardship Plan for 17990 Shoreline Highway at Marconi Cove, May 2009) to state that no grazing activity will occur within the Stream Conservation or Wetland Conservation Areason the property, unless the applicant submits evidence that livestock grazing was occurring in the wetlands on approximately April 1, 1981.

7. All agricultural uses on the proposed property shall be in substantial conformance with the uses approved in the Revised Agricultural Management Plan.

8. PRIOR TO FINAL INSPECTION OF THE RESIDENCE, the applicant shall submit an offer for an Agricultural Conservation Easement and Declaration of Restrictions, using the model Agricultural Conservation Easement approved by the Marin County Board of Supervisors, with provisions for a variety of perpetual uses and restrictions. The terms of the Easement include: 1) the imposition of a perpetual obligation for the active conduct of agricultural production within a designated Agricultural Production Zone that will be delineated and recorded in accordance with the Revised Agriculture Management Plan and in conformance with mandatory agricultural provisions; 2) affirmative rights and interests conveyed, whereby an outside agricultural operator may lease the subject property at reasonable rates in the event the owner of the property is unable or unwilling to continue active agricultural production on the property; 3) establishment of permitted and prohibited uses, and practices to which the property owner will be bound to adhere; and 4) extinguishment of all residential potential under zoning on the property. Should the owners fail to utilize the property for

agricultural production or fail to select an agriculture production operator, the County may pursue obtaining an operator and/or enter into a lease on behalf of the Owners. Leased lands will be managed as grazing range for livestock, at a sustainable level based on the Marin County Agriculture Commissioner's guidelines for the available forage present and the residual matter required for prudent stewardship of the land.

9. PRIOR TO FINAL INSPECTION OF THE BRANDY BARN, the applicant shall provide written verification from the State Department of Alcohol and Beverage Control granting approval for the on-site sale of alcohol.

10. All flashing, metal work, and trim shall be painted or coated with an appropriately subdued, non-reflective color.

11. PRIOR TO ISSUANCE OF A BUILDING PERMIT FOR THE RESIDENCE, the applicant shall submit a Landscape and Irrigation Plan to the Community Development Agency Director for review and approval that integrates the use of coastal native evergreen shrubs and trees along the northern, western, and southwestern elevations of the residence. The plan shall incorporate vegetation that is a minimum container size of 24 inches, and all plantings shall be labeled by their scientific and common names.

12. If archaeological, historic, or prehistoric resources are discovered during construction, construction activities shall cease, and the Community Development Agency staff shall be notified so that the extent and location of discovered materials may be recorded by a qualified archaeologist, and disposition of artifacts may occur in compliance with State and Federal law. A registered archeologist, chosen by the County and paid for by the applicant, shall assess the site and shall submit a written report to the Community Development Agency staff advancing appropriate mitigations to protect the resources discovered. No work at the site may recommence without approval of the Community Development Agency staff. All future development of the site must be consistent with findings and recommendations of the archaeological report as approved by the Community Development Agency staff. If the report identifies significant resources, amendment of the permit may be required to implement mitigations to protect resources. Additionally, the identification and subsequent disturbance of an Indian midden requires the issuance of an excavation permit by the Department of Public Works in compliance with Chapter 5.32 (Excavating Indian Middens) of the County Code.

13. All construction activities shall comply with the following standards:

    a. Construction activity is only permitted between the hours of **7:00 a.m. and 6:00 p.m., Monday through Friday**, and **9:00 a.m. and 5:00 p.m. on Saturday**. No construction shall be permitted on Sundays and the following holidays: New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. Loud noise-generating construction-related equipment (e.g., backhoes, generators, jackhammers) can be maintained, operated, or serviced at the construction site from 8:00 a.m. to 5:00 p.m. Monday through Friday only. Minor jobs (e.g., painting, hand sanding, sweeping) with minimal or no noise impacts on the surrounding properties are exempted from the limitations on construction activity. At the applicant's request, the Community Development Agency staff may administratively authorize minor modifications to these hours of construction.

    b. It shall be the responsibility of the applicant to ensure that all construction materials and equipment are stored on-site (or secured at an approved off-site location) and that all

contractor vehicles are parked in such a manner as to permit safe passage for vehicular, pedestrian, and bicycle traffic at all times.

14. It shall be the responsibility of the applicant to store all construction materials and equipment at the site (or secured at an approved off-site location) in such a manner as to permit safe passage for vehicular traffic at all times. Every effort shall be made by the holder of the building permit to strictly limit the number of vehicles used to transport workers and materials to the site to the minimum number necessary.

15. BEFORE FINAL INSPECTION OF THE RESIDENCE, the applicant shall install all landscaping and an automatic drip irrigation system in accordance with the approved landscape plan. The applicant shall call for a Community Development Agency staff inspection of the landscaping at least five working days before the anticipated completion of the project. Failure to pass inspection will result in withholding of the Final Inspection and imposition of hourly fees for subsequent reinspections.

16. BEFORE FINAL INSPECTION, the applicant shall submit a signed Statement of Completion confirming that the project has been designed and constructed in compliance with all of the measures that were used to meet the "Platinum " rating under the Marin Green Home: New Home Green Building Residential Design Guidelines.

17. BEFORE FINAL INSPECTION OF THE RESIDENCE, the Community Development Agency shall record this Notice of Decision, including all conditions of project approval, with the Marin County Recorder's Office to advise future property owners of the special use/development restrictions.

18. All utility connections and extensions (including but not limited to electric, communication, and cable television lines) serving the development shall be undergrounded from the nearest overhead pole from the property, where feasible as determined by the Community Development Agency staff.

19. The applicant/owner hereby agrees to defend, indemnify, and hold harmless the County of Marin and its agents, officers, attorneys, or employees from any claim, action, or proceeding, against the County or its agents, officers, attorneys, or employees, to attack, set aside, void, or annul an approval of this application, for which action is brought within the applicable statute of limitations.

20. Any changes or additions to the project shall be submitted to the Community Development Agency in writing for review and approval before the contemplated modifications may be initiated. Construction involving modifications that do not substantially comply with the approval, as determined by the Community Development Agency staff, may be required to be halted until proper authorization for the modifications are obtained by the applicant.

21. The Dillon Vision (Brader-Magee) Use Permit is subject to revocation procedures contained in Chapter 22.88.040I of the Marin County Code in the event any of the terms of this approval are violated or if the uses are conducted or carried out in a manner so as to adversely affect the public health, safety, morals, comfort, convenience, or welfare of the County.

Marin County Community Development Agency, Environmental Health Services (EHS) Food Service

22. PRIOR TO ISSUANCE OF A BUILDING PERMIT, the applicant shall submit complete, easily readable plans drawn to scale and specifications to the Environmental Health Services for review, and shall receive plan approval before starting any new construction or remodeling of a tasting room or any facility for use as a retail food facility.

Marin County Community Development Agency, Environmental Health Services (EHS) Sewage

(23) Applicant to submit a complete Report of Waste Water Discharge to the State Regional Water Quality Control Board, (Blair Allen), for the waste water generated by the Brandy production.

(24) PRIOR TO ISSUANCE OF A BUILDING PERMIT FOR THE BRANDY BARN, the RWQCB must also approve the Brandy production waste disposal plan.

Marin County Community Development Agency, Environmental Health Services (EHS) Water

(25) PRIOR TO ISSUANCE OF ANY BUILDING PERMIT, the applicant must submit an application to EHS to operate one or both wells in a domestic water system, and obtain a valid domestic water system permit. A detailed water system map will be required for the water system permit. Domestic storage tank(s) capacity shall be IN ADDITION TO fire control requirements.

26. Fencing requirements shall be determined during an on site inspection of the wells. The minimum distance between the fence and well source (25 to 100 ft.) can be determined during the new well's sanitary seal inspection.

27. PRIOR TO FINAL INSPECTION, the water system must be completed and inspected.

Department of Public Works – Land Use & Water Resources

28. All Improvements shall conform to Title 24 of the Marin County Code or as approved by DPW and the Fire Department. Site plans shall be drawn to scale acceptable to the County (generally 1"=20' or greater).

BEFORE ISSUANCE OF A BUILDING PERMIT, the applicant shall comply with the following:

29. Plot proposed easements, if any, on the site plan.

30. Parking requirements for the brandy barn shall comply with MCC 24.04.340 and MCC 24.04.360. Include a table summarizing proposed uses and the minimum required parking spaces based on the aggregate of individual uses.

(31) If brandy bar will be open to the public the following items will apply.

a. Revise accessible parking stall location to comply with federal and state guidelines.
b. Add the following note on the site plan, "Accessible path of travel as indicated on plan is a barrier free access route without any abrupt level changes exceeding ½ inch beveled at 1:2 max slope, or vertical level changes not exceeding ¼ inch max and at least 48-inches wide. Surface is slip resistant, stable, firm, and smooth. Cross slope does not exceed 2% and slope in the direction of travel is less than 5% unless otherwise indicated."
c. Add the following note on the site plan, "Contractor to verify that all barriers in the path of travel have been removed or will be removed under this project, and path of travel complies with CBC 1133B."
d. Provide accessible parking stall signs

e. Provide "Tow-Away" signs along with the contact information.
f. Plans must clearly show the path of travel.
g. Provide a continuous bank of detectable warning surface where a walk crosses or adjoins a vehicular way, and the walking surface is not separated by curbs, railings, or other elements.
h. The minimum improved width of a driveway serving non-residential uses shall be eighteen feet. MCC 24.04.260 (d).

32. Driveways over eighteen percent shall be surfaced with PCC and given a broomed or otherwise roughened finish MCC 24.04.300. Applicant shall consider utilizing pervious material where slopes are under eighteen percent.

33. Submit a manure management plan and fertilizer control plan in accordance with the best management practices. For additional information you may reference the following links: www.mcstoppp.org less toxic pest control, http://mcstoppp.org/acrobat/Horse%20Manure%20Mangement.PDF

34. Specify the total area of site disturbance on the site plan. If the area exceeds 1 acre, provide a copy of the Notice of Intent filed with the State Water Resources Control Board.

35. A separate building permit is required for site retaining walls with a height of 4 feet or taller or 3 feet when backfill areas is sloped or has a surcharge (measured from the bottom of footing to the top of the wall.

36. A registered engineer shall design the site retaining walls, drainage and grading plans. Plans must have the engineer's signature and stamp.

37. Provide engineering calculations for the retaining walls, calculations shall show a minimum of 1.5 factor of safety for sliding and overturning.

38. Provide a cross-sectional details for the proposed walls.

39. Submit an Erosion and Siltation Control Plan which addresses both interim (during construction) and final (post construction) control measures. MCC 24.04.625 and 24.04.627.

Marin County Fire Department

40. All conditions must be met to comply with California Public Resources Code Section 4290 and 4291, and the 2001 California Fire Code Sections 901.2 - 902.2.4.2, 903, and 16, and 17 of Appendix II-A, including access, addressing, defensible space, and fire protection water supply, propane tank installation (Note that if a gate is contemplated, Fire Department approval for gates on the access road and/or driveway is required. If the gate is locked in any fashion, a MCFD Knox rapid entry system is mandatory).

41. Fire Department holds will be placed on the building permit for this project. The defensible space must be in-place prior to releasing the Fire Department foundation inspection hold. The building department will not inspect the foundation before the fire department has released the hold. The final hold will be lifted when all Fire Department requirements are met, including payment of all required fees.

APPENDIX H

Federal and State Agency Letters regarding the Magee Farm Project

DEPARTMENT OF THE ARMY
SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS
1455 MARKET STREET, 16TH FLOOR
SAN FRANCISCO, CALIFORNIA 94103-1398

MAY 03 2012

RECEIVED
MAY 04 2012
CALIFORNIA
COASTAL COMMISSION

REPLY TO
ATTENTION OF

Regulatory Division

Subject: File Number 2011-00176N

Mr. Tony Magee
P.O. Box 575
Point Reyes, California 94956

Dear Mr. Magee:

This correspondence is in reference to our inquiry letter, dated January 30, 2012, requesting additional information regarding importation and placement of fill material into an onsite creek channel, and subsequent site investigation located at 17990 Shoreline Highway in the Town of Marshall, Marin County, California (APN 106-220-20).

On March 7, 2012, the Corps completed a site visit in order to investigate the above activities and prepare an approved jurisdictional delineation map depicting the location and extent of waters of the United States occurring within the study area boundary. Based on this visit, it is clear that rock material was imported for the maintenance of a ranch road and that various other activities were initiated for the preparation of construction on the site. However, no evidence of unauthorized fill into jurisdictional waters of the U.S. was observed during the visit.

Our Office of Counsel has recommended that no legal action be initiated at this time. Before you engage in any future work within Corps jurisdiction you must obtain prior authorization from the Corps. Failure to do so will result in our taking appropriate legal action. A pamphlet is enclosed to aid you in preparing any future application.

All proposed discharges of dredged or fill material occurring below the plane of ordinary high water in non-tidal waters of the United States; or below the high tide line in tidal waters of the United States; and within the lateral extent of wetlands adjacent to these waters, typically require Department of the Army authorization and the issuance of a permit under Section 404 of the Clean Water Act of 1972, as amended (33 U.S.C. § 1344 *et seq.*). Waters of the United States generally include the territorial seas; all traditional navigable waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters subject to the ebb and flow of the tide; wetlands adjacent to traditional navigable waters; non-navigable tributaries of traditional navigable waters that are relatively permanent, where the tributaries typically flow year-round or have continuous flow at least seasonally; and wetlands directly abutting such tributaries. Where a case-specific analysis determines the existence of a "significant nexus" effect with a traditional navigable water, waters of the United States may also include non-navigable tributaries that are not relatively permanent;

wetlands adjacent to non-navigable tributaries that are not relatively permanent; wetlands adjacent to but not directly abutting a relatively permanent non-navigable tributary; and certain ephemeral streams in the arid West.

The enclosed compact disc with an electronic copy of the delineation map entitled, "Jurisdictional Determination, Based on Site Visit with Bryan Matsumoto, Corps of Engineers on March 7, 2012, Magee Property, Marin County, California," in one sheet date certified April 27, 2012, accurately depicts the extent and location of wetlands and other waters of the U.S. within the study area boundary of the site that are subject to U.S. Army Corps of Engineers' regulatory authority under Section 404 of the Clean Water Act.

This approved jurisdictional determination is based on the current conditions of the site, as verified during a field investigation of March 7, 2012, a review of available digital photographic imagery, and a review of other data included in our files. This approved jurisdictional determination will expire in five (5) years from the date of this letter, unless new information or a change in field conditions warrants a revision to the delineation map prior to the expiration date. This approved jurisdictional determination is presumed to be consistent with the official interagency guidance of June 5, 2007, interpreting the Supreme Court decision, *Rapanos v. United States*, 126 S. Ct. 2208 (2006).

You are advised that the approved jurisdictional determination may be appealed through the U.S. Army Corps of Engineers' *Administrative Appeal Process*, as described in 33 C.F.R. Part 331 (65 Fed. Reg. 16,486; Mar. 28, 2000), and outlined in the enclosed flowchart and *Notification of Administrative Appeal Options, Process, and Request for Appeal* (NAO-RFA) Form. If you do not intend to accept the approved jurisdictional determination, you may elect to provide new information to this office for reconsideration of this decision. If you do not provide new information to this office, you may elect to submit a completed NAO-RFA Form to the Division Engineer to initiate the appeal process; the completed NAO-RFA Form must be submitted directly to the Appeal Review Officer at the address specified on the NAO-RFA Form. You will relinquish all rights to a review or an appeal, unless this office or the Division Engineer receives new information or a completed NAO-RFA Form within 60 days of the date on the NAO-RFA Form. If you intend to accept the approved jurisdictional determination, you do not need to take any further action associated with the Administrative Appeal Process.

You may refer any questions on this matter to Bryan Matsumoto of my Regulatory staff by telephone at 415-503-6786 or by e-mail at bryan.t.matsumoto@usace.army.mil. All correspondence should be addressed to the Regulatory Division, North Branch, referencing the file number at the head of this letter.

The San Francisco District is committed to improving service to our customers. My Regulatory staff seeks to achieve the goals of the Regulatory Program in an efficient and cooperative manner, while preserving and protecting our nation's aquatic resources. If you would like to provide comments on our Regulatory Program, please complete the Customer Service Survey Form available on our website: http://www.spn.usace.army.mil/regulatory/.

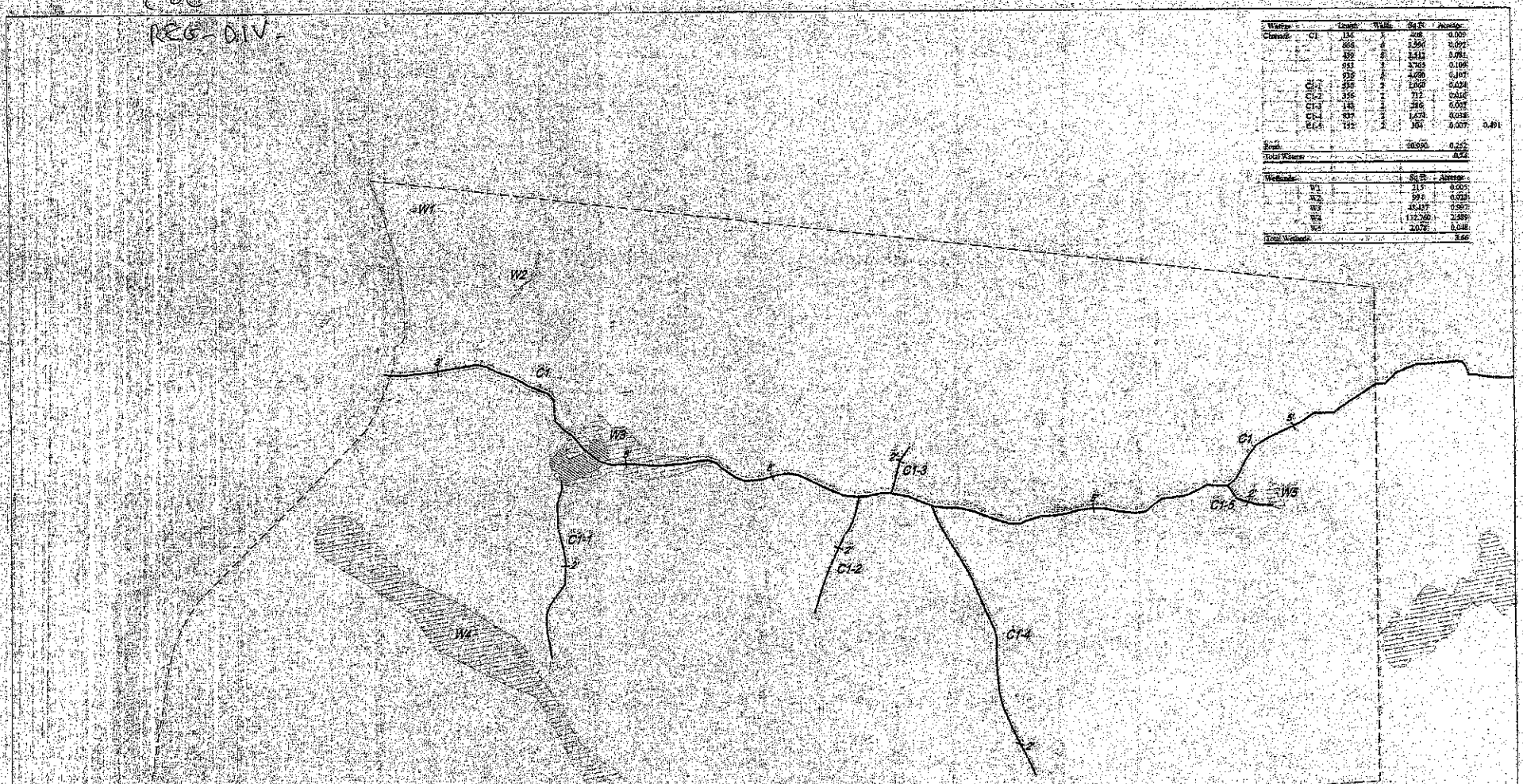
Sincerely,

for Jane M. Hicks
Chief, Regulatory Division

Enclosures

Copies Furnished (w/ map only):
US EPA, San Francisco, CA
CA CC, San Francisco, CA (Attn: John Dixon)
CA RWQCB, Oakland, CA
Zander Associates, San Rafael, CA (Attn: Leslie Zander)

REC - SF DIST -
2012 MAR 28 P 5:13
CoE -
REG-DIV -



Waters		Length	Width	Sq Ft	Acreage	
Channels	C1	132	4	528	0.009	
		666	4	2,664	0.092	
		459	8	3,672	0.084	
		933	4	3,732	0.086	
		932	5	4,660	0.107	
	C1-2	250	4	1,000	0.023	
	C1-3	356	2	712	0.016	
	C1-5	148	2	296	0.007	
	C1-4	837	2	1,674	0.038	
	C1-6	152	2	304	0.007	0.491
Ponds				38890	0.893	
Total Waters					0.93	

Wetlands		Sq Ft	Acreage
	W1	215	0.005
	W2	999	0.023
	W3	40,457	0.929
	W4	112,760	2.589
	W5	2,078	0.048
Total Wetlands			3.66

S.A. BOUND -

WET - SUB. TO
404 CWA

ST. CH. SUB. TO
404 CWA

POND SUB. TO
404 CWA

.49
.25
3.46

Scale: 1" = 100'

Jurisdictional Determination
Based on Site Visit with Bryan Matsumoto, Corps of Engineers on March 7, 2012
Magee Property
Marin County, California

Date: 03/12

Plate
1

Simon, Larry@Coastal

From: Gates, Natalie <natalie_gates@nps.gov>
Sent: Tuesday, February 19, 2013 4:19 PM
To: Simon, Larry@Coastal
Cc: Gordon White
Subject: Re: Magee farm project in Marshall

Larry,

The NPS does not have any other comments on the proposed project at this time. Thank you for checking in with us.

I will be leaving Point Reyes at the end of this week and Gordon White (Gordon_White@nps.gov) will be Acting in my stead. I have cc'd him on this email.

Best,

Natalie

Natalie B. Gates
National Park Service
Chief, Natural Resource Management
Point Reyes National Seashore
Tel: 415-464-5189
Fax:415-464-5183

On Tue, Feb 19, 2013 at 2:00 PM, Simon, Larry@Coastal <Larry.Simon@coastal.ca.gov> wrote:

Hi Natalie – finishing my staff report on the above project for a March CCC hearing. My notes indicate that NPS does not have serious concerns about potential view impacts from this project. Anything changed? Thanks,

Larry

Larry Simon

Federal Consistency Coordinator

Energy, Ocean Resources and Federal Consistency Division

State of California
Department of Fish and Wildlife

Flex your POWER

Memorandum

Date: January 10, 2013

To: Mr. Larry Simon
Federal Consistency Coordinator
Energy, Ocean Resources and Federal Consistency Division
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105
lsimon@coastal.ca.gov

From: Scott Wilson, Acting Regional Manager
California Department of Fish and Wildlife – Bay Delta Region, 7329 Silverado Trail, Napa, California 94558

Subject: Magee Farm Project, Marin County

This memorandum is in response to your request concerning California Department of Fish and Wildlife (CDFW) review of the Magee Farm Project in Marin County. CDFW reviewed plans and reports that Coastal Commission staff provided and participated in a site visit on February 14, 2012.

As Trustee for the State's fish and wildlife resources, CDFW has jurisdiction over the conservation, protection, and management of the fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of such species for the benefit and use by the people of California.

The subject 150-acre property is located on the east side of State Highway 1 near Marshall in Marin County. Development on the property currently consists of unpaved, two-track farm roads accessing all portions of the property; a partially silted-in stock pond behind an earthen dam on the lower reach of a stream on the property; perimeter and interior livestock fencing; a small hops cultivation field and water tank on the south side of the parcel; a generator-powered water well that supplies the hops field water tank; four empty water tanks stored in the southeast corner, southwest corner, and the northern side of the property; an electrical power pole, pump shed, and water tank on the northern edge of the stock pond; and an aerial power line extending from Highway 1.

The proposed project is comprised of agricultural operations, construction of a single-family residence, agricultural support buildings, commercial sales room, and infrastructure to support the development. Infrastructure improvements include driveways and parking, retaining walls, farm roads, water well and tanks, septic system, and power lines. Proposed agricultural development includes sheep production on 50 acres, a six acre hopyard, a vegetable and fruit garden with a greenhouse, a five-acre vineyard, and a brandy distillery.

Hydrologic Resources

For any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of a river or stream, or use material from a streambed, CDFW may require a Lake and Streambed Alteration Agreement, pursuant to Section 1600 et seq. of the California Fish and Game Code.

Based on CDFW review of the plans and inspection of the site, it appears that the project will not obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of a river or stream, or use material from a streambed and; therefore, is not jurisdictional under Section 1600 et seq. of the California Fish and Game Code. Should any new scientific or biologic data be collected, or changes made to the project description CDFW reserves the right to make a new determination of 1600 jurisdiction.

Wetland habitats are critical for migratory bird breeding and wintering habitat and provide important habitat for many species. The California Wetlands Conservation Policy goal is to ensure no overall net-loss of wetlands and to achieve a long-term net-gain in the quantity, quality, and permanence of wetlands acreage. It is the policy of the Fish and Game Commission to seek to provide for the protection, preservation, restoration, enhancement, and expansion of wetland habitat in California. The Fish and Game Commission's Wetland Policy stresses the need to compensate for the loss of wetland habitat on an acre-for-acre basis.

CDFW recommends the proposed buffer distances around the wetlands (100 feet), pond (300 feet), and riparian corridor (150 feet from the top of bank or 100 feet from the edge of the riparian corridor vegetation, whichever is greater) be considered a minimum buffer.

Species and Wildlife

CDFW recommends that trees and tree snags that provide wildlife habitat be left in place. If tree and or tree snag removal is unavoidable, then CDFW recommends the following protective measure to reduce the potential for adverse impacts:

> If construction, grading, or other project-related improvements are scheduled during the nesting season of protected raptors and migratory birds (February 15 to August 15), a focused survey for active nest of all birds shall be conducted by a qualified biologist (as determined by a combination of academic training and professional experience in biological sciences and related resource management activities) within 15 days prior to the beginning to project-related activities. The results of the survey shall be submitted to CDFW. If active nest are found, the Permittee shall consult with CDFW and the U.S. Fish and Wildlife Service (FWS) regarding appropriate action to comply with the Migratory Bird Treaty Act of 1918 and the Fish and Game Code of California, section 3503. If a lapse in project-related work of 15 days or longer occurs, another focused survey and if required, consultation with CDFW and FWS, will be required before project work can be reinitiated.

California red-legged frogs, a California Species of Special Concern, have been documented to use the area. CDFW recommends the following protective measures to reduce the potential for impacts:

1. A qualified biologist (as determined by a combination of academic training and professional experience in biological sciences and related resource management activities) shall be on-site during all construction activities. The biologist shall survey the work site 24 hours before the onset of construction activities. If California red-legged frogs are found, the qualified biologist shall contact FWS.

2. Before any construction activities begin, a qualified biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include photographs of the California red-legged frog, a description of the California red-legged

frog and its habitat, the importance of the California red-legged frog and its habitat, the general measures that are being implemented to conserve the California red-legged frog as they relate to the project, and the boundaries within which the project may be accomplished. Personnel shall also be instructed on the penalties for not complying with avoidance and minimization measures. If new construction personnel are added to the project, the contractor will ensure that the personnel receive the mandatory training before starting work.

3. Prior to the start of daily construction activities, the qualified biologist shall conduct a pre-construction survey within the area to be disturbed including under all construction vehicles that have been on the site overnight. If any California red-legged frogs are found during pre-construction surveys or during construction, all construction activities shall cease and FWS shall be notified.

4. During project activities, all trash that may attract predators shall be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas.

5. Work activities should be completed between April 1 and November 1.

6. All construction-related holes shall be covered to prevent entrapment of individuals.

7. Plastic mono-filament netting or similar material shall not be used at the project site because California red-legged frogs may become entangled or trapped in it. Acceptable substitutes include coconut coir matting or tackified hydro-seeding compounds.

Western pond turtles, a California Species of Special Concern, have been documented to use the on-site pond. CDFW recommends the following protective measures to reduce the potential for impacts:

1. Avoidance measures 1-7 above shall be adapted and applied to Western pond turtles.

2. Pre-construction surveys for Western pond turtles shall be conducted 48 hours prior to construction. CDFW should be consulted in the event that individuals of these species are found. A biological monitor should be present during construction work and check the work area, including equipment left on-site, for Western pond turtles or other sensitive wildlife species in case individuals have moved into the work area. Prior to construction work, a barrier fence should be installed surrounding the construction and equipment staging areas to protect adjacent riparian and wetland habitats.

American badgers, a California Species of Special Concern, have been documented to use the area. CDFW recommends the following protective measures to reduce the potential for impacts:

1. Pre-construction surveys for American Badger dens shall be conducted 48 hours prior to construction. Potential den locations shall be flagged. The potential burrow locations shall be inspected daily for recent badger activity. If an active burrow is encountered, all activities shall cease and CDFW should be contacted for guidance on how to proceed.

2. Work shall not commence earlier than one-half hour after sunrise and no later than one-half hour before sunset to ensure that species can be detected if they are on-site.

Rare Plants

A consulting biologist conducted rare plant surveys of the property. The result of the surveys identified some rare plants on-site. Based on review of proposed site plans and occurrence maps, the locations of rare plants appear to be avoided.

General Recommendations

Any listed, rare, or special-status species detected during project surveys or on or around the project site during project activities should be reported by completing CNDDB Field Survey Forms and submit them to CDFW in the manner described at the CNDDB website (http://www.dfg.ca.gov/biogeodata/cnddb/submitting_data_to_cnddb.asp). Copies of such submittals should also be submitted to the CDFW regional office.

Construction and development should implement the most current construction best management practices to eliminate any erosion, protect nearby habitats, reduce the construction footprint, and avoid leaks and or spills from equipment.

CDFW recommends that this project include low impact development design features such as bio swells, pervious materials, and buffer/setback distances to reduce runoff rates and concentrations of development generated pollutants.

Any fencing installed around the proposed development should be wildlife friendly to allow for the continual movement of wildlife through and across the property.

During landscape revegetation, the project proponent should not plant, seed, or otherwise introduce invasive plant species. Prohibited exotic plant species include those identified in the California Invasive Plant Council's Inventory Database, which is accessible at: http://www.cal-ipc.org/ip/inventory/weedlist.php.

All disturbed areas should be revegetated with propagules (seeds, cuttings, divisions) of locally-collected native plants. If locally collected native plants are not available, sterile or short-lived revegetation plants should be used (e.g. cereal barley or Regreen). Disturbed areas should be protected with correctly installed erosion control measures (e.g. jute, certified weed free straw, coconut fiber, or coir logs). Materials containing monofilament or plastic shall not be used.

If you have any questions, please contact Mr. Timothy Dodson, Environmental Scientist, at (707) 944-5513 or by email at timothy.dodson@wildlife.ca.gov; or Ms. Karen Weiss, Senior Environmental Scientist, at (707) 944-5525.

Simon, Larry@Coastal

From: Hardcastle, Bree <bhardcastle@parks.ca.gov>
Sent: Tuesday, October 30, 2012 12:39 PM
To: Simon, Larry@Coastal
Cc: Rodriguez, Danita
Subject: Magee farm project and Marconi Cove
Attachments: 5.20.11 XR-SITE-MARCONI-OPT-D.pdf; Th6a-9-2011.pdf

Hello Larry,

Thank you for updating me on the upcoming Magee farm project permit application scheduled to be discussed at the Commission hearing in December 2012. At this time the California Department of Parks and Recreation does not have any comments regarding the proposed development on the Magee property.

At your request I have attached the current design proposal for the Marconi Cove project. I have recently become involved in the Marconi Cove project and it is my understanding that the Coastal Commission issued a permit to Caltrans that included the Marconi Cove project as mitigation for impacts to public access. I have attached Coastal Commission staff report that I have on file for your reference.

Please let me know if you need any further information.

Thank you,
Bree

Bree Hardcastle
Environmental Scientist
Department of Parks and Recreation
Marin District
845 Casa Grande Road
Petaluma, CA 94954
(707) 769-5665 x207
Fax (707) 769-5661

Simon, Larry@Coastal

From: Allen, Blair@Waterboards
Sent: Thursday, September 13, 2012 1:26 PM
To: Simon, Larry@Coastal
Subject: RE: Magee farm project, 17990 Shoreline Hwy/State Hwy 1, Marin County

Larry -
My understanding is that the project applicant intends to submit an updated and complete Report of Waste Discharge for all discharges of wastewater and stormwater to land that are anticipated to occur as part of this project, sometime after the Coastal Commission acts on the coastal development permit application. This will include all wastewater management and discharge systems for all process wastewater (brandy manufacturing & processing including tours and tasting if applicable) and all domestic wastewater (sanitary sewage from residents, employees, customers and vistors) generated on the property and or discharged to land on the property.
The Report of Waste Discharge will also address any stormwater management systems that may discharge in proximity to the wastewater systems.

My understanding is that the Coastal Commission actions or permit requirements may affect allowable land uses and this in turn may affect the nature of the wastewaters to be generated and managed as part of the project. That information in turn is directly relevant to the Report of Waste Discharge. Given this understanding, the proposal to submit the Report of Waste Discharge after the Coastal Commission action appears to be reasonable.

Granted this creates a bit of a chicken-or-egg situation between our two agencies, and I do not have any elegant solution to offer to resolve that.

Then, a bit further down the road, the applicant will submit a Report of Waste Discharge to the Water Board in application for Waste Discharge Requirements (WDRs) for the proposed discharges of waste to land of the project. And then Water Board will review and process the ROWD as appropriate (e.g., adopt project-specific WDRs, enroll under a General WDR Order if applicable, or waive WDRs). And the Water Board staff keeps Coastal Commission staff informed of status along the way, and of course affords Coastal Commission and other interested parties the opportuntiy to review and comment on draft WDRs.

I hope that helps.

Blair Allen, P.E.,
Water Resources Control Engineer
Watershed Management Division
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400, Oakland, California 94612
510-622-2305 ballen@waterboards.ca.gov

From: Simon, Larry@Coastal
Sent: Wednesday, September 12, 2012 11:14 AM
To: Allen, Blair@Waterboards
Subject: Magee farm project, 17990 Shoreline Hwy/State Hwy 1, Marin County

Mr. Allen,

I would like to confirm with you the procedure(s) that your agency will follow regarding the above-referenced project. You and I last spoke about this project in April of this year. The applicant's representative, Larry Kennings, recently stated to me that based on a conversation between the two of you, it is his understanding that your agency will process a Report of Waste Discharge for the domestic wastewater and the brandy distillery

wastewater streams generated by the project *after* the Coastal Commission has acted on the Magee coastal development permit application (which includes an on-site wastewater disposal system). As a part of our staff report and recommendation for this project, I would like to accurately describe the regulatory process and timeline your agency will follow for this project, and describe the issues of concern that you will evaluate. Thank you for confirming and/or clarifying the Regional Board's procedures in this matter. Regards,

Larry Simon
Federal Consistency Coordinator
Energy, Ocean Resources and Federal Consistency Division
California Coastal Commission
45 Fremont St., Suite 2000
San Francisco, CA 94105
(415) 904-5288
lsimon@coastal.ca.gov
www.coastal.ca.gov

APPENDIX I

Comment Letters and Reports Submitted by the Appellants and their Consultants after the September 15, 2010, Commission Finding of Substantial Issue and prior to Publication of the Commission's February 21, 2013, staff report

RECEIVED

OCT 20 2010

CALIFORNIA
COASTAL COMMISSION

October 19, 2010

Mr. Charles Lester, Deputy Director
Ms. Ruby Pap, District Supervisor
Mr. Larry Simon, Federal Consistency Coordinator
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105

RE: Appeal No. A-2-MAR-10-022 (Tony Magee and Dillon Vision LLC, CP-09-39)
17990 Shoreline Highway, Marshall, Marin County

Dear Messrs. Lester and Simon and Ms. Pap:

We are pleased that you will be conducting a review of the proposed massive development of this extremely sensitive environmental parcel, including its blue line creek and potential impacts on the state owned Marconi Cove and Tomales Bay directly across Highway One from the approved Brandy Distillery. This is a project which has a significant visual impact from the state parks and National Seashore across the Bay. Although the applicant asserted to the Commission that the planning file is "1,000 pages," a close review shows that the Marin County planning file is skeletal. This is no doubt in part due to the County granting this seven structure development both an exemption from the master plan requirement by deeming it "minor and incidental," and also granting the project a categorical exemption from CEQA.

The master plan exemption sets a terrible precedent and renders the local plan requirement meaningless. If *this* project can be judged minor and incidental under the County's discretion, what coastal project would merit a master plan? From the brief traffic "study" to the biologist consultant's maps, which even the County found were inconsistent with the constraints mapping, it is evident that this project was simply pushed through the Marin County planning process.

Your review will be the first time a careful analysis of the project's impacts will have been conducted. For example, what happens if the applicant cannot commercially grow a sufficient number of grapes? Will the Brandy Distillery be operated on trucked in grapes from Napa or Fresno? This is definitely not a side track issue. There is a reason there is so little cultivation in the 14 miles between Pt. Reyes Station and Tomales (and beyond). This is hardscrabble, very poor soil and requires significant amendments for any cultivation. The one exception seems to be a knoll north of Pt. Reyes Station. There are no farm stands or cheese operations on this part of Tomales Bay with the exception of Pt. Reyes Vineyard and even they import grapes to augment the few grapes they attempt

to grow. The only commercial strawberries are grown six miles north and inland on Coast Guard road to Petaluma.

As a Mr. Baty wrote to the Planning Commission, this commercial development will create a significant change to the character of this part of the coast. We are attaching his letter, which we were made aware of for the first time when we recently reviewed the updated Planning Commission file. We do not know Mr. Baty and have never been in communication with him. As his comments are comprehensive and prescient, we want to make sure the Commission is aware of them.

We would like to bring the following points to your attention as you conduct the Commission's de novo review:

I. Environmentally Sensitive Habitat Area

A. As we have shown in the photographs placed on your website, there is a significant underground creek/seep which daylights on our property line with the proposed development. The drainage and environmental impact on the proposed 850' driveway and the relationship of the recently-built pig pen to the driveway's approved location deserve to be analyzed. This water flow does not appear to be noted on the applicant's drainage report to the County.

B. *In entering the applicant's property from his approved access point, if, instead of turning abruptly left and proceeding up his approved 850' driveway, one turns slightly right, one would travel on a relatively flat, existing farm road past the equipment barn and straight to the residence. Using this existing road would require less cut and fill than the 850' driveway, would be less visible to the public, and is still outside of the Stream Conservation Area.* The Herzog Geotechnical Report appears to address a completely different farm road. The applicant's new entrance to his property, and the existing farm road, are both outside of the Stream Conservation Area, thus raising questions as to why he should build this 850' eyesore. There is no agricultural activity proposed for that part of the property, so there is no need to relocate the road for that purpose. The applicant and his consultants have, as with other issues associated with this project, glossed over the development's details in their calm and misleading obfuscation. See e.g. the Magee email to the Marin County planner dated March 1, 2010:

> The historic road length was poorly cut-and-filled and would require substantial benching and retaining walls immediately adjacent to the SCA. An alternate road siting [sic] was established so that grading would be

> minimized, no retaining walls would be required, visibility from the highway and bay reduced, and proximity to the SCA eliminated..."

Yes, the applicant's proposed driveway is further away from the SCA but the new driveway is placed right over another wetland and is much more visible; nothing one could plant would mitigate it sufficiently from the viewsheds, including across the Bay. *We suggest that as you enter into the applicant's new entrance, you walk along the road that veers slightly to the right instead of going directly left up his proposed driveway, and evaluate for yourselves whether this less visible, flatter road would be the most appropriate access to the equipment barn and residence.* The applicant and Herzog are basing their assertions on an abandoned farm road, which admittedly was within the SCA where it commenced from one of the property's original gated entrance, as a specious justification for the new driveway.

The Herzog October 31, 2008 geotechnical report states:

> "It will be necessary to support retaining walls *for the driveway* and structures in bedrock on foundation."

How does this requirement apply to the 850' proposed driveway and the creek/seep conditions which we have identified on our property line? Which road is Mr. Herzog referring to? Where are the cut and fill requirements for the 850' driveway? Will the County require any of it to be paved?

C. The Brandy Distillery is to be built just 100' from the blue line creek. Under ESHA considerations, and the Commission's guidelines, is a 100' set back sufficient for a distillery so close to pristine waters?

D. In the March 15, 2010 biologist Zander letter to the Marin planner, she admits that the wetland observations only occurred during the spring and summer months. And see the October 29, 2008 Zander letter to the applicant, where she acknowledges on p. 4 that "no systematic surveys for special plants were conducted." However, on p.5, she admits that "there are eleven other special status plants that could occur on the property." How do the biologist's letters comport with the letter from the applicant to the Marin planner, dated March 1, 2010, that he would take "every conservative approach to the delineation of the property's biological features and sensitive species through a *full 12-month observation*?"

E. Page 6 of the October 29, 2008 Zander report states that "the seeps identified on the site could be considered wetlands and therefore may be subject to additional

regulations if filled/disturbed." Was the creek/seep documented by Ms. Emme's presentation to the Commission, and the photographs which we have submitted showing that it daylights at the proposed driveway, ever evaluated by the biologist or any other consultant? How can her October 2008 observations form an accurate analysis where there were subsequent changes in 2010 in location and footprint of the residence and other structures? On March 29, 2010, just days before the Planning Commission hearing, why was she asserting in a letter that the proposed development would have no impact when it was based on outdated observations?

F. Zander's February 9, 2010 letter indicates that she had observed conditions "near the developed spring in northwestern portion of the site." That apparently is not the underground creek/seep which we have described. However, we suggest that closer evaluation of the seep near the developed spring also deserves closer scrutiny. In fact, the applicant has admitted that this is a new seep that only recently appeared.

G. In the County's "Third Transmittal" dated January 14, 2009, the County had noted in Item 6 that

> "your constraints map prepared by Zander Associates is inconsistent with the site plan (Sheets 1 and 2) prepared by ILS. Please compare the location of existing and proposed roads on both plans and rectify the inconsistencies."

To accurately determine the environmentally sensitive areas and their relationship to the location and usage of the structures, as well as the roads, it is critical to accurately ascertain the boundaries of sensitive plant and habitat areas. It is highly questionable whether the applicant's consultants have done so.

H. A March 2, 2010 letter from the applicant's consultant, Kennings, to the Marin planner provides the cut and fill requirements for the residence, equipment barn and Brandy Distillery. Yet no such requirements are given for the 850' proposed driveway. Any approved driveway which "meanders" following the topography would appear less visually intrusive than the applicant's road which goes straight up the hill. From the water of Tomales Bay, and from the viewshed at Heart's Desire beach and from the National Seashore, even the old fence between our properties creates a visual rent in the view because it goes straight up the hillside and draws one's eye. For that reason we have, over the years, allowed the fence to degrade in order to mitigate this. A transcript of the Planning Commission meeting would show that the Commission chair asked the applicant and staff for the cut and fill requirements for the existing farm road, which

might support their stated need for a new, longer driveway. They responded that no such calculations had ever been made.

I. We suggest that there is some question even in accurately determining the 100' setback from the blue line creek. Having lived next to the property full-time for nearly a decade, we have observed the changing conditions of the land. The owner (Dillon Vision LLC) filled in part of the blue line creek with tons of soil and rock. We complained to the County. The County code enforcement officer made a site visit and placed a red tag on the property fence. The owner then convinced the County that he was doing "vegetation removal" and "improvement of the existing road and his ag use." This June 2006 file for Assessor Parcel No. 106-220-20 is available at the Marin County Community Development office, which also shows other infractions. Since that alteration of the land new springs and seeps have developed on both our property and the applicant's property.

II. Traffic

A. It appears that the CalTrans response to the County's request for evaluating the proposed development, dated April 7, 2010, and requesting further clarification, was submitted just days prior to the Planning Commission hearing and approval. The record does not show that CalTrans received its answers in that short time. This is another illustration of how this project has been pushed through without adequate study.

B. The above letter states:

"Please submit driveway plans, *sight lines*... for our review and comment."
"Please submit estimated generated traffic counts for *the commercial enterprise for our review and comments.*"

Yet the development was approved on April 12 by the Planning Commission, and subsequently by the Board of Supervisors. Have the issues raised by CalTrans been satisfactorily addressed, if at all?

C. In the short Transpedia Consulting traffic "study," there is no indication that any observations were made of cars and motorcycles speeding down the blind, downhill curve where the applicant (and his commercial visitors and agricultural/industrial vendors) would enter or exit. Last summer a motorcycle crashed on this curve and started a brush fire. Yesterday, October 18, 2010, a car crashed at the same location. These are matters of public record. Also, anyone travelling south on Highway One, attempting to make a left turn into the applicant's access road, would realize the

dangerous condition from that direction as well. We make this left turn daily and at any point we are alert and primed to abort the turn because we know the dangerous conditions of excessive speed and lack of an adequate sight line.

Is this traffic study adequate for the proposed development? Why is it silent on the proposed commercial use of the property, including propane and other vendor trucks, including but not limited to trucking in grapes for the distillery operations if the applicant cannot cultivate them successfully on his property?

The speed limit is 55 mph with a curve posting of 35 mph. A brief observation would show the high speed of cars going north on Highway One at the entrance/exit from the access road which is shared by the applicant, by us, and by three other houses. (It is also the emergency exit to the state park at Marconi Conference Center; the state also owns Marconi Cove, just across from the applicant's proposed Brandy Distillery.) The Clyde letter dated April 9, 2010 to Debra Stratton again shows how this project was pushed through without adequate conditions:

> "Having that sort of information on a sign at that curve, where cars may slow or stop to see if there is an immediate opportunity for a tour or to buy or taste brandy, or to try to copy phone and website information, etc. creates an extremely dangerous traffic hazard....Adding more signage regarding tours and retail sales and tastings is a big and unnecessary step towards turning the extraordinary beauty of Highway One along Tomales Bay to a Napa-style 'Highway 29' tourist run, especially where the signage promotes a non-traditional product like brandy."

III. Other Planning Issues

A. As the Caulfield letter dated November 8, 2009 to the Marin planner points out, the proposed development does not keep road, driveway and grading constraints to a minimum, and that the proposed driveway "may have significant adverse impacts on environmental quality or natural habitat." The letter raises objection as well to the master plan waiver. Indeed, the administrative file contains letters from numerous other individuals and groups raising concerns and/or objections to the scope of the proposed development. See e.g. Bridger Mitchell letter dated March 30, 2010, and other letters from Ms. Caulfield and Ms. Emme, as well as the Environmental Action Committee of West Marin and the Eastshore Planning Group.

B. Baty's letter dated April 5, 2010 to the Marin Planning Commission raises significant issues regarding the environmental and visual impact of this project. It also

objects to the proposed industrial use of the property for a Brandy Distillery where there is not even evidence that grapes can be grown in a commercially viable manner on the subject property.

C. With respect to the Brandy Distillery operations, we believe that the fire, waste and water issues raised in our July 22, 2010 supplemental appeal letter should be adequately addressed in the de novo review. Ms. Emme also submitted several letters on these points, and on other related issues. The Marin Fire Department's November 13, 2009 "requirements" letter shows that the "distillery" operations were never evaluated in terms of fire protection requirements.

Thank you very much for your careful evaluation of this proposed development. As the planning file reflects, there are a number of individuals and organizations that have raised significant questions and objections to the scope and character of this development and the inadequate nature of the County's approval process.

Very truly yours,

Scott Kivel and Lia Lund, Appellants

Enclosure: April 5, 2010 Baty Letter

THOMAS G. BATY
P.O. BOX 534, INVERNESS, CA 94937
415/669-1682

Marin County Planning Commission
Marin County Community Development Agency
3501 Civic Center Drive, Rm308
San Rafael CA 94903

April 5, 2010

RE: Brader-Magee

Dear Planning Commissioners;

I wanted to share my concerns over the proposed Brader-Magee development in Marshall.

I am concerned that the project may adversely affect the water quality of Tomales Bay. There is currently a substantial dam across the blue-line stream that runs through the property with a spillway that allows whatever remnant flow to continue to the bay. Is this water impoundment legally permitted by the State Water Board and is this the proposed water supply for this development? Has there been any quantitative analysis of stream flows on this creek and will the project affect the volume of water that currently reaches the bay? Incremental water diversions on the small streams around the bay continue to threaten the health of the bay, particularly in the dry months of the year when the south end of the bay tends towards hyper-salinity.

The development would also appear to pose risks to water quality as run-off from a vineyard and distillery could clearly harm the waters of the bay. The natural water course for the site carries water through a culvert under Highway 1 and flows across the State Parks' property at Marconi Cove before it empties into the bay at the Cove Mussel and Oyster Company aquaculture lease The North Coast Regional Water Quality Control Board is currently grappling with sediment, pesticide and herbicide issues downstream of vineyards in Napa and Sonoma Counties. Does the project describe the specific areas on the property for planting vines and does it include a management plan for the vineyards? Is there an adequate water catchment/treatment system for the distillery to ensure that no wastewater reaches the bay? While the State Parks' Marconi Cove unit of Tomales Bay State Park is currently undeveloped, the Parks' General Management Plan calls for a recreational access point and small campground that focus on the obvious water-related activities. The aquaculture lease is directly adjacent to the outfall from the project site. Have the California Department of Public Health and the Department of Fish and Game been solicited for input and comments on the potential impacts from this development?

I am also concerned about the visual impact of the proposed development. Sadly, wineries are not about gently blending into the landscapes. Rather, they are almost always about notoriety and name recognition---I believe "branding" is the current

THOMAS G. BATY
P.O. BOX 534, INVERNESS, CA 94937
415/669-1682

description of this activity. I do not profess to know what is actually needed for a functional distillery, but I look up on those hills at a substantial handful of story-poles and know that this project would represent a big increase in the commercial "built" footprint of a decreasingly rural Marshall. From a boat in the bay, the proposed placement and size of the buildings seem excessive and oversized, adding to the southward creep of fully built-out parcels.

Finally, I would like to express my concern for the ever-increasing threat of commercial interests taking advantage of our less-restrictive zoning of "agricultural" uses and the cache of West Marin in general and West Marin foodstuffs in particular. I can very easily see the day when Highway 1 north of Point Reyes Station is a continuous strip of wine tasting rooms and produce stands---whether or not they are actually selling their own farm-raised or value-added products.

There was a profile on the applicant and project in one of our local newspapers. The applicant apparently makes a very good beer. The applicant also admitted that he has no idea of whether a suitable brandy grape can be grown on the site. Is this a sufficient premise to allow the development of a distillery on our diminishing coastline?

Ideally, we would have a demonstration that serviceable grapes can be safely grown here before the distillery is built. Otherwise we will have simply succeeded in locating another industrial activity on a scenic, once rural piece of the coast

I would ask the Planning Commission to consider the questions and comments raised here and work to minimize the visual impacts and water quality threats of this project

Sincerely,

Thomas G Baty

January 10, 2011

RECEIVED
JAN 11 2011
CALIFORNIA
COASTAL COMMISSION

Mr. Larry Simon
Federal Consistency Coordinator
California Coastal Commission
45 Fremont St., Ste. 2000
San Francisco, CA 94105

Re: Magee/Dillon Vision Development, Marshall, California
Appeal A-2-MAR-10-22

Dear Mr. Simon:

We have monitored the water flow on our and Mr. Magee's property for more than a decade. Before we commenced building our house the Marin County Public Works Department (see photo #10) came out and required the person who sold us the property to construct a culvert along the common access road to catch the extreme amount of water that cascades down the hills and directly through Mr. Magee's proposed 850' driveway.

When we first met Mr. Magee, before he commenced making his plans, we attempted to explain to him about the significant water flow in the winter. But contrary to his statements to Marin County and to the Coastal Commission, nature is NOT a consideration for him. He has stated that he will do and put what he wants, where he wants, and nobody will stop him. "No" he said to the Coastal Commissioners at the September 2010 hearing, "I'm not going to put pigs there." Yet within 3 weeks of that statement to the Commissioners he in fact placed pigs in the hog structure he had built. (See photo #11) He put 5 pigs there because 6 would trigger the need for a Marin County use permit. We immediately filed a complaint with Marin County and the State Water Resources Control Board, as the pig waste was flowing directly into the blue line creek on Mr. Magee's property and from there directly into Tomales Bay. The pigs were removed the following day.

Under County regulations (and perhaps your regulations as well) he should not have built any structure until the Coastal Commission ruled on his development application, but that has not stopped him. Again, in his emails to us, he threatened retaliation for our, and our neighbors', growing concern regarding his headstrong ignoring of the environmental impact of this proposed development.

Over the last year the storey poles of the proposed 7 structure development have changed several times, including as recently as January 5, 2011. In light of Commissioner Wan's comments on September 15 regarding the need for accurate visual simulations, we expect that the Coastal Commission staff will confirm the accuracy of the existing storey poles as compared to the architectural and development plans approved by Marin County.

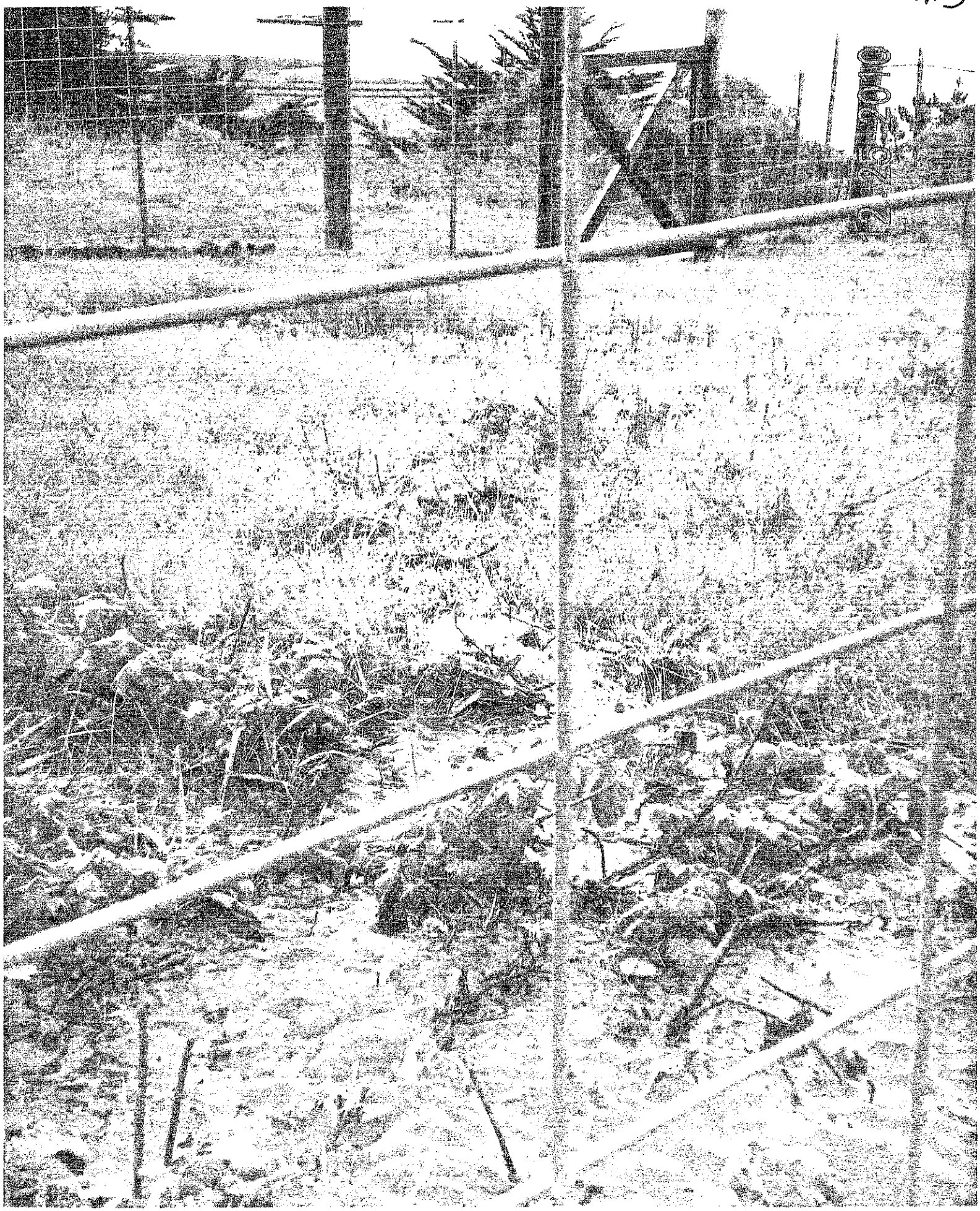
The attached 13 photos (which we will also attempt to place on the Commission's website) show where Tony Magee has positioned his driveway and pig pen and their relationship to the flow of water from the hills down into Tomales Bay. The last 3 photos show that he now acknowledges that he has a major drainage problem, and as of yesterday had workers attempting to install large pipes to divert the water. This cosmetic change may be in anticipation of a site visit by the Commission staff to show the proposed driveway as more usable, but it is not a fix on the natural water course.

Scott Kivel and Lia Lund

NZ 1

#2

#3



WATER FLOW THROUGH PIG PEN AND PROPOSED DRIVEWAY

#4

#5

MAGEE'S PROPOSED DRIVEWAY - WINTER 2009

#6

WINTER 2009 WATER FLOWING DIRECTLY DOWN PROPOSED DRIVEWAY AND DIRECTLY INTO CULVERT AND INTO BAY

#8

WINTER 2009 - WATER FLOWING DIRECTLY FROM PROPOSED DRIVEWAY INTO CULVERT INTO BAY

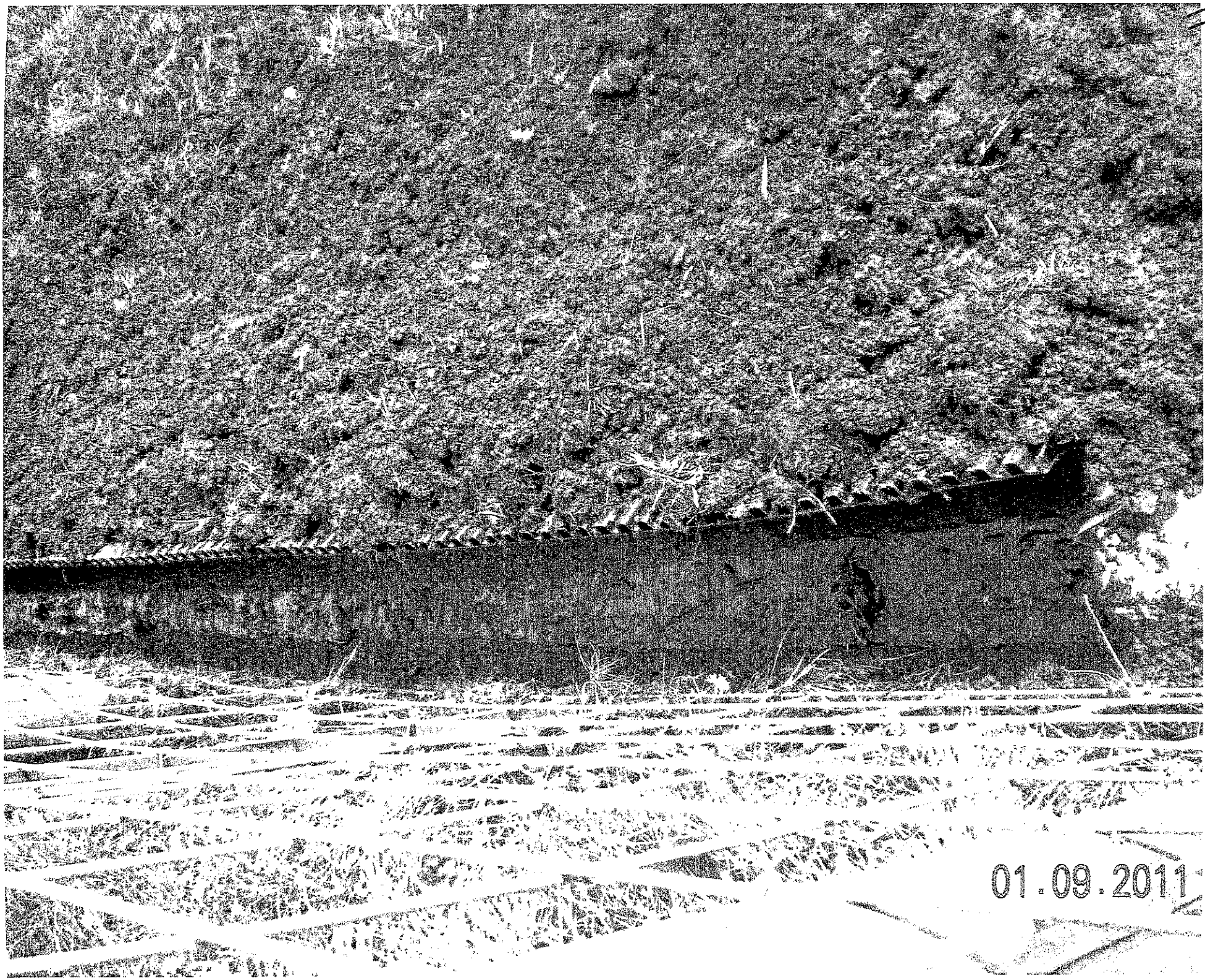
#6

#10

OCTOBER 2010 (after CCC EUREKA HEARING

11


01-08-2011


01.09.2011

MARK A. CAMERON
JOHN S. BRIDGES
DENNIS G. MCCARTHY
JACQUELINE P. MCMANUS
CHRISTOPHER E. PANETTA
DAVID C. SWEIGERT
SARA B. BOYNS
BRIAN D. CALL
SHARILYN R. PAYNE
BRIAN E. TURLINGTON
CAROL S. HILBURN
TROY A. KINGSHAVEN
MICHAEL P. BURNS

FENTON & KELLER
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
2801 MONTEREY-SALINAS HIGHWAY
POST OFFICE BOX 791
MONTEREY, CALIFORNIA 93942-0791
TELEPHONE (831) 373-1241
FACSIMILE (831) 373-7219
www.FentonKeller.com

LEWIS L. FENTON
1925-2005

OF COUNSEL
J. CHARLES R. KELLER
THOMAS H. JAMISON
GARY W. SAWYERS

February 2, 2011

JOHN S. BRIDGES

JBridges@FentonKeller.com
ext. 236

VIA U.S. MAIL AND EMAIL (clester@coastal.ca.gov)

Charles Lester
California Coastal Commission
725 Front Street, Suite 300
Santa Cruz, CA 95060

Re: Appeal No. A-2-MAR-10-022 (Magee; CP-09-39; Marin County)
Our File: 33447.31025

Dear Mr. Lester:

As a result of the Coastal Commission's finding of Substantial Issue regarding Appeal No. A-2-MAR-10-022 (Magee; CP-09-39; Marin County) we have been engaged by the appellants (Kivel/Lund) to assist them to ensure comprehensive and legally adequate review of the project occurs before the de novo hearing is held. Because the County of Marin undertook no environmental review of the project (processed it as Categorically Exempt under CEQA) and waived consideration of the critical LCP master plan requirement, there is a severe lack of technical data in the record. Accordingly, we intend to do what we can to assist Commission staff by providing technical data relevant to your analysis.

As indicated by the near unanimous Commission in finding Substantial Issue, for a project of this type in the sensitive environment where it is located, thorough environmental review and analysis is critical. We will endeavor to provide you with data pertinent to the issues of concern expressed by the Commission including, biological impacts, development in/near ESHA, traffic impacts, water quality/quantity and hydrological impacts, viewshed impacts, consistency with substantive LCP land use restrictions, compliance with LCP procedural requirements, secondary impacts, project alternatives, and adequate mitigations. We are in the process of hiring experts to address some of these issues and will submit their reports and opinions as we obtain them (of course some of the data, e.g., biological reports, must await the appropriate season in order to do necessary survey work). We encourage your staff to consult with other resource agencies (as they would have been consulted with if the County had undertaken CEQA review) including the Department of Fish and Game and the Regional Water

Quality Control Board. Additional permit requirements from such other agencies should also be addressed (e.g., a § 2018 incidental take permits).

With regard to visual impacts we request (consistent with comments from the Commission) that all structural components of the project (buildings and roads) be staked and flagged in the field to enable a thorough and accurate viewshed analysis and to inform the public about the magnitude of the project.

In addition, we understand there to be multiple code violations on the property that will require resolution and remediation before further consideration of the project can proceed. Please investigate those.

Please send us a copy of any correspondence received from or sent to the applicant since the Substantial Issue hearing that may discuss the process, requirements, or information needs pertaining to the future de novo hearing on the project. Also, as the process moves forward please send us copies of all reports, agendas, and other relevant materials.

Very truly yours,

FENTON & KELLER
A Professional Corporation

John S. Bridges

JSB:kmc

cc: Scott Kivel and Lia Lund (via email)
Ruby Pap, CA Coastal Commission (via email and U.S. Mail)
Fran Gibson (via U.S. Mail)
Linda Emme (via U.S. Mail)
Catherine Caufield (via U.S. Mail)
Thomas G. Baty (via U.S. Mail)
Carolyn Longstreth (via U.S. Mail)
Bree Hardcastle, State Parks Regional Office (via U.S. Mail)
Cicely Muldoon, Pt. Reyes National Seashore (via U.S. Mail)
Tim Reed, Gulf of the Farallones Marine Sanctuary (via U.S. Mail)
Department of Fish & Game, Marin County (via U.S. Mail)

MARK A. CAMERON
JOHN S. BRIDGES
DENNIS G. MCCARTHY
JACQUELINE P. MCMANUS
CHRISTOPHER E. PANETTA
DAVID C. SWEIGERT
SARA B. BOYNS
BRIAN D. CALL
SHARILYN R. PAYNE
BRIAN E. TURLINGTON
CAROL S. HILBURN
TROY A. KINGSHAVEN
MICHAEL P. BURNS*
KATHERINE M. HOGAN

FENTON & KELLER
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
2801 MONTEREY-SALINAS HIGHWAY
POST OFFICE BOX 791
MONTEREY, CALIFORNIA 93942-0791
TELEPHONE (831) 373-1241
FACSIMILE (831) 373-7219
www.FentonKeller.com

LEWIS L. FENTON
1925-2005

OF COUNSEL
CHARLES R. KELLER
THOMAS H. JAMISON
GARY W. SAWYERS

April 1, 2011

JOHN S. BRIDGES

JBridges@FentonKeller.com
ext. 238

VIA U.S. MAIL AND EMAIL (ralph.faust@gmail.com)

Ralph Faust
P.O. Box 135
Bayside, CA 95524

Re: Magee Application (A-2-MAR-10-022)
Our File: 33447.31025

Dear Ralph:

This letter is to follow up on our March 17, 2011, and March 30, 2011, telephone conversations regarding your client Mr. Magee, his pending application before the Coastal Commission (A-2-MAR-10-022), and your question about surface water flowing onto the Magee property from the northeast across my client's (Kivel/Lund) property.

With regard to drainage, as I explained to you, the development of my client's property (which included an engineered drainage plan) was done in accordance with plans approved and permits issued by Marin County. The County inspected the development as it was being constructed and after it was completed and signed off on it's compliance with all duly issued permits. You specifically asked about the Kivel/Lund pool. I can categorically confirm to you that no water from the pool has ever drained onto Mr. Magee's property. You claim Mr. Magee has an engineer's report that concludes differently. I have twice asked for a copy of said report and you have twice refused to provide it. You asked instead for a meeting to discuss the situation. Until we have an opportunity to review the alleged report, my clients do not believe a meeting would be constructive, particularly in light of Mr. Magee's record of harassment and intimidation of my clients (via e-mails and voicemail) all of which appears to be part a concerted strategic campaign to chill their participation in the public review process of Mr. Magee's land use application (see attached).[1] If, after we have reviewed Mr. Magee's alleged engineer's report regarding drainage, we agree a legitimate question or issue has been raised we will be glad to discuss with you the possibility of a meeting. You should also know that Mr. Magee has been

[1] A similar campaign has been waged by Mr. Magee against other participants in the public review process (e.g., neighbor Linda Emme).

Attachments unrelated to the proposed project are not included with this copy

aware of (since he began leasing his property years ago) the historical water flow onto his property, across the Kivel/Lund property, from the hills to the north and east.

With regard to the pending appeal of Mr. Magee's project, the Coastal Commission by a 9-1 vote determined the Kivel/Lund appeal raised substantial issue regarding the project's conformity with the Marin LCP and the Coastal Act. In light of that determination you expressed doubt as to whether the parties could unilaterally resolve the matter at this point. As I have mentioned to you, my clients would be glad to resolve the appeal if the project were re-designed to address the appeal issues. If Mr. Magee should propose to modify his project to address the issues raised in the appeal (which you indicated to me on the phone was unlikely to happen), my clients would be glad to work with Commission staff, as appropriate, to review and comment on such a proposal in the context of their de novo review. If agreement were to be reached regarding an alternative project my clients would be willing to recommend such agreed upon re-design to the Coastal Commission as the preferred resolution of the appeal.

I look forward to our continued dialog about the project and hope resolution can be achieved.

Very truly yours,

FENTON & KELLER
A Professional Corporation

John S. Bridges

JSB:kmc

cc: Scott Kivel/Lia Lund
California Coastal Commission c/o Larry Simon
Linda Emme

RECEIVED
APR 28 2011
CALIFORNIA
COASTAL COMMISSION

April 20, 2011

Ms. Lisa Haage, Chief of Enforcement
Ms. Jo Ginsberg, Enforcement Officer
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219

VIA FEDERAL EXPRESS

Dear Ms. Haage and Ms. Ginsberg:

On February 2, 2011, we submitted information regarding several violations of the Coastal Act (development without a permit) that we believe have occurred at 17990 Shoreline Highway (State Route 1), Marshall, Marin County, California (APN 106-220-20). We understand, based on communications your office has had with our attorney, that you are investigating these violations. Enclosed is additional information about those violations in the form of a letter report prepared by EMC Planning Group.[1]

It has now come to our attention that several additional violations may have occurred on this same property (17990 Shoreline Highway; APN 106-220-20) which also warrant your investigation and prosecution. These additional violations, if confirmed, must be remediated and the land restored and thereafter protected prior to any consideration of any other kind of permit for the property (including the permit which is the subject of appeal number A-2-MAR-10-022). The additional unpermitted development and violation of the Coastal Act includes:

1. Development of a substantial road system throughout the property including in areas of ESHA.

2. Construction of a well on the property after the Coastal Development Permit for said well had been suspended by appeal[2], and in a location different than originally approved (which location now conflicts with the proposed project leach field area) and in an area which may present potential adverse hydrologic impacts to wells on adjoining properties and to subsurface water sources that are critical to onsite wetland areas, protected California red-legged frog habitat, and other ESHA.

[1] Regarding item 3 in our February 2, 2011 letter, it now appears there is only one illegal gate because the second gate has since been closed off with wire.

[2] The well was drilled 5 weeks after the Coastal Commission's 9-1 determination the appeal raised Substantial Issue.

3. Placement of fill material into a blue line creek area without benefit of Coastal Development Permit or Army Corp of Engineers section 404 permit in a manner that degraded wetland habitat that constitutes ESHA.[3]

4. Planting of a cypress hedge to screen the property from Highway 1 in a manner that conflicts with LCP viewshed protection policies.

5. Possible removal of vegetation in the area of the proposed project vineyard without benefit of Coastal Development Permit and in a manner that may have removed sensitive plant species constituting ESHA.

Further information about these additional violations, again in the form of a letter report from EMC Planning Group, will be provided to you in early May.

We appreciate your attention to these critical matters and trust a private citizen enforcement action (PRC 30803, 30805) will not be necessary.

Very truly yours,

Scott N. Kivel & Lia Lund
18400 State Route One
Marshall, CA 94940
(415) 663-8722

Enclosures

c: Nancy Cave
Larry Simon✓
Linda Emme [18050 Shoreline Highway, PO Box 708, Marshall, CA 94940-0708]
John Bridges

[3] The current owner of the property has acknowledged, in writing, that this fill work warranted a code enforcement complaint.

Planning for Success.

April 22, 2011

Mr. Scott Kivel
18400 State Route 1
Marshall, CA 94950

Re: Supplemental Information Regarding to Coastal Act and Responsible Agency Permit Violations at 17990 Shoreline Highway (State Route 1), Marshall, Marin County, CA

Dear Mr. Kivel:

At your request and in coordination with Fenton and Keller, EMC Planning Group has conducted background data research and made observations of a portion of an approximately 150-acre undeveloped property identified as APN 106-220-20 located in northwest Marin County, California. Our research was supported by Wetlands Research Associates (WRA). Figures 1 and 2 illustrate the regional location and property vicinity, respectively. The property was purchased by Mr. Tony Magee in October 2010. Prior to this date, Mr. Magee had leased the property from the prior owner.

The purpose of our research and observations was to provide supplemental information that elaborates on potential violations of the Coastal Act and permit requirements of a responsible agency (Caltrans) on the above-referenced property. The information pertains to three potential code violations reported by Mr. Scott Kivel and Ms. Lia Lund ("Kivel-Lund"), owners of the adjacent property to the north. The violations were reported in a letter to Ms. Lisa Haage, Chief of Enforcement and Ms. Jo Ginsberg, Enforcement Officer, California Coastal Commission, dated February 2, 2011. The potential violations include:

1. Construction of an animal enclosure within and adjacent to ESHA and in violation of LCP setback requirements;

2. Construction of a natural drainage course diversion system within and adjacent to ESHA; and

3. Construction of a gate, improvements within a state highway right-of-way, and direct access onto a state highway without a required permit.

The implications of the Coastal Act violations, especially for potential adverse effects on biological resources that are explicitly protected by the Coastal Act and by policies contained in the Marin County LCP, are described. Violation of Caltrans permit requirements are also reported based on visual observations and communications with Caltrans staff.

The information included in this letter is based primarily on observations made of a portion of the subject site on February 14, 2011 from adjacent properties, review of the available County administrative record for Mr. Magee's proposed Dillon Vision LLC development (hereinafter "proposed project"), review of the available California Coastal Commission project appeal administrative record for the same project, independent research, review of aerial imagery, and information provided by Kivel-Lund. Additional information was generated based on EMC Planning Group's and WRA's professional experience, knowledge of biological resource analysis processes, biological resources with the potential to occur on and in the vicinity of the subject property, review of biological assessment reports prepared by Zander Associates (Mr. Magee's biological consultant) and review of aerial imagery.

Brief History of the Proposed Project

In May 2009, Mr. Magee made application to Marin County for approval of a Coastal Permit, Design Review, and Use Permit for a proposed agricultural development project. The Marin County Planning Commission approved the proposed project on April 12, 2010. The approval was appealed to the Marin County Board of Supervisors, who subsequently denied the appeal on May 11, 2010. The Coastal Permit approval was then appealed to the California Coastal Commission. The California Coastal Commission determined the appeal presented substantial issue with regard to the project's conformity with the Marin County LCP. As of the date of this letter, the Commission has yet to schedule and hold a de novo hearing on the appeal. While the project is under appeal, local approvals are stayed and a landowner may not modify the subject property based on the County's approvals.

Existing Biological Resource Conditions

A brief review of biological conditions within the subject property is warranted as context for assessing Kivel-Lund's Coastal Act violation assertions.

Existing biological conditions within the property were evaluated by Zander Associates in support of Mr. Magee's proposed project and initially reported in an October 29, 2008, Biological Resources Assessment Letter Report. That report was followed by additional reports/communications on special-status plant survey results, special-status species and on-site freshwater spring/seeps, and communications on riparian features and California red-legged frog and western pond turtle habitat. Zander Associates clearly concludes that the property contains diverse, highly sensitive protected habitats and provides known and potential habitat for a number of special status plant and animal species.

Though Zander Associates concludes the site contains sensitive habitat and potential habitat for special status species, substantial uncertainty exists about whether the full extent of such habitat, which qualifies as Environmentally Sensitive Habitat Area (ESHA) pursuant to the Coastal Act and Marin County Local Coastal Program (LCP), has been identified or mapped. Causes for such uncertainty include, but are not limited to:

- EMC Planning Group and WRA identified 25 special status plant species not reported by Zander Associates with the potential to occur on-site, primarily within grassland habitats. It is quite possible that a greater number of special status plant species are present than has been reported, and that potential ESHA has not been fully defined;

- The entire property was not surveyed for special status species or their habitats, which qualify as ESHA; and

- Formal wetland delineations for known wetlands or potential wetland habitat have not been conducted. Significant potential exists that wetland habitat, which qualifies as ESHA and could serve as habitat for the endangered California red-legged frog (CRLF) has not been sufficiently identified and mapped.

The uncertainty regarding sufficiency of biological resource information was reiterated in part by Mr. Larry Simon, Coastal Commission Federal Consistency Coordinator, in an email dated January 21, 2011 written to Mr. Magee and Larry Kennings, Mr. Magee's planning consultant. Mr. Simon identifies comments and suggestions made by Dr. John Dixon, California Coastal Commission Ecologist, regarding additional information needed for Coastal Staff review of the project pursuant to a de novo hearing. Dr. Dixon's comments

included: 1) vegetation on the property should be assessed in more detail within the proposed development areas; 2) there have been no quantitative vegetation surveys of the property nor is there a map showing the location of the various vegetation types; 3) apparently, a technical wetland delineation has not been conducted on the property which would be necessary in areas proposed for development (e.g. around the generally mapped existing springs); and 4) there have been no focused surveys conducted for red-legged frogs, foothill yellow-legged frogs, or western pond turtles, which the biological report states may be present on the property.

Given the high biological sensitivity of the property and the uncertainty regarding whether the full extent of ESHA has been identified or mapped, any modifications to the property, either past or future, have significant potential to impact ESHA.

Violations 1 and 2 - Construction of Pig Pen Enclosure and Surface Water Diversion

Violation Action Description. During the month of August 2010, Mr. Magee constructed a pig pen enclosure on the northern boundary of the property with no setback from the property line. The enclosure is approximately 30 feet by 120 feet and consists of an open, fenced area that at one point was also partially covered to provide shelter for pigs. An approximately 15-foot by 15-foot wood lined basin about three feet in depth was also constructed adjacent to the down slope end of the enclosure. Figure 3 shows the location and representative photographs of the enclosure.

After testifying at the California Coastal Commission public hearing on September 15, 2010, regarding the appeal of his proposed project, Mr. Magee insisted that he never intended to place pigs in the enclosure. On October 22, 2010, Mr. Magee did indeed place pigs in the enclosure. The pigs stayed about five days until a complaint was filed with the California Water Quality Control Board and Marin County, after which the pigs were removed. While pigs were in the enclosure, the soil within the enclosure was trampled and the grassland on which it was placed was destroyed.

The pig enclosure was built directly across a swale that originates upslope on the adjacent property to the north. Just upslope from the pig enclosure on the adjoining property, the swale can be characterized as a depressional feature. Surface flow in the swale is common during rainfall events. Figure 4, an aerial photograph from 2007, shows that the lower portion of the swale exhibits evidence of a drainage course, visible during the dry season, which extends onto the Mr. Magee's property at the pig enclosure location.

Prior to construction of the pig enclosure, water in the swale flowed down slope towards a depression that contains plant species indicative of saturated soils, which may be a freshwater seep. It then flowed further down slope towards the on-site highly biologically sensitive blue-line stream which drains to Tomales Bay. As far as can be determined, the potential freshwater seep has not been documented in Zander Associates' prior biological resources reports or in Mr. Magee's project description information. On-site evaluation would be needed to confirm the character and extent of the potential freshwater seep and whether it exhibits wetland characteristics.

Surface water in the swale/drainage feature drained through the enclosure until early January 2011, when Mr. Magee installed surface storm water drainage improvements along the upslope edge of the enclosure. The improvements were designed to intercept and divert surface water flows in the existing swale feature around the enclosure. The intercepted surface water is now conveyed west and down slope towards State Route 1 within an approximately four inch storm drainage pipe. That pipe discharges to a paved swale and storm water drain located along the private drive access to the property. The surface water drainage ultimately discharges into the on-site blue-line stream and then into Tomales Bay. Figure 5 includes photographs of the surface water diversion and disposal infrastructure.

In his responses on the County's Environmental Review Questionnaire for his proposed project dated May 26, 2009, Mr. Magee stated that his project would not result in a change in the course or direction of water movements or configuration of either marine or fresh water. The pig enclosure and associated surface water diversion improvements conflict with this representation

Potential Coastal Act Violations Regarding Pig Enclosure Construction and Surface Water Diversion. Construction and operation of the pig enclosure may have damaged on-site jurisdictional communities and/or degraded special status species habitats. Jurisdictional communities and habitat for special status species are considered by the County and the Coastal Act to be ESHA and are afforded substantial protection under the Coastal Act and the LCP and its implementing regulations. Potential violations of the Coastal Act related to the enclosure and surface water diversion improvements include:

- **Potential Impacts on Potential Jurisdictional State Waters (ESHA)**

  There is potential that the lower portions of the previously described drainage swale feature could qualify as a jurisdictional State Waters under the California Coastal Commission definition of a wetland. The wetland definition requires that one of several

possible wetland parameters be exhibited for a feature to be considered jurisdictional. The swale exhibits wetland hydrology during a portion of the year. The rule in the Coastal Zone is generally based on the hydric soils definition, which is that a soil is considered hydric if it is ponded or saturated for a minimum of seven (7) days during the rainy season. Photographs and repeated visits to the location of the feature indicate on the numerous days (at least seven) that swale conditions were photographed and/or observed, soils within the feature were saturated to the extent that it retained (ponded) water and conveyed surface flow. Please refer back to Figure 6 for a representative photograph of ponded water in this location. Consequently, the swale feature may well meet the hydric soils definition. Modification of a potential wetland is a significant violation of the Coastal Act and of LCP policies and implementing regulations.

- **Potential impacts on a potential previously unidentified and unmapped freshwater seep which may constitute wetland habitat (ESHA)**

  As noted above, there is potential that a previously unidentified, unmapped freshwater seep is located down slope of the pig enclosure. Potential exists that the aforementioned swale/potential wetland is hydrologically connected to this freshwater seep. The potential seep is shown in Figure 7, as is a photograph of concentrated surface flow originating from the direction of the potential seep. Diversion of surface flow in the swale could affect the quality of this potential wetland feature if in fact the two are hydrologically connected. A field visit and a wetland delineation are recommended to determine whether connectivity exists.

- **Impacts on potentially present habitat for the federally listed threatened California red-legged frog (ESHA)**

  Zander Associates identified CRLF as potentially present within the on-site pond and blue-line stream, and mentioned a limited potential for occurrence within the freshwater seeps on the property. Zander Associates identified the need for CRLF protocol-level surveys to determine the on-site presence of the species. If such surveys were conducted, the County record does not contain survey results. Mr. Magee testified to the California Coastal Commission that CRLF presence on the property is assumed. Due to the lack of formal delineations on the site and insufficient habitat mapping, the full potential extent of on-site CLRF habitat is not currently known.

  Potential CLRF habitat within the site is likely to be much more extensive than identified by Zander Associates. In fact, we believe that the pig enclosure could have been constructed within or adjacent to potential CRLF habitat. Figure 8 shows that if

the swale feature is determined to be jurisdictional and the presence of a previously unidentified freshwater seep is confirmed and determined to be jurisdictional, a 100-foot wetland seep ESHA buffer would need to be maintained around both. In addition, a 200-foot buffer from the features could be warranted due to their potential to serve as freshwater non-breeding habitat for CRLF. It is possible that the area could also be used for CRLF disbursal between known freshwater habitat (on-site pond and blue-line stream) and the noted features and upland refugia, if such were to exist in the area.

- **Potential Wetland (ESHA) Water Quality Degradation**

  Surface water drainage conveyed through noted swale feature and through the pig enclosure may have indirectly and adversely affected ESHA. Surface runoff flowing through the pig enclosure could have picked up pathogens and other contaminants found in pig waste and conveyed the contaminants down slope into areas that could potentially be used as dispersal corridors for CLRF. It is possible that contaminants could also have been carried into the blue-line stream and subsequently into Tomales Bay, thereby degrading the quality of ESHA for a range of special status plant and/or animal species.

  The State Water Quality Control Board administers regulations regarding control of waste discharges from confined animal facilities that have potential to be a source of point and/or non-point water quality contamination. The *Statewide Water Quality Regulations for Confined Animal Facilities* from Title 27, Division 2, Subdivision 1 of the California Code of Regulations provides basic standards to be observed to address control of animal waste. None of the actions needed to ensure consistency with the standards had been implemented by Mr. Magee prior to placing pigs in the enclosure.

Improper County Waiver of a Coastal Permit Requirement for the Pig Enclosure and Associated Surface Water Diversion. In response to Mr. Magee's construction of the pig enclosure and installation of pigs in the enclosure (which the record suggests was intentionally located on the Kivel-Lund property line as close to the Kivel-Lund house as possible), Kivel-Lund filed a complaint with Marin County. The complaint was acknowledged by the County's Code Enforcement Specialist in a letter dated December 1, 2010 to Mr. Magee. County staff appears to have met with Mr. Magee and discussed the structure/surface water diversion installation. On January 13, 2011, County staff sent a letter to Mr. Magee along with an attached "Building Permit and Coastal Permit Exclusion" application packet with direction to pay related fees and complete the application.

County staff assumed that construction of the pig enclosure and infrastructure qualified for a Coastal Permit Agricultural Exclusion based on staff's characterization of the structure as a "barn, storage, equipment and other necessary buildings". However, County staff did not recognize that the structure/improvements had potential to adversely affect jurisdictional communities and special-status species habitat considered as ESHA. The County's Agricultural Exclusion Notice explicitly states that agricultural projects are only excluded from requirements for a Coastal Permit in certain circumstances as follows:

> The following agricultural projects are categorically excluded when located: 1) on property zoned agricultural (C-ARP or C-APZ); 2) outside the area bounded by the mean high tide line and the first public road paralleling the sea or ½ mile inland, whichever is less; and 3) **outside** tidelands, submerged lands, public trust lands, **wetlands** (emphasis added), beaches, or on lots immediately adjacent to the inland extent of any beach or (or of the mean high tide line of the sea where there is no beach). (See Categorical Exclusion Maps)

Based on the potential that construction of the pig enclosure and surface water diversion infrastructure could directly and indirectly adversely impact potential wetland ESHA and potential special-status CRLF ESHA, these facilities may require a Coastal Permit approval. As part of a thorough assessment of on-site biological resources and jurisdictional waters, a formal wetland delineation should have been required for all areas of the subject property, including at the on-site extent of the swale area and at the potential freshwater seep area. This information is critical in determining whether Mr. Magee's pig enclosure and water diversion infrastructure required a Coastal Permit and/or is inconsistent with the LCP

Violation of setback requirements is also cause for requiring a Coastal Permit. The enclosure constitutes development under the Coastal Act and a structure under the LCP (section 22.02.680-I), which defines a structure as:

> "Structure" means anything constructed or erected the use of which requires location on the ground or attachment to something having location on the ground.

The pig enclosure was constructed immediately on the property line in violation of zoning setback requirements that pertain to structures. The enclosure is not an exception to uses that require a setback under the LCP (22.72.015I Exemptions to yard requirements). The purpose of setbacks ("yards") is to provide for open areas and to provide separation of incompatible land uses (22.72.010-I). A Yard must be open space which is unoccupied and unobstructed from the ground upward (22.02.720-I).

If Mr. Magee wishes to retain the enclosure, a variance from the County's setback requirements would likely be required. If this is the case, this is another reason the structure cannot qualify for a Coastal Permit exclusion.

Violation 3: Unpermitted Installation of a Gate and Related Access Improvements within a Caltrans Right-of-Way

Violation Action Description. Mr. Magee has recently installed an access gate on the western property fence line along State Route 1 near the southwest corner of the property. Figure 9 shows a photograph of the gate recently taken from State Route 1. The fence line to the right which trends towards the top of the photograph marks the southern boundary of the property. Mr. Magee is using the gate for direct access onto State Route 1 from his property. In order to facilitate ingress and egress, Mr. Magee apparently also placed fill in the vegetated swale located between the edge of the highway pavement and the gate to form a "bridge" to the gate.

It is assumed that this gate was installed to facilitate access to planned improvements (i.e. hop yard and hop barn) that are part of Mr. Magee's proposed project. This assumption is based on the fact that tracks of vehicles entering the property at this location cross previously unmodified grasslands to connect with an existing farm road that then leads to the proposed hop yard and hop barn locations. Until recently, the existing road also had direct access to State Route 1 through a gate. That gate has since been wired closed, leaving the new gate as the only known access from State Route 1 to the southern portion of the property south of the blue-line stream.

The previously undocumented use of the new south gate for purposes of the proposed project appears to be confirmed in an email communication from Mr. Larry Simon to Mr. Larry Kennings, Mr. Magee's project planner, dated February 10, 2011, in which Mr. Simon states:

> Also, when I visited the site last summer, Tony mentioned that the access road to the hop and sheep shelters would not be as illustrated on the plans, but in fact would more closely follow the southern property line. This change must be reflected on revised plans.

In the same email, Mr. Simon also states:

> The plans I have in this office do not appear to accurately reflect what Marin County approved OR what Tony is proposing.

The new gate is not identified on Mr. Magee's proposed project plans that were approved by the County. The County Planning Commission staff report for the proposed project dated April 12, 2010 contains reference to related Public Works items. Item "M – Public Works Projects" on page nine of the staff report contains no mention or evidence that new access to State Route 1 is proposed. Therefore, no project conditions or permit requirements related to such an access are identified and no permit was issued.

Failure to Obtain Encroachment Permit. Direct access onto a state highway such as State Route 1 requires an encroachment permit from Caltrans. Typically, proposed construction activities or land modifications (i.e. placement of fill) within a Caltrans right-of-way also triggers the need to obtain an encroachment permit (email communication with Luis Medina, Caltrans, April 8, 2011). Such access/construction activity must be consistent with standards contained in Caltrans' *Standard Private and Commercial Driveway Approach: Rural Areas with Unimproved Frontage on Conventional State Highways.* These standards require that engineered plans for such improvements be submitted as part of an Encroachment Permit application.

A public records request was filed with Caltrans by Kivel-Lund on March 17, 2011 to determine if Mr. Magee or any other interest had requested approval of an Encroachment Permit from Caltrans. On April 7, 2011, Caltrans responded that no application has been made. Caltrans' Maintenance Division typically addresses Encroachment Permit violations by issuing a notice of violation to the property owner.

As a prerequisite to approving an Encroachment Permit, Caltrans requires CEQA documentation for the proposed improvements. CEQA documentation is required to determine if potential impacts of obtaining access/constructing improvements within the Caltrans right-of-way exist and have been mitigated. The proposed project did not include creating new direct access onto State Route 1 or placing fill within a Caltrans right-of-way. Therefore, the County's determination that Mr. Magee's proposed project was exempt from CEQA, as found in the County's April 1, 2010 Notice of Exemption, did not consider whether these actions had the potential to create significant impacts. Consequently, the existing environmental documentation for the proposed development project is insufficient to meet Caltrans needs for issuing an Encroachment Permit.

Based on the location of the gate and related access road, uncertainty exists whether sensitive biological resources and/or possible ESHA (i.e. for CRLF) exists at the gate location. If so, those resources could have been adversely impacted by placement of fill in the roadside swale. Appropriate surveys and studies are recommended to determine the presence of potential ESHA and related impacts.

Summary

Past actions by Mr. Magee, both as property owner and prior lessee of the property have resulted in verifiable and other potential modifications of the property. The modifications have potential to substantially and adversely affect ESHA, which is highly protected both under the County LCP and its implementing regulations and by the Coastal Act and its implementing regulations. Substantial gaps regarding existing biological resource conditions and the extent of potential ESHA on the property exist, making conclusive determination of environmental impacts of modifying the property impossible. This fact necessitates further resource survey, study, and analysis. The new State Route 1 gate modifications were made without a required encroachment permit from Caltrans, without environmental review, and without a Coastal Development permit.

In conjunction with its own investigation and issuance of a cease and desist order, we recommend that Coastal Commission staff refer this independent account of on-site potential Coastal Act and Marin County LCP violations to state and federal jurisdictional resource agencies including: California Department of Fish and Game, State Water Quality Control Board, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and Caltrans, for their independent review and possible investigation.

We are available to provide you and/or Coastal Commission code enforcement staff with further assistance regarding the information provided. Should you have any questions, please feel free to contact us.

Sincerely,

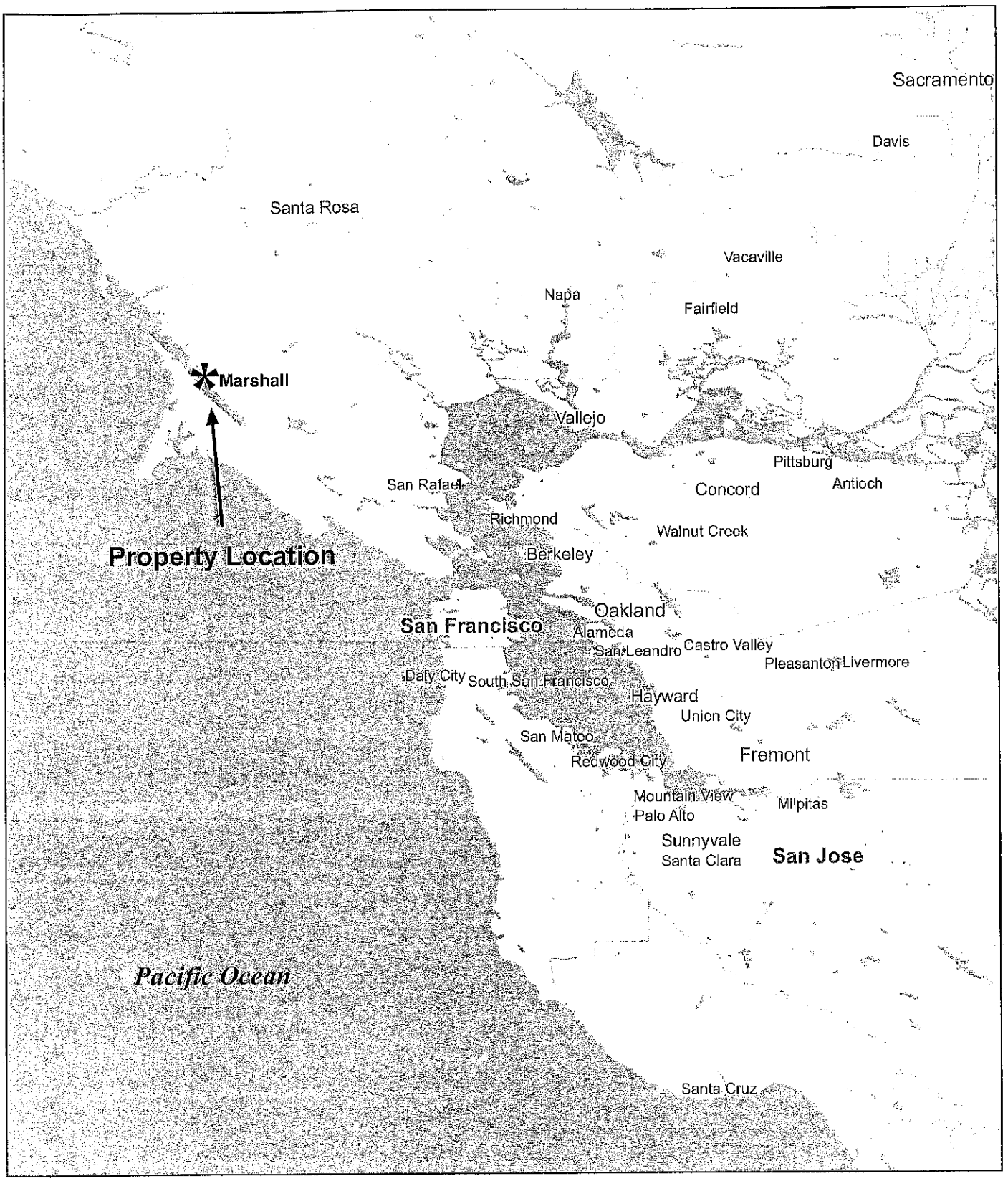
Ron Sissem
Principal Planner

cc: John Bridges, Fenton and Keller

Attachments

Figure 1	Regional Location
Figure 2	Property Vicinity
Figure 3	Pig Enclosure Location and Photographs
Figure 4	Swale Drainage Course

Figure 5 Surface Water Diversion Infrastructure
Figure 6 Swale Saturation and Ponding – Potential Wetland
Figure 7 Photographs of Potential Wetland Seep
Figure 8 Potential Seep/Wetland Habitat Buffer
Figure 9 New State Route 1 Access Gate

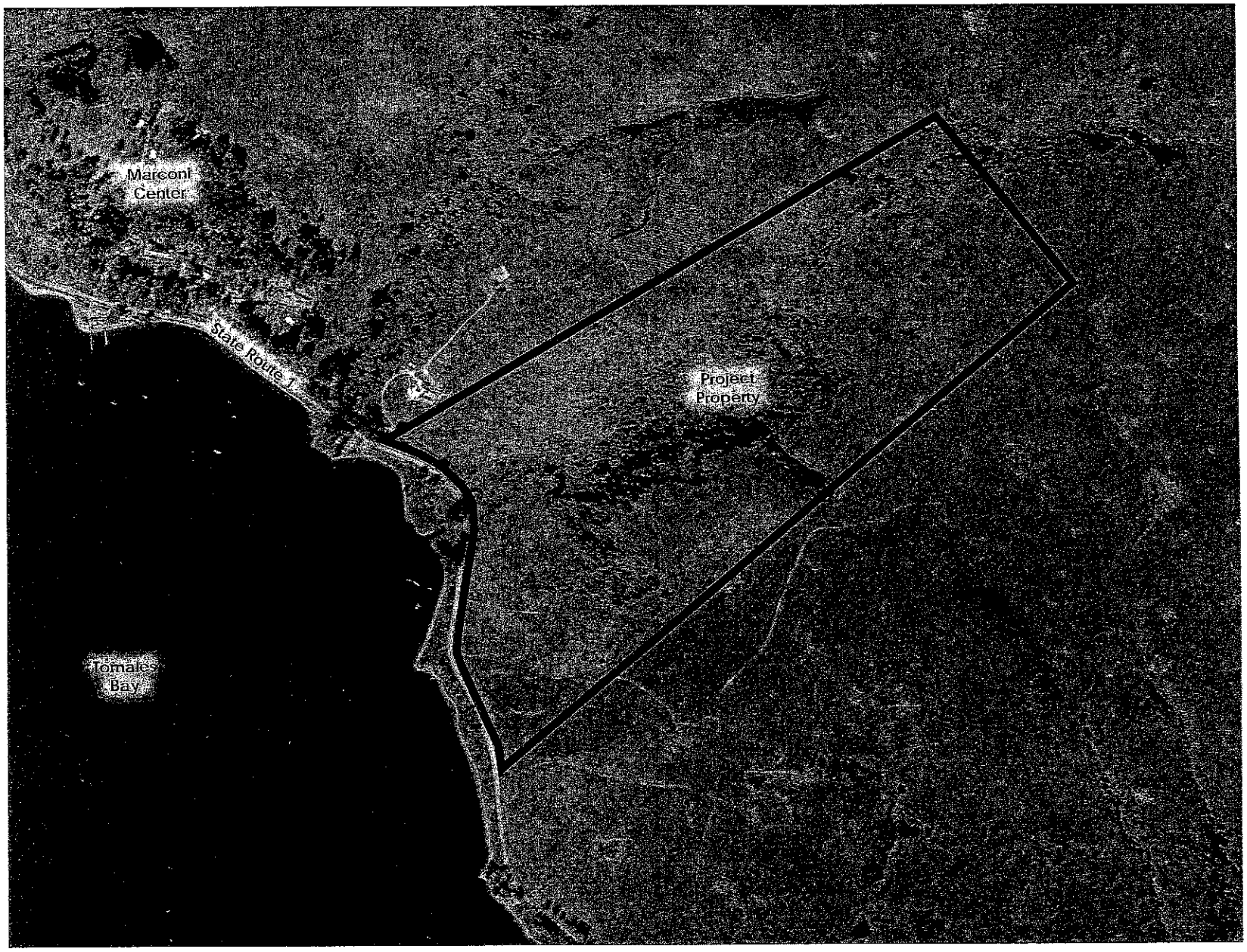


Source: ESRI 2010

Figure 1

Regional Location

17990 Shoreline Highway, Marshall, California
Coastal Act Violation Supplemental Information



0 850 feet

Approximate location of property boundary

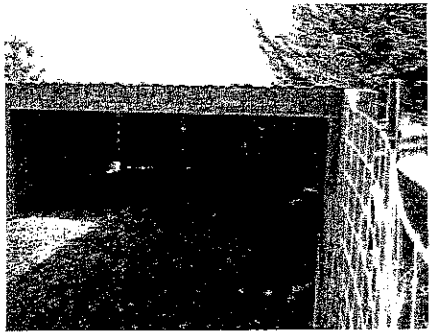
Source: EMC Planning Group 2011
Google Earth 2010

Figure 2
Property Vicinity

17990 Shoreline Highway, Marshall, California
Coastal Act Violation Letter Supplemental Information

1

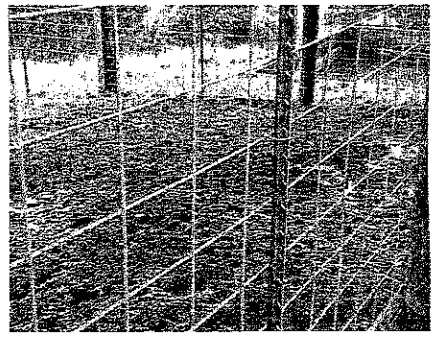
2



3

Approximate location non-permitted pig enclosure

Approximate location of property line



4

5

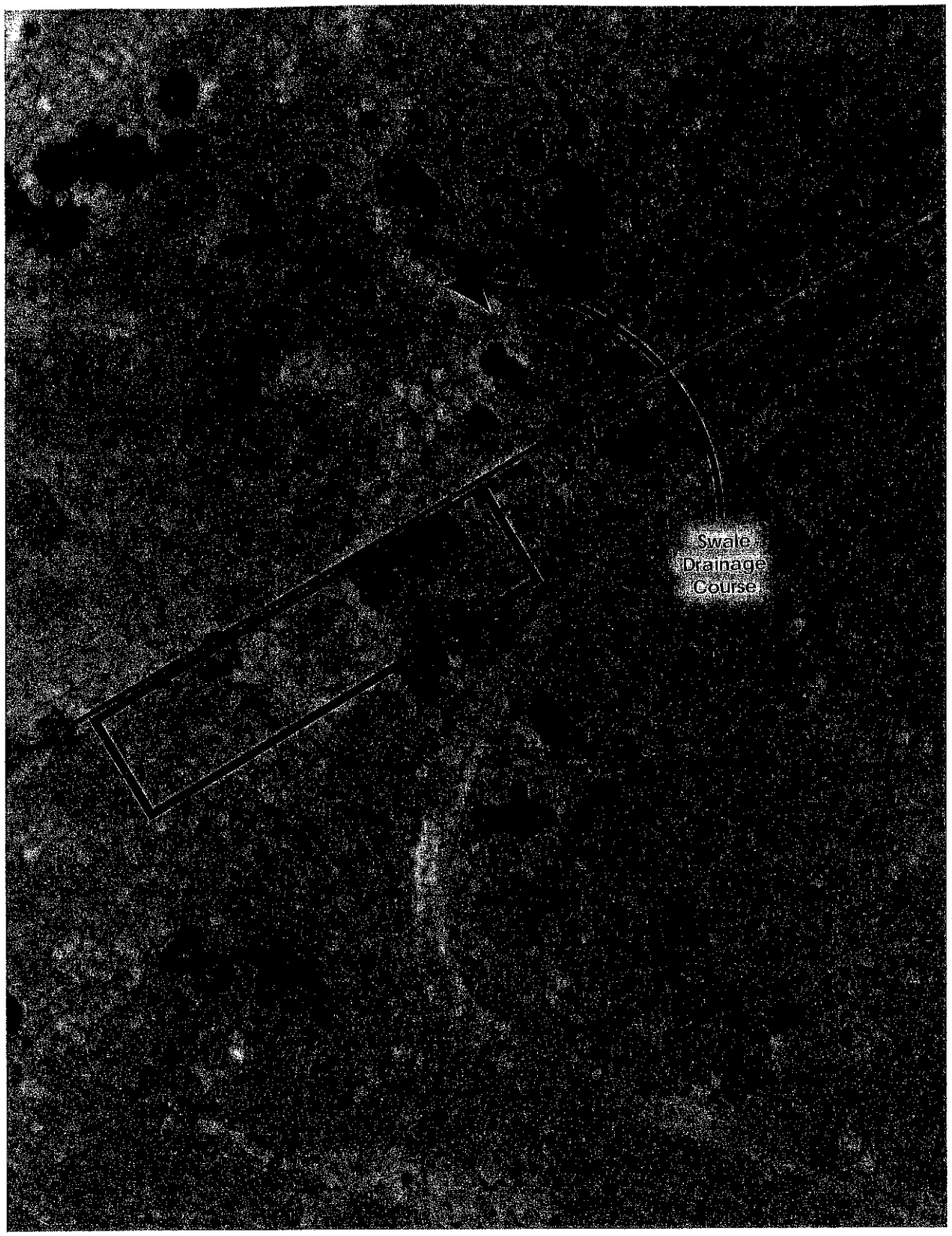
6

Source: EMC Planning Group 2011, Google Earth 2010

Figure 3

Pig Enclosure Location and Photographs

17990 Shoreline Highway, Marshall, California
Coastal Act Violation Letter Supplemental Information



Approximate location non-permitted pig enclosure

Approximate location of property line

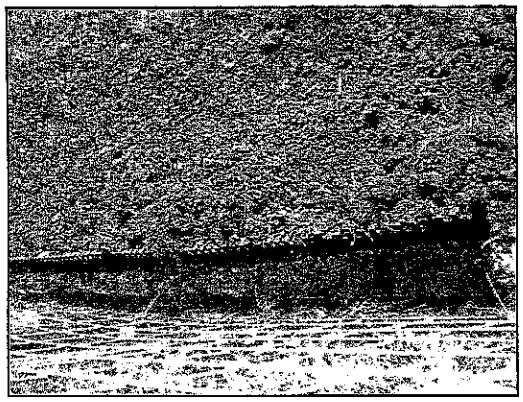
0 40 feet

Source: EMC Planning Group 2011
Google Earth 2009

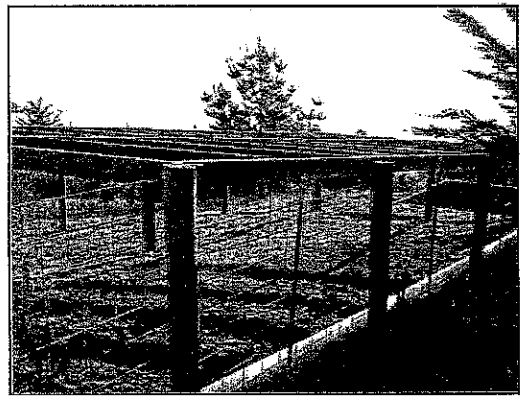
Figure 4

Swale Drainage Course

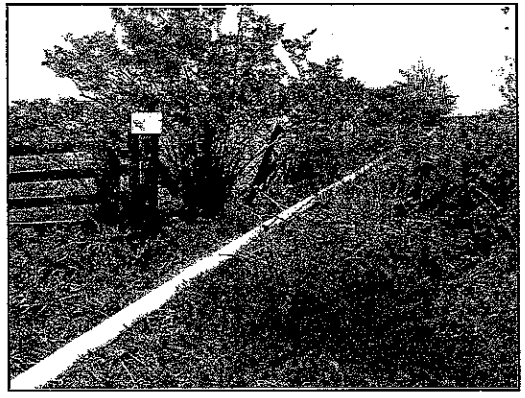
17990 Shoreline Highway, Marshall, California
Coastal Act Violation Letter Supplemental Information



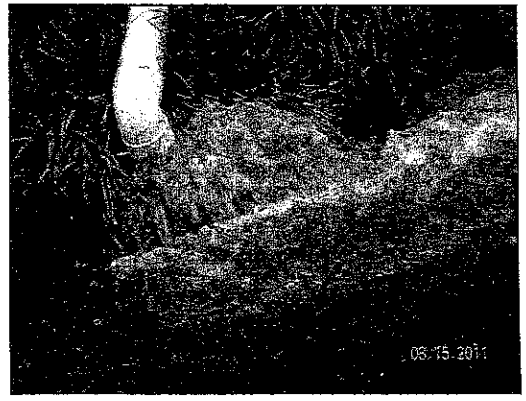
(1) Open pipe to capture swale surface flow along northeast edge of pig enclosure



(2) Closed 4-inch pipe to convey diverted swale flow to west down hill



(3) Looking east uphill to enclosure from property entrance road



(4) Diverted flow discharge at property entrance road

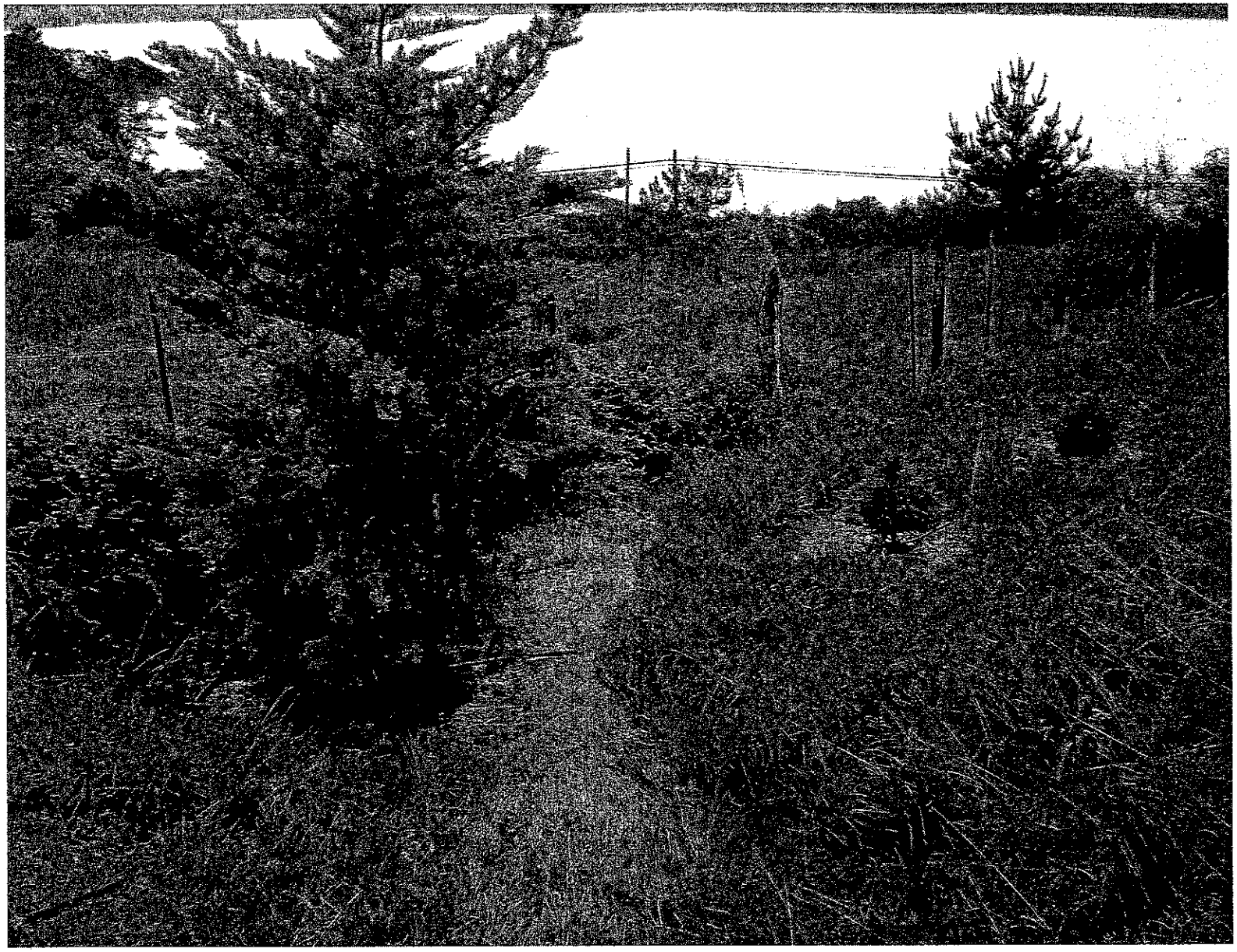
(5) Diverted flow directed to storm drain, which ultimately discharges to Tomales Bay

Source: EMC Planning Group 2011

Figure 5

Surface Water Diversion Infrastructure

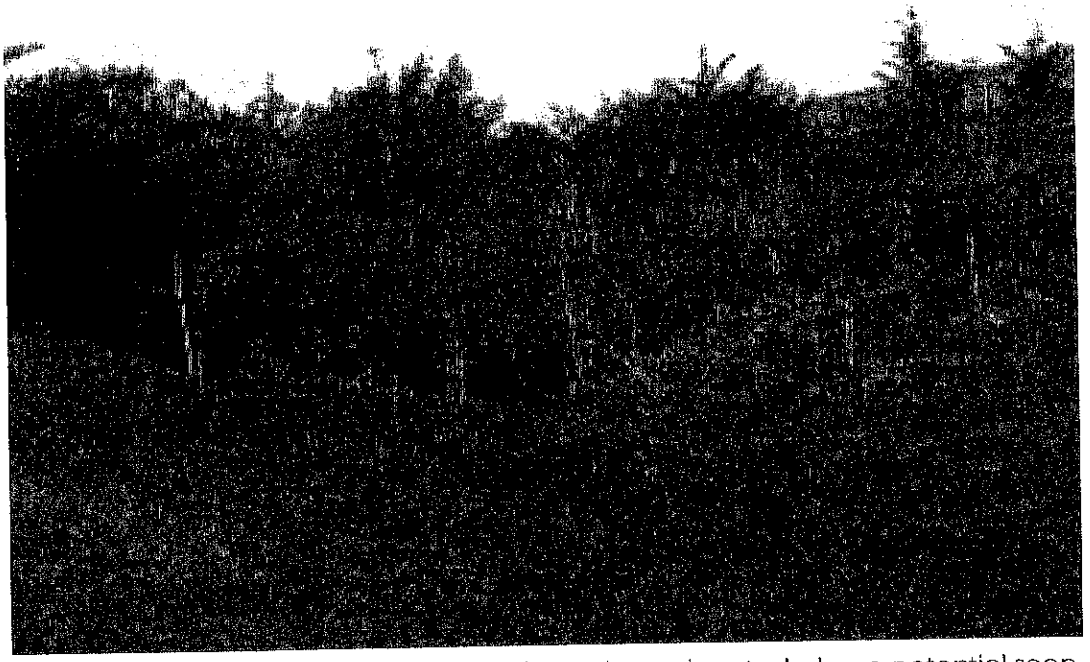
17990 Shoreline Highway, Marshall, California
Coastal Act Violation Letter Supplemental Information



Source: EMC Planning Group 2011
Scott N. Kivel and Lia Lund 2011

Figure 6
Swale Representative Ponding - Potential Wetland

17990 Shoreline Highway, Marshall, California
Coastal Act Violation Letter Supplemental Information



Location of potential freshwater seep. Pig enclosure located above potential seep.

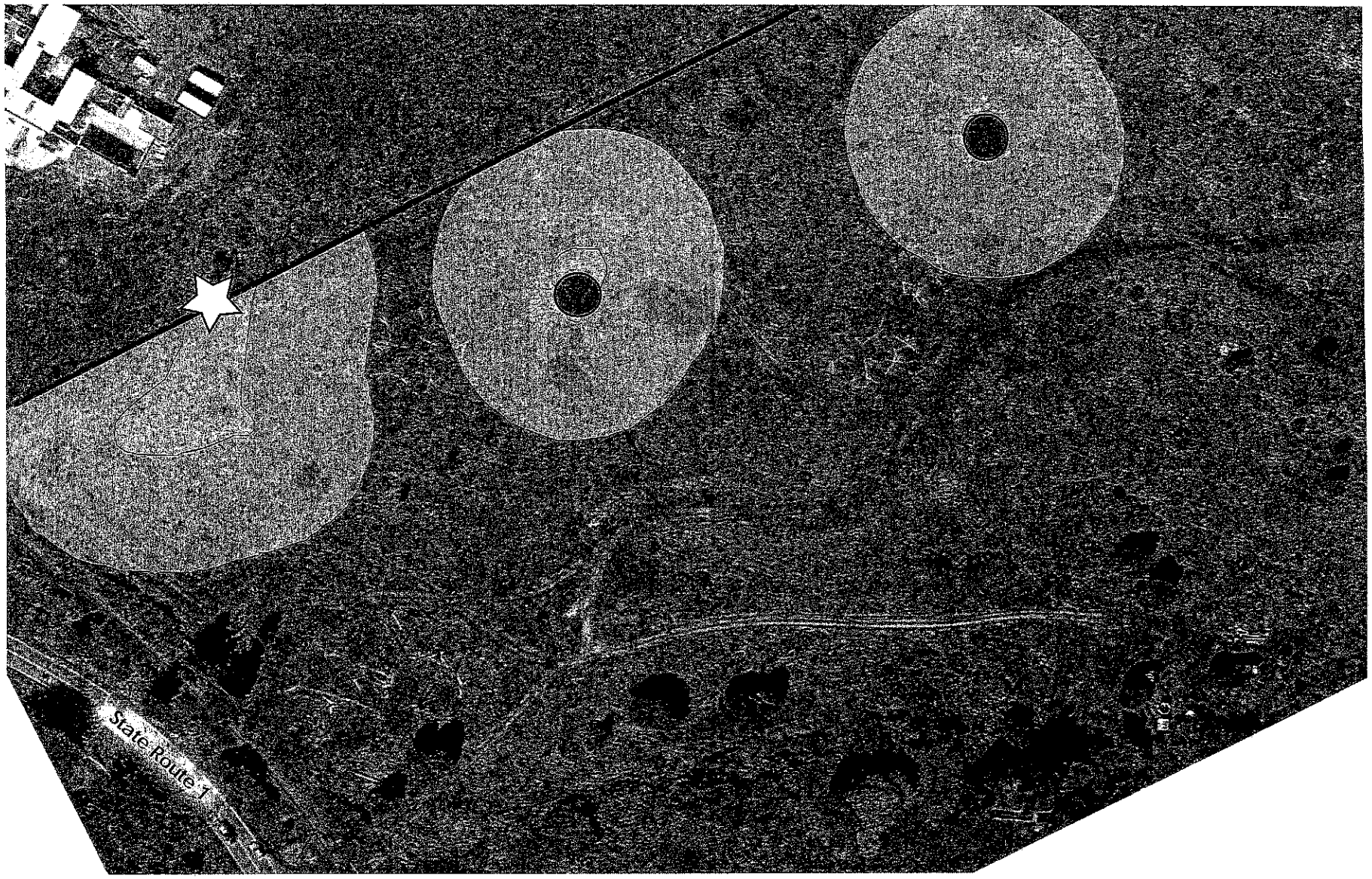
Surface flow from direction of potential freshwater seep.

Source: EMC Planning Group 2011

Figure 7

Photographs of Potential Wetland Seep

17990 Shoreline Highway, Marshall, California
Coastal Act Violation Letter Supplemental Information



0 115 feet

Approximate Location Potential 100-foot Wetland Seep ESHA Buffer

Approximate Location Potential Wetland/ Wetland Seep

Approximate Location Property Line

Approximate Location Existing Spring

Approximate Location Pig Enclosure

Source: EMC Planning Group 2011
WRA 2011

Figure 8

Potential Seep/Wetland Habitat Buffer

17990 Shoreline Highway, Marshall, California
Coastal Act Violation Letter Supplemental Information

Source: EMC Planning Group 2011

Figure 9

New State Route 1 Access Gate

17990 Shoreline Highway, Marshall, California
Coastal Act Violation Letter Supplemental Information

E M C

May 6, 2011

Ms. Lisa Haage, Chief of Enforcement
Ms. Jo Ginsberg, Enforcement Officer
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219

VIA FEDERAL EXPRESS

Dear Ms. Haage and Ms. Ginsberg:

On April 20, 2011, we submitted information regarding several additional violations of the Coastal Act (development without a permit) that we believe have occurred at 17990 Shoreline Highway (State Route 1), Marshall, Marin County, California (APN 106-220-20). Enclosed is information about those violations in the form of a letter report prepared by EMC Planning Group. Thank you in advance for your prompt investigation of these violations.

As previously stated, we believe all confirmed violations on the property must be remediated and the land restored and thereafter protected prior to any consideration of any other kind of permit for the property (including the permit which is the subject of appeal number A-2-MAR-10-022).

Very truly yours,

Scott N. Kivel & Lia Lund
18400 State Route One
Marshall, CA 94940
(415) 663-8722

Enclosure

c: Nancy Cave
Larry Simon
Linda Emme
John Bridges
Laurie Monarres, North Branch Chief, Regulatory Division
Gary Stern, NMFS Southwest Region Field Office
Don Rivers, CalTrans Regional Maintenance Manager
Marla Lafer, Regional Water Quality Control Board
Ryan Olah, U.S. Fish and Wildlife Service
Carl Wilcox, CDFG Region 3 Regional Manager

Planning for Success.

May 5, 2011

Mr. Scott Kivel
18400 State Route 1
Marshall, CA 94950

Re: Supplemental Information Regarding Additional Coastal Act and Marin County Local Coastal Program/Development Standard Violations at 17990 Shoreline Highway (State Route 1), Marshall, Marin County, CA

Dear Mr. Kivel:

At your request and in coordination with Fenton and Keller, EMC Planning Group has prepared supplemental information that elaborates on potential violations of the Coastal Act and Marin County Local Coastal Program (LCP) on an approximately 150-acre undeveloped property identified as APN 106-220-20 located in northwest Marin County, California. Our research was supported by Wetlands Research Associates (WRA). The property was purchased by Mr. Tony Magee in October 2010. Mr. Magee had previously leased the property from the prior owner until the time it was purchased.

The information pertains to violations reported by Mr. Scott Kivel and Ms. Lia Lund, owners of adjacent property to the north in a letter to Ms. Lisa Haage, Chief of Enforcement and Ms. Jo Ginsberg, Enforcement Officer, California Coastal Commission, dated April 20, 2011. The additional violations involve:

1. Development of roads within the property whose construction may have caused removal or damage of special-status plant species and ESHA.

2. Construction of a water well on the property after the Coastal Development Permit for said well had been suspended by appeal, and in a location different than originally approved (which location now conflicts with the proposed project leach field area) and in an area which may present potential adverse hydrologic impacts to wells on adjoining

properties and to subsurface water sources that are critical to onsite wetland areas, protected California red-legged frog (CRLF) habitat, and other Environmentally Sensitive Habitat Area (ESHA);

3. Placement of fill material into a blue line creek area without benefit of Coastal Development Permit or Army Corp of Engineers section 404 permit in a manner that degraded wetland habitat that constitutes ESHA;

4. Planting of a cypress tree hedge to screen the property from State Route 1 in a manner that conflicts with Marin County Local Coastal Program (LCP) viewshed protection policies; and

5. Possible removal of vegetation in the area of the proposed project vineyard that may have impacted grassland habitat containing special-status plant species constituting ESHA.

Information included in this letter is based on observations made of a portion of the subject property on February 14, 2011 from adjacent properties, review of the available County administrative record for Mr. Magee's proposed Dillon Vision LLC development (hereinafter "proposed project"), review of the available California Coastal Commission project appeal administrative record for the same project, independent research, review of aerial imagery, and information provided by Kivel-Lund. Additional information was generated based on EMC Planning Group's and WRA's professional experience, knowledge of biological resource analysis processes, biological resources with the potential to occur on and in the vicinity of the subject property, and review of biological assessment reports prepared by Zander Associates (Mr. Magee's biological consultant).

Brief History of Recent Discretionary Actions Regarding Proposed Development of the Property

In May 2009, Mr. Magee made application to Marin County for approval of a Coastal Permit, Design Review, and Use Permit for a proposed project agricultural development project. The Marin County Planning Commission approved the proposed project on April 12, 2010. The approval was appealed to the Marin County Board of Supervisors, who subsequently denied the appeal on May 11, 2010. The Coastal Permit approval was then subsequently appealed to the California Coastal Commission. The Coastal Commission determined the appeal presented substantial issue with regard to the project's conformity with the Marin County LCP. As of the date of this letter, the Commission has yet to

schedule and hold a de novo hearing on the appeal. While the project is under appeal, local approvals are stayed and a landowner may not modify the subject property based on local approvals.

Existing Biological Resource Conditions

A brief review of biological conditions within the subject property is warranted as context for assessing Kivel-Lund's Coastal Act violation assertions.

Existing biological conditions within the property were evaluated by Zander Associates in support of Mr. Magee's proposed project and initially reported in an October 29, 2008, Biological Resources Assessment Letter Report. That report was followed by additional reports/communications on special-status plant survey results, special-status species and on-site freshwater spring/seeps, and communications on riparian features and California red-legged frog and western pond turtle habitat. Zander Associates clearly concludes that the property contains diverse, highly sensitive protected habitats and provides known and potential habitat for a number of special-status plant and animal species.

Though Zander Associates concludes the site contains sensitive habitat and potential habitat for special-status species, substantial uncertainty exists about whether the full extent of such habitat, which qualifies as Environmentally Sensitive Habitat Area (ESHA) pursuant to the Coastal Act and Marin County Local Coastal Program (LCP), has been identified or mapped. Causes for such uncertainty include, but are not limited to:

- EMC Planning Group and WRA identified that special-status plant species not reported by Zander Associates may have potential to occur on-site, primarily within grassland habitats. It is possible that potential ESHA has not been fully defined.

  Note that in our first supplemental information letter to you, we identified that 25 special-status plant species have potential to be present that were not reported by Zander Associates. This statement must be clarified – there are 25 plant species reported for the area as rare by the California Native Plant Society, but they are not afforded the protection given to special-status species by the state or federal governments;

- The entire property was not surveyed for special-status species or their habitats, which qualify as ESHA; and

- Formal wetland delineations for known wetlands or potential wetland habitat have not been conducted. Significant potential exists that wetland habitat, which qualifies as ESHA and could serve as habitat for the endangered California red-legged frog (CRLF) has not been sufficiently identified and mapped.

The uncertainty regarding sufficiency of biological resource information was reiterated in part by Mr. Larry Simon, Coastal Commission Federal Consistency Coordinator, in an email dated January 21, 2011 written to Mr. Magee and Larry Kennings, Mr. Magee's planning consultant. Mr. Simon identifies comments and suggestions made by Dr. John Dixon, California Coastal Commission Ecologist, regarding additional information needed for Coastal Staff review of the project pursuant to a de novo hearing. Dr. Dixon's comments included: 1) vegetation on the property should be assessed in more detail within the proposed development areas; 2) there have been no quantitative vegetation surveys of the property nor is there a map showing the location of the various vegetation types; 3) apparently, a technical wetland delineation has not been conducted on the property which would be necessary in areas proposed for development (e.g. around the generally mapped existing springs); and 4) there have been no focused surveys conducted for red-legged frogs, foothill yellow-legged frogs, or western pond turtles, which the biological report states may be present on the property.

Given the high biological sensitivity of the property and the uncertainty regarding whether the full extent of ESHA has been identified or mapped, any modifications to the property, either past or future, have significant potential to impact ESHA.

Violation 1 – Construction of Roads with Potential to Impact ESHA

Potential Violation Action Description. The prior property owner and Mr. Magee have undertaken significant road creation and/or road expansion activities on the property.

As can be seen in the aerial photo from 2006 shown in Figure 1, the existence and use of farm or other access roads on the property appears to be limited; few active farm tracks or traces of former farm tracks are visible. However, the bottom aerial photo from 2007 shows that relative to 2006, substantial new road creation appears to have taken place throughout the property. Most of the new activity appears to the south of the blue-line stream, through the blue-line stream and adjacent to the stream. The nature and extent of road improvements (i.e. graded, surfaced, or drainage improvements installed) can only be confirmed through

field investigation. The new roads are plainly visible on the 2007 aerial photograph due to the fact that vegetation within the road tracks has been removed or damaged (and possibly graded in some circumstances).

Though a clear map of vegetation communities as mapped by Zander Associates was not found in the project record available to us, it appears that the new road activity occurred in areas later mapped by Zander Associates as evergreen forest, grassland habitat, and emergent wetland, as well as areas designated as Wetland Conservation Area and Stream Conservation Area.

The 2007 aerial in Figure 1 also shows a road located south of the blue-line stream that is shown on Mr. Magee's May 2009 proposed project site plan as the road which would be used to access the hop area and hop barn. This road was accessed via a gate located on State Route 1. This gate has since been wired shut and a new gate developed on State Route 1 near the southern boundary of the property. The facts underlying this new gate and Mr. Magee's failure to obtain a Caltrans encroachment permit for it are described in the prior supplemental information prepared for you regarding Coastal Act and LCP violations on the property that you conveyed to Ms. Lisa Haage, Chief of Enforcement and Ms. Jo Ginsberg, Enforcement Officer, California Coastal Commission, on April 20, 2011.

The undocumented use of the new south gate for purposes of the proposed project appears to be confirmed in an email communication from Mr. Larry Simon to Mr. Larry Kennings, Mr. Magee's project planner, dated February 10, 2011, in which Mr. Simon states:

> Also, when I visited the site last summer, Tony mentioned that the access road to the hop and sheep shelters would not be as illustrated on the plans, but in fact would more closely follow the southern property line. This change must be reflected on revised plans.

As far as is known, no "revised" plans have been prepared which reflect the change referenced by Mr. Simon.

Multiple vehicle tracks leading from the new gate indicate that it will likely be used to access a portion of the prior existing hop barn access road shown on the May 2009 site plan. The new gate now represents the only access to the area south of the blue-line stream that isn't across the blue-line stream and associated ESHA. Neither the new gate nor a road or roads leading from it are included in Mr. Magee's proposed project description. The new

road/tracks appear to cross grassland habitat as mapped by Zander Associates. This assumption must be verified against a decipherable copy of Zander Associates' Plant Communities map.

Potential Coastal Act Violations Regarding New Roads and ESHA. Creation of new roads on the property during the period 2006 to 2007 and the recent creation of new access roads in association with the new State Route 1 gate may have impacted ESHA. Figure 2 shows the Property Roads Aerial referenced above overlain on a composite map showing known and potential ESHA on the project property. Clearly there is significant potential that the roads created during this period cross through highly sensitive ESHA.

The base map showing known and potential ESHA was created using ESHA features as reported by Zander Associates (i.e. stream and wetland conservation areas, riparian areas, on-site springs, etc.) with potential additional CRLF habitat ESHA added based on U.S. Fish and Wildlife Service setback guidance and the potential presence of the additional potential seep and swale/drainage feature aquatic habitat as described in the "Supplemental Information Regarding Coastal Act and Responsible Agency Permit Violations at 17990 Shoreline Highway (State Route 1), Marshall, Marin County, CA" prepared previously for you and submitted to Coastal Commission Enforcement staff.

Intensified road activity and presumably increased vehicle movement across the blue-line stream and within emergent wetland that likely serves as special-status species habitat (i.e. for CRLF) is inconsistent with a range of existing biological resource related LCP policies and with new expanded and revised biological resources policies being proposed as part of the County's LCP update process.

LCP implementing regulation 22.56I, C Districts, I.1. regarding Wildlife Protection states:

> 1. Proposal to remove significant vegetation on-sites identified on the adopted natural resource map(s) and generally described in Section 2 of the LCP shall require a coastal permit. Significant alteration or removal of such vegetation shall not be permitted except where it poses a threat to life or property.

Policy 5.b in Section 2 of the LCP contains the following policy language regarding protected resources:

> Other Environmentally Sensitive Habitats. Other sensitive habitats include habitats of rare or endangered-species and unique plant communities. Development in such areas may only be permitted when it depends upon the resources of the habitat area…

The creation of roads across sensitive habitat is not dependent on the resources of the habitat area.

County staff's concern about the biological impacts of roads in this area is reflected in a November 12, 2009 Notice of Project Status under item 6 where staff notes:

> There are roads shown (on-site plan) that go through wetland and stream buffer areas. Development in these sensitive areas could require the evaluation of potential impacts of the project through an Initial Study.

No Initial Study was prepared for the proposed project.

Mr. Magee later clarified in a response to County staff's November 12 Notice of Project Status that the referenced roads are existing, not proposed. Nevertheless, it is clear that County staff recognizes the potential biological impacts of Mr. Magee's (and/or the prior property owner's) road creation and use patterns and their inconsistency with the County's LCP policies. A further related response from Mr. Magee notes:

> …several of the farm tracks, particularly those crossing the sensitive areas, have been eliminated. The Project Description specifies abandonment of these tracks, allowing them to return to a natural state over time.

Roads created across the blue-line stream provide much more direct access from the proposed project buildings (residence, barn, etc.) to proposed agricultural areas south of the stream than the indirect access to these areas via the new State Route 1 gate and roads. With the substantial unpermitted 2006-2007 expansion of road activity (especially) within and adjacent to the blue-line stream and related ESHA, only one direct access to the southern portion of the property (new State Route 1 gate), and Mr. Magee's proposed intensification of agricultural activities south of the blue-line stream in areas that will be accessed much more frequently in the future, it is questionable whether roads across the blue-line stream will be voluntarily abandoned and returned to a natural state. Rather, the frequency of stream crossings is likely to substantially increase.

Roads created during the 2006 to 2007 period also traverse evergreen forest and grassland habitats as later mapped by Zander Associates. These communities have potential to provide habitat for special-status plants and animals, whose presence at the property at the time the roads were created had not been evaluated and whose presence still has not been fully determined based on Zander Associates' work to date. Consequently, these roads could have adversely impacted ESHA.

Vehicles accessing the property from the new State Route 1 gate may also be damaging ESHA. New roads are being created by the fact of the continual use of the gate as access to the property. Vehicles are traversing what is believed to be grassland habitat which has potential to provide habitat for special-status plant species. Surveys for such species have not been conducted in this area to date, possibly in part because this access was never reflected in plans for the proposed project. This fact is reflected by another of Mr. Magee's responses to the County staff's November 12, 2009 Notice of Project Status where it is stated:

> No new roads are proposed for the southern portion of the property and no stakes were required. *The only new road is the unpaved driveway to the residence.*

Violation 2 – Water Well Siting, Safety and Potential ESHA Effects

Violation Action Description. Mr. Magee's Coastal Act and Use Permit application project description materials presented to the County describe a plan to develop a new water well on the north side of the on-site blue-line stream. An existing water well is located on the south side of the stream. Though Mr. Magee claims that the existing well produces a sufficient rate and volume of water to serve the demand of his entire proposed project, the County Environmental Health Services Department (EHS) stated in a February 1, 2010 Interdepartmental Transmittal that the well on the south side of the stream in 2000 had never been permitted for domestic use. Significant communications between Mr. Magee, the County Planning Department, and the County Environmental Health Services Department (EHS) occurred over time regarding the function of the existing well as part of the proposed project, the ability of the existing well to serve demand from the entire proposed project, description of the proposed well location, proposed components of the proposed project to be supplied by the proposed well versus the existing well, proposed well drilling schedule, and need for a combined water system permit. Confusion appeared to occur over time in terms of Mr. Magee's representation of the purpose, use, and location of the proposed well.

Mr. Magee's responses to EHS regarding well issues included clarification of the planned location of the new well. Figure 3 shows the planned location of the new well as illustrated in revised plans submitted by Mr. Magee dated May 2009. The planned location of two 4,950 gallon water tanks is also shown on this figure. Both the proposed well site and the water tank site are outside the building envelope for most of the primary project improvements/structures.

Based on the content of several Notice of Project Status reports prepared by the County Community Development Agency (i.e. February 2, June 25, and November 12, 2009; and February 9, 2010), EHS continued to request clarification of and information about the proposed well.

After Mr. Magee made application to the County for a Coastal Permit, Mr. Magee also applied for EHS approval to drill the proposed new well. EHS approved Mr. Magee's well permit in March 2009. A graphic accompanying the EHS approval and signed by EHS on March 3, 2009 shows that the proposed well site is approximately 200 feet from the proposed septic leach field location. This site is approximately 400 feet closer to the leach field than shown on Mr. Magee's May 2009 site plan. Hence, the well site as shown on-site plan approved by the County as part of the Coastal Permit in April 2010 is not consistent with the site that had already been approved by EHS over a year earlier. As is further discussed below, the actual location in which the well was finally drilled in October 2010 does not appear to be consistent with the location approved by EHS in March 2009, which raises questions about consistency of the location with County regulations for setbacks between well locations and septic disposal systems.

Well drilling in any location was contingent on the County's approval of a Coastal Permit. In an Interdepartmental Transmittal from EHS to Veronica Corella-Pearson, Planner, dated February 1, 2010, EHS requested that the Coastal Permit also approve the future drilling and domestic use of a water well. This fact is enforced by both the County Planning Commission and Board of Supervisors resolutions to approve the Dillon Vision LLC Coastal Permit, each of which includes the drilling of a new well as part of the project description.

Potential Coastal Act Violations Regarding Well Drilling and ESHA. The "permitted/not drilled well site" on the May 2009 site plan, the well site approved by EHS, and the third location where the well was actually drilled appear to be located within grassland habitat as reported by Zander Associates. As discussed in the "Existing Biological

Resource Conditions" section above, there is substantial uncertainty about the presence of special-status plant species and their habitat, which qualifies as ESHA, across the project site, including within the grassland habitat. Further, Zander Associates focused its plant survey work within the proposed building envelope. Consequently, special-status plant survey efforts outside of that envelope, including in locations of proposed, approved, or actual well drilling, were not thorough or systematic. Vehicles and machinery used to access both the first drilled (dry) well and the second well could have damaged or destroyed special-status plant habitat that qualifies as ESHA.

Potential Indirect Impacts to Blue-Line Stream ESHA. The available record did not include analysis or discussion of the potential impact of increased groundwater withdrawal on coastal resources, including the on-site blue-line stream. The fact that the first test well yielded no water could be an indicator that groundwater availability in the areas is limited. There is no information in the available record to determine whether the groundwater to the north of the blue-line stream is hydrologically connected to the stream. However, the proposed well site and the second new well site appear to be within the watershed of the stream. Consequently, it is likely that groundwater from which water will be drawn is connected to the blue-line stream. Because it is unknown whether increased groundwater withdraw from demand of the proposed project could cause a decrease in flows in the blue-line stream and indirectly impact ESHA, further analysis of this issue is needed. Decreased flows could degrade habitat quality for a range of special-status species, including CRLF, Coho salmon, steelhead and other species for which the blue-line stream represents potential habitat.

As part of the project consideration process, the County determined that Mr. Magee's proposed project was exempt from CEQA, as found in the April 1, 2010 Notice of Exemption. However, that determination did not consider whether groundwater extraction as proposed by Mr. Magee had the potential to adversely affect ESHA. There is no information in the record which demonstrates that the County considered this potential impact or to warrant the County's determination that the effect would be less than significant. This fact is also true for consideration of the impact of the new well on nearby wells. No evidence is presented in the record that this issue was considered or that increased groundwater withdraw would not have an impact on the function of nearby wells, the closest of which is the Kivel-Lund well, approximately 300 feet to the north of Mr. Magee's second well site. Further analysis of both issues is required.

The *Marin County Local Coastal Program: Draft LUP Policy Amendments* (January 25, 2011), include revisions to existing LCP policies. Included are revisions to standards for "Water Supply Wells and other Water Sources" as described in revised LCP Policy C-PFS-17. Standard "c" states that wells should only be allowed where a finding can be made that they will not have adverse direct or cumulative impacts on coastal resources. The existing LCP does not contain policy related to developing water supply that addresses potential impacts of related actions. The LCP revisions reflect the County's explicit recognition of the implicit state law legal mandate expressed in the Coastal Act that non-resource dependent development that would adversely impact ESHA is prohibited. Coastal Act violations related to Mr. Magee's well-drilling/water supply activities must be scrutinized in this context.

Violation of Coastal Commission Regulations Regarding "Stay" During Appeal Period. Section 13112 of the Coastal Commission regulations provides that the effect of an appeal is as follows:

> "the operation and effect of the development permit has been stayed pending Commission action on the appeal by the Commission as required by Public Resources Code Section 30623."

Based on a recent communication with EHS staff, information was obtained that a test well was drilled, presumably in the location approved by EHS in March 2009. However, according to EHS staff, no water was found at this location. Subsequently, on October 22, 2010, Mr. Magee drilled and completed a second well in the area near to or within the location of the proposed vineyard and the septic leach field. Please refer to Figure 3, which also illustrates the approximate location where the second well was drilled. This second well was completed on October 22, 2010.

Mr. Magee violated Coastal Commission regulations by drilling wells in two locations after June 1, 2010, the date that Kivel-Lund filed an appeal of the County's Coastal Permit approval with the California Coastal Commission. Further, drilling took place several weeks after the Coastal Commission's September 2, 2010 hearing at which it found substantial issue regarding the project.

Violation of LCP Policies and County Standards Regarding Well Siting. Ensuring adequate separation between domestic groundwater supply sources and potential sources of groundwater contamination such as septic disposal systems is standard practice for ensuring

public health and safety. The County's *Regulations for Design, Construction and Repair of Individual Sewage Disposal Systems* specifies setback distances between septic tanks/septic drainfield systems and various types of physical site features. The regulations apply throughout the County, including the coastal zone. The regulations state that a minimum 100-foot setback shall be maintained both between a septic tank and a domestic water well and between the edges of a septic drainfield to a domestic water well.

Based on the location of the second well drilled by Mr. Magee, it is highly questionable whether the required minimum setback between the water well and the proposed septic leach field is maintained. The second well site does not appear to be in the location previously approved by EHS in March 2009; it appears to be closer to or within the proposed vineyard area and possibly within or immediately adjacent to the planned septic leach field location as shown on Figure 3. There is no information in the record available to us that adequate setbacks were demonstrated prior to the drilling of the second well as had been done prior to EHS approval of drilling the first (dry) well.

Maintaining a setback for domestic water supply quality purposes is especially important given that the septic system will also be used to dispose of liquid wastes generated through the brandy distillation process; wastes which have a different character than typical domestic wastewater and which may have greater potential to impact ground water quality. Further, the septic disposal system is subject to review of the Regional Water Quality Control Board as a waste disposal system handling wastes from the brandy distillation process. The disposal system requires approval of Waste Discharge Requirements for the system from the Regional Board. It is unknown whether the Regional Board will approve the system as designed, require modification or relocation, or deny approval of the system.

If the required County setback or a modified setback or conditions placed on the system by the State Board cannot be demonstrated under the "new" well location conditions, Mr. Magee's septic leach field system must either be moved or redesigned or the well location must be moved in order to meet regulatory requirements. Either project modification will be subject to further review and approval of EHS and require a modification of the Coastal Permit approved by the County and may also be subject to review and approval of the State Board.

Violation 3 - Placement of Fill within Wetland ESHA

Violation Action Description. In 2006, neighbors residing on adjacent properties to the north of the project site observed that fill material had been placed within wetland ESHA

located along the on-site blue-line stream. Figure 4 illustrates the approximate location where the fill was placed. A farm road traverses this area. The road had historically been the main access to the portion of the property located north of the blue-line stream. The material was first been dumped in piles adjacent to the location it was placed. The neighbors passed by this location on a daily basis and based on their frequent observation, noted the area where fill was placed historically had been regularly saturated and ponded with water at depths of up to one foot or more. The event was reported to Marin County. A Code Enforcement Officer responded with a site visit and consultation with the prior property owner, but apparently no action was taken.

The prior property owner's apparent intention to modify this area was expressed in an email communication dated October 16, 2006 from Neil Bloomfield, the property owner at the time to Robert Harris, a County Code Enforcement officer:

> I am also winterizing the various pathways around the property, and getting both entrance ways, the north gate and south gate, ready for winter. Where there are or may be soft spots, here and there, I am filling those spots and compacting...

We believe the "entrance ways" and the "north gate" to correspond to the subject gate and access road which traverses the wetland ESHA.

It is estimated that fill was placed over an approximately 500 square-foot area. This is based on one neighbor's estimate of the amount of fill material dumped at the gate prior to its placement and on the independent corroboration of the second neighbor regarding the area over which fill was placed.

Potential Biological Impacts of Reported Fill within ESHA. The fill location is adjacent to and well within 100 feet of the blue-line stream. Prior to the fill activity, the area would have and remains (as defined by Zander Associates) characterized as potential habitat for special-status species, including the CRLF. Consequently, the area is also ESHA. The action to fill the area violated both Coastal Act and County LCP policy regarding protection of critical biological resources, including riparian and wetland habitat.

Violation 4 – Cypress Hedgerow Planting in Conflict with LCP Policies Regarding Viewshed Protection

Violation Action Description. In about the fall of 2008, Mr. Magee planted nearly 100 cypress trees up to three rows deep along the property frontage with State Route 1. Figure 5 shows the location of the plantings as well as representative photographs of the trees. When mature, the plantings would create an approximately 800-foot long, nearly uninterrupted screen along the east side of State Route 1. Prior to the plantings, vegetation other than grasslands, was largely absent along east side of the highway in this location. Views to the east of the scenic hillsides on Mr. Magee's property and surrounding properties from State Route 1 were free and open.

There appears to be no purpose for the cypress plantings other than Mr. Magee's anticipation that blocking views of his scenic property from State Route 1 would reduce visibility of his planned coastal development. This assumption is reinforced by information on page 11 of Mr. Magee's 2009 *Bader-Magee Farm Master Plan*:

> Strategically placed vegetative screen plantings, consisting of both native and drought tolerant trees and shrubs, would be located along the state highway and near the residence and agricultural support buildings to mitigate the potential visual impacts.

Mr. Magee's May 2009 site plan approved by the County as part of the Coastal Permit shows tree plantings in two segments along the east side of State Route 1. The total lineal length of the two segments is about 300 feet.

The cypress rows were planted about one and a half years before the County Planning Commission conditionally approved Mr. Magee's Coastal Permit application in April 2010. Apparently the County did not feel the premature plantings were at issue as no County action to consider their effect on coastal visual resources is known from the record.

The plantings conflict with the intent of existing LCP policy and with the County's proposed LCP update policy changes. The intent of the LCP to protect visual resources is reflected in part by the following text on page 194:

> The primary concern of the Coastal Act is to protect views to scenic resources from public roads, beaches, trails, and vista points. Tomales Bay **and adjacent lands** (emphasis added) in the Unit II coastal zone form a scenic panorama of unusual beauty and contrast.

LCP Visual Resources Policy 3.b implements this intent:

> Development shall be screened with appropriate landscaping; however such landscaping **shall not, when mature, interfere with public views to and along the coast** (emphasis added). The use of native plant material is encouraged.

LCP Visual Resources Policy 3.b. reflects the relevant section 30251 of the Coastal Act which states in part:

> The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development **shall be sited and designed to protect views to and along the ocean and scenic coastal areas**... (emphasis added).

The *Marin County Local Coastal Program: Draft LUP Policy Amendments* (January 25, 2011), include revisions to existing LCP policies. Included are Community Design policies, one of which includes revisions to existing LCP policy 3.b as referenced above. The relevant portion of the revised policy C-DES-2, Protection of Visual Resources, is as follows:

> C-DES-2 Protection of Visual Resources. Ensure the appropriate siting and design of structures to protect visual resources and prevent the obstruction of significant views, including views both to and along the coast as seen from public viewing spaces and from Highway One, Panoramic Highway, and Sir Francis Drake Boulevard. Require development to be screened with appropriate landscaping provided that **when mature, such landscaping shall not interfere with public views to and along the coast**... (emphasis added).

The proposed LCP revision recognizes and more closely complies with the implicit Coastal Act purpose of protecting scenic views along scenic coastal areas.

The cypress trees when mature will completely block views of highly visually valuable hillsides and grasslands along the coast that are an integral part of the scenic panorama along the east side of Tomales Bay as viewed from State Route 1. The planted tree rows in fact are not "strategic" in terms of the public viewshed as implied in Mr. Magee's project description, but rather a "heavy blanket" approach to screening proposed development at the expense a highly visually sensitive area. When mature, the cypress plantings will deny

the public visual access to highly panoramic views found along the coast. Consequently, the tree plantings are inconsistent with the current and proposed revisions to LCP policy and with the Coastal Act.

Development screening should be accomplished at the proposed building/improvement locations rather than at distance from those locations. The tree plantings must be removed or substantially modified to eliminate inconsistencies with the LCP and Coastal Act.

Violation 5 – Potential Vineyard Area Ground Modification and Impacts on ESHA

Potential Violation Action Description. EMC Planning Group and WRA staff observed a difference in the surface characteristics of a portion of the area in which Mr. Magee proposes a six-acre vineyard and a septic disposal system. Neighbors have corroborated that land/vegetation clearing activities occurred in this area.

The difference in vegetation characteristics can be described as a "simplification" of the vegetative groundcover. It appears that the area contains a lower level of species diversity than observed in contiguous, adjacent areas. For example, vegetation on the adjacent property to the north, on which no grading or other ground clearing activity has taken place, shows more species diversification; the two areas are separated only by a fence. Further study would be needed to verify whether the apparent change in diversity can be substantiated and if so, whether grading or another other activity may have been the cause.

Potential Biological Impacts of Potential Ground Modification. As noted previously, the project site contains known and potential habitat for a range of special-status plants and animals. The area of the vegetation anomaly is within an area defined by Zander Associates as grassland habitat. This type of habitat has potential to contain ESHA due to its potential to provide habitat for a range of special-status plant species including the Marin Checker Lily. However, based on the lack of supporting documentation for the some of the biological assessment report conclusions, it is questionable whether a comprehensive rare plant survey of the entire site, including the subject area, was ever performed consistent with accepted survey protocols. Consequently, there is uncertainty about whether or not the subject area did support or could have supported special-status plant species prior to its possible modification.

It is also possible that the subject area could have contained ESHA due to its potential to provide habitat for special-status animal species. The American badger, a species of special

concern, is one example. Zander Associates confirms that the project site contains potential American badger habitat, including within grassland habitat. Mr. Magee and Kivel-Lund have reported sighting badgers on their respective properties. Areas of old burrows that could possibly have been weathered badger den excavations were observed by EMC Planning Group's biologist within native perennial bunch grass habitat on the adjacent property in an area contiguous to the potentially modified area. It is possible that modification of the subject area, if it did occur, could have impacted potentially present American badger habitat.

It is recommended that further assessment of the potentially affected area be conducted in the form of protocol-level plant and animal surveys.

Summary

As has been described in this letter, Mr. Magee has made modifications of the subject property which may have substantially and adversely affect ESHA. Modifications were undertaken without information or apparent concern about sensitive biological resources which may exist in areas affected by the modifications. Substantial gaps regarding existing biological resource conditions and the extent of potential ESHA on the property exist, making conclusive determination of environmental impacts of modifying the property impossible. This fact necessitates further resource survey, study, and analysis. Further, well drilling and road creation has been undertaken in violation of Coastal Act regulations regarding stay of activities. Violation of LCP policy regarding visual resources has also occurred, thereby denying the public visual access to scenic resources which are implicitly protected by the Coastal Act.

In conjunction with its own investigation and issuance of a cease and desist order, we recommend that Coastal Commission staff refer this independent account of on-site potential Coastal Act and Marin County LCP violations to state and federal jurisdictional resource agencies including: California Department of Fish and Game, State Water Quality Control Board, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and National Oceanic and Atmospheric Administration Fishery Service, for their independent review and possible investigation.

We are available to assist you and/or Coastal Commission code enforcement staff with further assessment of and/or to provide additional information regarding the violations reported in this letter.

Should you have any questions, please feel free to contact me.

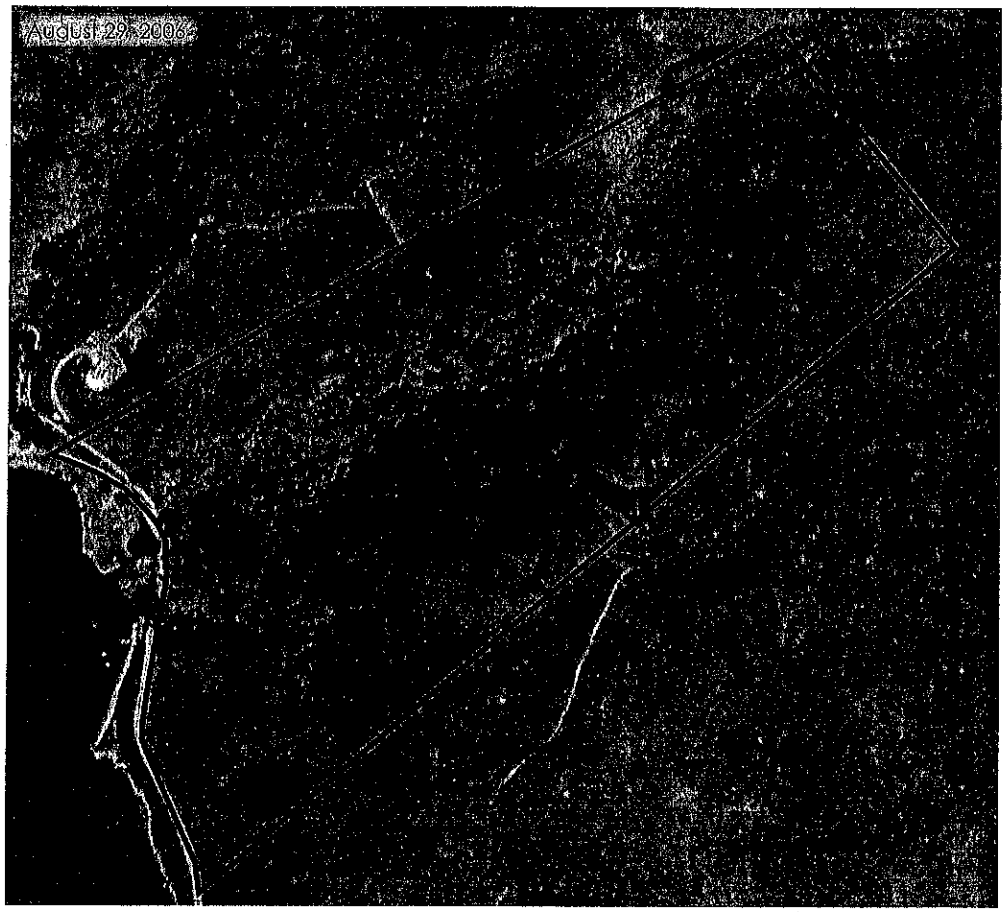
Sincerely,

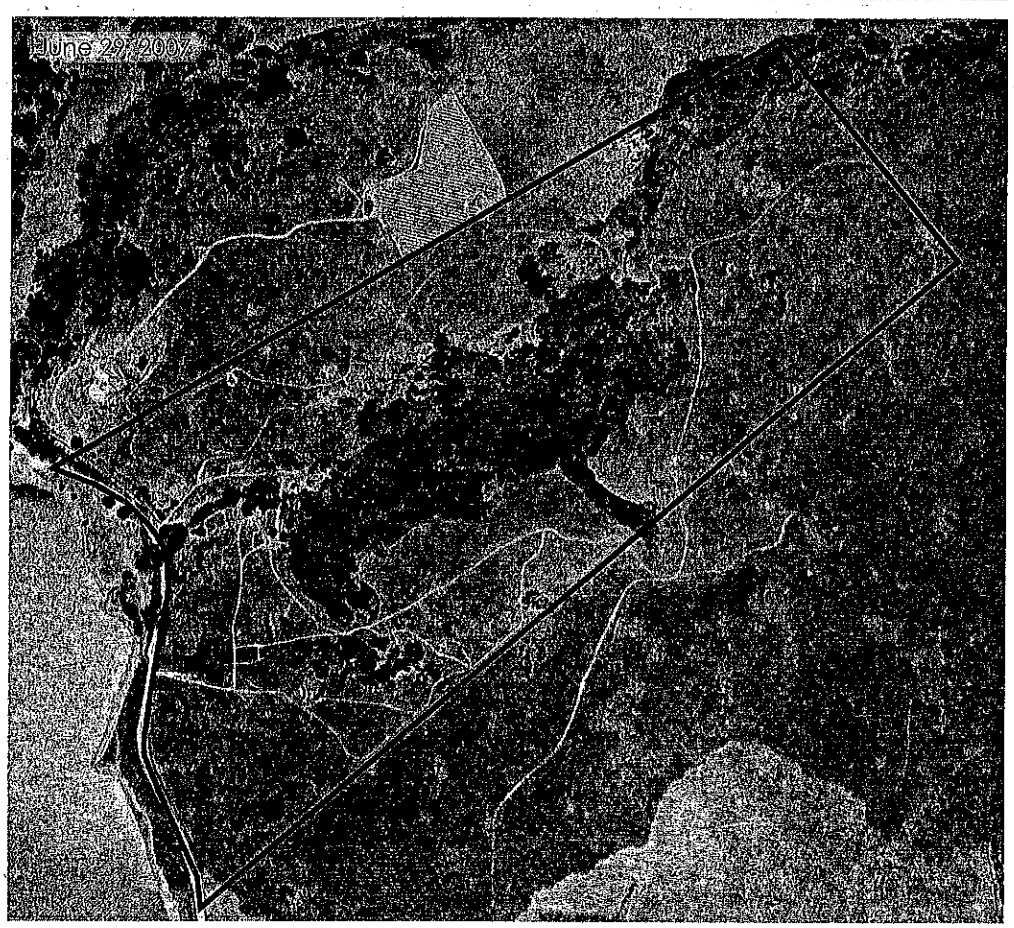
Ron Sissem
Principal Planner

cc: John Bridges, Fenton and Keller

Attachments

Figure 1	Property Roads Aerials
Figure 2	Road Creation and Known/Potential ESHA
Figure 3	Planned Well Site/Actual Well Site
Figure 4	Approximate Wetland Fill Location
Figure 5	Cypress Tree Planting Location and Photograph



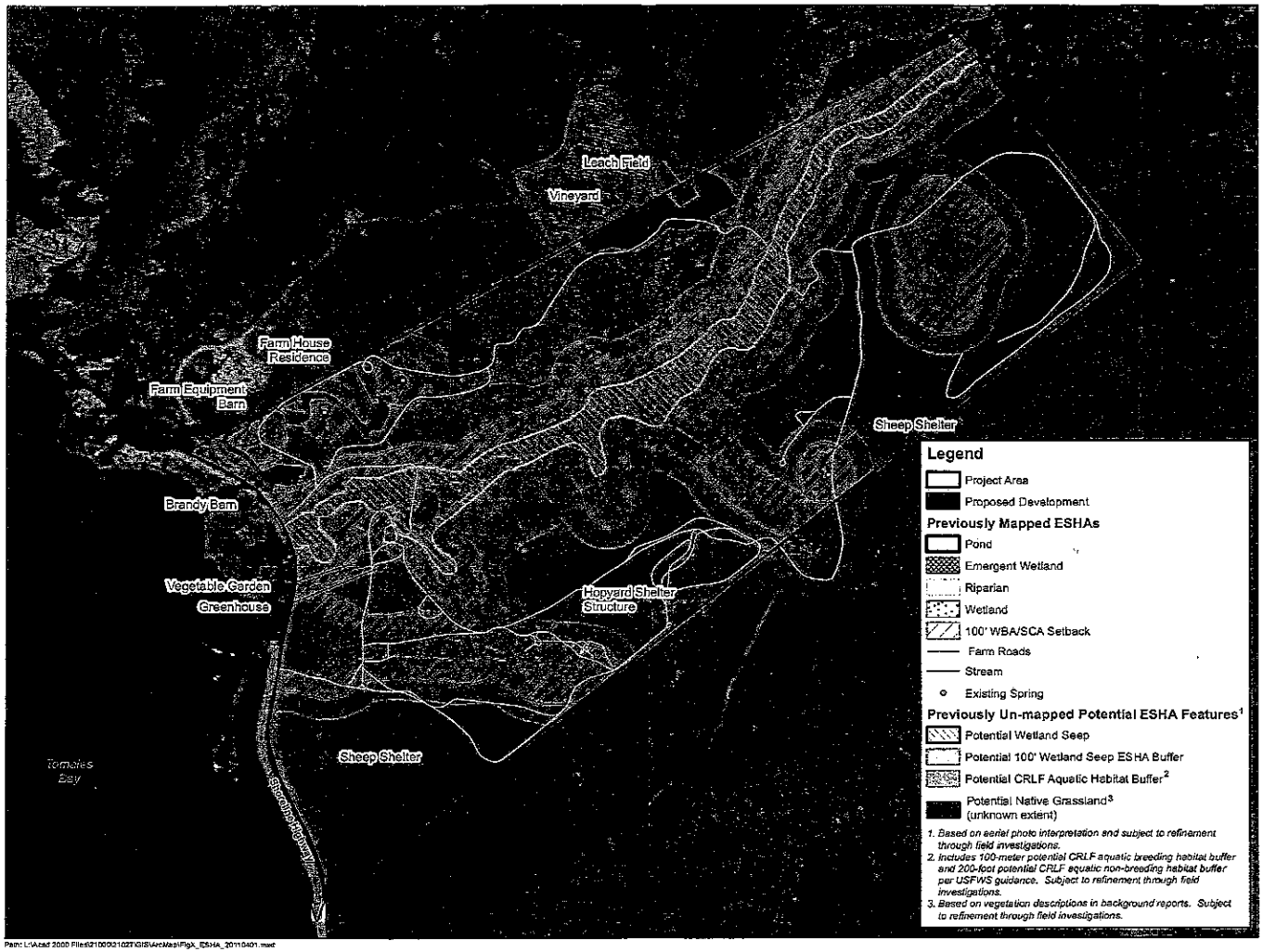


Source:
Google Earth

Figure 1

Property Roads Aerials

Coastal Act Violocation Letter 2 Supplemental Information



Path: L:\Acad 2000 Files\21000\21027\GIS\ArcMaps\Fig3_ESHA_20110401.mxd

0 500 feet

Source: WRA Environmental Consultants 2011, Google Earth 2010

Figure 2
Road Creation and Known/Potential ESHA
Coastal Act Violation Letter 2 Supplemental Information

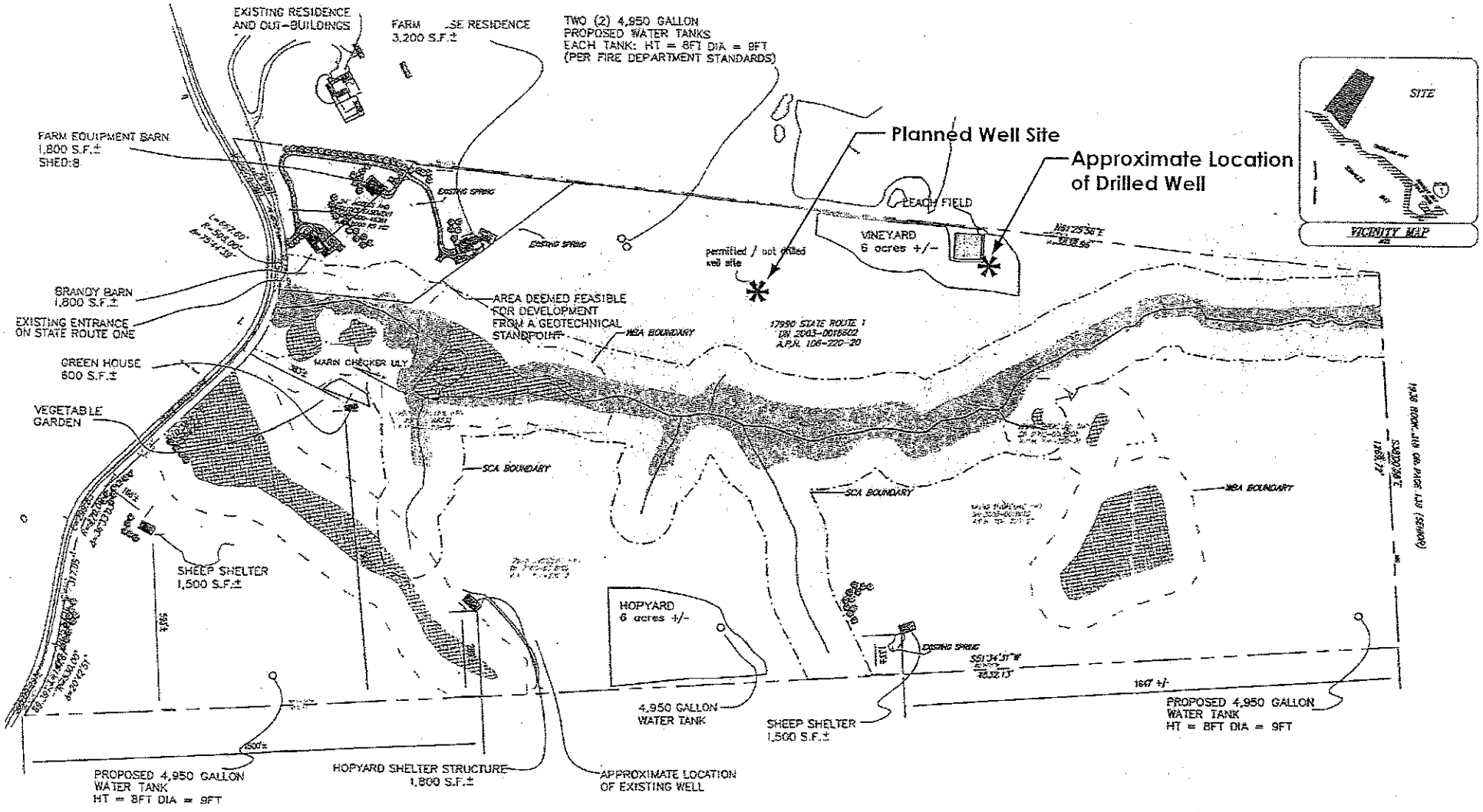
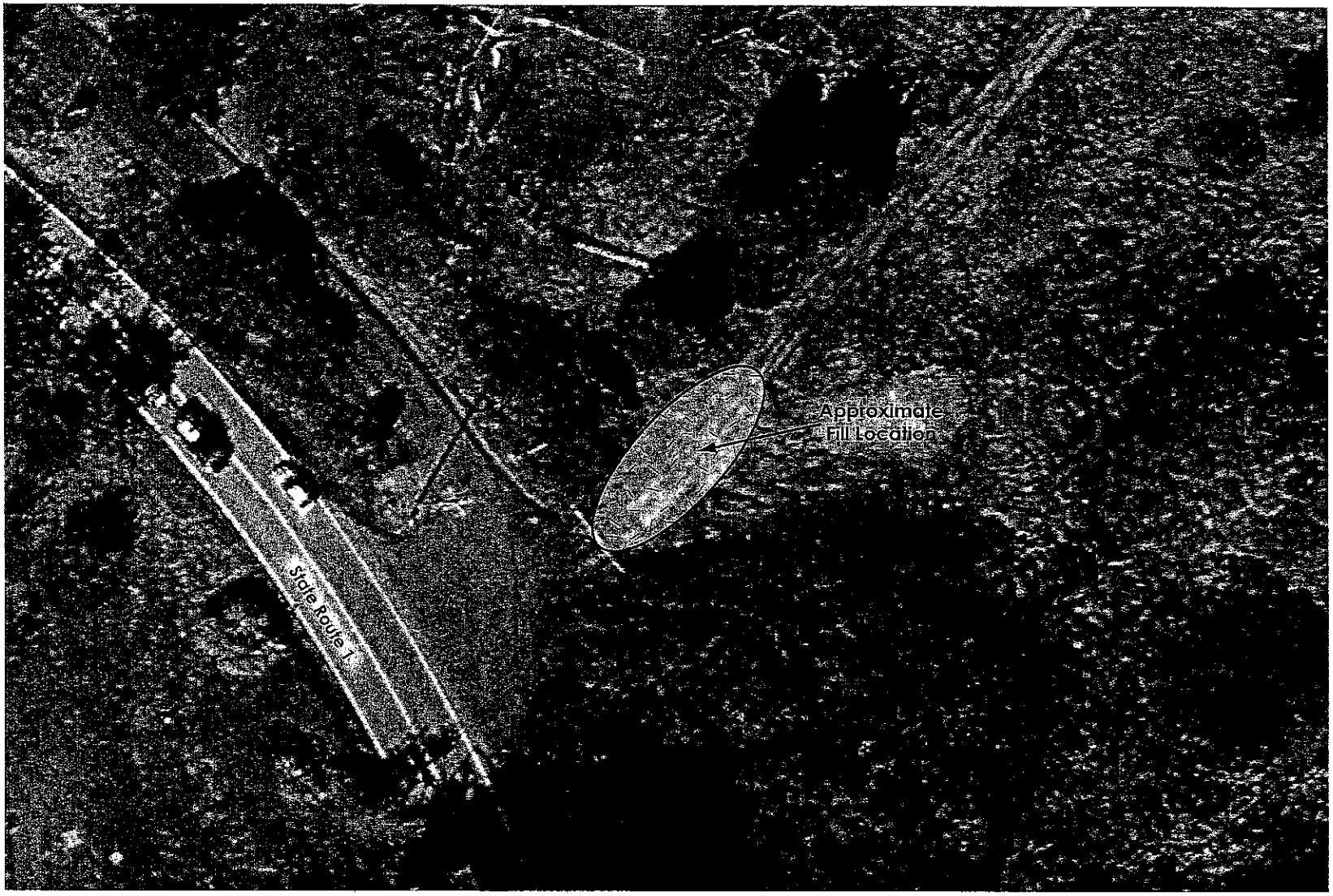


Figure 3

Planned Well Site/Actual Well Site

Coastal Act Violation Letter 2 Supplemental Information



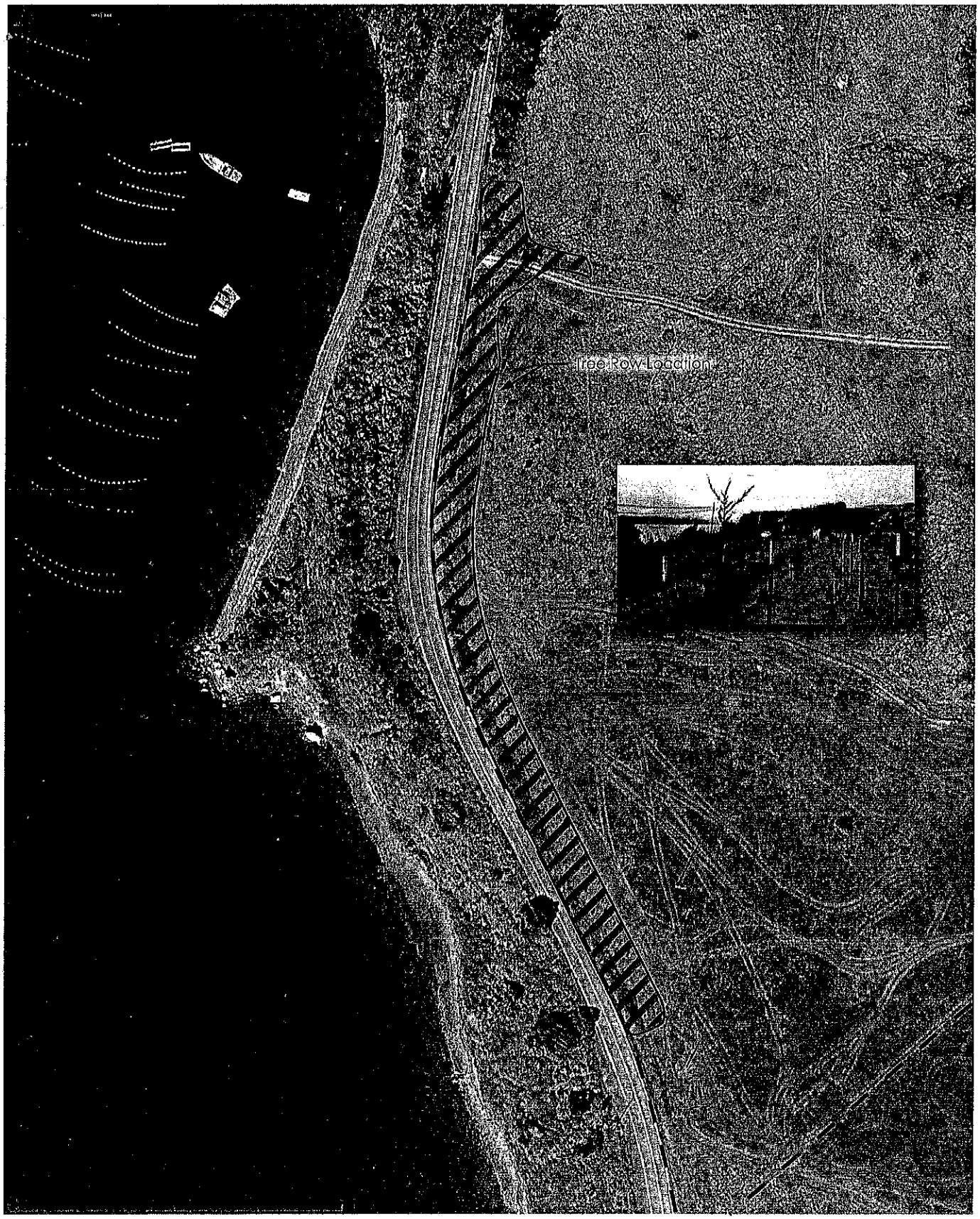
0 40 feet

Source: Google Earth 2009

Figure 4

Approximate Wetland Fill Location

Coastal Act Violation Letter 2 Supplemental Information



0 140 feet

Property Line

Source: Google Earth 2009

Figure 5

Cypress Tree Planting Location and Photograph

Coastal Act Violocation Letter 2 Supplemental Information

E M C

Planning for Success.

May 6, 2011

Mr. John Bridges, Esq.
Fenton and Keller
2801 Monterey-Salinas Hwy
Monterey, CA 93940

Re: Preliminary Biological Issues Review Letter - Local Coastal Program Permit Application, A-2-Mar-10-022 (Magee Project), Marin County, California

Dear Mr. Bridges,

At your request, EMC Planning Group and Wetlands Research Associates (WRA) have conducted a preliminary review of available biological resource information prepared by Zander Associates in support of Local Coastal Program permit application, A-2-Mar-10-022 ("proposed project"). The permit was requested by Mr. Tony Magee. The application includes a request to construct a single-family residence, equipment barn, commercial distillery, and ancillary agricultural support buildings on an approximately 150-acre undeveloped property located in northwest Marin County, California ("project site"). Figures 1 and 2 illustrate the regional location and site vicinity, respectively. Figure 3 is the most legible version of the proposed site plan currently available to us.

In summary, based on observations of portions of the project site from off-site locations and on review of available biological resource information reviewed, the project contains environmental sensitive habitat areas (ESHA), including habitats that may support special-status plants and animal species. The definition of ESHA as described in the Coastal Act is reflected in the Marin County Local Coastal Program (LCP) as:

> Environmentally sensitive habitat areas are defined in Section 30107.5 of the Coastal Act as, "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem.

EMC PLANNING GROUP INC.
A LAND USE PLANNING & DESIGN FIRM
301 Lighthouse Avenue Suite C Monterey California 93940 Tel 831-649-1799 Fax 831-649-8399
www.emcplanning.com

We believe the project site could contain habitat that supports special-status species which has not been identified to date by Mr. Magee. Further, the biological report information available for review to date does not contain complete descriptions of survey methodology and is missing key sections that would enable more comprehensive review. The information is not adequate as a basis to thoroughly identify effects of the proposed project on ESHA. Consequently, it cannot be concluded that the proposed project is consistent with the Marin County Local Coastal Program (LCP) and the Coastal Act.

The uncertainty regarding sufficiency of biological resource information was reiterated in part by Mr. Larry Simon, Coastal Commission Federal Consistency Coordinator, in an email dated January 21, 2011 written to Mr. Magee and Larry Kennings, Mr. Magee's planning consultant. Mr. Simon identifies comments and suggestions made by Dr. John Dixon, California Coastal Commission Ecologist, regarding additional information needed for Coastal Staff review of the project pursuant to a de novo hearing. Dr. Dixon's comments included: 1) vegetation on the property should be assessed in more detail within the proposed development areas; 2) there have been no quantitative vegetation surveys of the property nor is there a map showing the location of the various vegetation types; 3) apparently, a technical wetland delineation has not been conducted on the property which would be necessary in areas proposed for development (e.g. around the generally mapped existing springs); and 4) there have been no focused surveys conducted for red-legged frogs, foothill yellow-legged frogs, or western pond turtles, which the biological report states, based on availability of suitable habitat present, have a potential to occur on the property.

We understand, via an email sent to you from Mr. Simon on May 2, 2011, that Mr. Magee and his consulting biologist, Zander Associates, have recently prepared or are in the process of preparing new supplemental biological resources information for the proposed project. However, as far as we know, the information is not yet available as part of the record. We understand that the new information includes:

- Detailed description and map of vegetation within the proposed building envelope;
- Coastal Commission wetland delineation; and
- Description of grassland vegetation types.

The need for additional biological resources information, including the new information listed above, is articulated in this letter. Because the information is not yet available to us,

our discussion of related data gaps and resulting implications for potential impacts on special-status species and ESHA remains pertinent and fundamental to evaluation of the proposed project's consistency with the Coastal Act. We look forward to the opportunity to review the information once it becomes available.

Brief History of the Proposed Project

In May 2009, Mr. Magee made application to Marin County for approval of a Coastal Permit, Design Review, and Use Permit for a proposed agricultural development project. The Marin County Planning Commission approved the proposed project on April 12, 2010. The approval was appealed to the Marin County Board of Supervisors, who subsequently denied the appeal on May 11, 2010. The Coastal Permit approval was then appealed to the California Coastal Commission. The California Coastal Commission determined the appeal presented substantial issue with regard to the project's conformity with the Marin County LCP. As of the date of this letter, the Commission has yet to schedule and hold a de novo hearing on the appeal. While the project is under appeal, local approvals are stayed and a landowner may not modify the subject property based on the County's approvals.

Biological Resource Analysis Background

This biological resources information review was undertaken to determine whether Mr. Magee, through Zander Associates, has thoroughly and accurately identified and characterized the type and extent of biological resources within the project site and to determine whether potentially significant direct and/or indirect impacts on those resources were adequately defined and disclosed by Marin County ("County") prior to the County's approval of a Coastal Permit. The County approved the proposed project based on a California Environmental Quality Act exemption. Therefore, opportunity was not afforded for public review or public agency review of the potential impacts of the proposed project, including its potential impacts on biological resources and potential inconsistencies with the LCP and Coastal Act.

This biological resource review was conducted by biologists Bill Goggin of EMC Planning Group and Tom Fraser of Wetlands Research Associates (WRA). The evaluation and conclusions provided are based on their professional experience and analysis, observation of portions of the project site that are visually accessible from the adjacent property to the north and from the property access road and from State Route 1, research of biological resources

known in the vicinity, and review of the County's resolution and findings to approve the proposed project (Resolution No. 2010-36, May 11, 2010). The following biological resource reports prepared by Zander Associates were the fundamental basis for analysis and conclusions:

- October 29, 2008. Biological Resources Assessment Letter Report prepared for project applicant (Magee) by Zander Associates (Figure 1. Site Location Map, Figure 2 Plant Communities Map, and Table 1, Special-Status Species Known to Occur in the Vicinity, not included);
- March 30, 2009. Special-Status Plant Survey Letter to project applicant prepared by Zander Associates (Figure 1, Location of Marin Checker-lily and Spring/Seep Map, not included);
- June 30, 2009. Additional Plant Survey Letter to project applicant prepared by Zander Associates;
- February 9, 2010. Untitled letter to project applicant prepared by Zander Associates discussing the conditions observed during a spring/seep evaluation conducted on January 24, 2010;
- March 1, 2010 "Letter for Inclusion in Staff Report" e-mail from project applicant to Marin County Planner Veronica Corella-Pearson, Community Development Agency;
- March 15-16, 2010. Five e-mails between Zander Associates and Marin County Planner Veronica Corella-Pearson discussing riparian features and proposed setbacks; and
- March 29, 2010. "Dillon Vision LLC (Brader-Magee) CP, DR, and UP" Letter from Zander Associates to Marin County Planner Veronica Corella-Pearson discussing the potential for California red-legged frog and western pond turtle occurrence on the project site.

Potential Inadequacies in Assessment of Biological Resources, Potential Project Impacts and Disruption of Protected ESHA

There is insufficient or unclear information in the Zander Associates biological reports and in the County's administrative record available to date to demonstrate that Zander Associates or the County have thoroughly or accurately identified the type and/or extent of sensitive biological habitats found on the project site. Consequently, we believe that due to the lack of

adequately detailed and thorough special-status feature mapping, the extent of potentially present special-status habitats, potential present special-status species, and ESHA on the project site has not been fully identified and/or completely disclosed. Of particular concern is the absence of information that would clearly: 1) identify the extent of known on-site ESHA; 2) identify potential additional ESHA on-site; and 3) demonstrate that the appropriate protocol-level presence/absence surveys for potentially occurring special-status species were conducted sufficient to demonstrate sensitive species absence from the site. This information is critical to identifying potentially significant impacts of the proposed project and determining consistency of the proposed project with Coastal policies regarding biological resource protection.

Section 30240 of the Coastal Act describes how ESHA is to be managed:

> (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.
>
> (b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

The facts about the insufficiency of biological resources analyses for the project site or proposed project and the lack of public agency notice or involvement raises serious questions about whether evidence exists to support the County's determination that the proposed project would not impact or otherwise cause significant disruptions of ESHA values or not significantly degrade ESHA consistent with Coastal Act policies.

Biological Analysis Inadequacies

Specific inadequacies in the assessment of biological resources and potential incomplete assessment of potential significant disruptions of and impacts on ESHA that would render the proposed project inconsistent with the Coastal Act are summarized as follows:

- *Zander Associates' biological resources information does not specify the extent of on-site riparian vegetation, which is classified as ESHA.*

Zander Associates' biological resources assessment identifies three primary on-site plant communities: grassland, coastal scrub and mixed evergreen forest, but omits an accurate and thorough characterization of an important on-site sensitive plant community – riparian habitat. The report states that areas classified as mixed evergreen forest include riparian vegetation, but riparian areas are not explicitly mapped as such. Further study is required to accurately determine the extent of these and/or other on-site natural ESHA communities. Without such information, uncertainty arises as to whether the proposed project causes significant disruption to and/or impacts on ESHA.

- *A previously unidentified, unmapped freshwater seep may be located within Mr. Magee's proposed building envelope that could, upon further analysis, be determined to be ESHA. If so, neither direct nor indirect potential disruption to or impacts on this ESHA have been clearly assessed or disclosed.*

  Zander Associates' biological resources reports describe the location of freshwater springs and associated vegetation, one of which is located within the proposed building envelope and the other of which is located just several feet east of the building envelop. A freshwater seep that does not appear on Mr. Magee's site plan or reported in Zander Associates' biological assessment could also be present within the proposed building envelope, just downslope from an un-permitted pig enclosure. Mr. Magee's proposed access road passes within approximately 50 feet of the potential freshwater seep. Further field assessment is needed to determine presence of the seep and whether it constitutes ESHA. If so, new development setbacks not previously defined or illustrated would be needed and modification of Mr. Magee's site plan may be required to avoid direct or indirect disruption to and impacts on ESHA.

  For the location of and additional information on the potential freshwater seep, please refer to the discussion of California red-legged frog below.

- *Zander Associates' biological resources information does not identify the potential presence of a jurisdictional wetland located along the project site northern boundary.*

  A surface water swale originates upslope on the adjacent property to the north. At the property line, the swale can be characterized as a depressional feature. Surface flow in the swale is common during rainfall events. Figure 4, an aerial photograph from June 2007, shows that the lower portion of the swale exhibits possible evidence of a surface drainage feature, visible during the dry season, which extends onto the Mr. Magee's property. Mr. Magee previously installed a pig enclosure and natural drainage diversion system across the feature and the access road proposed as part of his project cuts through/adjacent to the feature. The feature may be hydrologically connected to the

previously unidentified potential seep discussed above. If so, its value as potential ESHA would be enhanced. Additional site assessment is needed to make this determination.

There is potential that a portion of the drainage swale feature could qualify as a jurisdictional State Waters under the Coastal Commission definition of wetlands/waters which establishes a "one parameter definition" that only requires evidence of a single parameter to establish jurisdictional wetland conditions. The swale exhibits wetland hydrology during a portion of the year. The rule in the Coastal Zone is generally based on the hydric soils definition, which is that a soil is considered hydric if it is ponded or saturated for a minimum of seven (7) days during the growing season. Photographs and repeated visits to the location of the feature indicate on the numerous days (at least seven) that swale conditions were photographed and/or observed, soils within the feature were saturated to the extent that it retained (ponded) water and conveyed surface flow. Please refer to Figure 5 for a representative photograph of ponded water in this location. Consequently, the swale feature may meet the hydric soils definition.

Modification of wetlands/waters and/or ESHA is a violation of the Coastal Act and of LCP policies and implementing regulations. Further observation and analysis is needed to determine if the swale feature qualifies as a wetland/water ESHA. If so, modification of the proposed project would be needed to avoid substantial disruption to or impacts on the feature. If it is hydrologically connected to the potential seep and the latter is determined to be ESHA, project modifications would still be required.

For additional information on this potential wetlands/waters ESHA feature, please refer to the discussion of California red-legged frog below.

- *Zander Associates' biological resource information does not describe whether or not complete wetland and riparian delineations were performed. In the absence of appropriate delineations, the locations and extent of on-site wetland ESHA is uncertain, as is the evaluation of whether the proposed project substantially disrupts and/or has potential impacts on ESHA.*

  E-mails between the County and Zander Associates indicate that wetlands shown on maps submitted to the County were identified using U.S. Army Corps of Engineers and California Coastal Commission criteria. However, there was no attached wetland delineation report in the available record or other indication that the entire area that could be directly or indirectly affected by the proposed project was surveyed for wetlands using these criteria, including defined freshwater springs, the above-noted potential freshwater seep, or the above-noted swale/drainage feature, or the blue-line stream.

Regarding the blue-line stream, no delineation data sheets were provided and no sample points are described or shown on the map included in Zander Associates' biological assessment. These missing sample points should have been taken to accurately demonstrate where the upland/riparian transition zone is located along the blue-line stream, particularly in the lower portions of the channel, which are within approximately 150 feet of the proposed brandy distillery. Further, the report merely mentions in one sentence that wetland seeps were mapped "based on the extent of surface water, soil saturation, and density of hydrophytic plant species". The data and map provided to date are only sufficient for an assessment level mapping effort, not for the permit review process.

It is a standard wetlands science practice to conduct wetlands delineations to U.S. Army Corps of Engineers standards and/or (depending on the jurisdictions involved) to Coastal Commission standards for development proposed within such close proximity to sensitive wetland areas. Completion of jurisdictional wetland delineations are needed as has been previously noted by Dr. Dixon. In the absence of such information, the precise boundaries of wetland ESHA, the potential for the proposed project to substantially disrupt and/or impact ESHA, project consistency with the Coastal Act, and need for further development setbacks from wetland ESHA cannot be sufficiently determined.

- *Potentially significant impacts to habitat of the federally listed threatened California red-legged frog (CRLF), assumed to be present at the site, have not been adequately identified or disclosed. Consequently, the proposed project may have impacts on the species that have not been defined and whose mitigation may require redesign or elimination of components of the proposed project.*

In its October 2008 Biological Assessment, Zander Associates identifies CRLF (as well as foothill yellow-legged frog and western pond turtle) as potentially present due to the presence of suitable breeding habitat in the form of the freshwater pond and emergent vegetation in the blue-line stream. Mr. Magee publically represented that CRLF presence was assumed in the project planning and design process. The report also describes the presence of freshwater "seeps" on the property where it is stated that:

> The seeps identified on the site could be considered wetlands and therefore may be subject to additional regulations if filled/disturbed. Setbacks from these areas may also be imposed by Marin County in conformance with the Wetland Conservation Areas designated in the Countywide Plan.

It is assumed that the seeps that are being referenced correspond to the two "exiting springs" shown on Mr. Magee's May 2009 site plan. One of these is located within the

proposed building envelope. A second is located only several feet outside the eastern boundary of the building envelope.

In a subsequent March 29, 2010 letter to Vernonica Corella-Pearson, Marin County Planner, Zander Associates states in regard to CRLF:

> All of the special-status animals mentioned in my previous report, except the California red-legged frog and western pond turtle, are restricted to the drainage and riparian corridor. California red-legged frogs use ponds or pools for breeding during the wet season (December through March) and ponds, riparian areas, or other aquatic habitats during the rest of the year. They can disperse long distances between these habitats. Western pond turtles typically nest in upland grassy areas that are, on average, within 150 feet of the pond. The planned homesite and barns are located in upland areas northwest of the main drainage that are uphill and greater than 300 feet from the edge of the pond. There is no suitable red-legged frog breeding habitat in this portion of the property and there is existing development immediately adjacent to the property boundary in this area. The project will not affect potential nesting habitat for western pond turtle. If red-legged frog use the pond and drainage on-site, they are unlikely to disperse in the direction of the proposed development. Installation of silt fences around the around the construction sites, as required for sediment control, will prevent any frogs, if present, from entering these areas during grading or other ground disturbance activities.

Zander Associates' representation focuses only on breeding habitat for CRLF, but makes no mention of non-breeding habitat requirements. CRLF are known to utilize non-breeding aquatic habitats to forage and as dispersal corridors. As stated above, Zander Associates initially identified the freshwater seeps/springs within and immediately adjacent to the proposed building envelopes as potential wetland and confirms that these seeps/springs provide freshwater flow during winter months. The seeps/springs could potentially provide suitable habitat areas for CLRF dispersal and foraging, potentially into the late spring/early summer months depending on rainfall. Further, if the additional potential freshwater seep discussed previously is confirmed to possess suitable freshwater habitat characteristics that persist into the summery, another potentially suitable CRLF aquatic habitat area may exist within the proposed building envelope. The swale/drainage feature also discussed previously could also provide temporary

aquatic habitat within or directly adjacent to the proposed building envelope. This feature could potentially aid in the species' on-site and off-site disbursal.

Based on an assessment of satellite imagery of the site and surrounding area, there appear to be no barriers to CRLF dispersal between the blue-line stream, the on-site pond/freshwater marsh, emergent vegetation along the blue-line stream and the confirmed or potential additional freshwater habitat features within/immediately adjacent to the building envelope. Additionally, there are other areas of potentially suitable CRLF habitat within one to two miles north and east of the project site that are hypothetically within the species known dispersal distance from potential on-site breeding habitat. Typically, if suitable habitat for CRLF is present and the species is known from the surrounding area, a habitat assessment is performed.

Zander Associates erred in calculating potential impacts to CRLF by using the on-site pond as the sole reference point for determining the distance of proposed structures/improvements to potential sensitive species habitat features. This representation needs to be reconsidered. For example, emergent willow vegetation present along the blue-line stream located no more than 150 feet from the proposed brandy distillery building location was unmapped by Zander Associates. Consequently, development such as the brandy distillery is planned in locations much closer to potential CRLF breeding habitat than what was represented.

The U.S. Fish and Wildlife Service typically designates a 100 meter development buffer from CRLF aquatic breeding habitat and a 200-foot buffer (plus any associated riparian habitat) around occupied aquatic habitat, as CRLF upland refugia and adjacent upland areas are potential dispersal habitat. Such areas would be considered ESHA. These buffer areas would be considered as ESHA and are expressly protected by the Coastal Act. Figure 6 shows ESHA features as reported by Zander Associates (i.e. stream and wetland conservation areas, riparian areas, on-site springs, etc.) with CRLF habitat ESHA buffers added based on U.S. Fish and Wildlife Service setback guidance and the potential presence of the additional potential seep and swale/drainage feature aquatic habitat.

Clearly, the boundary of potential CRLF habitat ESHA is substantially greater than has been reported by Zander Associates. Nearly all, if not all of Mr. Magee's proposed buildings and significant infrastructure would be within protective aquatic habitat buffers for CRLF (ESHA) and would have a serious potential to substantially disrupt and/or adversely impact ESHA. This would essentially make the proposed project, as currently configured, inconsistent and in conflict with the Coastal Act. At a minimum avoidance

and/or mitigation measures would need to be developed and approved to address the potential impacts unless protocol-level surveys were performed and definitively determined the absence of the species. The details of such surveys would need to be coordinated with the U.S. Fish and Wildlife Service through a Section 7 consultation process.

To date there is no record of a CRLF habitat assessment and/or protocol survey having been performed, although a survey was recommended by Zander Associates. In fact, several protocol-level biological surveys were recommended by Zander Associates. However, if protocol-level surveys other than those for rare plants have been conducted, the results have not been available for public review to date. A qualified biologist should perform a focused, protocol-level survey for CRLF within all suitable on-site habitats and, depending on the results, the proposed project then modified as needed to avoid CRLF habitat ESHA.

Also note that the proposed brandy distillery is well within the potential nesting habitat range ("150 feet on average") of the western pond turtle. However, Zander Associates concludes that the proposed project will not affect potential nesting habitat for this species. It is unclear if this statement is made because the brandy distillery site does not contain upland suitable habitat (i.e. grasslands) or because the potential effect was overlooked. If the brandy distillery site contains suitable habitat, a qualified biologist should perform a focused, protocol-level survey for western pond turtle next sites in this area of the site. If suitable nesting habitat or the species itself is found to be present, the brandy distillery should be eliminated from the proposed project or moved to protect ESHA.

- *The record of special-status animal species surveys is insufficient to determine the presence/absence of such species and whether the proposed project would substantially disrupt of have direct or indirect impacts on such species or their habitat, which would qualify as ESHA.*

  In addition to the CRLF, other potentially occurring sensitive animals whose potential on-site presence has not been adequately addressed through the performance of presence/absence special-status surveys in all areas of the property affected by proposed development include: American badger (visual sightings reported by Mr. Magee and adjacent property owners), nesting raptors (both tree nesting and ground nesting), burrowing owl, steelhead, Coho salmon, Point Reyes jumping mouse, tri-colored blackbird (within the on-site pond), California freshwater shrimp, potential great blue heron and great egret rookery sites, northern spotted owl, bat species, golden eagle, peregrine falcon (rock outcrops observed in the area) and Myrtle's silverspot butterfly.

Protocol-level field surveys are typically the appropriate level of field study required to establish a species' presence or absence from a site if potentially suitable habitat is present and the species is known from the surrounding area. The additional protocol level surveys are recommended to resolve biological data inconsistencies and a general lack of supporting information justifying Zander Associates' presumed absence of several sensitive species. Formal consultation with the U.S. Fish and Wildlife Service, California Department of Fish and Game and other interested parties (i.e. State Parks, Point Reyes National Seashore, research academics) on required survey needs is warranted in light of the sensitivity of the site and the scale of the proposed project.

In the absence of such information, the boundaries of potential special-status species habitat (ESHA), the potential for the proposed project to substantially disrupt and/or impact habitat, project consistency with the Coastal Act, and need for further development setbacks from ESHA cannot be determined.

- *The special-status plant survey reports prepared by Zander Associates are incomplete.*

Special-status plant survey results were provided in the form of two letters. No floristic inventory (plant list) was provided with these reports, nor is one referenced in the methodology described in the letters. California Department of Fish and Game plant survey protocol requires that all plants observed in the study area be identified to the appropriate taxonomic level to determine their status, and a complete list of plants observed must be included with survey reports. Dr. Dixon has already noted the insufficiency of special-status species plant survey information.

In the absence of such information, the boundaries of special-status plant species habitat ESHA, the potential for the proposed project to substantially disrupt and/or impact such ESHA, project consistency with the Coastal Act, and need for further development setbacks from ESHA cannot be determined.

- *It is unclear that the areas covered by Zander Associates' plant surveys are consistent with the areas proposed for development.*

Based on a review of the available record, it appears that a systematic rare plant survey within all areas proposed for modification as part of the proposed project has not been performed. Two rare plant surveys were documented as having been performed within "all areas that could potentially be affected through the construction of the home, access road, and other ancillary facilities as currently proposed". It is unclear whether the term "ancillary facilities" includes the proposed brandy distillery, barn, well site, water tank site, septic conveyance line, septic leach field, vineyard, and facilities on the south side of

the blue-line stream that in total comprise the entire proposed project. There is no detailed map accompanying the letters that depicts the areas surveyed. Consequently, it cannot be determined exactly where the surveys were performed where or whether all areas that would be directly and/or indirectly affected by physical development were surveyed.

It is also uncertain whether a sufficient area was surveyed surrounding the proposed structures and other improvements to account for the minimum 100-foot ESHA buffers required by the Coastal Act. An adequate rare plant survey in the Coastal Zone would typically examine areas within 200 feet of proposed development locations to account for these buffers, to check for highly sensitive resources that may require additional buffer area, and account for minor changes to proposed project plans.

Lacking this information, it cannot be determined whether the plant surveys covered all areas affected by the proposed project and whether or not those areas could contain special-status plant ESHA.

- *The lack of a species list and survey area map associated with Zander Associates' rare plant survey reports makes it difficult to evaluate the validity of the surveys for additional species not identified as target species in the reports.*

  Based on a review of relevant background databases, including the California Natural Diversity Database (CNDDB) and California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants, it is possible that additional special-status plant species that were not included as target species in the special-status species surveys have the potential to be present on the site based on habitats observed and described in the reports.

  Based on the absence or unavailability of systematic, documented, comprehensive, and focused plant surveys which would demonstrate the absence of potentially occurring rare plants within all areas affected by the proposed project, a completed, full year of rare plant surveys conducted during the target species appropriate blooming periods should be undertaken. In the absence of such information, the boundaries of special-status plant habitat ESHA, the potential for the proposed project to substantially disrupt and/or impact ESHA, project consistency with the Coastal Act, and need for further development setbacks from such ESHA cannot be accurately determined.

- *Zander Associates' biological resources assessment information is missing several details and appendices that should be included in a complete evaluation of potential impacts to sensitive biological resources.*

As with the special-status plant survey reports, no detailed list of observed or potentially occurring special-status wildlife species is provided in the biological resources assessment. For example, as described previously, willow species were observed within and adjacent to the blue-line stream by EMC Planning Group and WRA during observations made of that area, but no willow community or willow species were described in the biological resources assessment report. Willows commonly associated with wetlands, streams, and riparian areas, may provide habitat to special-status species with the potential to occur on-site (i.e. CRLF), and may be considered emergent wetland, which is considered ESHA.

Biological Issues Regarding Past/Current Modifications of the Property

Biological resource assessment issues and possible impacts on potential ESHA within the property resulting from past/recent actions of Mr. Magee and the prior property owner have been described in two prior letters submitted to you. Several of the biological issues in those letters are pertinent to the issues raised above.

The first letter, dated April 22, 2011, was entitled "Supplemental Information Regarding Coastal Act and Responsible Agency Permit Violations at 17990 Shoreline Highway (State Route 1), Marshall, Marin County, CA. It provided supplemental information on potential Coastal Act violations at the property, especially violations of Coastal Act biological resource related policy. The violations pertain to: 1) construction of a pig enclosure which may impact ESHA; 2) diversion of surface water flow which may impact ESHA; and 3) construction of improvements within and direct access to State Route 1 without Caltrans approval of an encroachment permit. The letter is included as Exhibit A.

The second letter, dated May 5, 2011, was entitled "Supplemental Information Regarding Additional Coastal Act and Marin County Local Coastal Program/Development Standard Violations at 17990 Shoreline Highway (State Route 1), Marshall, Marin County, CA". It provided supplemental information regarding potential additional violations of the Coastal Act. The violations pertain to: 1) development of roads that may have impacted ESHA; 2) construction of a water well that violated the Coastal Act's "stay" provision, may have adverse water quality impacts, and could present potential adverse hydrologic impacts on wells on adjoining properties and to ESHA in the form of the blue-line stream that may provide suitable habitat for special-status species; 3) placement of fill material into on-site wetland ESHA associated with the blue-line creek area without benefit of Coastal

Development Permit or Army Corp of Engineers section 404 permit in a manner that degraded wetland habitat constituting ESHA; 4) planting of a cypress tree hedge to screen the property from State Route 1 in a manner that conflicts with LCP and Coastal Act viewshed protection policies; and 5) possible removal of vegetation in the area of the proposed project vineyard area that may have impacted grassland habitat containing special-status plant species constituting ESHA. This letter is included as Exhibit B.

Conclusions

The biological analysis work conducted for the proposed project and available in the record to date contains technical inadequacies and important data gaps. As a result, a thorough, well-vetted assessment of biological resources on the project site, especially ESHA, is not available. In the absence of this information, the potential for the proposed project to significantly disrupt and/or cause significant direct and indirect adverse impacts on ESHA and special-status species habitat cannot be thoroughly assessed. Further study and assessment of these resources is needed to resolve these substantive biological resource impact questions. Jurisdictional wetlands delineations and protocol-level surveys for several potentially present special-status plant and animal species should be required to address biological information inadequacies and technical data gaps. Without this supplemental information, potentially significant impacts the proposed project and its consistency with the Coastal Act cannot be adequately determined, defined or disclosed.

The fact that the County determined that a Categorical Exemption under the California Environmental Quality Act was appropriate rendered the County's review of potential impacts on biological resources inadequate. The County's determination has denied the public and interested responsible public trustee agencies the opportunity to adequately review and provide comment on the technical adequacy of the biological analysis or to provide feedback on the County's determination that the project would not result in significant adverse impacts to biological resources. Consequently, Coastal Commission staff should refer this matter to state and federal jurisdictional resource agencies (U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration Fishery Service, California Department of Fish and Game, and the California Regional Water Quality Control Board) for their review and consultation.

Should you have any questions or comments concerning the results and/or recommendations presented in this assessment letter, please feel free to contact me at (831) 649-1799, ext. 207.

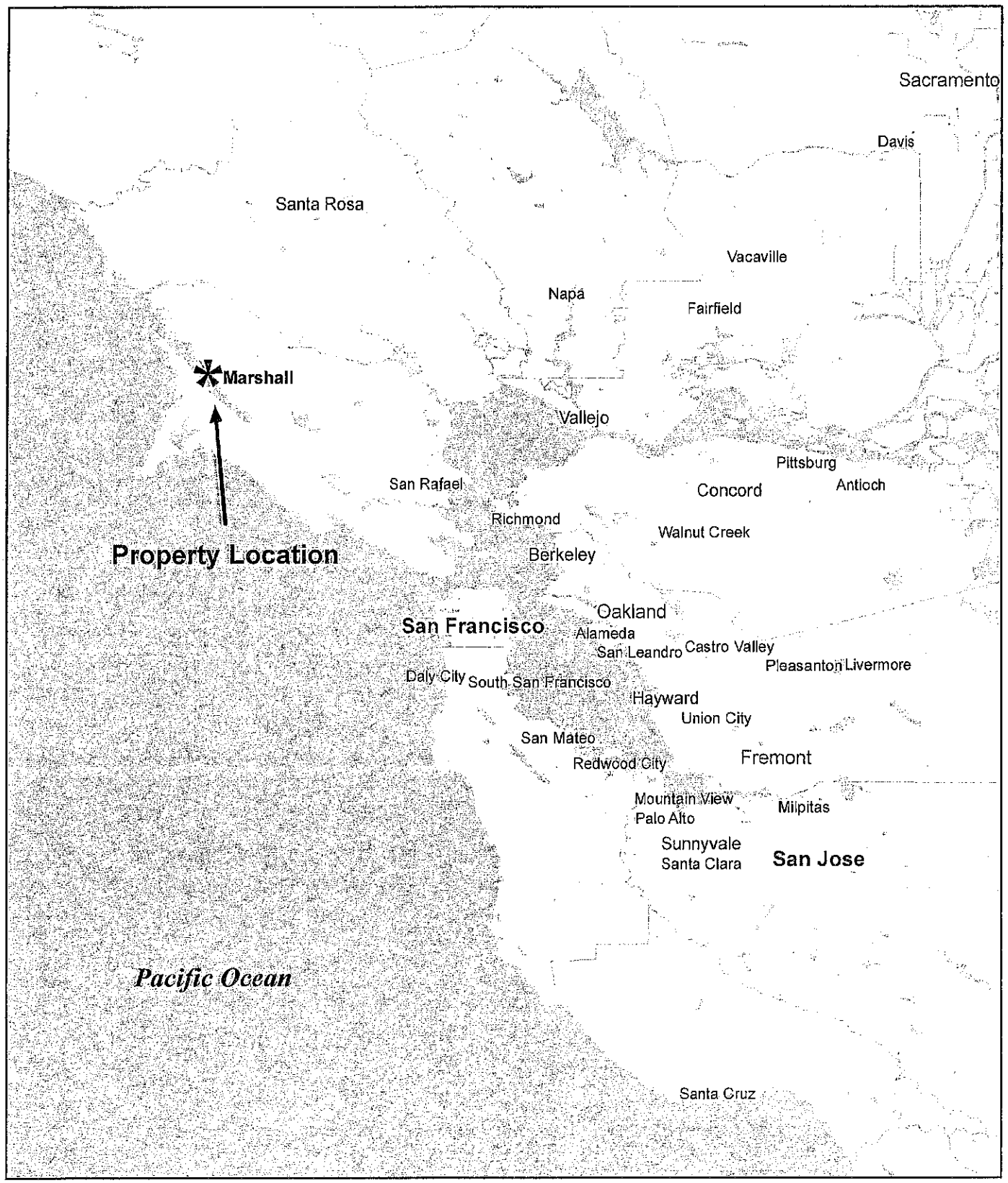
Sincerely,

Ron Sissem
Principal Planner

Bill Goggin
Biologist

Attachments

Figure 1	Regional Location
Figure 2	Project Vicinity
Figure 3	Proposed Site Plan
Figure 4	Swale Drainage Feature
Figure 5	Potential Swale Feature Wetland
Figure 6	Potential Additional ESHA and ESHA Setbacks
Exhibit A	Supplemental Information Regarding Coastal Act and Responsible Agency Permit Violations at 17990 Shoreline Highway (State Route 1), Marshall, Marin County, CA.
Exhibit B	Supplemental Information Regarding Additional Coastal Act and Marin County Local Coastal Program/Development Standard Violations at 17990 Shoreline Highway (State Route 1), Marshall, Marin County, CA.



Source: ESRI 2010

Figure 1

Regional Location

Preliminary Biological Issues Review
17990 Shoreline Highway, Marshall, CA

0 850 feet

Approximate location of property boundary

Source: Google Earth 2010

Figure 2
Property Vicinity

Preliminary Biological Issues Review
17990 Shoreline Highway, Marshall, CA

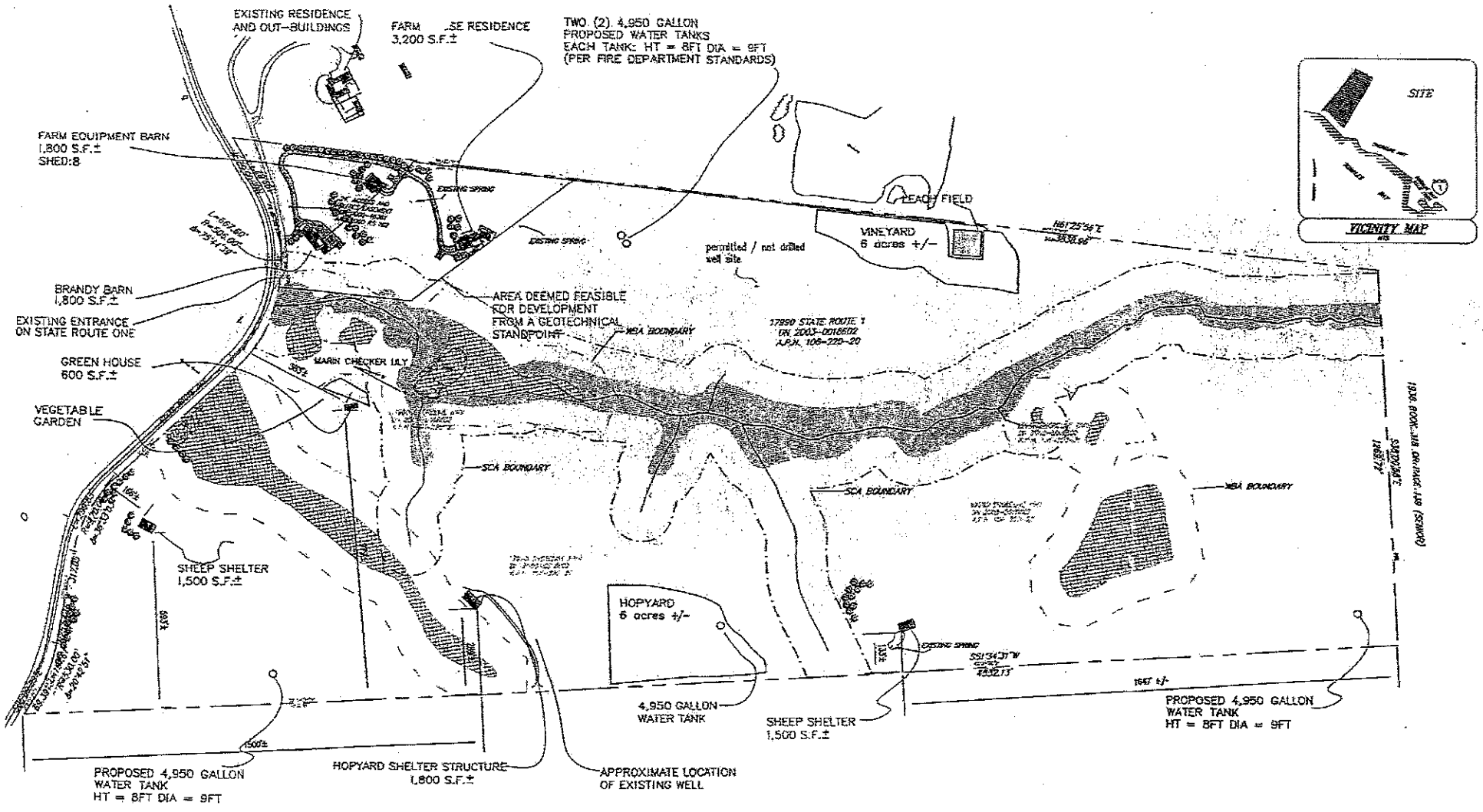
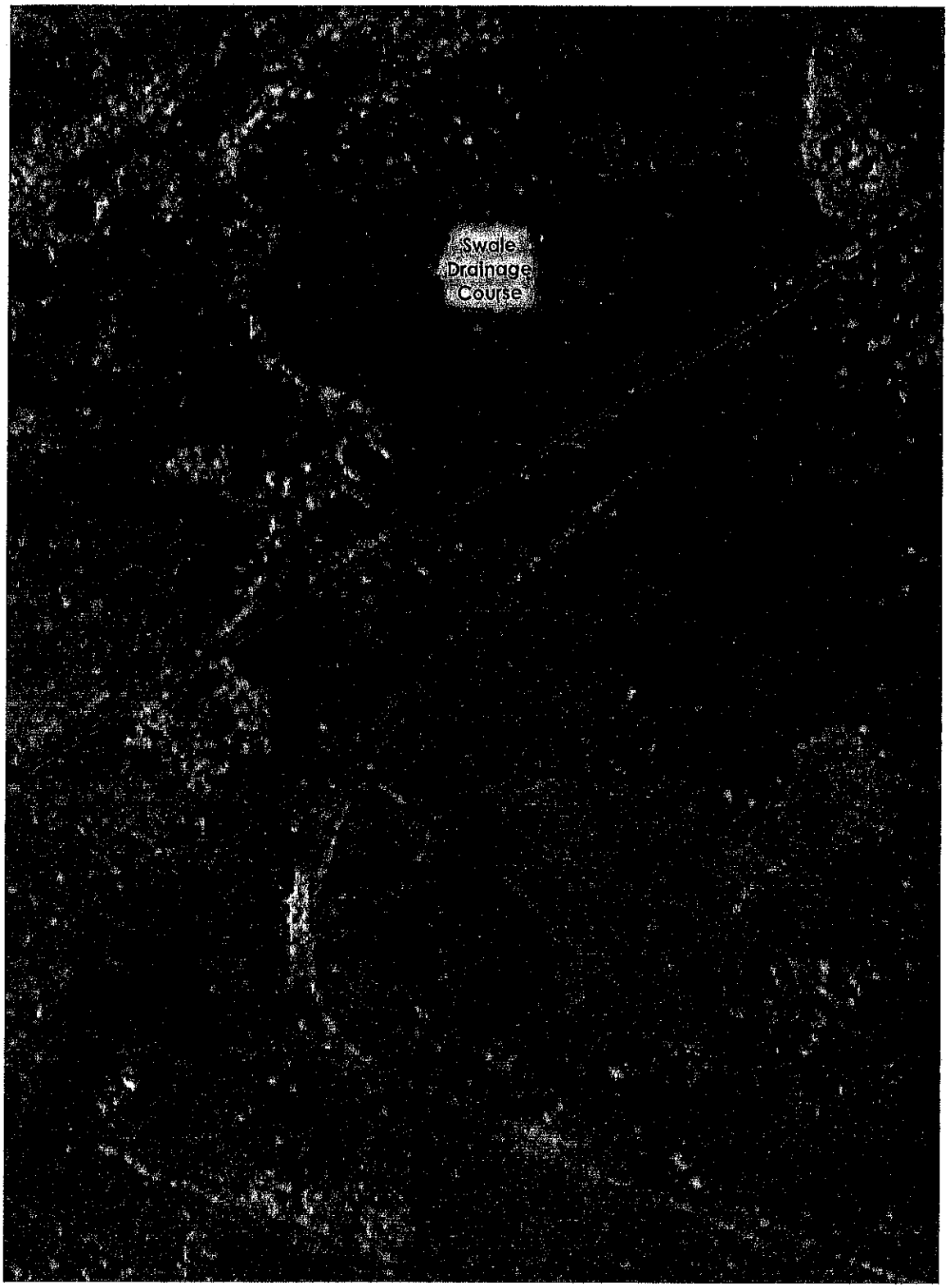


Figure 3

Proposed Site Plan

Preliminary Biological Issues Review
17990 Shoreline Highway, Marshall, CA



Approximate location of property line

Source: Google Earth 2007

Figure 4

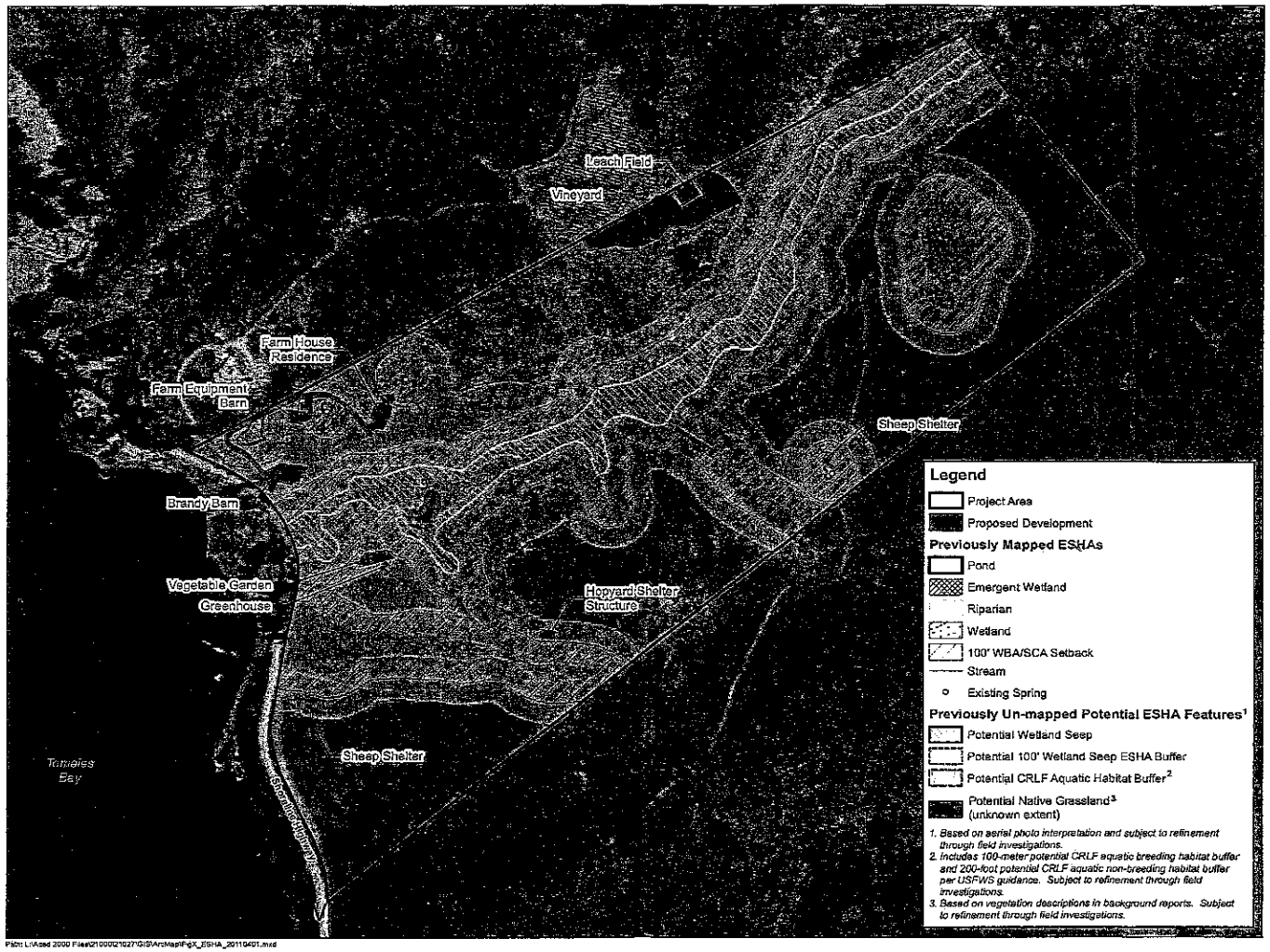
Swale Drainage Feature

Preliminary Biological Issues Review
17990 Shoreline Highway, Marshall, CA

Sourece: Scott N. Kivel and Lia Lund 2011

Figure 5
Potential Swale Feature Wetland
Preliminary Biological Issues Review
17990 Shoreline Highway, Marshall, CA

E M C



Path: L:\Acad 2000 Files\210002\0271\GIS\ArcMapFigX_ESHA_20110401.mxd

0 500 feet

Source: WRA Environmental Consultants 2011

Figure 6
Additional Potential ESHA and ESHA Setbacks
Preliminary Biological Issues Review
17990 Shoreline Highway, Marshall, CA

E M C

Planning for Success.

June 6, 2011

Mr. Larry Simon
Federal Consistency Coordinator
Energy, Ocean Resources and Federal Consistency Division
California Coastal Commission
45 Fremont St., Suite 2000
San Francisco, CA 94105

Re: Follow-up Letter to Biological Site Visit - Local Coastal Program Permit Application, A-2-Mar-10-022 (Magee Project), West Marin County, California

Dear Mr. Simon,

Thank you very much for you and Dr. Dixon helping to coordinate and lead the June 24 site visit at the Magee property. It was very useful for me to be able to view the site "from the ground" and to have an exchange of ideas and opinions between involved parties in hopes that the previously cited biological data inadequacies and lack of important site details regarding the project's proposed layout/developmental footprint can be resolved. I thought that the trip went well and wanted to share my observations and professional opinions. Based on what I saw during the site investigation and upon review of your May 26 memo, the following must also be provided by the project proponent's biological consultant, Zander Associates, to enable the determination of the project's consistency with the Local Coastal Act and with the Local Coastal Program:

1. Identify suitable habitat on-site for all potentially occurring sensitive wildlife species (with suitably scaled site map); implement appropriate protocol-level surveys.
2. Prepare site-wide wetland delineation to Coastal Commission standards with suitable mapping.
3. Prepare site-wide vegetation map depicting areas of native species concentrations and/or sensitive habitats (i.e. coastal prairie) with appropriate scale map.
4. Update the site plan to reflect proper setback distance and buffers from all on site ESHA and/or wetland features.

Item 1: Identify suitable habitat on-site for all potentially occurring sensitive wildlife species (with suitably scaled site map); Implement appropriate protocol-level surveys.

In addition to the California red-legged frog (CRLF), western pond turtle and foothill yellow-legged frog habitat assessment and surveys, an American badger (California Species of Concern) habitat assessment and survey is also warranted, based on the fact that Mr. Magee claims to have seen the species on the property and, more significantly, because the bordering property owner to the north has observed badgers on her property on numerous occasions and active badger dens on her property bordering the proposed vineyard location. These unoccupied badger dens are located approximately 100 feet or less from the proposed ground disturbance associated with the development of the vineyard area. Based on the fact that the vineyard area provides several acres of suitable grassland habitat for the species, it is necessary to delineate the habitat effected by the vineyard site's conversion of grassland habitat to quantify potential impacts to the species and to also conduct a protocol-level site survey for badger. The mapping is also necessary for any on-site habitats of CRLF, WPT and FYLF in order to identify the extent of ESHA and calculate the habitat buffers for mitigation purposes.

Regarding the amphibian habitat assessments and surveys to be performed, in order for the survey(s) to count towards establishing a finding of presence or absence, when implementing focused biological surveys, the specific survey must have been performed during the appropriate time/season of the year. Additionally, more than one year of surveys may be appropriate in establishing species presence/absence.

CRLF surveys must conform to the protocol established in the U.S. Fish and Wildlife Services' *Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog (August 2005).* There is no official California Department of Fish and Game FYLF survey protocol, but survey standards for the species are promulgated in two technical papers: *A Standardized Protocol for Surveying Aquatic Amphibians, G. Fellers and K. Freel, Technical Report NPS/WRUC/NRTR-95-01 (May 1995)*, and, *A Standardized Approach for Habitat Assessments and Visual Encounter Surveys for the Foothill Yellow-legged Frog (Rana boylii), C. Seltenrich and A. Pool, Pacific Gas and Electric,(May 2002).* Protocol methodologies for western pond turtle are detailed in the U.S. Department of Agriculture Forest Service's *Ecology and Sampling Methods for the Western Pond Turtle, D. Ashton, H. Welsh, (2001).* Currently, there is no regulatory agency recommended survey protocol for badger, but the use of remote camera stations in areas proposed for development and scat sampling could shed light on the species recent use of the site.

Item 2: Prepare site-wide wetland delineation to Coastal Commission standards with suitable mapping.

Based on our site visit, a review of wetland data forms prepared by Zander Associates during several site visits over separate years and a review of both Marin County's Local Coastal Program (LCP) and the Coastal Commission's wetland guidelines, it appears that there are several freshwater wetland seep features on-site that are not mapped and that qualify as a wetland under the Coastal Commission's wetland criteria. During the visit, I observed several freshwater seep features within proximity to Magee's proposed driveway and structures that have not been shown to date on any mapping that EMC Planning Group has had access to. On March 3, 2010 Marin County Planning's Ruby Pap had informed Zander Associates that potential on-site wetland features must be delineated. Therefore, it has been at least a full year that Magee was aware that his project's application needed more information for the County to make a determination. To date the requested wetland delineation has still not been completed. Detailed wetland mapping (1 inch=200 foot scale) is necessary to determine whether proposed buildings/roads are adequately setback from sensitive ESHA features on site, including the apparently jurisdictional swale that originates north of the site and passes through the pig enclosure. This swale also appears to be hydrologically-connected to a freshwater seep area that had not been previously mapped (recently mapped [February 2011], Zander Associates Wetland Data Sample Point 21).

It is our understanding that a site wetland delineation describing and identifying all possible wetland features within 500-feet of any proposed development is the Coastal Commission's standard (*Draft Statewide Interpretive Guidelines on Wetlands, California Coastal Commission, updated November 17, 1980*) and therefore, Zander Associates must be directed to investigate and delineate all wetlands within such 500-foot development distance and not just the project's building envelope. Additionally, because a 100-foot setback is only the "minimum standard" regarding stream course setbacks and because the proposed commercial brandy distillery is located adjacent to a very sensitive resource area (a live stream course channel leading directly to Tomales Bay), 200-feet should be required as a minimum setback distance for this facility. This distillery has the potential to cause added surface run-off from impervious surfaces, impacts to wildlife from potential hazardous chemicals used in the distillery process, and has the potential to cause contaminated run-off. In consideration of the overall slope in the area (approximately 20%), and the sensitivity of the water course, the Commission should also consider the elimination of this project feature or a complete relocation of it away from the creek all together.

Item 3: Prepare site-wide vegetation map depicting areas of native species concentrations and/or sensitive habitats (i.e. coastal prairie) with appropriate scale map.

Corresponding to your requests to Zander Associates in numbers 6 through 8, requesting additional grassland surveys, a meandering transect on the south side of the creek to characterize native species composition, and that an updated vegetation map be prepared, these efforts should be coordinated into a series of Rare Plant Survey Maps (by year surveyed) and an Overall Vegetation Composition Map (site-wide) be created. These maps will be useful to quantify potential impacts to potentially present special status species due to grassland conversion (i.e. badger).

Item 4: Update the site plan to reflect proper setback distance and buffers from all on site ESHA and/or wetland features.

To date, this critical component of project analysis (i.e. potential to impact ESHA and wetlands) has been incomplete, inadequate and in general, under-representative of on-site special status resources and their legally required setbacks and buffers under the Coastal Act and LCP. Upon completion of the revised vegetation, wetlands and ESHA maps (along with any special status species wildlife habitat maps), all data should be comprehensively consolidated and overlaid on an updated site plan to generate an accurate site map that would serve as the basis for determining appropriate development/building/road setbacks from all on site native/sensitive plant and animal habitats (e.g. ESHA and wetlands). Additionally, upon completion of any protocol-level surveys that lead to a finding of on-site presence for state or federally protected species, the site plan would also need to be revised to reflect any applicable setbacks/buffers.

Should you have any questions or comments concerning the results and/or recommendations presented in this assessment letter, please feel free to contact me at (831) 649-1799, ext. 208.

Sincerely,

Bill Goggin
Senior Biologist

FENTON & KELLER
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
2801 MONTEREY-SALINAS HIGHWAY
POST OFFICE BOX 791
MONTEREY, CALIFORNIA 93942-0791
TELEPHONE (831) 373-1241
FACSIMILE (831) 373-7219
www.FentonKeller.com

MARK A. CAMERON
JOHN S. BRIDGES
DENNIS G. MCCARTHY
CHRISTOPHER E. PANETTA
DAVID C. SWEIGERT
SARA B. BOYNS
BRIAN D. CALL
SHARILYN R. PAYNE
BRIAN E. TURLINGTON
CAROL S. HILBURN
TROY A. KINGSHAVEN
MICHAEL P. BURNS
KATHERINE M. HOGAN

LEWIS L. FENTON
1925-2005
JACQUELINE P. MCMANUS
1961-2011

OF COUNSEL
CHARLES R. KELLER
THOMAS H. JAMISON
GARY W. SAWYERS

September 7, 2011

JOHN S. BRIDGES

JBridges@FentonKeller.com
ext. 238

VIA CERTIFIED MAIL

California Coastal Commission
Attn: Larry Simon
45 Fremont Street, Suite 2000
San Francisco, CA 94105

RECEIVED
SEP 08 2011
CALIFORNIA
COASTAL COMMISSION

Re: Magee Distillery Project (A-2-MAR-10-022)
Our File: 33447.31025

Dear Mr. Simon:

In accordance with our numerous comments on the Magee Distillery Project to date, enclosed is a Draft Environmental Initial Study/Policy Consistency Analysis (modeled generally after a CEQA Initial Study document) which identifies many of the issues we consider important for the Coastal Commission to consider in the context of the pending appeal and particularly with regard to the project's numerous LCP inconsistencies and its many unmitigated impacts on the environment (ref. PRC § 21080.5 and CCR § 15252).

Also, we would like to arrange to meet with you to discuss this document and to understand how staff intends to address these issues. Thank you for your attention to this matter.

Very truly yours,

FENTON & KELLER
A Professional Corporation

John S. Bridges

JSB:kmc
Enclosure

cc: Scott Kivel/Lia Lund (w/o encl.)

DRAFT ENVIRONMENTAL INITIAL STUDY/POLICY CONSISTENCY ANALYSIS

MAGEE DISTILLERY PROJECT

(A-2-MAR-10-022)

PREPARED FOR

John Bridges, Esq.
FENTON & KELLER
Post Office Box 791
Monterey, CA 93942-0791
Tel 831-373-1241

PREPARED BY

EMC Planning Group Inc.
301 Lighthouse Avenue, Suite C
Monterey, CA 93940
Tel 831.649.1799
Fax 831.649.8399
contactus@emcplanning.com
www.emcplanning.com

September 6, 2011

This document was produced on recycled paper.

TABLE OF CONTENTS

A. BACKGROUND 1

B. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED 8

C. DETERMINATION 9

D. EVALUATION OF ENVIRONMENTAL IMPACTS 10

Aesthetics 11

Agriculture and Forest Resources 20

Air Quality 32

Biological Resources 34

Geology and Soils 44

Hazards and Hazardous Materials 49

Hydrology and Water Quality 52

Land Use and Planning 60

Public Services 63

Transportation/Traffic 64

Utilities and Service Systems 67

Mandatory Findings of Significance 70

E. ALTERNATIVES TO THE PROPOSED PROJECT 72

Figures

Figure 1 Alternative Project Site 77

Tables

Table 1 LCP Policy Inconsistency Summary 61

Supplemental Information

Aesthetics

Existing Visual Simulation (Applicant Submittal)

Marin County Zoning/Development Application – Story Pole and Staking Requirements

Agriculture and Forest Resources

Sample Costs to Establish and Vineyard and Produce Wine Grapes – Red Varieties – Cabernet Sauvignon

Excerpt of the Marin County Planning Commission's "Resolution to Approve with Conditions the Dillon-Vision (Brader-Magee) Coastal Development Permit, Design Review and Use Permit."

California Coastal Commission Staff Report for Appeal No. A-2-MAR-02-024 (Hansen-Brubaker), November 15, 2002.

Exerpt of California Coastal Commission Staff Report for Appeal No. A-2-MAR-11-007 (Nextera Energy Resources), January 11, 2011 (pgs 1-11 of 25)

Biological Resources

Preliminary Biological Issues Review Letter - Local Coastal Program Permit Application, A-2-Mar-10-022 (Magee Project), Marin County, California

Supplemental Information Regarding Coastal Act and Responsible Agency Permit Violations at 17990 Shoreline Highway (State Route 1), Marshall, Marin County, CA (Supplemental Letter 1)

Supplemental Information Regarding Additional Coastal Act and Marin County Local Coastal Program/Development Standard Violations at 17990 Shoreline Highway (State Route 1), Marshall, Marin County, CA (Supplemental Letter 2)

Email Communication Regarding Outstanding Biological Resources Information Needs Identified by Dr. John Dixon, California Coastal Commission Staff Biologist

Follow-up Letter to Biological Site Visit - Local Coastal Program Permit Application, A-2-Mar-10-022 (Magee Project), West Marin County, California

Geology and Soils

Preliminary Geotechnical Investigation (Applicant Submittal)

Transportation/Traffic

Focused Traffic Analysis (Applicant Submittal)

Excerpt of Tomales Bay State Park General Plan

A. BACKGROUND

Project Title	Appeal No. A-2-MAR-10-022 (Tony Magee and Dillion Vision LLC, CP-09-39, 17990 Shoreline Highway, Marshall, Marin County
California Coastal Commission Contact Person and Phone Number	Mr. Larry Simon Federal Consistency Coordinator 415-904-5400
Date Prepared	September 6, 2011
Study Prepared by	EMC Planning Group Inc. 301 Lighthouse Avenue, Suite C Monterey, CA 93940 Ron Sissem, Principal Planner
Study Prepared for	John S. Bridges, Esq. Fenton & Keller 2801 Monterey-Salinas Hwy Monterey, CA 93940 831-373-1241
Project Location	17990 Shoreline Highway, Marshall, Marin County
Project Sponsor Name and Address	Tony Magee
General Plan Designation	Agricultural (C-AG-1)
Zoning	C-APZ (Coastal – Agricultural Production Zone)

Purpose of this Environmental Review Checklist

This environmental review checklist has been prepared to assist the California Coastal Commission with its de novo review of Appeal No. A-2-MAR-10-022. The County of Marin, acting as Lead Agency under CEQA, determined that the proposed project qualified as categorically exempt from CEQA. Consequently, no environmental review documentation was prepared, circulated or adopted/certified by the County prior to its approval of the coastal permit for the project.

Prior to taking discretionary action on Appeal No. A-2-MAR-10-022, the California Coastal Commission is required to consider the environmental effects of the subject project. Given that the County prepared no detailed CEQA documentation for the proposed project, environmental review documentation is needed for the California Coastal Commission's consideration. This environmental review checklist has been prepared to assist California Coastal Commission staff

with its environmental review of the proposed project pursuant to Public Resources Code section 21080.5 and CEQA Guidelines section 15252, which identify substitute documentation for certified programs, including the regulatory program of the California Coastal Commission.

This checklist includes a description of the proposed project to the extent it has been defined, a checklist to show the possible effects of the proposed project, and alternatives to the proposed project. It also includes review of the proposed project's consistency with applicable policies of the 1981 *Marin County Local Coastal Program Unit 2 – Amended* (LCP). Only those policies deemed relevant to the proposed project were included in the checklist. Documentation utilized in support of the review of individual environmental topics is included in the Supplement Information section found at the end of the checklist text.

Overview of Proposed Project

On May 11, 2010, Marin County approved coastal permit CP-09-39 for establishment of a proposed agricultural operation at 17990 Shoreline Highway, Marshall, Marin County consisting of livestock (sheep) production over 50 acres of land, hop cultivation over six acres of land, production of crops for sale at local farmers' markets on 2.3 acres of land, and a six-acre vineyard for grapes that would be used as an input to an on-site industrial brandy production facility.

The approved project comprises three barns (1,792 square-foot, 15 feet high equipment barn; 896 square-foot, 15 feet high open-sided hop barn; and 1,456 square-foot, 15 feet high brandy distillery); 3,165 square-foot, 22 feet high single-family residence with attached 648 square-foot garage; a 960 square-foot shed adjacent to the equipment barn; two open-sided 7 feet high sheep shelters; an 8.5 feet high greenhouse; five 4,950-gallon water tanks; a septic system leach field; and a new water well. An 850-foot long driveway at the crest of a hill would be constructed off an existing private driveway that parallels Highway 1 and would provide access to the brandy distillery, equipment barn, and the single-family residence. The non-agricultural uses (residence, barn, brandy distillery) would be located near Highway 1 and adjacent to the on-site blue-line creek and other environmentally sensitive habitat areas (ESHA) as discussed below. Other project structures including the greenhouse, hop barn, and sheep shelters would not be clustered in the same area, but instead are disbursed across a large area on the south side of the blue-line stream.

Conveyance to the County of an "Affirmative Agricultural Conservation Easement and Declaration of Restrictions" is required and included in the project description. The conveyance includes definition of perpetual uses and restrictions on uses. The applicant must submit an offer for an Agricultural Conservation Easement and Declaration of Restrictions as a condition of approval.

Pursuant to Coastal Act Section 30603(a)(4), Marin County's approval of a coastal permit is appealable to the California Coastal Commission because the approved project involves development approved by a coastal county (i.e., the proposed single-family residence) that is not designated as the principal permitted use in the Coastal, Agricultural Production Zone (C-APZ-60) in the certified zoning ordinance. A formal appeal of the County's approval of a coastal permit was filed on June 1, 2010. On September 2, 2010, the Coastal Commission determined that the appeal raises substantial issues under the Coastal Act requiring independent de novo review by the Commission.

Existing Site and Vicinity Setting

Existing Site Setting

The subject 150-acre property is located on the east side of Highway 1 in the unincorporated community of Marshall east of Tomales Bay. The project is zoned C-APZ-60 (Coastal Agricultural Production Zone, Planned District, one primary dwelling unit per 60 acres maximum density). The property is currently undeveloped agricultural land, save for remnant dirt access roads that supported historic cattle grazing, a partially silted-in farm pond behind an earthen dam on the lower reach of a blue-line stream on the property, perimeter and interior livestock fencing, a water well, and a small hops cultivation field.

Except for minor effects on vegetation from past cattle grazing and creation of farm roads used historically to access the property, the project site is largely intact from an environmental resources standpoint. However, the prior property owner and current property owner (the applicant) have undertaken activities at the site without required permits and which are the subject of a pending code enforcement investigation. The activities are alleged to be in violation of the *Marin County Code* (hereinafter "Code") and in violation of LCP policies. These actions are discussed in two submissions made to Coastal Commission staff and are further discussed in the Biological Resources section of this environmental checklist. The actions include constructing an animal enclosure across a potential ESHA feature, diverting surface water flow that may be support ESHA, constructing a water well in violation of Coastal Act statute, constructing on-site farm roads/access that could adversely affect ESHA, placement of fill in a blue-line stream and constructing a vehicular access gate on Highway 1 without an encroachment permit from Caltrans. The potential environmental impacts of these actions have not been addressed to date. The environmental review of the proposed project should; therefore, include the potential adverse effects of these actions. Where appropriate, such effects have been briefly referenced in this environmental checklist.

The project site contains highly valuable biological resources in the form of diverse native and non-native grassland, coastal scrub, and mixed evergreen riparian forest. A blue-line stream

traverses the length of the property from east to west. It is located closer to the northern property line than to the southern property line. The stream discharges into Tomales Bay. Riparian forest habitat is found along the stream margins. A farm pond is located on the blue-line stream. The area adjacent to the pond and several other areas on the property show clear evidence of aquatic and emergent wetland plant communities. Two intermittent watercourses are tributary to the blue-line stream in the southern half of the parcel. The site also contains freshwater springs and seeps which may be considered as wetland and/or special-status species habitat ESHA. Some of these features have only recently been identified. In short, the project site contains diverse biological resources classified as ESHA.

The applicant's biological consultant prepared general plant and wildlife habitat surveys in the general area proposed for non-agricultural development; occurrence of other sensitive resources types has also been generally identified for other portions of the site. These surveys, as discussed in the Biological Resources section of this environmental checklist, have revealed presence of federally and state protected sensitive habitats and potential for presence of federally and state protected special-status species. Detailed biological surveys have not been conducted for much of the site, as effort was focused primarily on the area proposed for development the northwestern portion of the property. Consequently, detailed information on biological resources values across the entire site is lacking. Further, based on review of biological resources information submitted by the applicant and on a site visit, Coastal Commission staff biologist Dr. John Dixon has found that the existing information does not provide sufficient information on which to accurately assess the potential biological resources impacts of the proposed project. Additional supplemental analyses have been requested as discussed in the Biological Resources section of this checklist.

The applicant prepared a range of other technical studies, including cultural resources and geologic hazards analyses. Like the applicant's biological resources surveys, these technical analyses focus on resources/hazards within areas proposed for development, but do not address conditions in other portions of the site per se. As discussed in the Geology and Soils section of this checklist, the geological hazards analysis does not appear to provide sufficient information to fully assess potential impacts of the proposed project.

Elevation ranges from 491 feet in the northeast corner of the parcel to 20 feet at the Highway 1 frontage. Most of the site contains significant slopes, which are visible from the public viewshed.

Vicinity Setting

The properties to the east and south are undeveloped agricultural land. The parcel to the north has been developed under C-APZ zoning district standards. It contains an olive orchard, single-family home, and barn. Marconi Cove, which is part of the Tomales Bay State Park, is located

immediately west of Highway. Per the *Tomales State Park General Plan*, the Marconi Cove area is planned for development with a range of potential uses included boat launch facilities, parking, a snack shop, and camp sites.

With the exception of the 62-acre Marconi Conference Center, which is located approximately one-quarter mile to the north along Tomales Bay, land use in the vicinity is predominantly agriculture. Single-family residential uses are also scattered along the shore of Tomales Bay. From Millerton Point to Tomales, an estimated 12-mile stretch, commercial uses are infrequent and small scale. Commercial uses which predate the Coastal Act are limited to two restaurants, one small boatyard, one small store/take-out, and two oyster sales establishments with picnic tables.

The proposed brandy distillery would be the first and only industrial use located within the 12-mile stretch from Millerton Point to Tomales.

Environmental Review Limited by Lack of Project Information

The County gleaned the overall project description from a variety of information sources all of which were generated by the applicant and the applicant's consultants. Despite a broad range of information in the administrative record, significant information gaps remain which preclude the possibility of preparing a complete assessment of the environmental impacts of the proposed project. Critical information gaps include, but are not limited to:

- Limited and incomplete visual analysis.
- Inability to accurately determine the location or height of proposed structures and locations of ancillary improvements and infrastructure, including roads, due to inadequate and incomplete flagging and staking.
- As confirmed by Dr. Dixon, Coastal Commission staff biologist, incomplete information on the presence of ESHA in the form of sensitive habitats and special-status wildlife species both in proposed development areas and in other areas of the project site.
- No information about the brandy distillation process (equipment, chemicals, energy requirements, product imports/exports, potential worker safety hazards, etc.), the process of preparing or maintaining the facility for use (i.e. equipment maintenance, use of potentially hazardous materials, etc.), the full character of waste outputs – especially wastewater, or building or operational measures that would be employed to reduce environmental and public safety hazards.

- No fact-based information regarding the viability of the proposed vineyard agricultural use.
- No criteria or performance standards regarding RWQCB review of waste discharge requirements for the project or for design of a septic disposal system to accommodate industrial process wastewater.
- Lack of geologic hazard information for the septic disposal site area.
- Insufficient information about existing or cumulative traffic and circulation conditions.
- Lack of clarity about the location of the new well and whether a sustainable supply of domestic water is available from that well; discussion of environmental effects of using existing well for all project water demand.
- No fact-based information in the record which demonstrates the types, volumes, application methods, or handling and storage requirements for herbicides, pesticides or other potentially hazardous materials that could be applied for agricultural production (grapes, hops, vegetables, etc.).
- No standards, performance measures or program designed to monitor project operations to ensure conformance with qualitative or quantitative elements of the project description, especially volume of brandy production, product imports/exports, number of vehicle trips or visitors to the brandy distillery, volume of water demand, volume of wastewater production, etc.

Lacking adequate project description and environmental setting information, the analysis of environmental effects of the proposed project must assume a worst-case scenario. This assumption is reflected in analysis of individual environmental topics included in this environmental checklist. Substantial additional information is needed to prepare a legally defensible analysis of environmental impacts as is required of the Coastal Commission prior to making a decision on the project.

Other Public Agencies with Responsibilities for Resources Affected by the Proposed Project

- California Regional Water Quality Control Board
- California Department of Fish and Game
- California Department of Parks and Recreation
- U.S. Army Corps of Engineers

- U.S. Fish and Wildlife Service
- U.S. Park Service/Point Reyes National Seashore
- California Department of Transportation
- National Oceanographic and Atmospheric Administration, National Marine Fisheries

B. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages. Decisions regarding factors that would not be affected by the proposed project were based on review of the project description and review of the existing project setting.

✓ Aesthetics	☐ Greenhouse Gas Emissions	☐ Population/Housing
✓ Agriculture and Forestry Resources	✓ Hazards & Hazardous Materials	✓ Public Services
✓ Air quality	✓ Hydrology/Water Quality	☐ Recreation
✓ Biological Resources	✓ Land Use/Planning	✓ Transportation/Traffic
☐ Cultural Resources	☐ Mineral Resources	✓ Utilities/Service Systems
✓ Geology/Soils	☐ Noise	✓ Mandatory Findings of Significance

C. DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

✓ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (1) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (2) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

_____ _____

Name and Title Date

D. EVALUATION OF ENVIRONMENTAL IMPACTS

Notes

1. A brief explanation is provided for all answers except "No Impact" answers that are adequately supported by referenced information. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer is explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers take account of the whole action involved, including off-site as well as on-site, cumulative as well a project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once it has been determined that a particular physical impact may occur, then the checklist answers indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. Checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances, etc.) are incorporated.

Pages 11-20 of this September 6, 2011, submittal consist of the project visual simulations found in **Exhibit 20** of the Staff Report

(d) The proposed project does not require the removal of forest land or conversion of forestland to non-forest use.

(e) Brandy production involves a distillation process that is considered industrial in nature. This type of conditional use in an agricultural zone could be considered precedent setting and possibly growth-inducing. There are no other industrial uses on Tomales Bay from Millerton Point to Tomales, an estimated 12-mile stretch. This area contains only limited commercial uses - two restaurants, one small boatyard, one tiny store/take-out, and two oyster sales establishments with picnic tables.

In order to expand their economic development potential, owners of other properties in the vicinity could be motivated to develop industrial uses that heretofore may not have been considered possible or acceptable. In combination with the brandy distillery, these uses could substantially alter the existing character of what is now a rural, agriculture based community. Incremental increases in environmental impacts and risks would likely accompany such development.

Further, such development could be proposed on lands designated C-APZ that contain Farmland (Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance) as mapped by the California Department of Conservation. A substantial amount of land located on the east side of Tomales Bay contains Farmland. Development of such uses could result in incremental conversion of Farmland. This potentially significant impact warrants further detailed analysis.

Concern about whether the brandy distillery is an appropriate use or use that is consistent with the LCP and Coastal Act were raised at the Substantial Issue hearing by several Commissioners.

Project Consistency with LCP Policies/Marin County Code

Agricultural Policies

3. **Intent of the Agricultural Production Zone**. The intent of the Agricultural Production Zone is to preserve lands within the zone for agricultural use. The principal use of lands in, the APZ shall be agricultural. Development shall be accessory, incidental, or in support of agricultural land uses, and shall conform to the policies and standards in #4 and #5 below.

The proposed project as conditioned by Marin County is **inconsistent** with this policy.

Discussion. This discussion focuses on the "development shall be in support of agricultural land uses" component of the policy. Discussion about whether the proposed "development shall be accessory or incidental" to agricultural land uses is discussed under Policy 4 below.

The policy inconsistency is linked directly and solely to the vineyard and brandy distillery components of the proposed project. As noted in the project description, the reported purpose of the proposed brandy distillery is to process grapes grown on the site. Marin County is presumed to have considered the brandy distillery a component of the proposed project that is "in support of agricultural land uses" as described in Policy 3, as the distillery cannot otherwise be considered accessory or incidental to agricultural uses as discussed below. Without the vineyard, the distillery would have no purpose and would not be in support of other agricultural uses proposed as part of the project.

Significant uncertainty exists as to the viability of the site as a suitable location for siting and sustaining a six-acre vineyard. The suitability of the site for a vineyard rests solely on the factually unsupported assertion of the applicant. The County did not seek to validate the applicant's assertion. There is no other evidence in the record that would support the assertion. There are no vineyards on other similarly situated land in the vicinity.

During the Substantial Issue hearing, several commissioners commented that the information in the record for the project is vague and that it appears that important decisions about the project were based on vague, unsubstantiated statements by the applicant or the County.

The proposed project as approved and conditioned by the County does not make provision for demonstrating the success of the vineyard as a condition of project approval. Consequently, the distillery building could be constructed and equipment installed without verification that the vineyard use is even viable. The distillery cannot be demonstrated to be in support of an agricultural use whose viability has not been sufficiently demonstrated by the evidence in the record.

Justification for the assumption that the brandy distillery is in support of an agricultural use is also unsupportable due to the lack of information about the economic viability of the brandy distillery. The brandy distillery is proposed as an element to support the economic viability of continued agriculture use of the project site. It is unclear whether the brandy distillery would provide positive or negative economic return at the volume of annual brandy production suggested by the applicant. If the latter is possible or probable, a serious question arises as to whether the brandy distillery contributes to agricultural viability.

Based on a general review of potential costs to establish and harvest grapes from a cabernet sauvignon vineyard in northern California, costs could range into the hundreds of thousands of dollars. Costs are referenced from the *Sample Costs to Establish and Vineyard and Produce Wine*

Grapes – Red Varieties – Cabernet Sauvignon produced in 2008 and included in the supplemental Agricultural Resources information. Costs of constructing the brandy distillery could also reach into the hundreds of thousands. Annual brandy production expenses and distillery maintenance costs are in addition to these costs. Based on the cost of what may be a comparable product to what the applicant is proposing, annual revenue is estimated be in the range of $50,000 to $60,000 (based on an assumed cost of about $40 to $50 a bottle at 12 bottles per case and 100 cases of annual production). While this cost and revenue information is not specific to the proposed project per se, it does provide sufficient information to question whether the vineyard/brandy distillery components of the proposed project will provide a return to the applicant that substantively contributes to the viability of continued agricultural use of the property.

The relationship between the viability of the vineyard and operation of the brandy distillery has significant implications for evaluation of other potential impacts of the proposed project. This is especially true for potential traffic and circulation impacts as described in the Transportation and Traffic section of this checklist.

4. **Development standards and requirements**. All land divisions and developments in the APZ shall require an approved master plan showing how the proposed division or development would affect the subject property. In reviewing a proposed master plan and determining the density of permitted units, the County shall make all of the following findings:

   a. The development would protect and enhance continued agricultural use and contribute to agricultural viability.

   b. The development is necessary because agricultural use of the property is no longer feasible. The purpose of this standard is to permit agricultural landowners who face economic hardship to demonstrate how development on a portion of their land would ease this hardship and enhance agricultural operations on the remainder of the property.

   c. The land division or development would not conflict with the continuation of agriculture on that portion of the property which is not developed, on adjacent parcels, or those within one mile of the perimeter of the proposed development.

   d. Adequate water supply, sewage disposal, road access and capacity and other public services are available to service the proposed development after provision has been made for existing and continued agricultural operations. Water diversions or use for a proposed development shall not adversely impact stream habitats or significantly reduce freshwater inflows to Tomales Bay, either individually or cumulatively.

e. Appropriate public agencies are able to provide necessary services (fire protection, police protection, schools, etc.) to serve the proposed development.

f. The proposed land division and/or development will have no significant adverse impacts on environmental quality or natural habitats, including stream or riparian habitats and scenic resources. In all cases, LCP policies on streams and natural resources shall be met.

g. Development consists of permitted and conditional uses as authorized in the APZ.

Marin County Code Section 22.57.032I Principal Permitted Uses

This section of the Marin County Code also requires preparation of a master plan as follows:

The following uses are permitted in all C-APZ districts subject to an approved master plan:

1. Agricultural Uses. For the purposes of the coastal agricultural production zone, agricultural uses are defined as uses of land to grow and/or produce agricultural commodities for commercial purposes, including:

   a. Livestock and poultry: Cattle, sheep, poultry, goats, rabbits, horses unless they are the primary animals raised;

   b. Livestock and poultry products: Milk, wool, eggs;

   c. Field, fruit, nut and vegetable crops: Hay, grain, silage, pasture, fruits, nuts and vegetables;

   d. Nursery products: Nursery crops, cut plants.

2. One single-family dwelling per parcel. Parcel is defined as all contiguous assessor's parcels under common ownership (unless legally divided as per Title 20, Marin County Code).

3. Accessory structures or uses appurtenant and necessary to the operation of agricultural uses, other than dwelling units of any kind; but, including barns, fences, stables, corrals, coops and pens and utility facilities.

4. Bed and breakfast operations as defined in Section 22.02.103I, for such operations which offer or provide not more than three guest rooms.

The proposed project is **inconsistent** with LCP Agricultural Policy 4 and with Marin County Code sections 22.57.032I and 22.56.026

Discussion. LCP Policy and Code consistency issues are as follows:

Improper Waiver of Master Plan Requirement. The applicant prepared draft master plan documents dated December 2008 and May 2009, respectively. However, these documents were never approved, as the County Planning Director subsequently determined that a waiver of the County's master plan requirement as stated in Policy 4 was warranted based on the project meeting the waiver requirements enumerated in Marin County Code section 22.56.026. This determination was made without a formal request for a waiver as required pursuant to Marin County Code section 22.44.040. The waiver requirements are as follows:

> Pursuant to Chapter 22.56.026, the requirement for a master plan may be waived when:
>
> A. One single-family dwelling unit is proposed for construction on a legal building site;
>
> B. A tentative map requiring a parcel map for four parcels or less is proposed, except in C-APZ districts;
>
> C. The planning director determines that a proposed development is minor or incidental in nature and within the intent and objectives of the local coastal plan.

The planning director's determination that the project is consistent with requirement "C" regarding proposed development as "minor or incidental" is not supported by the record. The evidence provided by the County in support of the waiver determination, including interpretation of development that is minor and incidental, is summarized on in item VIII on page 6 of the Marin County Planning Commission's "Resolution to Approve with Conditions the Dillon-Vision (Brader-Magee) Coastal Development Permit, Design Review and Use Permit." An excerpt of the resolution is included in the supplemental Agriculture and Forest Resources information.

The Coastal Commission's denial of County's waiver of a master plan for a prior project established the standard for interpreting development that is minor or incidental. In its staff report A-2-MAR-02-024 for the "Hansen-Brubaker" appeal of the County's denial of a Coastal Development Permit, Coastal Commission staff made determination that the subject project was inconsistent with Policy 4 of the LUP because the requirements of

Marin County Code section 22.56.026 for waiver of a master plan could not be met. The determination as stated in section 7.2.1.3, Master Plan, on page 22 of the staff report is as follows:

> "However, according to Zoning Code Section 22.56.026, to qualify for a Master Plan waiver a development must meet the three criteria ... in A-C. Although the proposed development includes one single-family dwelling unit proposed for construction on a legal building site, it does not meet requirement A because it includes a guest house and barn. In this case, Requirement B is not applicable because the project does not include a subdivision. Furthermore, the proposed development is not minor or incidental in nature or within the intent and objectives of the local coastal plan as mandated by requirement C. As discussed in Sections 7.2.1 and 7.2.3, the proposed development is significant in nature and inconsistent with Unit II LCP provisions for the protection of visual and agricultural resources. Consequently the appropriate findings cannot be made under Zoning Code Section 22.56.026 to waive the Master Plan requirement."

Like the Hansen-Brubaker project, the proposed project includes a barn. For the Hansen-Brubaker appeal, Coastal staff concluded that a barn is not consistent with requirement "A".

Regarding requirement "C", the modified Hansen-Brubaker project included a total of 6,209 square-feet of development. The proposed project includes approximately 7,061 square-feet of building (residence, garage, brandy distillery, and equipment barn/shed) plus another 3,956 square-feet of development consisting of a hops shelter, two sheep shelters, and a greenhouse for a total of over 11,000 square feet. Staff found that the Hansen-Brubaker guest house and barn were not minor or incidental (these are akin to the proposed equipment barn and the brandy distillery) and that the overall development was significant. In applying this Commission standard, the development included in the proposed project is significant and not minor or incidental. Further, is described in numerous sections of this checklist, including Aesthetics, Biological Resources, Hydrology and Water Quality, Hazards and Hazardous Materials, and Transportation and Traffic, the proposed project will have potentially significant environmental impacts which render it inconsistent with the intent of LCP and with requirement "C", especially in regard to visual resources and biological resources. Given these facts, the planning director's decision to waive the master plan requirement is not consistent with Marin County Code section 22.56.026.

Inconsistency of the decision to waive the master plan requirement based on development being minor and incidental is also evidenced by the fact that the brandy distillery component requires a Use Permit. Among other functions, a Use Permit is a tool to enable a permitting authority to control certain uses which could have detrimental effects and therefore, warrant closer scrutiny, including for their potential adverse environmental impacts.

The adverse environmental impacts of the brandy distillery cannot be thoroughly evaluated given the vague description of this use contained in the project description/project record. The brandy distillery component involves use of an industrial process about which the applicant provided minimal technical description. As far as can be ascertained to date, the only information provided to the County on this use is found in the applicant's *Agricultural Production and Stewardship Plan for 17999 Shoreline Highway at Marconi Cove* (May 2009). Neither this document, nor communications between County departments made during the development review process include detailed information about the full range of inputs required (i.e. chemicals, hazardous materials, etc.), the physical/mechanical/biological nature of the distillation process, possible hazards associated with the use such as fire hazard, product imports/exports, character of waste outputs such as the characterization of wastewater constituents and treatment needs or air emissions/odor, etc.

Information in the applicant's *Agricultural Production and Stewardship Plan for 17999 Shoreline Highway at Marconi Cove* appears to be the County's basis for determining that the brandy distillery component of the project would have no potentially significant impacts – a factor in the County's decision that the proposed project qualifies for an exemption under CEQA. Without more detailed information on this proposed use, its potential environmental impacts cannot be ascertained. This fact invalidates the planning director's decision to waive the master plan requirement, as it cannot be demonstrated that the proposed project would be consistent with the intent or objectives of the LCP per criteria "C' in Marin County Code section 22.56.026.

Inability to Make Required Findings for Development within a C-APZ Zone. As described above, LCP Agriculture Resource Policy 4 requires that specific findings be made in order to approve a master plan. Marin County Code section 22.56.026 provides the County the option to waive the requirement for a master plan only under specific conditions. As demonstrated above, to date, it has not been demonstrated that those conditions were met. Nevertheless, even if section 22.56.026 conditions for a waiver were met, findings required in Policy 4 are also required in Merced County Code section 22.57.036I, Required Findings. These findings must be made in order to approve development permits for development proposed in the C-APZ zone. *These findings must be*

made whether or not a master plan is required. This fact is validated on page 20 of the Hansen-Brubaker staff report. The section 22.57.036I findings are the same as those specified in Policy 4, with the exception that checklist item "g" from Policy 4 is not included. The required findings are as follows:

> 22.57.036I Required Findings. Review and approval of development permits including a determination of density shall be subject to the following findings:
>
> 1. The development will protect and enhance continued agricultural use and contribute to agricultural viability.
>
> 2. The development is necessary because agricultural use of the property is no longer feasible. The purpose of this standard is to permit agricultural landowners who face economic hardship to demonstrate how development on a portion of their land would ease this hardship and enhance agricultural operations on the remainder of the property.
>
> 3. The land division of development will not conflict with the continuation or initiation of agriculture, on that portion of the property which is not proposed for development, on adjacent parcels, or those within one mile of the perimeter of the proposed development.
>
> 4. Adequate water supply, sewage disposal, road access and capacity and other public services are available to service the proposed development after provision has been made for existing and continued agricultural operations. Water diversions or use for a proposed development shall not adversely impact stream habitats or significantly reduce freshwater inflows to Tomales Bay, either individually or cumulatively.
>
> 5. Appropriate public agencies are able to provide necessary services (fire protection, police protection, schools, etc.) to serve the proposed development.
>
> 6. The proposed land division and/or development will have no significant adverse impacts on environmental quality or natural habitats, including stream or riparian habitats and scenic resources. In all cases, LCP policies on streams and natural resources shall be met.

Finding 1 cannot be made. As described on page 21, the proposed industrial brandy distillery use would be the first industrial use located within a 12-mile stretch of the east

shore of Tomales Bay. Its approval would set a standard that industrial uses can be proposed by other landowners and approved by the County and the Commission as a basis for supporting agricultural uses. This standard could lead to proposals by landowners to convert Farmland to industrial uses, thereby resulting in the loss of Farmland.

Finding 2 cannot be made. The project record contains no information verifying that the applicant has sufficiently demonstrated that the existing/historical agricultural use of the property no longer feasible. The record contains no information that the applicant/landowner has faced or is facing economic hardship that would be eased with enhanced agricultural operations. Further, there is no information in the record that the proposed brandy distillery component of the project is in support of agricultural production or will contribute to agricultural viability as previously described.

Finding 4 cannot be made. Given information available in the record, water supply adequacy consistent with the applicant's project design has not been demonstrated to date. As described in the Hydrology and Water Quality section of this checklist, the consistency of the proposed new well with County siting requirements is in question as is its potential to cause direct or indirect significant impacts on biological resources that are characterized as ESHA due to potentially surface water quality impacts that could arise from inadequate siting and design. The adequacy of the proposed septic disposal system has not been demonstrated. Use Permit conditions approved by the County require that the system be reviewed and approved by the RWQCB to ensure that it is adequate to treat and dispose of wastewater from the brandy distillery; this approval has not been secured. There is no evidence in the record that the County was aware of wastewater treatment requirements for an industrial brandy distillery and therefore, the County may not have had sufficient basis to find that the project, as conditioned, has adequate sewage disposal. In fact, the County's approval of the septic disposal system explicitly states that it is conditional on approval of the system by the RWQCB.

For analysis of adequacy of the road system, please refer to the Transportation and Traffic section of this checklist. Evidence exists that the applicant has developed access that in and of itself, has potential to create significant adverse impacts.

Finding 6 cannot be made. As is demonstrated in several sections of this checklist, the proposed project may have significant adverse impacts on the environment that were not identified by the County due to its determination that the proposed project is exempt from CEQA. The proposed project as defined and designed has clear and abundant potential to create significant environmental impacts including but not limited to impacts on agriculture, visual resources, biological resources, water resources, public health and

safety, and traffic safety. The potential impacts described in this checklist trigger project inconsistency with a range of LCP policies as described in each section of the checklist, including the Land Use section.

Requirement for a Master Plan Validated in Appeal No. A-2-MAR-11-007 (Nextera Energy Resources). The California Coastal Commission staff report and recommendation for the Nextera project appeal, dated February 18, 2011, unequivocally establishes that waiver of the master plan requirement for a project proposed in the C-APZ district is inconsistent with the LCP. Discussion of this issue is provided on pages seven through eleven of the staff report. The relevant pages of the staff report are included in the supplemental Agricultural and Forest Resources information. In summary, staff determined (as found in footnote #1 on page 11) that:

> While Code section 22.56.026 notes that certain zoning ordinance requirements may be waived by the Planning Director, this waiver authority only applies to the specific requirements described in Chapter 22.45 of the Zoning Ordinance. Chapter 22.45 is not part of the certified LCP and a waiver of the requirements of this chapter does not affect the requirements detailed in the LCP, including those applicable policies of Chapter 22.56 and 22.57 of the Implementation Plan and LUP Agricultural Policies 3, 4, and 5.

Based on this determination, the staff report includes the following:

> The Commission therefore finds that the County did not adequately apply LUP Agriculture Policies 3, 4, and 5 to the proposed project and therefore the requirements of these policies have not been met.

The facts of the proposed project are no different than those presented for Appeal No. A-2-MAR-11-007. Consequently, the proposed project cannot be found to be consistent with Agriculture policies 3, 4, and 5.

Inconsistency Summary

The proposed project does not include a proposed master plan that was considered as such by the County. A master plan is required by the LCP and its implementing standards as described in the Agriculture policy 4 and the Marin County Code. The information in the record does not include analysis of information required for inclusion in a master plan, nor does it establish that the proposed project meets the master plan requirements. The County did not make findings as required. Therefore, the proposed project is inconsistent with Agricultural Resource Policy 4, and sections 22.57.026,

22.57.032I, and 22. 57.036I of the Marin County Code, which implement the LCP. The California Coastal Commission established a standard pursuant to Appeal No. A-2-MAR-11-007 that a project proposed in the C-APZ district for which a master plan has not been prepared is inconsistent with Agriculture policies 3, 4, and 5.

AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

	Potentially Significant Impact	*Less-than-Significant Impact with Mitigation Measures Incorporated*	*Less-Than-Significant Impact*	*No Impact*
a. Conflict with or obstruct implementation of the applicable air quality plan?	❑	❑	✓	❑
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	✓	❑	❑	❑
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	❑	❑	✓	❑
d. Expose sensitive receptors to substantial pollutant concentrations?	✓	❑	❑	❑
e. Create objectionable odors affecting a substantial number of people?	✓	❑	❑	❑

Discussion:

(a,c) The proposed project will be a source of an incremental increase in transportation mobile source air emissions. Given that the proposed project will not generate a substantial increase in vehicle trips, it is not likely to obstruct implementation of the air quality plan or result in a cumulatively considerable increase in mobile source criteria pollutant.

(b,d) The proposed brandy distillery would be a stationary source of air emissions. The project record contains no information on the distillation process itself or on the inputs or outputs from the process. There is no information in the record which suggests that the County considered the brandy distillery to be a potential stationary source of air emissions, attempted to characterize the types or volumes of air emissions that would be created or whether regulations of the local air district apply. In the absence of such information, it must be assumed that emissions from the distillery have the potential to violate air quality standards.

The nearest sensitive receptors are single-family residences located along the existing access road from the project site is entered and people that will visit the Marconi Cove recreational area once it is improved consistent with the Tomales Bay State Park General Plan. With no information on the air emissions from the distillery available in the record, it cannot be determined that the distillery emissions would not expose these sensitive receptors to substantial pollutant concentrations.

(e) The waste products of the alcohol distillation process are known to produce strong odors. No information about potential odors from the distillation process proposed at the project site can be found in the record. The nearest sensitive receptors are single-family residences located along the existing access road from which the project site is entered and people that will visit the Marconi Cove recreational area once it is improved consistent with the Tomales Bay State Park General Plan.

BIOLOGICAL RESOURCES

Would the project:

	Potentially Significant Impact	*Less-than-Significant Impact with Mitigation Measures Incorporated*	*Less-Than-Significant Impact*	*No Impact*
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?	✓	❑	❑	❑
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?	✓	❑	❑	❑
c. Have a substantial adverse effect on federally protected wetlands, as defined by section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.), through direct removal, filing, hydrological interruption, or other means?	✓	❑	❑	❑
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	✓	❑	❑	❑
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	✓	❑	❑	❑
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	❑	❑	❑	✓

Discussion

(a) California Public Resources Code section 30108.5 defines ESHA as:

> Any area in which plant or animal life or their habitat are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and development.

The project site is known to contain several types of ESHA, including wetlands, Waters of the U.S, freshwater seeps (potentially seasonal wetlands), native grasslands, and riparian habitats. These habitats support special-status plant and animal species protected as either federal Threatened or Endangered species or as state Species of Concern. Due to the lack of adequately detailed and thorough habitat mapping, the full extent of potentially present special-status habitats, potential present special-status species, and related ESHA on the project site has not been fully identified and/or completely disclosed.

Issues related to inadequate analysis of biological resources within the project site and to potential project impacts on such resources are described in the "Preliminary Biological Issues Review Letter - Local Coastal Program Permit Application, A-2-Mar-10-022 (Magee Project), Marin County, California" dated May 9, 2011 from EMC Planning Group (hereinafter "Biological Issues Letter"). The Biological Issues Letter includes as appendices the letters prepared by the applicant's biological resources consultant which summarize the results of biological resources evaluations conducted for the proposed project.

Additional information regarding biological resources and potential impacts of the project on sensitive resources, including known and potential ESHA, is included in two additional letters. These letters are entitled, "Supplemental Information Regarding to Coastal Act and Responsible Agency Permit Violations at 17990 Shoreline Highway (State Route 1), Marshall, Marin County, CA" dated April 22, 2011 from EMC Planning Group (hereinafter "Supplemental Letter 1") and "Supplemental Information Regarding Additional Coastal Act and Marin County Local Coastal Program/Development Standard Violations at 17990 Shoreline Highway (State Route 1), Marshall, Marin County, CA" dated May 25, 2011 (hereinafter "Supplemental Letter 2"). All three of these letters are included in the supplemental Biological Resources information. It is likely that the extent of ESHA on the project site is broader than has been defined to date.

As part of his project review pursuant to the de novo hearing process for the proposed project, Dr. John Dixon, Coastal Commission biologist, also identified the fact that biological resources information for the project was incomplete. This issue is described in the Biological Issues Letter. During a site visit conducted on May 25, 2011 for the purpose of evaluating biological resource conditions at the site, Dr. Dixon requested that significant additional biological resources information be prepared, including protocol surveys for special-status species and improved wetland delineations. In all, thirteen additional information/data needs were defined by Dr. Dixon. The additional information requested is summarized in two emails that are included in the supplemental Biological Resources information. Based on communications with Coastal Commission staff subsequent to the May 25, 2011 site visit, as of the date of this environmental checklist, none of the additional information is known to have been generated or delivered.

The May 25, 2011 site visit was also attended by EMC Planning Group's senior biologist, Bill Goggin. As a follow-up to the meeting, Mr. Goggin prepared a letter describing additional biological resources information needs. The letter, dated June 6, 2011, is entitled "Follow-up Letter to Biological Site Visit - Local Coastal Program Permit Application, A-2-Mar-10-022 (Magee Project), West Marin County, California" is also included in the supplemental Biological Resources information. Based on the four letters provided to Coastal Commission staff containing additional biological resources information and on the additional biological resources analyses requested by Dr. Dixon, it is clear that the full extent of special-status species presence and the extent of sensitive habitat communities is not yet known.

The proposed project has potential to significantly impact known sensitive habitat and special-status species and to significantly impact additional sensitive habitats and special-status species likely to be identified through more thorough biological resources analysis as has been requested by Dr. Dixon and is legally required under the Coastal Act. Because the full extent of sensitive habitats and special-status species presence on the site is not yet known, the full extent of potential project impacts on biological resources cannot yet be determined. *However, it is clear that direct impacts to sensitive habitats and special-status species are possible, if not likely, as a result of construction of all structures within the proposed building envelope including the equipment barn, residence, and brandy distillery, as well as construction of ancillary infrastructure within the building envelop including the access road and associated storm drainage improvements.*

Direct impacts from construction and use of additional development located outside the building envelope, including the greenhouse, hop barn, and/or sheep shelter are also possible. Further, to date, the applicant has not clarified intentions regarding use of

existing farm roads or need for new roads to access proposed development/agricultural activities. Use of historical roads (including those which are the subject of code enforcement investigation), creation of new roads, and/or increased vehicular crossing of the blue-line stream could result in direct impacts that have not yet been accurately defined. Please refer to Supplemental Letter 2 for more information.

Direct impacts are considered those caused by direct modification or removal of sensitive habitat. This includes destruction habitat and/or development within buffers established for the purpose or protecting sensitive habitat. Examples of potential project impacts include construction of the access road through swale/drainage feature that is connected to a freshwater seep, both of which may be determined to be ESHA and construction of buildings within potentially new or expanded wetland and/or stream corridor buffers.

A substantial range of indirect impacts on sensitive habitats and special-status species are possible from a variety of proposed project actions. These include, but may not be limited to:

- blue-line stream impacts from water quality degradation caused by potentially inadequate septic disposal system siting and function;
- groundwater and surface water quality impacts to the blue-line stream from disposal of brandy distillery wastewater that has to date not been sufficiently characterized for its content or potential to adversely affect water quality;
- water quality impacts on the blue-line stream from use and storage of agricultural chemicals, the type, volume, or hazards of which have not been sufficiently disclosed to date;
- water quality impacts from as of yet undefined potential use and storage of hazardous materials in association with the brandy distillery; and/or
- degradation of blue-line stream habitat quality should increased groundwater withdraw adversely affect water levels in the stream.

Significant impacts on known sensitive habitats, special-status species and related ESHA are likely to have already occurred due to past actions of the prior property owner and the project applicant. These potential impacts are fully described in Supplemental Letters 1 and 2 referenced above. Potential effects include: 1) construction of an animal enclosure within and adjacent to potential ESHA; 2) construction of a natural drainage course diversion system within and adjacent to potential ESHA; 3) filling of the blue-line stream; and 4) development of roads within the property that may have caused removal or damage to special-status plant species and potential ESHA.

(b) Extensive riparian habitat is located on the project site in association with the blue-line stream. No construction within riparian habitat is proposed. Consequently, direct impacts on riparian habitat from proposed development are not anticipated (in contrast to past fill placed in the blue-line stream in the past). However, as described in the Biological Issues Letter and based on inputs from Dr. Dixon, it is clear that the full extent of riparian areas and associated wetland has not been sufficiently defined. Consequently, a complete evaluation of potential impacts on riparian areas cannot be conducted.

See checklist item "a" above for discussion of presence of other sensitive habitat communities within the project site known to support special-status species and which could be adversely affected by the proposed project. These are discussed in more detail in the Biological Issues Letter.

Significant impacts on riparian and wetland habitat and related ESHA on the project site are likely to have already occurred due to past actions of the prior property owner and the project applicant. These impacts are described in Supplemental Letters 1 and 2.

(c) See checklist items "a" and "b" above regarding potential impacts on riparian habitat and wetlands associated with the blue-line stream.

As of the date of this environmental checklist, a complete, thorough and accurate wetland delineation, delineation map or potential ESHA feature map depicting all on-site wetlands and wetland habitats has not been prepared. Wetlands are present in association with the blue-line stream and with freshwater seeps that exist on the project site. In the absence of a jurisdictional wetland delineation conducted to U.S. Army Corps of Engineers (USACE) standards, the locations and extent of on-site wetlands are unknown. As described in checklist item "a" above, Dr. Dixon has requested the applicant to prepare a complete wetland delineation to ensure the full extent of wetlands is known. Without this information, appropriate buffers from delineated wetlands cannot be defined, nor can it be determined whether proposed development is sited in violation of required buffers. A site wetland delineation describing and identifying all possible wetland features within 500-feet of any proposed development is the Coastal Commission's standard as described in the *Draft Statewide Interpretive Guidelines on Wetlands*, California Coastal Commission, updated in November 17, 1980. A 100-foot setback as currently proposed is insufficient based on these guidelines.

At a minimum, this issue has likely implications from the standpoint of non-permitted impacts to wetlands and ESHA, potential Regional Water Quality Control Board jurisdiction regarding Section 401 water quality impacts from non-treated stormwater water run-off, and possibly CDFG and/or USFWS/NMFS jurisdiction regarding effects on protected species and/or their habitats.

The applicant's biological consultant has identified and characterized conditions at several freshwater seeps on the property that that have potential to be considered ESHA. An additional freshwater seep is present within the proposed project building envelope that was not identified by the applicant's biological consultant. One or more of these seeps may be considered wetland and/or be characterized as ESHA due to their habitat value. Appropriate and current characterization/delineation of all potential wetland seeps has not been completed. Consequently, the extent of potential project impacts on these features/habitats cannot be precisely determined. Nevertheless, as described in the Biological Issues Letter and illustrated in Figure 6, Potential Additional ESHA and ESHA Setbacks, included as an attachment to the letter, it is clear that all development proposed within the building envelope as well as other planned development outside the envelope has potential to significantly impact potential wetland features and the special-status species that may utilize such features as habitat. The Biological Issues Letter, Supplemental Letters, and the Follow-Up Letter to Biological Site visit all contain further, detailed information on wetland seep features, habitat, related special-status species, and potential effects of the proposed project.

Significant impacts on wetland habitat and related ESHA on the project site are likely to have already occurred due to past actions of the prior property owner and the project applicant. These impacts are described in Supplemental Letters 1 and 2. Mitigation and remediation should be required.

(d) With regard to listed fish species, no information is available in the record that identifies the blue-line stream as anadromous fish (i.e. steelhead, salmon) habitat and to the best of our knowledge, no Essential Fish Habitat Study or habitat evaluation has been performed to determine if the stream hosts listed fish runs. While the project does not propose in-stream improvements, listed fish species have a potential to occur on site and could be adversely indirectly impacted by degradation of water quality in the stream and/or by potential reduction in stream flow. These potential impacts are discussed in the Geology and Soils and Hydrology and Water Quality sections of this checklist.

As described in checklist items "a" through "c" above, potentially significant impacts on the habitat of native resident special-status wildlife species (ESHA) are possible, particular the habitat of the California red-legged frog and possibly the foothill yellow-legged frog and western pond turtle. The four letters in the supplemental Biological Resources information as noted previously provide more detailed information on this potentially significant impact.

(e-f) Issues regarding potential conflicts with LCP policies and Marin County Code standards regarding biological resources are discussed below in the "Consistency with LCP Policies/Marin County Code section. The project site is not within a habitat conservation plan area.

Consistency with LCP Policies/Marin County Code

Natural Resources Policies

3. **Streams and riparian habitats.** The policies contained in this section shall apply to all streams in the Unit II coastal zone, perennial or intermittent, which are mapped by the United States Geological Survey (U.S.G.S.) on the 7.5 minute quadrangle series.

   d. Development in Stream Buffers. No construction, alteration of land forms or vegetation removal shall be permitted within such riparian protection area. Additionally, such project applications shall identify a stream buffer area which shall extend a minimum of 50 feet from the outer edge of riparian vegetation, but in no case less than 100 feet from the banks of a stream. Development shall not be located within this stream buffer area…

The proposed project is **potentially inconsistent** with Natural Resources Policy 3.

Discussion. As described in the Geology and Soils, Hydrology and Water Quality, and Utilities sections of this checklist uncertainty exists as to whether a sufficient supply of domestic groundwater supply is available to serve the project from the new well drilled north of the blue-line stream. If the siting or production volume of the well is constrained due to factors discussed in these sections including potentially inadequate separation between well and septic disposal leach field and potential impact of increased groundwater extraction on blue-line stream flow/volume, water from the existing well south of the stream may be needed. Construction of water supply distribution infrastructure through the stream buffer area may be required. Construction would be prohibited pursuant to this policy.

Supplemental Letter 2 describes the potential need to develop new or increase existing access across the stream buffer area. Increased disturbance within the buffer, if planned, would be contrary to the intent of this policy.

4. **Wetlands.** Wetlands in the Unit II coastal zone shall be preserved and maintained, consistent with the policies in this section, as productive wildlife habitats, recreational open space, and water filtering and storage areas. Land uses in and adjacent to wetlands shall be evaluated as follows:

   b. Allowable resource-dependent activities in wetlands shall include fishing, recreational clamming, hiking, hunting, nature study, birdwatching and boating.

d. A buffer strip 100 feet in width, minimum, as measured landward from the edge of the wetland, shall be established along the periphery of all wetlands. Where appropriate, the required buffer strip may be wider based upon the findings of the supplemental report required in (e). Development activities and uses in the wetland buffer shall be' limited to those specified in (a) and (b) above.

e. As part of the application for a coastal development permit on any parcel adjacent to Tomales Bay, except where there is no evidence of wetlands pursuant to the Coastal Commission's guidelines, the applicant shall be required to submit supplemental biological information prepared by a qualified ecologist at a scale sufficient to identify the extent of the existing wetlands, based on Section 30121 of the Coastal Act and the area of the proposed buffer areas.

Discussion: The proposed project is **potentially inconsistent** with Natural Resources Policy 4.

Discussion. As discussed in checklist items "a" through "c" above, the precise boundaries of known or potential wetlands on the project site are not known; formal delineation of wetlands is required to establish boundaries for the blue-line stream associated wetlands and wetlands associated with freshwater seeps/springs. Consequently, the wetland buffer for wetlands associated with the blue-line stream identified on the project plans may be inadequate to meet the intent of this policy. Further, new buffers from on-site freshwater seeps/springs that may be defined as wetlands or ESHA through additional biological resource/wetland delineation work as directed by Dr. Dixon may be required to ensure consistency with this policy. Proposed development located within newly established buffers must be eliminated or moved as none of the proposed development is resource or coastal dependent (per Policy 4b).

The applicant's biological information has been determined by Dr. Dixon to be insufficient to effectively characterize the full range of sensitive habitats found on the project site and to identify the complete extent of potential habitat for special-status species. Additional deficiencies have been identified in the Biological Issues Letter and in Supplemental Letters 1 and 2, as well as the "Follow-up Letter to Biological Site Visit - Local Coastal Program Permit Application, A-2-Mar-10-022 (Magee Project), West Marin County, California", all of which are contained in the supplemental Biological Resources information.

5. **Coastal Dunes and Other Sensitive Land Habitats.** Development in or adjacent to sensitive habitats shall be subject to the following standards:

b. Other Environmentally Sensitive Habitats. Other sensitive habitats include habitats of rare or endangered-species and unique plant communities. Development in such areas may only be permitted when it depends upon the resources of the habitat area. Development adjacent to such areas shall be set back a sufficient distance to minimize impacts on the habitat area. Public access to sensitive habitat areas, including the timing, intensity, and location of such access, shall be controlled to minimize disturbance to wildlife. Fences, roads, and structures which significantly inhibit wildlife movement, especially access to water, shall be avoided.

The proposed project is **potentially inconsistent** with Natural Resources Policy 5.

Discussion. As described in checklist items "a" through "d" above, the proposed development has potential to result in significant impacts on environmentally sensitive habitats (ESHA) including habitats of rare or endangered species and unique plant communities. None of the development proposed within the proposed building envelope or infrastructure needed to support that development depends on the resources of the potential habitat area in which the development is planned. As described for Policy 4 above, revisions to proposed setbacks from such areas may be required based on the results of additional biological resources analysis that must be completed to properly characterize the type and extent of sensitive habitat. Those revisions may require elimination or relocation of project improvements.

Agricultural Policies

4. **Development standards and requirements**. All land divisions and developments in the APZ shall require an approved master plan showing how the proposed division or development would affect the subject property. In reviewing a proposed master plan and determining the density of permitted units, the County shall make all of the following findings:

f. The proposed land division and/or development will have no significant adverse impacts on environmental quality or natural habitats, including stream or riparian habitats and scenic resources. In all cases, LCP policies on streams and natural resources shall be met.

The proposed project is **potentially inconsistent** with this policy.

Discussion: As described in checklist items "a" through "d" above and in the LCP consistency analyses in this section, the proposed development clearly has potential to have significant adverse impacts on environmental quality and natural habitats,

including stream or riparian habitats. Also refer to the LCP Policy/Marin County Code subsection of the Agriculture and Forest Resources section of this checklist for discussion of this issue.

5. **Conditions.** As part of the approval of a master plan, the following conditions shall be required:

   a. All development shall be clustered to retain the maximum amount of land in agricultural production or available for agricultural use Development, including all land converted from agricultural use such as roads and residential support facilities, shall be clustered on no more than five percent of the gross acreage, to the extent feasible, with the remaining acreage to be left in agricultural production and/ or open space. Development shall be located close to existing roads and shall be sited to minimize impacts on scenic resources, wildlife habitat and streams, and adjacent agricultural operations. (emphasis added)

The proposed project is **potentially inconsistent** with this policy.

Discussion: As described in checklist items "a" through "d" above and in the LCP consistency analyses in this section, the proposed development clearly has potential to have significant adverse impacts on environmental quality and natural habitats, including stream or riparian habitats. Also refer to the LCP Policy/Marin County Code subsection of the Agriculture and Forest Resources section of this checklist for discussion of this issue.

GEOLOGY AND SOILS

Would the project:

	Potentially Significant Impact	*Less-than-Significant Impact with Mitigation Measures Incorporated*	*Less-Than-Significant Impact*	*No Impact*
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
(1) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	❑	❑	✓	❑
(2) Strong seismic ground shaking?	✓	❑	❑	❑
(3) Seismic-related ground failure, including liquefaction?	✓	❑	❑	❑
(4) Landslides?	✓	❑	❑	❑
b. Result in substantial soil erosion or the loss of topsoil?	✓	❑	❑	❑
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	✓	❑	❑	❑
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	✓	❑	❑	❑
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	❑	❑	✓	❑

Discussion

(a,b,d) The applicant retained a geotechnical consultant to prepare a preliminary geotechnical evaluation of the proposed development. The report is included in the supplemental Geology/Soil information. The report identifies a range of potentially significant geologic hazards at the project site including seismic shaking, landslides/slope instability, and expansive soils. However, the report concludes on page 4 that "...portions of the project site are suitable for the proposed development from a geotechnical standpoint". The report concludes that the proposed development is feasible provided a range of recommendations are implemented. Detailed investigation of geologic and soils conditions was largely limited to the northwest portion of the property with a focus on areas that had been identified as possible locations of structures (residence, barn, and brandy distillery).

Among the hazards identified are presence of existing "larger-scale earth flows and possible bedrock landslides" within the broader site and directly to the east of the proposed building envelope, and expansive soils, though the extent of such soils is not identified. On page 6, the report also concludes that "it will be important that surface and subsurface water be controlled to reduce moisture variations in the weak and expansive on-site soils and to avoid exacerbating the risk of instability of downslope areas".

Based primarily on the fact that the geologic investigation did not address potential geological constraints within the remainder of the site, including the area proposed for the septic disposal system, significant impacts are possible that were not evaluated by the County or sufficiently disclosed to date as described in checklist item "e" below.

Further, there is no discussion in the record regarding environmental and public safety risks from constructing an industrial process use (brandy distillery) within close proximity to the San Andreas Fault zone. Uncertainty exists as to whether risks from seismic shaking for this use are elevated or whether standard conformance with the seismic standards contained in the California Uniform Building Code will be sufficient to address seismic shaking risk for this component of the project.

(c) The project site contains soils from the Felton series. These soils have moderate to severe erosion potential, with erosion potential increasing as slope increases. Grading and site modifications that expose soils to water and wind erosion could result in significant erosion impacts if adequate erosion control measures are not in place.

The County conditioned the project to include appropriate erosion control measures for the proposed non-agricultural uses. However, no erosion control measures were

identified for the proposed vineyard. Marin County Code chapter 23.11, Vineyard Erosion and Sediment Control, specifies standards that must be met for qualifying new vineyard planting to protect the lands, streams, oak woodlands, and riparian habitat of the County; and to ensure the long-term economic viability of the County's viticulture, agricultural and natural resources. If not properly managed, soil erosion from the vineyard could result in sedimentation of downstream water bodies, most specifically the on-site blue-line stream (ESHA) and Tomales Bay.

(e) The U.S. Department of Agriculture, Soil Conservation Service, identifies soils in the proposed location of the septic disposal field as part of the Felton series. While the soils information is not sufficiently detailed to permit analysis of conditions on a site specific basis, these soils are generally considered to have "limitations for septic absorption fields" with a percolation rate of less than .6 inches per hour (http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx).

The applicant retained a consultant to design the proposed septic disposal system. The plans for the system are described in a letter from the applicant's consultant titled "Sewage Disposal System Design, 17990 SR1, Marshall, dated February 19, 2009". The letter is accompanied by large scale plans with the same date. The analysis included evaluation of the capability of the soils in the proposed septic disposal field area to support a septic disposal system. While the analysis found that percolation rates are acceptable to support the system, potentially significant impacts from septic disposal as proposed are possible that have not been adequately analyzed.

Potentially significant impacts arise for two reasons. First, the proposed project as approved does not contain a specific condition that limits the volume of wastewater that can be generated by the brandy distillery. The Use Permit simply states that brandy production will be "limited" – no quantified limit is established other than in the general project description supplied by the applicant. The description is vague; there is nothing limiting the applicant from producing more brandy than only implied in the project description. Consequently, there is nothing preventing the capacity of the system from being exceeded. Second, as described above, there is no information in the record regarding the geologic stability of the area in which the septic disposal system is proposed. The project site is known to contain significant evidence of slope failure and landslides. Percolating wastewater from a septic disposal system could have potential to exacerbate existing slope instability in this area if present and/or to create slope instability. Either condition could give rise to failure of the septic disposal system. Failure of the system could result in contamination of soils, and contamination of stormwater runoff which flows downslope into the blue-line stream (ESHA) and Tomales Bay into which the blue-line stream discharges.

The applicant has drilled a second domestic water well either within or very near to the edge of the proposed septic disposal field. This issue is discussed in the "Supplemental Information Regarding Additional Coastal Act and Marin County Local Coastal Program/Development Standard Violations at 17990 Shoreline Highway (State Route 1), Marshall, Marin County, CA" dated May 5, 2011. This letter is included in the supplemental Aesthetics information. Failure of the system also may; therefore, also have potential to contaminate groundwater planned for domestic use.

Consistency with LCP Policies/Marin County Code

Public Services Policies

1. **General policy.** Prior to the issuance of a coastal development permit, the County shall make the finding, based on information provided by environmental documents, staff analysis, and the applicant, that adequate public services and resources (i.e. water supply, sewage disposal, and road access and capacity) are available to serve the proposed development. Lack of available services or resources shall be grounds for denial of the project or for a reduction in the density otherwise indicated in the land use plan.

3. **Sewage disposal.**

   a. On-site sewage disposal. All on-site sewage disposal systems in the coastal zone shall be evaluated as follows:

      (1) Septic systems. All septic systems shall meet the standards contained in either the Minimum Guidelines for the Control of Individual Wastewater Treatment and Disposal System adopted by the Regional Water Quality Control Board on April 17, 1979 or the County's revised septic system code, when approved by the Regional Board. No waivers shall be granted unless a public entity has formally assumed responsibility for inspecting, monitoring, and enforcing the maintenance of the system in accordance with criteria adopted by the Regional Board, or such waivers have otherwise been reviewed and approved by the Regional Board.

The proposed project is **potentially inconsistent** with Public Services Policies 1 and 3

Discussion. Policy consistency issues are as follows:

No Environmental Documents. Because the County found the proposed project to be exempt from CEQA, there is no existing environmental documentation available on which to base the required findings.

Septic System Siting/Hazards. As discussed above, there is no information in the record that potential impacts to the septic disposal system or from existing slope instability or potential exacerbation of slope instability conditions due to the siting of the septic disposal system have been evaluated. Consequently, a finding cannot yet be made that adequate septic disposal for the project is available.

Septic System Design Adequacy. Because no environmental documentation was prepared, systematic early consultation with responsible agencies did not take place. For example, as far as is known, the RWQCB had no opportunity to comment on the proposed use of a septic disposal system or the system design or location in terms of disposing of industrial process (distillery) wastewater. While the project approval is conditioned on the applicant preparing and receiving approval of Waste Discharge Requirements from the RWQCB, this condition essentially defers mitigation for an effect whose potential significance was not adequately evaluated or publicly disclosed. An Interdepartmental Transmittal between County Environmental Health Services and the County project planner dated January 29, 2010 notes that County Environmental Health Services had not, as of that date, "received any documentation from the RWQCB granting approval of the Brandy production waste disposal plan." This memo is included in the supplemental Geology and Soils information. Consequently, a finding cannot yet be made that adequate septic disposal for the project is available.

HAZARDS AND HAZARDOUS MATERIALS

Would the project:

	Potentially Significant Impact	*Less-than-Significant Impact with Mitigation Measures Incorporated*	*Less-Than-Significant Impact*	*No Impact*
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	✓	❑	❑	❑
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	✓	❑	❑	❑
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	❑	❑	❑	✓
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, create a significant hazard to the public or the environment?	❑	❑	❑	✓
e. For a project located within an airport land-use plan or, where such a plan has not been adopted, within two miles of a public airport or a public-use airport, result in a safety hazard for people residing or working in the project area?	❑	❑	❑	✓
f. For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area?	❑	❑	❑	✓
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	❑	❑	❑	✓
h. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands area adjacent to urbanized areas or where residences are intermixed with wildlands?	✓	❑	❑	❑

Discussion

(a,b) As has been previously noted, insufficient information exists in the record regarding potential transport, use or storage of hazardous materials. The applicant's *Agriculture Production and Stewardship Plan for 17990 Shoreline Highway at Marconi Cove, May 2009* (report footer date indicates March 26, 2010), provides scant information on this issue and only for the hop cultivation component of the project. In Section IV.1, Overview, a statement is made that "hop pests pre-exist in the area, and further that mold and fungal problems can become epidemic rapidly in a hop yard..." Information in Section IV.3, The Hop Yard, suggests that minimal pesticides use will be needed. No information about the type, volume, rate of use, or frequency of use or proposed storage measures is provided.

No information in the record is available regarding projected type, volume, rate of use, or frequency of use of herbicides, fungicides, or pesticides that may be used in the vineyard or the garden area. No information is provided on best management practices that would be followed to minimize potential environmental or public health and safety impacts from use or storage of such materials.

No information is available in record to identify the type, volume, rate of use, or frequency of use of hazardous materials that may be involved in the brandy distillery process or in maintenance/operation of the brandy distillery. With no conditioned limit on the volume of brandy production, the potential for hazardous materials impacts associated with this use could be accentuated.

Where a proposed project will require the use and storage of hazardous materials, the applicant is required to identify the type and volume of materials that will be used and stored. This information serves as a basis to determine if and how such materials must be managed consistent with local, state and federal regulations. A hazardous materials management plan is a common requirement for activities/projects that utilize hazardous materials. Absent this information, it is unclear if and how the applicant will be required to assure that use and management of hazardous materials will not result in potentially significant impacts. Potential impacts on biological resources (including ESHA), water quality and public health and safety must be considered potentially significant unless and until such time as clear evidence is presented that impacts are reduced to a less than significant level.

(c) There are no schools within one-quarter mile of the project site.

(d) The project is not on a list of sites that contain hazardous materials as listed by the SWQCB (http://geotracker.swrcb.ca.gov/)

(e,f) The project site is not located within and airport land use plan or within two miles of an airport or within the vicinity of a private airstrip.

(g) The proposed project would not generate traffic or result in modifications to Highway 1, the only emergency access route located in the immediate vicinity of the project site, which would impair the use of the highway for emergency access/evacuation.

(h) According to the California Department of Forestry and Fire Protection, the project site classified as within "Wildland Areas that May Contain Substantial Forest Fire Risks and Hazards (Wildland Areas). The proposed project has been reviewed by the Marin County Fire Department Bureau of Prevention and Investigation and conditioned to include a range of fire prevention measures include fire hydrants, fire sprinklers (including within the brandy distillery building), water storage for fire suppression, fire alarm for the brandy barn, etc.

Despite the Fire Department's conditions, it is unclear whether the facts that alcohol distillate is generally considered to be a Class 1B liquid, that a high temperature boiler may be required, and that the materials to be produced are explosive, have been considered in the formulation of the conditions. Since this information is not contained in the project description or in any information known from the record, it is unclear on what basis the Fire Department has reviewed potential fire hazards from the distillery and conditioned the project to minimize the hazards. This issue is critical for a use planned in an area that may "contain substantial forest fire risk".

Consistency with LCP Policies/Marin County Code

There are no LCP policies that directly address transport, use, or storage of hazardous materials per se. However, these activities clearly have potential to adversely affect surface and/or groundwater quality and biological resources, including ESHA. Please refer to the Biological Resources and Hydrology and Water Quality sections of this checklist for reference to project consistency with LCP policies that explicitly protect such resources.

HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	*Less-than-Significant Impact with Mitigation Measures Incorporated*	*Less-Than-Significant Impact*	*No Impact*
a. Violate any water quality standards or waste discharge requirements?	✓	❑	❑	❑
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., would the production rate of preexisting nearby wells drop to a level which would not support existing land uses or planned uses for which permits have been granted?	✓	❑	❑	❑
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in *substantial erosion or siltation on- or off-site?*	❑	❑	✓	❑
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface run-off in a manner which would result in *flooding on- or off-site?*	❑	❑	✓	❑
e. Create or contribute run-off water, which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted run-off?	❑	❑	✓	❑
f. Otherwise substantially degrade water quality?	✓	❑	❑	❑
g. Place housing within a 100-year flood hazard area as mapped on Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	❑	❑	❑	✓
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	❑	❑	❑	✓

	Potentially Significant Impact	*Less-than-Significant Impact with Mitigation Measures Incorporated*	*Less-Than-Significant Impact*	*No Impact*
i. Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	❑	❑	✓	❑
j. Cause inundation by seiche, tsunami, or mudflow?	❑	❑	✓	❑

Discussion

(a) As discussed under checklist item "e" in the Geology and Soils section of this checklist, it is uncertain whether the proposed septic disposal system is appropriately sited or designed. The uncertainty arises primarily due to the potential presence of unstable soils, the potential that the system could exacerbate slope instability conditions, and to the lack of explicit limits on the volume of brandy distillation and resultant wastewater flows from that activity. In addition, the new well on the north side of the blue-line creek may not have adequate separation from the septic disposal field.

The project is conditioned to receive approval of Waste Discharge Requirements from the RWQCB. There is no information in the record that the RWQCB has received an application from the applicant for this purpose. It does not appear that the RWQCB was afforded an opportunity to comment on potential impacts from disposal of distillery wastewater as proposed because the County failed to require that appropriate CEQA documentation be prepared and circulated for public review. The RWQCB has no regulations on distilleries per se. Wineries are the closest analogy and the character of waste discharge from a winery differs from a distillery.

As referenced in an Interdepartmental Memo from County Environmental Health Services on June 6, 2009, Environmental Health Services noted that the proposed wastewater strength will need to be further evaluated. There is no information in the record regarding whether this evaluation was ever completed. Another similar memo dated January 1, 2010 states that Environmental Health Services had not received any documentation from the RWQCB granting approval of the brandy distillery production waste disposal plan and that Environmental Health Services approval is for everything except the brandy operation waste.

Given the above-noted factors, potential exists that the septic disposal system is not sited or designed to meet RWQCB Waste Discharge Requirements. There is no information in the record which identifies the RWQCB criteria that must be met for Waste Discharge

Requirements to be approved. Consequently, the record does not permit adequate evaluation of whether the "mitigation" requiring approval of Waste Discharge Requirements is feasible or will adequately serve to reduce potential water quality impacts of the system consistent with LCP and RWQCB requirements. Failure of the system to operate consistent with RWQCB water quality protection requirements or failure of those requirements to adequately address industrial brandy distillery wastewater could result in significant impacts on groundwater quality and on surface water quality in the on-site blue-line stream (ESHA) and Tomales Bay into which the stream discharges.

(b) As stated on page 90 of the LCP, the lack of water has been a limiting factor for development on the east side of Tomales Bay for many years and studies show that there are no dependable supplies of groundwater in any quantity in the Franciscan Formation on the east side of the Bay.

Page 165 of the LCP includes the following statement:

> Except for a few locations, such as the canyon behind Marconi Cove marina, most of the east side of Tomales Bay has little known potential for development of additional water supplies. The ability of surface sources to provide supply is limited by the fact that many east side streams are intermittent and thus cannot be used year-round. Some of these streams are already used for agriculture, a use which has priority over private residential development in the Coastal Act. *The potential for obtaining water from groundwater supplies also appears quite limited. Studies of water supply undertaken in the late 1960's by the North Marin County Water District determined that there are no dependable supplies of groundwater in any quantity in the geologic formations on the east side of the Bay* and that groundwater supplies along Walker Creek are severely limited (emphasis added).

The following statement is also included on page 165:

> In summary, there appears to be very little potential for developing additional water supplies on the east side of Tomales Bay. Available information strongly suggests that there is not adequate water to serve build out. In addition, the potential for contamination of on-site wells from septic effluent is high.

From the above-referenced information, it is clear that groundwater availability in the project area is limited.

A review of the groundwater supply issues for the proposed project is included in the "Supplemental Information Regarding Additional Coastal Act and Marin County Local Coastal Program/Development Standard Violations at 17990 Shoreline Highway (State Route 1), Marshall, Marin County, CA", which can be found in the supplemental Aesthetics information. Based on information in the letter, it is clear that potential impacts from utilization of groundwater from a new well drilled on the north side of the blue-line creek have not been adequately addressed. It is also possible that groundwater withdraw could adversely affect flow within on-site freshwater springs and seeps and thus, adversely affect ESHA. The adequacy of the sustainable yield of the well is in question, as it does not appear that information exists in the record to verify that the new well meets the County's sustained yield requirements. Further, the potential impacts of increased groundwater withdraw on the productivity of the private well located on the adjacent property to the north and on flow conditions within the on-site blue-line stream and springs/seeps (ESHA) have not been addressed.

Based on the above-noted facts and questions, detailed hydrological analysis is needed to determine the long-term sustainability of increased extraction of potentially limited local groundwater supply and to determine the potential impacts of increased extraction on ESHA and nearby wells.

If the new well proves inadequate due to insufficient yield or potential impacts on ESHA or the nearby existing well, either a new well site must be identified or the existing well located on the south side of the blue-line creek would need to be utilized. Regarding the latter, information in the record from Marin County EHS suggests that this well has never been permitted for domestic use. In addition, distribution of water to the north side of the creek would be needed, the construction of which could have adverse impacts (i.e. modifications with the on-site blue-line stream ESHA).

(c-e) Erosion/sedimentation impacts from development of proposed structures appear to have been adequately designed and conditioned to substantially reduce potential erosion and sedimentation and related water quality impacts during and under post-project conditions. However, as described in checklist item "c" in the Geology and Soils section, potential erosion and sedimentation impacts to the blue-line stream (ESHA), springs/seeps (ESHA), and Tomales Bay from the proposed vineyard have not been addressed. Such impacts are the subject of regulations contained in Marin County Code chapter 23.11, Vineyard Erosion and Sediment Control.

The proposed project is not expected to result in changes to existing drainage conditions that result in substantially increased storm water runoff to the extent that on-site or off-site flood hazard potential is substantially increased. However, the applicant recently installed a surface water runoff diversion system along the northern boundary of the site.

This diversion issue is the subject of a pending code enforcement investigation that is described in Supplemental Letter 1, included in the supplemental Biological Resources information. Diverted runoff is discharged to a shallow paved swale located along the access road to the site and to adjacent residences. The runoff volume can be significant during rainfall events and is being discharged at a velocity and volume for which it is unlikely that the existing storm water collection or discharge system is designed. Consequently, it is possible that the diversion system is causing erosion/siltation and possible localized flooding.

(f) As discussed in the Geology and Soils section and in checklist item "a" above, the proposed project may have potential to degrade groundwater quality and surface water quality in the on-site blue-line stream (EHSA) and Tomales Bay. First, surface and groundwater pollution from potential failure of the proposed septic disposal system due to slope instability and/or delivery of wastewater from the brandy distillery that exceeds the design capacity of the disposal system may be possible. Second, potential pollution of groundwater proposed for domestic use as a result of potentially inadequate separation between the septic leach field and a new well drilled to provide domestic water supply.

Degradation of surface water quality in the on-site blue-line stream (ESHA) and groundwater quality degradation is also possible from excessive or inappropriate use and handling of agricultural chemicals. This issue is described in item "a-b" in the Hazards and Hazardous materials section of this checklist.

(g-j) The project site is not located within a 100-year flood hazard area and is not within a dam inundation zone. No source of seiche hazards exists in the area that could adversely affect the proposed project.

Consistency with LCP Policies/Marin County Code

New Development and Land Use Policies

6. **Watershed and water quality protection/grading.** In order to ensure the long-term preservation of water quality, protection of visual resources, and the prevention of hazards to life and property, the following policies shall apply to all construction and development, including grading and major vegetation removal, which involve the movement of earth in excess of 150 cubic yards.

   a. Development shall be designed to fit a site's topography, soils, geology, hydrology, and any other existing conditions and be oriented so that grading, cut and fill

operations, and other site preparation are kept to an absolute minimum. Natural features, landforms, and native vegetation shall be preserved to the maximum extent feasible. Areas of a site which are not suited to development because of known soil, geologic, flood, erosion or other hazards shall be kept in open space.

The proposed project is **potentially inconsistent** with New Development and Land Use Policy 6

Discussion. As discussed in checklist item "a,c" in the Aesthetics section of this checklist, the proposed project includes grading for a new access road. Information on the volume of material to be graded for this road is not available in the record. An alternative, more direct access route is possible along an existing farm road. It is possible that use of the existing farm road would result in fewer potential impacts on surface water quality in the on-site blue-line stream (ESHA) from erosion and sedimentation. This may be possible if the construction process for the existing road requires a lower volume of grading and/or grading in more limited locations.

Public Services Policies

1. **General policy.** Prior to the issuance of a coastal development permit, the County shall make the finding, based on information provided by environmental documents, staff analysis, and the applicant, that adequate public services and resources (i.e. water supply, sewage disposal, and road access and capacity) are available to serve the proposed development. Lack of available services or resources shall be grounds for denial of the project or for a reduction in the density otherwise indicated in the land use plan.

2. **Water supply.**

   e. Development standards for wells and other sources.

      (1) Permit required. A coastal permit shall be required to drill any well, including individual and community wells, and exploratory wells. A permit shall also be required to tap other water sources, such as springs or streams.

      (2) Individual sources. In areas where individual water wells or other individual domestic water sources are permitted, the applicant shall demonstrate from on-site tests that a sustained water yield of at least 1.5 gpm per residential unit is available prior to the issuance of a building permit or tentative map. Higher yields may be required for fire protection purposes, as recommended by the appropriate fire protection agency.

The proposed project is **potentially inconsistent** with Public Services Policies 1 and 2

Discussion. Policy consistency issues are as follows:

No Environmental Documents. Because the County erroneously found the proposed project to be exempt from CEQA, there is no existing environmental documentation available on which to base the finding required in Policy 1 for water supply. Such documentation would have enabled additional disclosure and analysis of water supply issues.

Water Supply Quantity Uncertainty. As discussed in checklist item "b" above, uncertainty exists about whether the new well drilled to provide domestic water can provide water at a sustained yield volume or rate that meets County requirements.

Marin County Code

Section 22.57.036I. This section of the Code is pertinent to hydrology and water quality issues. Applicable subsections of the Code are as follows:

> 22.57.036I Required Findings. Review and approval of development permits including a determination of density shall be subject to the following findings:
>
> 3. The land division or development will not conflict with the continuation or initiation of agriculture, on that portion of the property which is not proposed for development, on adjacent parcels, or those within one mile of the perimeter of the proposed development.
>
> 4. Adequate water supply, sewage disposal, road access and capacity and other public services are available to service the proposed development after provision has been made for existing and continued agricultural operations. Water diversions or use for a proposed development shall not adversely impact stream habitats or significantly reduce freshwater inflows to Tomales Bay, either individually or cumulatively.
>
> 6. The proposed land division and/or development will have no significant adverse impacts on environmental quality or natural habitats, including stream or riparian habitats and scenic resources. In all cases, LCP policies on streams and natural resources shall be met.

The proposed project is **potentially inconsistent** with Marin County Code section 22.57.036I

Ability to Make Findings 3 and is Uncertain. As described in checklist item "b" above, it is not possible from the project record to determine if an adequate supply of domestic water is available from the new well to service the proposed development or whether such production would adversely affect the yield of the domestic well operated by the neighbor to the north; that well is utilized to support agricultural production on the adjacent parcel.

Ability to Make Finding 4 is Uncertain. As described in checklist items "a" and "b" above, it is uncertain if adequate quantity or quality of groundwater supply exists for use by the proposed non-agricultural uses and whether groundwater can be provided without adversely impacting stream habitats.

Ability to Make Finding 6 is Uncertain. As described in checklist items "a" and "b" above, development of domestic water supply for the proposed project may have potential to adversely affect ESHA (volume of flow in the on-site blue-line stream and/or flow in freshwater springs/seeps). Further, inability to demonstrate an adequate source of domestic water supply north of the blue-line stream could dictate that the existing well located south of the stream be utilized. Construction of water distribution infrastructure from the south side of the stream to the north side could adversely impact ESHA.

LAND USE AND PLANNING

Would the project:

	Potentially Significant Impact	*Less-than-Significant Impact with Mitigation Measures Incorporated*	*Less-Than-Significant Impact*	*No Impact*
a. Physically divide an established community?	❑	❑	❑	✓
b. Conflict with any applicable land-use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	✓	❑	❑	❑
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	❑	❑	❑	✓

Discussion

(a,c) The project site is not within an established, developed community. The project site not within a habitat or natural community conservation plan boundary.

(b) Refer to the "Consistency with LCP Policies/Marin County Code" section below.

Consistency with LCP Policies/Marin County Code

Inconsistencies with LCP Policies

Known or potential proposed project inconsistencies with policies of the LCP and with applicable sections of the Marin County Code are described in individual environmental topic sections of this environmental checklist. LCP policies with which the proposed project is inconsistent or potentially inconsistent are described in Table 1, LCP Policy Inconsistency Summary.

Project inconsistency with New Development and Land Use Policy 8 is not discussed in other sections of this environmental checklist. Policy 8.f(3) states the following:

> (3) A finding shall be made that all new development shall meet all other UP policies, including those on Public Access. Natural Resources and wetland protection, Shoreline Structures, Diking/ Filling/Dredging,

Public Services, Hazards, Visual Resources, and New Development, prior to issuance of a coastal permit.

The proposed project is **potentially inconsistent** with New Development and Land Use Policy 8

Discussion: Based on the LCP policy inconsistencies and potential inconsistencies identified in this environmental checklist, a finding cannot be made that all new development meets the referenced policies.

Table 1 LCP Policy Inconsistency Summary

LCP Policy Section	LCP Policy
Natural Resources	Policy 3 – Streams and Riparian Habitats
	Policy 4 - Wetlands
	Policy 5 – Coastal Dunes and other Sensitive Land Habitats
Agriculture	Policy 3 – Intent of the Agricultural Production Zone
	Policy 4 – Development Standards and Requirements Policy 5 - Conditions
Public Services	Policy 1 – General Policy
	Policy 2 – Water Supply
	Policy 3 – Sewage Disposal
New Development and Land Use	Policy 3 – Visual Resources
	Policy 6 - Watershed and Water Quality Protection/ Grading
	Policy 8 – Location and Density of New Development

Inconsistencies with Marin County Code Standards

The proposed project is deemed to be inconsistent with the land use related standards contained in the Merced County Code listed below. Discussion of the inconsistencies is provided in other sections of this environmental checklist.

- Section 22.56.026 – waiver of master plan requirement;
- Section 22.56.130I(C)(1) – development design to fit topography;

- Section 22.57.024I – design standards regarding project design and site preparation;
- Section 22.57.032I – principal permitted uses in C-APZ district; and
- Section 22.57.036I – required findings for approval of development permits.

PUBLIC SERVICES

Would the project result in substantial adverse physical impacts associated with the provision of or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:

	Potentially Significant Impact	*Less-than-Significant Impact with Mitigation Measures Incorporated*	*Less-Than-Significant Impact*	*No Impact*
a. Fire protection?	❑	❑	✓	❑
b. Police protection?	❑	❑	✓	❑
c. Schools?	❑	❑	❑	✓
d. Parks?	❑	❑	❑	✓
e. Other public facilities?	❑	❑	❑	✓

Discussion

(a-e) It is not anticipated that the proposed project will generate a sufficient incremental increase in demand for fire or police services such that new or altered facilities are needed to meet that demand. The proposed project would not generate school-age children or increase demand for parks or other facilities; no construction of related facilities would be required.

Consistency with LCP Policies/Marin County Code

There are no LUP policies that apply specifically to the provision of public services.

TRANSPORTATION/TRAFFIC

Would the project:

	Potentially Significant Impact	*Less-than-Significant Impact with Mitigation Measures Incorporated*	*Less-Than-Significant Impact*	*No Impact*
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	✓	❑	❑	❑
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	✓	❑	❑	❑
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	❑	❑	❑	✓
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	✓	❑	❑	❑
e. Result in inadequate emergency access?	❑	❑	✓	❑
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decreased the performance or safety of such facilities?	❑	❑	❑	✓

Discussion

(a,b,d) The applicant's traffic report, dated April 28, 2009, summarizes potential traffic impacts of the proposed project. No significant impacts are identified in relation to performance of the circulation system, traffic safety (collisions or sight distance) or potential need for

circulation improvements to address changes in traffic conditions (left-turn lane on Highway 1). The traffic report is included in the supplemental Transportation/Traffic information.

The traffic report does not account for several factors that contribute to increased potential for significant circulation impacts. These factors are as follows:

- The traffic report relies on traffic counts taken during March 2009. These counts do not reflect worse-case conditions that occur during the summer months when traffic volumes dramatically increase. At a minimum, the counts utilized need to be scaled up to account for summer conditions or new counts must be taken during the summer season. Only then will the traffic report accurate reflect the true potential for turning conflicts into and out of the site access driveway.

- The report does not address cumulative conditions under which traffic volume increases from the planned development of Marconi Cove, located directly across Highway 1 from the project site entrance, would occur. Marconi Cove is part of the Tomales Bay State Park. A general plan was prepared for the park and adopted by the State Park and Recreation Commission in 2004 (http://parks.ca.gov/?page_id=22224). The general plan includes a range of potential improvements for Marconi Cove that include providing: a day-use area with parking, restroom, educational panels, picnic facilities, possible watercraft and snack concessions, boat trailer parking, and launching areas for car-top watercraft and trailered boats, as well as a small campground.

  Detailed traffic studies for a project to improve Marconi Cove as stated have not been conducted. However, the general plan recognizes that traffic conditions on Highway 1 could be problematic at this location and recommends that a detailed traffic study be prepared at the time development is proposed. Excerpts from the general plan are included in the supplemental Transportation information.

- There is no evidence in the record which reliably suggests that the proposed vineyard, which would supply grapes as input to the propose distillery, is viable or will produce grapes in sufficient volume. There is nothing in the County Use Permit that explicitly prohibits the applicant from trucking in grapes in the event that the vineyard fails or from increasing the volume of brandy produced. Consequently, there is a distinct potential that the project traffic report underestimates trip volumes for the project. Further, traffic hazards and safety may not be adequately addressed because turning movements, sight distances, or stopping requirements for trucks are not discussed.

Given these factors, the proposed project may have significant impacts that have not been adequately evaluated or disclosed to date.

As discussed in Supplemental Letter 1, the applicant has already constructed a gate on Highway 1 near the southern boundary of the project site. The gate was constructed without approval of an encroachment permit from Caltrans. Access into and out of the project site via this gate has potential to create traffic safety hazards that have not been evaluated to date.

(c,e,f) The proposed project would not affect air traffic patterns or substantially affect emergency access adequacy or use of alternative transportation modes.

Consistency with LCP Policies/Marin County Code

There are no LCP policies that directly address traffic and transportation in the context of individual development projects.

UTILITIES AND SERVICE SYSTEMS

Would the project:

	Potentially Significant Impact	*Less-than-Significant Impact with Mitigation Measures Incorporated*	*Less-Than-Significant Impact*	*No Impact*
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	✓	❑	❑	❑
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	✓	❑	❑	❑
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	✓	❑	❑	❑
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	✓	❑	❑	❑
e. Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	❑	❑	❑	✓
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid-waste disposal needs?	❑	❑	❑	✓
g. Comply with federal, state, and local statues and regulations related to solid waste?	❑	❑	❑	✓

Discussion

(a,b) As discussed in Geology and Soils checklist item "e" and Hydrology and Water Quality checklist item "a", substantial uncertainty exists about whether the proposed wastewater disposal system as sited and designed is sufficient to meet RWQCB requirements. There is no information in the record to date which demonstrates that the RWQCB has

approved the system. Potentially significant impacts could arise due to potential geologic and soils hazards/constraints that could result in damage to or failure of the system, which if occurs, has potential to significantly impact biological resources, including ESHA. Deferring review of the system to the RWQCB averts disclosure of these potential impacts – deferring mitigation under CEQA is not legally defensible.

As far as is currently known from the record, it is not clear that distillery waste has been appropriately characterized, nor is there an explicit condition on the volume of brandy that may be produced such that the volume of production wastewater will be capped. Consequently, it is possible that the wastewater treatment system design is inadequate in terms of treatment method or capacity. Failure of the system due to inadequate design could also lead to groundwater degradation and impacts on biological resources, including ESHA. The applicant's application to the RWQCB for Waste Discharge Requirements approval may require that the brandy distillery wastewater be characterized as an industrial source, not a domestic source.

(c) The proposed access road traverses through a surface water feature that has potential to be characterized as ESHA and that may be connected to a freshwater spring, which may also be characterized as ESHA due to its potential to be characterized as wetland and potential to provide habitat to special-status species. These features have not been adequately evaluated to date for their biological resource value. Please refer to Supplemental Letter 1, contained in the supplemental Biological Resources information for more detail. The letter provides information on this feature in relationship to an animal holding enclosure that was built across it in the same location as the access road would be located. Construction of storm water facilities will be needed to capture and divert this surface flow, with the potential that direct and/or indirect impacts on sensitive biological resources, which potentially could be characterized as ESHA.

(d) Refer to items "b" and "f" in the Hydrology and Water Quality section of this checklist for information on potentially significant impacts related to groundwater supply and quality impacts.

(e) The proposed project would not be served by a wastewater service provider.

(f,g) The proposed project would generate solid waste at a volume that has impacts on solid waste disposal facilities.

Consistency with LCP Policies/Marin County Code

Regarding the proposed wastewater treatment system, refer to the discussion of LCP policy consistency found in the Hydrology and Water Quality section of this checklist. Refer also to

the LCP policy consistency discussion in the Biological Resources section of this checklist. The proposed project is **potentially inconsistent** with the LCP policies discussed in these sections.

Regarding consistency of planned stormwater facility construction with the LCP, refer to the LCP consistency discussion in the Hydrology and Water Quality section of this checklist. See especially the section on consistency with Marin County Code section 22.57.036I. The proposed project is **potentially inconsistent** with the LCP policies discussed in this section and with the Marin County Code.

Marin County Code

Section 22.57.036I. This section of the Code is pertinent to hydrology and water quality issues. Applicable subsections of the Code are as follows:

> 22.57.036I Required Findings. Review and approval of development permits including a determination of density shall be subject to the following findings:
>
> 6. The proposed land division and/or development will have no significant adverse impacts on environmental quality or natural habitats, including stream or riparian habitats and scenic resources. In all cases, LCP policies on streams and natural resources shall be met.

The proposed project is **potentially inconsistent** with Marin County Code section 22.57.036I

> Ability to Make Finding 6 is Uncertain. As described in checklist item "c" above, the need to install storm drainage facilities to divert/redirect existing surface water has potential to result in significant adverse impacts on natural habitats that may qualify as ESHA.

Regarding adequacy of water supply and consistency of the proposed project with the LCP, refer to the LCP policy/Marin County Code consistency discussion in the Hydrology and Water Quality section of this checklist. The proposed project is **potentially inconsistent** with LCP policies and the Marin County Code.

MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	*Less-than-Significant Impact with Mitigation Measures Incorporated*	*Less-Than-Significant Impact*	*No Impact*
a. Does the project have the potential to degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; substantially reduce the number or restrict the range of an endangered, rare, or threatened species; or eliminate important examples of the major periods of California history or prehistory?	✓	❑	❑	❑
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)	✓	❑	❑	❑
c. Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	✓	❑	❑	❑

Discussion

(a) The proposed project has significant potential to directly and indirectly impact sensitive habitats and special-status species. These impacts are described in the Biological Resources, Geology and Soils, Hydrology and Water Quality, and Hazards sections of this checklist.

(b) The proposed project could have a cumulatively considerable impact on traffic safety as described in the Transportation and Traffic section of this checklist. The applicant's traffic report does not consider cumulative traffic and circulation effects in light of the California State Parks Department intention to develop Marconi Cove, which is located directly across Highway 1 from the entrance to the proposed project. Development of Marconi Cove is a "reasonably foreseeable" project given that a general plan has been adopted by the California State Parks Commission which includes this project.

(c) The proposed project could have environmental effects that adversely affect human beings. The primary source of these effects is the brandy distillery. Because the record does not contain explicit evidence that the inputs, distillation process, and outputs of the process have been fully characterized (i.e. hazardous materials, fire hazards, wastewater characterization), hazards to humans could occur through accidental release of hazardous materials and/or explosions or fires related to hazards in the distillation process or product processing or storage processes. Further, the proposed project may heighten potential for traffic safety hazards on Highway 1 as discussed in the Transportation and Traffic section of this checklist.

E. ALTERNATIVES TO THE PROPOSED PROJECT

CEQA Guidelines Section 15252 identifies substitute documentation for certified programs, including the regulatory program of the California Coastal Commission. This section states:

> (a) The document used as a substitute for an EIR or negative declaration in a certified program shall include at least the following items:
>
> (1) A description of the proposed activity; and
>
> (2) Either:
>
> (A) Alternatives to the activity and mitigation measures to avoid or reduce any significant or potentially significant effects that the project might have on the environment; or
>
> (B) A statement that the agency's review of the project showed that the project would not have any significant or potentially significant effects on the environment and therefore no alternatives or mitigation measures are proposed to avoid or reduce any significant effects on the environment. This statement shall be supported by a checklist or other documentation to show the possible effects that the agency examined in reaching this conclusion.

Pursuant to (a)(1)(A) above, this section of the checklist identifies alternatives to the proposed project that have potential to avoid or reduce any significant or potentially significant effects that the project might have on the environment. Given the potential for the project to have a range of potentially significant impacts on the environment as described in this checklist, pursuant to (a)(1)(b) above, the Coastal Commission is not able to make a statement that the proposed project would not have any significant or potentially significant impacts of the environment.

Significant or Potentially Significant Impacts of the Proposed Project

The significant or potentially significant impacts that the proposed project might have on the environment are as follows:

1. Potentially substantial impact on a scenic vista and degradation of the quality of the site and its surroundings due to siting of access road, residence, equipment barn, and/or brandy distillery;

2. Introduction of a source of light that could adverse affect nighttime views;

3. Conflict with existing C-APZ district standards that apply to the project site including failure to prepare a master plan and inability to make required findings for approval of a coastal development permit;

4. Creation of other changes (introduction of a precedent-setting industrial use in the form of the proposed brandy distillery) that could result in incremental conversion of other agricultural land to nonagricultural use and change community character;

5. Potential air quality impacts from stationary source emissions from the brandy distillery, potential air quality impacts on nearby sensitive receptors and potential odor impacts on nearby sensitive receptors;

6. Impacts on special-status species habitat from all nonagricultural related development within the proposed building envelope, and from agricultural related development located outside the building envelope;

7. Indirect adverse impacts on riparian and/or direct and indirect impacts on other sensitive natural communities;

8. Adverse impact on known or potentially protected wetlands to be defined through further biological resources evaluation;

9. Interruption of the movement of resident sensitive wildlife species and/or their corridors;

10. Conflict with local policies (LCP) that protect biological resources;

11. Exposure of project improvements (septic disposal system) to potential slope failure and expansive soils that could result in failure of improvements;

12. Hazards to the public from use or disposal of hazardous materials and/or accidental release of hazardous materials in association with the brandy distillery and/or use and storage of agricultural chemicals;

13. Exposure of people or structures to increased risk of wildland fires due to brandy distillery process risks;

14. Violation of water quality standards based on siting/function of septic disposal system;

15. Depletion of groundwater supplies affecting flow volume in the blue-line stream and springs/seeps, and functioning of a nearby, off-site groundwater well;

16. Degradation of surface water quality and groundwater quality from potentially inadequate septic system siting/design or use of agricultural chemicals and hazardous materials;

17. Conflict with policies of the LCP;

18. Adverse effects on the performance of Highway 1 and potential to increase public safety risks from vehicular accidents at the project entrance to Highway 1;

19. Exceed wastewater treatment requirements of the RWQCB through failure of the septic disposal system due to inadequate siting/design, with potential failure resulting in potential adverse effects on water quality and ESHA; and

20. Uncertainty regarding sufficiency of groundwater supply in a groundwater constrained area and due to potential conflicts between new well siting and septic disposal system separation requirements.

Project redesign and alternative project site are two common alternatives often evaluated in CEQA documents to avoid or reduce significant or potentially significant impacts. Each of these alternatives is appropriate in the context of the proposed project; each is discussed below.

Project Redesign

The project redesign alternative focuses on eliminating the distillery and modifying the location of several project components in order to avoid or reduce potential impacts.

Components of the Project Redesign Alternative

This alternative includes the following project design modifications:

- Eliminate the proposed brandy distillery.
- Move the proposed equipment barn to the same or similar footprint location as the brandy distillery.

  This component of the alternative would be conditioned on the finding of the outstanding wetland delineation for the blue-line stream associated wetland and on further analysis of the visual impacts of the brandy distillery building.
- Move the proposed access road to follow the route of the existing historical farm road as discussed in the Aesthetics section of this checklist.

This component of the alternative must be considered in light of striking a balance between eliminating the visual impacts of the proposed access road and potential biological resources impacts of the change as may be identified through additional biological resources analyses that must be conducted.

Impacts Avoided or Reduced

The proposed brandy distillery is the primary source of many of the potentially significant impacts described previously, including impacts 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 16, 17, 18 and 19. Eliminating the distillery from the proposed project would be the most effective component of a redesigned project in terms of avoiding or reducing potential impacts.

Relocating the equipment barn would serve to reduce visibility of the proposed project from a range of viewpoints already evaluated and from additional viewpoints that should be evaluated (the additional analysis may find that the equipment barn is more visually intrusive than has been represented to date). This change would avoid or reduce impacts 1, 2, 3, 6, 7, 8, 9, 10, and 17.

Relocating the proposed access road would eliminate one of the key visual impact elements of the proposed project. It would also avoid impacts on biological resources, including potential wetland ESHA associated with surface water feature swale and the previously unidentified freshwater seep. Impacts avoided or reduced would include numbers 1, 3, 6, 7, 8, 9, 10, and 17.

This alternative would not meet all of the applicant's objectives in terms of providing what is defined by the applicant as an agricultural support use – the industrial distillery. However, as described in the Agricultural Resources section of this checklist, the interpretation of this use as supportive of agricultural uses is questionable. Uncertainty exists as to the viability of the proposed vineyard, which would provide the raw material input to the distillery. Consequently, the threshold basis for the distillery use is also questionable. In addition, the economic basis for including the distillery is questionable due to the potential that the facility would provide negative financial return. If the latter occurs, the distillery would not contribute to the long-term maintenance of agricultural use of the project site.

Alternative Development Site

Components of the Alternative Site Alternative

This alternative includes the following components:

- Relocate the proposed residence, equipment barn, and access road to the south side of the on-site blue-line stream along with related supporting infrastructure including the septic disposal system; and
- Eliminate the brandy distillery from the proposed project.

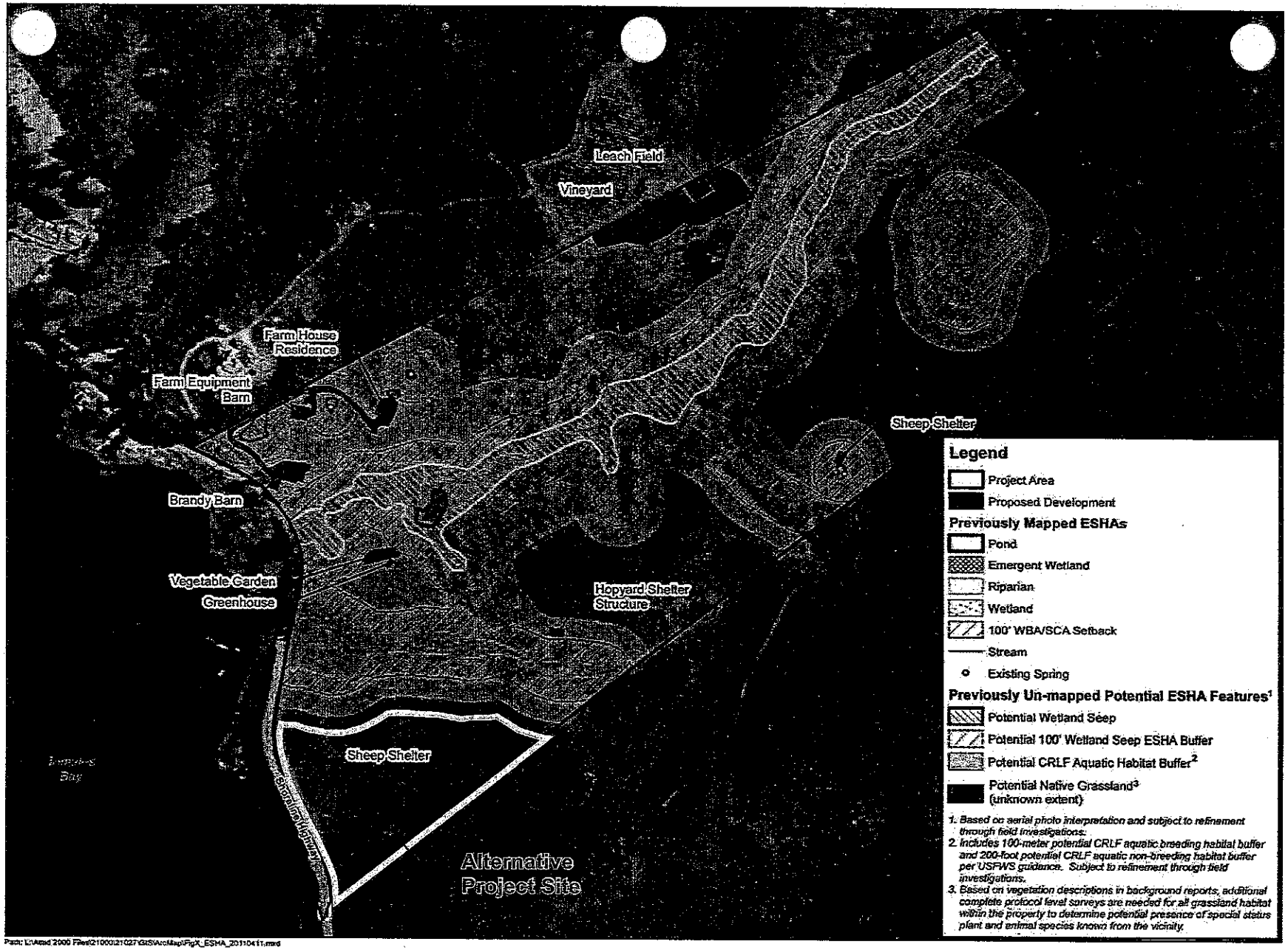
Alternative Site Location/Conditions and Impacts Avoided/Reduced

The approximate alternative project site area is shown in Figure 1, Alternative Project Site. The base map for Figure 1 is the "Additional Potential ESHA and ESHA Setbacks" figure included in the Biological Issues Letter discussed in the Biological Resources section of this checklist and included in the supplemental Biological Resources information. The purpose of using this base map is to illustrate the site location relative to potential biological resources constraints discussed in the Biological Resources section and briefly reviewed below.

Physical resource conditions including geologic hazards/constraints, biological resources, septic disposal suitability, etc., within this area have not been studied in detail by the applicant. As communicated to Coastal staff in an email dated May 26, 2010 from the County project planner, no alternative site for the residence (and presumably to other nonagricultural related improvements) on the south side of the blue-line stream was investigated for potential geologic hazards "because the applicant did not want to put his residence there." As a result, detailed information about geologic or other constraints within the alternative site is not available.

The biological resource evaluations conducted by the applicant's consultant focused on areas to the north of the stream within and adjacent to the proposed building envelope. However, stream and wetland setbacks were identified for areas on both sides of the stream, as was the presence of freshwater springs/seeps. Detailed information on the potential presence of sensitive habitats and/or special-status species in the alternative site area is not available. However, *the alternative site was selected for analysis primarily due to the likely absence or reduced absence of sensitive habitats and special status species habitats on which proposed development north of the stream is likely to have significant impacts.* From visual observations from off-site locations, review of aerial photographs, and the applicant's biological resource information, it does not appear that the alternative site area contains freshwater springs or seeps. Further, unlike proposed development north of the stream, development within the alternative site would be outside buffers and setbacks needed to avoid potential impacts on the California red-legged frog and outside buffers around known freshwater seeps/springs located north of the stream.

Because detailed soils or geologic hazard information is not available for areas on the south side of the stream, potential hazards from siting a septic disposal system cannot be ascertained.



0 600 feet

Source: WRA 2011

Figure 1

Alternative Project Site

This side intentionally left blank.

However, with the elimination of the brandy distillery, the siting and design criteria for the system could be simplified, allowing more flexibility in siting decisions. Further, the proposed septic disposal system is located approximately 2,000 feet from the nearest sources of wastewater (residence). Because of the more gentle topography in the areas of the alternative site, it may be possible to locate the septic disposal system much closer to the residential wastewater source. This would further simplifying the system design and substantially reduce potential for failure of the system.

Existing direct access to Highway 1 is not available from the alternative site as it is from the proposed development area. Therefore, a new access onto the highway would be required. New access could be placed in a location where the lines-of-sight are significantly greater than at the existing driveway access onto the highway and where potential turning movement conflicts with future park facilities development within Marconi Cove could be avoided.

The alternative site would likely afford a better opportunity meet the intent of LCP policies related to visual resources. The proposed nonagricultural uses (residence and equipment barn) could be clustered at a lower elevation that is also closer to Highway 1. A shorter access road to more highly clustered development could be designed to better follow existing topographical contours and not be sited on the crest of a hill, thereby reducing its overall visibility. These factors would contribute to reducing overall visual impacts relative to the proposed project.

The alternative site alternative has potential to avoid or reduce all of the 20 potentially significant impacts identified for the proposed project. A range of additional technical analyses (i.e. visual impact, biological resources, geologic hazards/soils, septic disposal, traffic, etc.) would be needed to thoroughly assess the extent to which potentially significant impacts would be avoided or reduced.

This alternative is likely to be environmentally superior to the proposed project and to the project redesign alternative, while achieving most of the applicant's project goals.

This side intentionally left blank.

FENTON & KELLER
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
2801 MONTEREY-SALINAS HIGHWAY
POST OFFICE BOX 791
MONTEREY, CALIFORNIA 93942-0791
TELEPHONE (831) 373-1241
FACSIMILE (831) 373-7219
www.FentonKeller.com

MARK A. CAMERON
JOHN S. BRIDGES
DENNIS G. MCCARTHY
CHRISTOPHER E. PANETTA
DAVID C. SWEIGERT
SARA B. BOYNS
BRIAN D. CALL
SHARILYN R. PAYNE
BRIAN E. TURLINGTON
CAROL S. HILBURN
TROY A. KINGSHAVEN
MICHAEL P. BURNS
KATHERINE M. HOGAN

LEWIS L. FENTON
1925-2005
JACQUELINE P. MCMANUS
1961-2011

OF COUNSEL
CHARLES R. KELLER
THOMAS H. JAMISON
GARY W. SAWYERS

October 21, 2011

JOHN S. BRIDGES

JBridges@FentonKeller.com
ext. 238

VIA U.S. MAIL AND EMAIL

California Coastal Commission
Attn: Larry Simon
45 Fremont Street, Suite 2000
San Francisco, CA 94105

California Coastal Commission
Attn: Dr. John Dixon
710 E Street, Suite 200
Eureka, CA 95501

RECEIVED
OCT 24 2011
CALIFORNIA
COASTAL COMMISSION

Re: Magee Distillery Appeal (A-2-MAR-10-022)
Our File: 33447.31025

Dear Mr. Simon and Dr. Dixon:

Enclosed is the October 21, 2011, comment letter prepared by EMC Planning in response to the September 27, 2011, Additional Biological Resource Information materials submitted by Zander Associates. This is the letter I referenced in my October 14, 2011, email. As noted in the EMC letter and as we have requested on numerous occasions, we believe accurate staking and flagging of all proposed development is critical, particularly in light of the expanded ESHA concerns and endangered species presence. We request that the staking and flagging be done by a licensed surveyor to ensure precision. Thank you.

Very truly yours,

FENTON & KELLER
A Professional Corporation

John S. Bridges

JSB:kmc
Enclosure

cc: U.S. Fish & Wildlife Service, Attn: Ryan Olah
CA Department of Fish & Game, Attn: Carl Wilcox
U.S. Army Corps of Engineers, Attn: Laurie Monarres
CA Department of Parks and Recreation, Attn: Danita Rodriguez
NOAA Gulf of the Farallones, Attn: Maria Brown
Scott Kivel/Lia Lund

{JSB-00177243;1 }

Planning for Success.

October 21, 2011

Mr. John Bridges, Esq.
Fenton and Keller
2801 Monterey-Salinas Hwy
Monterey, CA 93940

Re: Comments on Zander Associates' October 2011 Biological Resource Report - Local Coastal Program Permit Application, A-2-Mar-10-022 (Magee Project), West Marin County, California

Dear Mr. Bridges,

At your request, EMC Planning Group has conducted a preliminary review of the recently transmitted Zander Associates biological report describing biological resource information in support of Local Coastal Program permit application, A-2-Mar-10-022. The report and its supporting appendices were prepared at the direction of Larry Simon and Dr. John Dixon, California Coastal Commission staff, after a May 2011 site visit to the Magee property. The reports were specifically prepared to address previously identified topics of biological resources concern where there was a lack of sufficiently detailed information about on-site resources.

This letter is intended to identify concerns that remain after our review of the report findings. Many of these concerns are also referenced in the Draft Environmental Initial Study/Policy Inconsistency Analysis we prepared dated September 6, 2011. Based on our review there are still several unresolved issues, including incomplete analysis related to:

- sensitive (i.e. 'listed') species and ESHA habitat protections/buffers,

- sufficient wetland identification/mapping and identification of appropriate freshwater seep, riparian and wetland feature setbacks,

- effects of unpermitted habitat alterations through water diversion and wetland fill,
- completeness and the thoroughness of the botanical survey, and
- the lack of staking and flagging to accurately identify the locations and extent of all proposed development, including roads.

It is our opinion that these significant remaining issues need to be fully and adequately resolved before a properly informed decision regarding the project consistency with the Coastal Act and with the Local Coastal Program can be rendered. Each of these issues is discussed below.

CRLF Protection/ESHA Avoidance. As was specifically pointed out by Coastal Commission biologist Dr. John Dixon during the May site visit, should the presence of the federally and state Threatened California red-legged frog (*Rana aurora draytonii* [CRLF]) be confirmed on-site, all project development must be consistent with Critical Habitat designation rules promulgated by the U.S. Fish and Wildlife Service (USFWS) (2006; 71 FR 19244-19346). Critical habitat is defined in the Endangered Species Act (ESA) 'as the geographic area occupied by the species at the time of the listing where the physical and biological features necessary for the conservation of the species exist, and where there is also a need for special management to protect the species'. **Critical habitat may also include areas outside the occupied area at the time of listing if such areas are 'essential to the conservation of the species'** (emphasis added). This is applicable to the discovery of a previously unknown population of CRLF at the site, as the species is not widely distributed in the east Tomales Bay coastal area according to the California Natural Diversity Database.

Critical habitat areas for CRLF are selected based on four primary factors: 1) areas that are occupied by CRLF; 2) areas where source populations of CRLF occur; 3) areas that provide connectivity between source populations; and 4) areas that are ecologically significant. Designation of critical habitat is based on habitat areas that provide essential life cycle needs of the species or areas that contain primary constituent elements (PCEs) (50 CFR 414.12(b)). PCEs include, but are not limited to:

(i) space for individual and population growth and for normal behavior;

(ii) food, water, air, light, minerals, or other nutritional or physiological requirements;

(iii) cover or shelter; sites for breeding, reproduction, rearing (or development) of offspring;

(iv) habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

The following definitions of PCE are the bases for a designating critical habitat (USFWS 2006):

1. CRLF Aquatic Breeding Habitat: standing bodies of fresh water including: natural and manmade (stock) ponds, slow moving streams or pools within streams, or other ephemeral or permanent water bodies that typically become inundated during winter rains and hold water for a minimum of 20 weeks in all but the driest years.

The on-site stock pond (where a breeding population of CRLF was confirmed) and well-vegetated riparian areas located within the on-site stream channel would be expected to contain PCEs that would provide suitable breeding opportunities for CRLF. While not generally considered as breeding habitat, according to the definition above, if the freshwater seeps on-site (both mapped and unmapped as further described below) could provide ponded surface water at a depth of at least four to eight inches for a minimum of five months, they could also be considered as breeding habitat.

The USFWS has established adverse modification standards for critical habitat (USFWS 2006). Activities that may destroy or adversely modify critical habitat are those that alter the PCEs and jeopardize the continued existence of the species. For the CRLF specifically, these include, but are not limited to "Significant alteration of water chemistry or temperature to levels beyond the tolerances of the CRLF that result in direct or cumulative adverse effects to individuals and their life-cycles." This standard raises a question as to whether the unpermitted water diversion from a swale known to feed an adjacent freshwater seep area located near the northern property line constituted an alteration of critical CRLF habitat by depriving the area of water, causing it to go dry earlier than it would have normally. Additional standards are discussed below in relation to other elements of the proposed project that could result in modifications to critical habitat.

2. CRLF Non-breeding Aquatic Habitat: fresh water habitats (as described in "aquatic breeding habitat") are areas that may or may not hold water long enough for the frog to complete its lifecycle but provide for shelter, foraging, predator avoidance, and aquatic dispersal. Wetland habitats that meet these elements include, but are not limited to: plunge

pools within intermittent creeks, **freshwater seeps** (emphasis added), quiet water refugia during high water flows, and springs of sufficient flow to withstand summer dry period.

As stated in the regulations cited above, freshwater seep areas are considered as non-breeding CRLF habitat. Based on a review of the new Zander Associates biological report and wetland maps, at least two freshwater seep areas were identified as occurring within the entire property. During the site May site visit in which I participated, I recalled seeing additional areas that have potential to qualify as being seeps or wet meadow areas (under the Coastal Act one parameter wetland rule), based on the presence of moist soils and seasonal wetland and/or riparian scrub vegetation present. No discussion of these potential additional seep areas is presented in the new biological report from Zander Associates. Without a formal, complete wetland delineation conducted within 500-feet of all proposed development, it is impossible to adequately identify for purposes of the Coastal Act and Federal and State ESAs identify all potential CRLF habitat features within the proposed building envelope.

With the federally protected CRLF now known to occur on-site, it is a simple fact that any proposed site development must undergo a formal Section 7 consultation process with the USFWS in connection within a Section 404 Clean Water Act permitting process. Such a process will require a thorough delineation of all potential habitat areas, even if marginal or degraded, that have potential to constitute PCE and/or ESHA areas for the species (i.e. breeding, dispersal, foraging, non-breeding season upland refugia, etc.). Therefore, it is absolutely imperative that any and all **potentially jurisdictional wetland areas be defined and mapped** (emphasis added) in a valid, comprehensive wetland delineation report format for submittal and verification by the U.S. Army Corps of Engineers (USACE) before the project is allowed to proceed. Additionally, a CRLF Habitat Assessment and a Habitat Mitigation and Monitoring Plan is a standard reporting requirement for developmental projects within proximity to occupied CRLF habitats and one should be prepared for the property and submitted to USFWS for approval prior to the project proceeding.

3. CRLF Upland Habitat: upland areas within 200 feet of edge of riparian vegetation or dripline surrounding aquatic and riparian habitat and comprised of: grasslands, woodlands and/or wetland/riparian plant species providing shelter, forage, and predator avoidance for the species. Upland areas may include structural features such as boulders, rocks, organic debris, small mammal burrows, and moist leaf litter.

By not properly characterizing, identifying and buffering all potentially suitable areas of upland CRLF habitat use from project development areas, the very serious issue of potential species take may come into play. Suitable areas of upland CRLF habitat (i.e. grasslands, woodlands and/or wetland/riparian plant species) must be identified and properly flagged for avoidance. The appropriate CRLF habitat assessment would quantify suitable upland CRLF habitat features within the entire property boundary. The fact that the proposed brandy distillery and a portion of the proposed driveway would be developed within 200 feet of potentially suitable CRLF upland habitat features presents a conflict and legal inconsistency regarding sensitive species and ESHA protections, including those for the western pond turtle (WPT), discussed below.

4. CRLF Dispersal Habitat: accessible upland or riparian dispersal habitats within designated units and between occupied locations within 0.7 mi of each other that allow for movement between such sites. Dispersal habitat includes natural and previously altered habitats such as agricultural fields that do not act as barriers to dispersal. Dispersal habitat does not include moderate to high density urban or industrial developments..., nor other areas that do not contain features defined in "aquatic breeding habitat," "non-breeding aquatic habitat," or "upland habitat."

Based on its location and seasonal flow, the swale located at the northern property boundary and its surrounding grasslands has a moderate to high potential to provide dispersal habitat to areas of suitable breeding habitat located approximately 0.7 miles to the north of the site (there is a stock pond located off-site approximately 3,750 feet to the north). Also, there are stream course features and wet meadow areas located on the property to the north that have potential to provide dispersal and/or upland refugia habitat for CRLF that could be accessed via the swale feature. The swale, therefore, may constitute critical habitat for the species and if so, would for this reason also be defined as ESHA and would require substantial buffers/setbacks from project development.

Additionally, as noted previously, the USFWS has established adverse modification standards for designated critical habitat (USFWS 2006). Activities that may destroy or adversely modify critical habitat are those that alter the PCEs and jeopardize the continued existence of the species. A broader list of the standards that apply to CRLF specifically includes, but may not be limited to the following:

(1) Significant alteration of water chemistry or temperature to levels beyond the tolerances of the CRLF that result in direct or cumulative adverse effects to individuals and their life-cycles.

(2) Significant increase in sediment deposition within the stream channel or pond or disturbance of upland foraging and dispersal habitat that could result in elimination or reduction of habitat necessary for the growth and reproduction of the CRLF by increasing the sediment deposition to levels that would adversely affect their ability to complete their life cycles.

(3) Significant alteration of channel/pond morphology or geometry that may lead to changes to the hydrologic functioning of the stream or pond and alter the timing, duration, water flows, and levels that would degrade or eliminate the CRLF and/or its habitat. Such an effect could also lead to increased sedimentation and degradation in water quality to levels that are beyond the CRLF's tolerances.

(4) Elimination of upland foraging and/or aestivating habitat or dispersal habitat.

(5) Introduction, spread, or augmentation of non-native aquatic species in stream segments or ponds used by the CRLF.

(6) Alteration or elimination of CRLF food sources or prey base (also evaluated as indirect effects to the CRLF).

The proposed commercial brandy distillery is planned for a location adjacent to a very sensitive resource area (a blue-line stream leading directly to Tomales Bay). The brandy distillery site is approximately 135-feet from the blue-line stream. Construction and operation of the distillery has potential to lead to increased sedimentation within the stream, and potential to introduce hazardous chemicals into the stream ultimately to degrade water quality in Tomales Bay. The commercial distillery could result in increased surface run-off from impervious surfaces which could contain sediments, oil, grease, chemicals used in the distillation process, chemical cleaning agents, etc., all of which could potentially put CRLF WPT at risk.

It is now known that in 2008, Zander Associates invited Dr. Mark Jennings, a noted authority on CRLF distribution and life history, to visit the property and to provide an expert opinion on the potential presence of CRLF. Dr. Jennings communicated that he assumed the species was present. It appears that this fact was never fully disclosed in the

public record (although the applicant did state at a public hearing that he generally "assumed" that the frog was present on-site).

Other Sensitive Species Protection Measures. With project development actions proposed to occur within grassland areas that have potential to provide suitable breeding habitat for the State Species of Concern WPT, the CDFG should be consulted to identify appropriate jurisdictional issues and mitigation/avoidance approaches. WPT habitat would be considered ESHA under the Coastal Act. A delineation of all suitable grassland areas located within 300 feet of the stock pond should be prepared and nest site surveys should be undertaken in the early spring season to properly protect this species which is now known to occur within the on-site pond.

In addition to CRLF and WPT, American badger (California Species of Concern) is known to occur and has potential to breed on-site. A full season badger survey is warranted based on the fact that the applicant acknowledges having seen the species on the property and because badgers and active badger dens have been observed on the neighboring property; abandoned dens were observed within 100 feet of the proposed vineyard location. Based on the fact that the vineyard area provides suitable grassland habitat for the species, it is necessary to quantify any and all potential impacts to badgers.

Wetland Identification, Setback and Protection Measures. It is our understanding that a site wetland delineation describing and identifying all possible wetland features within 500-feet of any proposed development is the Coastal Commission's standard (*Draft Statewide Interpretive Guidelines on Wetlands, California Coastal Commission, updated November 17, 1980*). Therefore, the applicant must delineate all wetlands within a 500-foot development distance and not just at selected points within the project building envelope. This is potentially significant because the upland limit of the riparian areas may not have been fully investigated and accurately determined by the application of the Coastal Act 'one parameter rule', where the presence of a single wetland soil, wetland vegetation or hydrological indicator would establish this transitional boundary. Additionally, all development must avoid wetland resource setbacks, and if development is proposed adjacent to setbacks, it should be limited and carefully mitigated to minimize potential impacts. As described above, the brandy distillery and a significant portion of the proposed driveway are located within necessary wetland and/or biological resource protection setbacks and/or ESHA buffers.

Also, the swale on the northern property boundary must be identified as potential CRLF habitat, delineated and appropriately avoided and buffered from development, as it meets the Coastal Act definition of an ESHA feature. This feature was observed to convey/hold water for more than 7 days during the growing season in 2011 and has potential to provide on and off site dispersal opportunities for CRLF.

Zander Associates' basis for concluding that certain on-site areas lacked a dominance of hydrophytic vegetation must be reviewed. It is not standard procedure for a wetland scientist to render a wetlands presence/absence conclusion based on "recommended" plant species status changes not yet adopted/codified, and/or facultative wetland plant function presumptions (see statement from Zander Associates that observed riparian scrub vegetation on-site [*Rubus* sp.], "functions as an upland species"). Currently accepted plant community plant associations and delineation standards promulgated by the CNPS, Coastal California Coastal Commission or USACE must be utilized.

Typically, under the "one parameter rule", the Coastal Act standard for wetland determinations, which is substantially more stringent than USACE standards. Consistent with Coastal Act purposes, the highest priority must be given to environmental protection. Additionally, a suitably scaled (i.e. 1 inch = 200-feet) wetland delineation map that depicts all on-site wetland features should be provided, as the only wetland map provided to date by Zander Associates is inadequate for planning purposes.

Rare Plant and Significant Botanical Resource Protection Measures. A complete CNPS protocol plant survey and report (with an updated botanical survey map) must be performed and prepared. At least one and typically two consecutive years of three-season plant surveys conforming to the CNPS guidelines should be implemented based on the predominance (in some areas) of native/endemic plants. This focused effort coupled with a site-wide vegetation map depicting all areas of native species concentrations and/or sensitive habitats (i.e. coastal prairie, native grasslands) on an appropriate scale map must be the accepted standard for a developmental project proposing to remove over six acres of natural vegetation. The survey will also be useful to quantify potential impacts to special status species due to grassland conversion (i.e. badger)

Update the Site Plan to Reflect Accurate Building Locations and Required Distance and Buffers from all on site ESHA and/or Wetland Features. Upon completion of final, revised project vegetation community, wetlands and ESHA maps (i.e. special status species habitat features maps), all ESHA and wetland data should be comprehensively consolidated

and overlain on an updated site plan to generate an accurate biological resources site map. Additionally, the entire development footprint (including buildings, roads, parking, infrastructure and other land disturbance) should be precisely (by survey) and permanently staked. This is required to ensure that these final locations can be measured from known special status features as a basis for determining appropriate development/building/road setbacks from all on-site native/sensitive plant and animal habitats (e.g. ESHA and wetlands).

Conduct Hydrological Studies. Groundwater resources in the project area are scarce. The proposed project would obtain water supply from a new on-site well. The impact of extracting additional groundwater on water supply and the habitat provided by on-site seeps, wetlands, and the blue-line stream has not been evaluated and must be identified prior to further project consideration.

Should you have any questions or comments concerning the results and/or recommendations presented in this assessment letter, please feel free to contact me at (831) 649-1799, ext. 208.

Sincerely,

William F. Goggin
Senior Biologist

EMC PLANNING GROUP INC.
A LAND USE PLANNING & DESIGN FIRM

301 Lighthouse Avenue Suite C Monterey California 93940
Tel 831-649-1799 Fax 831-649-8399 www.emcplanning.com

RECEIVED
FEB 17 2012
CALIFORNIA
COASTAL COMMISSION
NORTH CENTRAL COAST

To: John Bridges, Fenton & Keller

From: William Goggin, EMC Planning Group

Cc: Charles Lester, California Coastal Commission

Date: February 13, 2012

Re: **Outstanding Unresolved Biological Resource Issues, Local Coastal Program Permit Application, A-2-Mar-10-022 (Magee Project), West Marin County, California**

Message:

At the request of Mr. Scott Kivel, this memo (and a supporting Figure 1, attached) has been prepared by EMC Planning Group prior to a meeting between John Bridges and Charles Lester, California Coastal Commission Director, and is intended to reiterate concerns raised in previous biological resource analysis documents pertaining to the protection of sensitive biological and wetland resources at an approximately 150-acre undeveloped property located in northwest Marin County, California ("project site"). The proposed project's Local Coastal Program permit application, A-2-Mar-10-022 was requested by Mr. Tony Magee. The application includes a request to construct a single-family residence, equipment barn, commercial distillery, and ancillary agricultural support buildings. Many of the concerns contained herein have been previously identified in earlier biological analysis reports; several outstanding issues that Mr. Kivel feels warrant the immediate attention of the Coastal Commission have been restated in this memo.

Based on our review there are still several unresolved issues, including incomplete analysis that could have negative consequences to special status wildlife species now know to occur on site:

- Sensitive (i.e. 'listed') species (i.e. CRLF, WPT) and ESHA habitat protections/buffers,

MEMORANDUM

- Sufficient wetland identification/mapping and identification of appropriate freshwater seep, riparian and wetland feature setbacks,

- Effects of unpermitted habitat alterations through water diversion and wetland fill,

- Improper staking and flagging of project structures and ESHA features.

It is our opinion that these significant remaining issues need to be fully and adequately resolved before a properly informed decision regarding the project consistency with the Coastal Act and with the Local Coastal Program can be rendered. These issues are discussed briefly below.

CRLF Protection: As the federally and state Threatened California red-legged frog (*Rana aurora draytonii* [CRLF]) has now been confirmed to occur on site, all project development must be consistent with Critical Habitat designation rules promulgated by the U.S. Fish and Wildlife Service (USFWS) (2006; 71 FR 19244-19346). Critical habitat is defined in the Endangered Species Act (ESA) 'as the geographic area occupied by the species at the time of the listing where the physical and biological features necessary for the conservation of the species exist, and where there is also a need for special management to protect the species'. **Critical habitat may also include areas outside the occupied area at the time of listing if such areas are 'essential to the conservation of the species'**. This aspect of the ruling is applicable to the discovery of this previously unknown population of CRLF at the site, as the species is not widely distributed in the Tomales Bay coastal area.

The following habitat designation issues are applicable to the Magee site:

1. **CRLF Aquatic Breeding Habitat:** The on-site stock pond (where a breeding population of CRLF was confirmed) and well-vegetated riparian areas located within the on site stream channel would be expected to contain CRLF habitat PCEs (Primary Constituent Elements) that would provide suitable breeding opportunities for the species. From the Federal Register:

   > "Pursuant to 50 C.F.R. § 424.12(b), the Secretary of the Interior, when designating critical habitat, must identify and consider the physical and biological features that are essential to the conservation of the species and that may require special management considerations or protection. These features include, but are not limited to:

(1) Space for individual and population growth, and for normal behavior;

(2) Food, water, air, light, minerals, or other nutritional or physiological requirements;

(3) Cover or shelter;

(4) Sites for breeding, reproduction, rearing of offspring, germination, or seed dispersal; and generally, and

(5) **Habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.**

The regulations also require that when delineating critical habitat, the Secretary focus on biological and physical elements of a defined area that is essential to the conservation of the species. Known **primary constituent elements** form the basis of delineation of essential habitat and the critical habitat description."

While not generally considered as breeding habitat, according to the definition above, if the freshwater seeps on-site (both mapped and unmapped) may provide ponded surface water at a depth of at least four to eight inches for a minimum of five months of the year, these seasonally inundated wetland features could also be considered to provide some level of suitable foraging and dispersal habitat for CRLF using the site, if not breeding habitat, per se.

The USFWS has established adverse modification standards for critical habitat (USFWS 2006). Activities that may destroy or adversely modify critical habitat are those that alter the PCEs and jeopardize the continued existence of the species. For the CRLF specifically, these include, but are not limited to "Significant alteration of water chemistry or temperature to levels beyond the tolerances of the CRLF that result in direct or cumulative adverse effects to individuals and their life-cycles." This standard raises a question as to whether a unpermitted water diversion from a swale known to feed an adjacent freshwater seep area located near the northern property line constituted an alteration of critical CRLF habitat by depriving the area of water, causing it to go dry earlier than it would have normally.

2. CRLF Non-breeding Aquatic Habitat: Freshwater seep areas on-site would likely be considered as non-breeding CRLF habitat. Based on a review of the new Zander Associates biological report

and wetland maps, at least two freshwater seep areas were identified as occurring within the entire property. Without a formal, complete wetland delineation conducted within 500-feet of all proposed development, it is impossible to adequately identify for purposes of the Coastal Act and Federal and State ESAs identify all potential CRLF habitat features within the proposed building envelope.

With the federally protected CRLF now known to occur on-site, it is a simple fact that any proposed site development must undergo a formal Section 7 consultation process with the USFWS in connection within a Section 404 Clean Water Act permitting process. Such a process will require a thorough delineation of all potential habitat areas, even if marginal or degraded, that have potential to constitute PCE and/or ESHA areas for the species (i.e. breeding, dispersal, foraging, non-breeding season upland refugia, etc.). Therefore, it is absolutely imperative that all **potentially jurisdictional wetland areas be defined and mapped** (emphasis added) in a valid, comprehensive wetland delineation report format for submittal and verification by the U.S. Army Corps of Engineers (USACE) before the project is allowed to proceed. Additionally, a CRLF Habitat Assessment and a Habitat Mitigation and Monitoring Plan is a standard reporting requirement for developmental projects within proximity to occupied CRLF habitats and one should be prepared for the property and submitted to USFWS through a formal Section 7 or Section 10 consultation process prior to project approval.

3. CRLF Upland Habitat: upland areas within 200 feet of edge of riparian vegetation or dripline surrounding aquatic and riparian habitat and comprised of: grasslands, woodlands and/or wetland/riparian plant species providing shelter, forage, and predator avoidance for the species. Upland areas may include structural features such as boulders, rocks, organic debris, small mammal burrows, and moist leaf litter.

By not properly characterizing, identifying and buffering all potentially suitable areas of upland CRLF habitat use from project development areas, the project proponent is risking the potential for species take. Suitable areas of upland CRLF habitat (i.e. grasslands, woodlands and/or wetland/riparian plant species) must be identified and properly flagged for avoidance from all project development; if it is not possible to completely avoid all CRLF dispersal areas, impacted CRLF upland dispersal habitat should be mitigated at a 2:1 replacement ratio. The appropriate CRLF habitat assessment would quantify suitable upland CRLF habitat features within the entire property boundary. The fact that the proposed brandy distillery and a portion of the proposed driveway would be developed within 200 feet of potentially suitable CRLF upland habitat features as well as the recommended 200-foot from the blueline drainage presents a legal conflict regarding CRLF and ESHA protections, including those for the western pond turtle (WPT), discussed below.

4. CRLF Dispersal Habitat: Based on its location and seasonal flow, the swale located at the northern property boundary and its surrounding grasslands has a moderate to high potential to provide dispersal habitat to areas of suitable breeding habitat located approximately 0.7 miles to the north of the site (there is a stock pond located off-site approximately 3,750 feet to the north). Also, there are stream course features and wet meadow areas located on the property to the north that may provide dispersal and/or upland refugia habitat for CRLF that could be accessed via the swale feature. The swale, therefore, may constitute critical habitat for the species and if so, would for this reason also be defined as ESHA and would require substantial buffers/setbacks from project development.

The project's proposed commercial brandy distillery is has been sited adjacent to (within 135-feet) an extremely sensitive resource area (the blue-line stream course leading connecting to Tomales Bay). Construction and operation of the distillery has potential to lead to increased sedimentation within the stream, and potential to introduce hazardous chemicals into the stream ultimately to degrade water quality in Tomales Bay. The commercial distillery could result in increased surface run-off from impervious surfaces which could contain sediments, oil, grease, chemicals used in the distillation process, chemical cleaning agents, etc., all of which could potentially put CRLF WPT at risk.

5. WPT Breeding and Upland Habitat: With project development actions proposed to occur within grassland areas that have potential to provide suitable breeding habitat for the State Species of Concern WPT, the CDFG should be consulted to identify appropriate jurisdictional issues and mitigation/avoidance approaches. WPT habitat would be considered ESHA under the Coastal Act. A delineation of all suitable grassland areas located within 300 feet of the stock pond should be prepared and nest site surveys should be undertaken in the early spring season to properly protect this species which is now known to occur within the on-site pond.

6. Improperly Buffered Wetlands, Waters and ESHA Areas: Zander Associates' biological resources reports describe the location of freshwater springs and associated vegetation. Mr. Magee's proposed access road passes within approximately 50 feet of the potential freshwater seep. Further field assessment is needed to determine presence of all on-site freshwater seeps within 500-feet of the projects development evelope (as required under CCC regulations) and whether these areas may constitute ESHA. If so, new development setbacks not previously defined or illustrated would be needed and modification of Mr. Magee's site plan may be required to avoid direct or indirect disruption to and impacts on ESHA.

Additionally, a swale originates upslope on the adjacent property to the north and passes south-southwest onto the Magee property. At the property line, the swale can be characterized as a shallow, non-scoured, linear feature. Surface flow in the swale is common during rainfall events. The feature may be hydrologically-connected to the previously unidentified potential seep (discussed above). If so, its value as potential ESHA would be enhanced. There is potential that a portion of this swale feature could qualify as a jurisdictional State Waters under the Coastal Commission definition of wetlands/waters which establishes a "one parameter definition" that only requires evidence of a single parameter to establish jurisdictional wetland conditions. The swale exhibits wetland hydrology during a portion of the year. The rule in the Coastal Zone is generally based on the hydric soils definition, which is that a soil is considered hydric if it is ponded or saturated for a minimum of seven (7) days during the growing season. Site photographs and visits to the location of the feature during the rainy season indicate that on the numerous days (at least seven) the swale conditions were photographed and the feature retained (ponded) water and conveyed surface flow.

Note: Regarding the blue-line stream, no wetland delineation data sheets were provided and no sample points are described or shown on the preliminary wetland delineation map provided recently by Magee that show that the boundary of the stream course was thoroughly investigated. Wetland data sample points should have been taken to accurately demonstrate where the upland/riparian transition zone is located along the blue-line stream, particularly in the lower portions of the channel, which are within approximately 120 feet of the proposed brandy distillery. The data and map provided to date are only sufficient for an assessment level mapping effort, not for the permit review process.

7. Placement of Fill Within Waters of US/State and ESHA Areas: In 2006, neighbors residing on adjacent properties to the north of the project site observed that fill material had been placed within wetland ESHA located along the on-site blue-line stream. Figure 1 illustrates the approximate location where the fill was placed. A farm road traverses this area. The road had historically been the main access to the portion of the property located north of the blue-line stream. The material was first been dumped in piles adjacent to the location it was placed. The neighbors passed by this location on a daily basis and based on their frequent observation, noted the area where fill was placed historically had been regularly saturated and ponded with water at depths of up to one foot or more. The event was reported to Marin County. A Code Enforcement Officer responded with a site visit and consultation with the prior property owner, but apparently no action was taken.

The prior property owner's apparent intention to modify this area was expressed in an email communication dated October 16, 2006 from Neil Bloomfield, the property owner at the time to Robert Harris, a County Code Enforcement officer:

> I am also winterizing the various pathways around the property, and getting both entrance ways, the north gate and south gate, ready for winter. Where there are or may be soft spots, here and there, I am filling those spots and compacting...

We believe the "entrance ways" and the "north gate" to correspond to the subject gate and access road which traverses the wetland ESHA.

It is estimated that fill was placed over an approximately 500 square-foot area. This is based on one neighbor's estimate of the amount of fill material dumped at the gate prior to its placement and on the independent corroboration of the second neighbor regarding the area over which fill was placed. The fill location is adjacent to and within 100 feet of the blue-line stream. Prior to the fill activity, the area would have been and remains characterized as potential habitat for special-status species, including the CRLF. Consequently, the area is also ESHA. The action to fill the area violated both Coastal Act and County LCP policy regarding protection of critical biological resources, including riparian and wetland habitat.

Conclusions

The biological analysis work conducted on behalf of the Magee project and in the available record contains important data gaps. As a result, a thorough, well-vetted assessment of biological resources on the project site, especially the location of ESHA, is not adequate or complete in EMC Planning's opinion. In the absence of this information, the potential for the proposed project to significantly disrupt and/or cause significant direct and indirect adverse impacts on ESHA and special-status species habitat cannot be thoroughly assessed.

Upon completion of final, revised botanical/vegetation community, wetlands delineation, CRLF Habitat Assessment, WPT survey and supporting ESHA maps (i.e. special status species habitat features maps), all ESHA features and verified wetland data should be comprehensively consolidated and overlain on an updated site plan to generate an accurate biological resources site map. Additionally, the entire development footprint (including buildings, roads, parking, infrastructure and other land disturbance) should be precisely (by land survey) and permanently staked. This is required to ensure that these final locations can be measured from known special

status features as a basis for determining appropriate development/building/road setbacks from all on-site native/sensitive plant and animal habitats (e.g. ESHA and wetlands). In the absence of such information, the precise boundaries of wetland ESHA, the potential for the proposed project to substantially disrupt and/or impact ESHA, project consistency with the Coastal Act, and need for further development setbacks from wetland ESHA cannot be sufficiently determined.

The fact that the County determined that a Categorical Exemption under the California Environmental Quality Act was appropriate rendered the County's review of potential impacts on biological resources inadequate. The County's determination has denied the public and interested responsible public trustee agencies the opportunity to adequately review and provide comment on the technical adequacy of the biological analysis or to provide feedback on the County's determination that the project would not result in significant adverse impacts to biological resources. Consequently, Coastal Commission staff should refer this matter to state and federal jurisdictional resource agencies (U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration Fishery Service, California Department of Fish and Game, and the California Regional Water Quality Control Board) for their review and consultation.

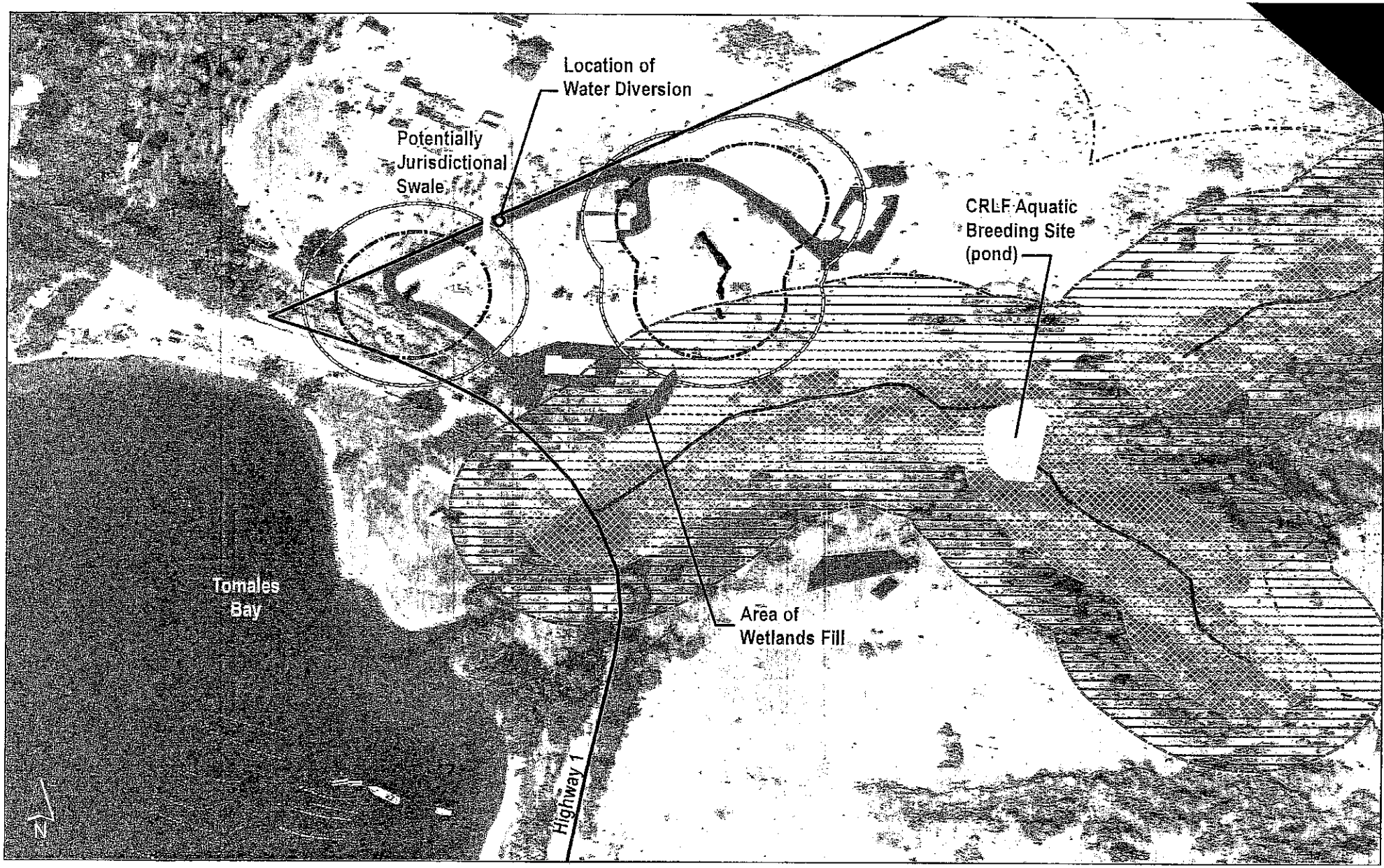
Should you have any questions or comments concerning the results and/or recommendations presented in this assessment letter, please feel free to contact me at (831) 649-1799, ext. 208.

Sincerely,

William Goggin
Senior Biologist

ATTACHMENT: Figure 1-Biological Resources Overview Map

MEMORANDUM



Legend

- Stream Course
- Wetland Seeps
- Wetland Seeps 100' Buffer
- Wetland Seeps Recommended 150' Buffer
- Stream Course 100' Buffer
- Stream Course Recommended 200' Buffer*
- Structures
- Project Development Areas
- Upland (Non-breeding) CRLF Dispersal Buffer

Figure 1

Project Biological Resource Overview

Notes:
* Included within Stream Course Recommended 200' Buffer is habitat for Western Pond Turtle.
Disclamer:
The subject graphical representation is a composite image overlay not prepared to scale.
It has been prepared for preliminary scoping purposes. It is not suitable for project planning use.

FENTON & KELLER
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
2801 MONTEREY-SALINAS HIGHWAY
POST OFFICE BOX 791
MONTEREY, CALIFORNIA 93942-0791
TELEPHONE (831) 373-1241
FACSIMILE (831) 373-7219
www.FentonKeller.com

MARK A. CAMERON
JOHN S. BRIDGES
DENNIS G. MCCARTHY
CHRISTOPHER E. PANETTA
DAVID C. SWEIGERT
SARA B. BOYNS
BRIAN D. CALL
SHARILYN R. PAYNE
BRIAN E. TURLINGTON
CAROL S. HILBURN
TROY A. KINGSHAVEN
MICHAEL P. BURNS
KATHERINE M. HOGAN
BIANCA KARIM

LEWIS L. FENTON
1925-2005

OF COUNSEL
CHARLES R. KELLER
THOMAS H. JAMISON

April 6, 2012

JOHN S. BRIDGES

JBridges@FentonKeller.com
ext. 238

RECEIVED
APR 09 2012
CALIFORNIA
COASTAL COMMISSION

Larry Simon
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Re: Magee Distillery Project (A-2-MAR-10-022; West Marin County)
Our File: 33447.31025

Dear Larry:

Enclosed is a memorandum from EMC Planning Group regarding important new information about Western pond turtle activity near the Magee property. This memorandum also includes several recommendations, based on the noted species activity, regarding the extent of and protections that should be provided to ESHA on the Magee property. The memo also makes critical recommendations regarding responsible agency consultations that should be undertaken and completed prior to Coastal Commission consideration of the project. Please let me know if you have any questions about the EMC memo or otherwise.

Very truly yours,

FENTON & KELLER
A Professional Corporation

John S. Bridges

John S. Bridges kmc

JSB:kmc
Enclosure

cc: Timothy S. Dodson, CA Department of Fish & Game (w/encl.)
Ryan Olah, U.S. Fish & Wildlife Service (w/encl.)
Xavier Fernandez, San Francisco Regional Water Quality Control Board (w/encl.)
Bryan Matsumoto, U.S. Army Corps of Engineers (w/encl.)
Bill Goggin/Ron Sissem, EMC Planning Group (w/encl.)
Scott Kivel & Lia Lund (w/encl.)

EMC PLANNING GROUP INC.
A LAND USE PLANNING & DESIGN FIRM

301 Lighthouse Avenue Suite C Monterey California 93940
Tel 831·649·1799 Fax 831·649·8899 www.emcplanning.com

To: John Bridges, Fenton & Keller

From: William Goggin, EMC Planning Group

Date: April 4, 2012

Re: **Identification of Western Pond Turtle on Adjacent Property and Habitat Connectivity Issues, Local Coastal Program Permit Application, A-2-Mar-10-022 (Magee Project), West Marin County, California**

This memo pertains to new observational information related to sensitive species occurrence on parcels adjacent to the Magee project site, an approximately 150-acre undeveloped property located in northwest Marin County, California ("project site"). Development of the project site was approved by Marin County pursuant to Coastal Development permit application, A-2-Mar-10-022. The application includes a request to construct a single-family residence, equipment barn, commercial distillery, and ancillary agricultural support buildings. Please refer to Figure 1, Site Location Map, which depicts the project site location in western Marin County, California. The County's approval of the Coastal Development Permit has been appealed to the California Coastal Commission (CCC). The date for a de novo hearing has not yet been set.

Over the past several months, EMC Planning Group has indentified and prepared letters, reports and memos detailing inadequacies, omissions and errors in the content and analysis of biological documents prepared in support of Magee's project and despite having been requested to do so by the CCC to resolve these discrepancies, there still remain numerous, unresolved issues related to the lack of adequately identified environmentally sensitive habitat area (ESHA) on the project site and appropriate protections for these features from proposed project impacts. These impacts could lead to serious, negative consequences for special-status wildlife species known to occur on the project site and now confirmed to be using adjacent lands as movement corridor habitat. As a result

MEMORANDUM

of a request by the California Coastal Commission staff biologist, who found that the applicant's initial biological resources assessment was inadequate, additional analysis about the occurrence of special-status species has been undertaken by the applicant. It was eventually reported that there was on-site occurrence of the State Species of Concern Western pond turtle (*Emmys marmorata*) [WPT] and state Threatened California red-legged frog (*Rana aurora draytonii*) [CRLF] within the on-site blue-line drainage. This determination was made three years after the applicant's biological consultant initially evaluated the site for sensitive species presence and determined that there was suitable habitat for several listed species, including CRLF and WPT.

Since the disclosure of sensitive species occurrence within the project site property was made, it has come to the attention of EMC Planning Group that a neighboring property owner has observed WPT adjacent a seasonal drainage channel approximately 1,400 feet north of the project site. The property owner, Linda Emme, photographed the animal on March 10, 2012 outside of her house. Then, two days later, Ms. Emme reported observing the WPT again, this time moving uphill through upland vegetation in a southerly direction. It is approximately 800 feet south, overland in a straight-line from this WPT observation location to the headwaters of a small, seasonally-inundated swale on the Lund-Kivel property that flows in a southwesterly direction to within approximately 200 feet of the applicant's on-site pond, ultimately, the WPT's likely destination. Please refer to the attached Figure 2, Representative Photographs of the WPT observed by Emme, and Figure 3, Biological Resources Map, for the location of the observation and the overland pathway hypothetically travelled by the WPT to reach the Magee site's attractant pond.

The swale area and the off-site drainage were the WPT was discovered have both been visited by EMC Planning Group biologist Bill Goggin (spring of 2011). The swale exhibited conditions that could lead to its being classified as a Waters of the State (i.e., slight surface scouring) and exhibits enough hydrological development in the rainy season to meet the hydrological parameter, thus qualifying the area as a jurisdictional ESHA wetland/Waters feature under the Coastal Commission's "one parameter standard". Based on its location and seasonal flow, the swale located at the northwestern property boundary and its surrounding grasslands have a high potential to provide dispersal habitat and facilitate animal movement for resident WPT and CRLF dispersing from the project site to off-site areas of suitable habitat located to the north (i.e., the stream course feature where WPT was observed by Emme), via the swale and its associated wet meadow area on the Lund-Kivel property. Therefore, it seems highly probable that the swale feature provides critical dispersal habitat for WPT and possibly CRLF as well.

The swale may also constitute critical habitat for CRLF as defined in the Federal Register and if so, would require a thorough delineation with requirements that substantial buffers/setbacks be provided between the feature and the applicant's proposed development; these recent disclosures could warrant formal Section 7 consultation with the USFWS. The USFWS has established adverse modification standards for critical habitat (USFWS 2006). Activities that may destroy or adversely modify critical habitat are those that jeopardize the continued existence of the species. For the CRLF specifically, these include, but are not limited to **"Sites for breeding, reproduction, rearing of offspring ... or dispersal"** (emphasis added). Following this logic, any upland areas within 200 feet from the edge of the swale that are comprised of a majority of wetland-adapted grasslands and/or wetland/riparian woodlands or plant species could provide shelter, forage, and predator avoidance for occurring CRLF (and/or WPT). Therefore, proposed development should be set back a minimum of 200 feet from all suitable habitat features and areas in proximity to the swale and its associated freshwater seeps for appropriate species impact avoidance and minimization.

The applicant's questionable reporting of the occurrence within the property raises issues about the project potential to cause unintended take of these protected animals due to a lack of proper identification and setback from all potential ESHA features on site. Since this sensitive species occurrence information was initially disclosed (late November 2011), to the best of our knowledge, the applicant has failed to update the project's site plans to reflect sensitive species occurrence information, nor have they proposed specific mitigations to address the project's implementation within occupied ESHA areas. We are aware of nothing prepared to date that reflects any re-consideration of the project footprint in light of this critical information. Letting this situation continue (the non-demarcation of any potential ESHA within the project site) without proper regulatory agency involvement and oversight could lead to a condition which is in direct violation of CDFG Code and federal Endangered Species Act regulations. Any unmapped suitable on-site movement corridor and dispersal habitat that provides connectivity, or ingress or egress from off-site habitats for these two listed species (i.e., CRLF and WPT) is at risk of being irretrievably lost. This type of premature, unevaluated habitat conversion is quite probably illegal (in light that Magee has no approved project) and has a high potential to lead to adverse consequences to the local populations of these two species, including long term impacts from habitat degradation, habitat fragmentation, genetic isolation and increased predator/prey interactions.

It is our professional opinion that these biological resource protection issues are significant enough to warrant an immediate order from CDFG and the USFWS to Magee to cease and desist with any further site modification activity so as to prevent any further unpermitted, unregulated, potentially illegal habitat alterations of on-site ESHA. Furthermore, we recommend an inter-agency formal

consultation site visit be scheduled at the soonest possible time to allow CDFG and USFWS biologists familiar with the life history requirements of these two species to identify and delineate all potential sensitive species breeding, foraging and movement/dispersal corridor habitat (i.e., ESHA) located within the overall project site prior to the California Coastal Commission de novo hearing on the project.

Additionally, we would recommend that the following measures be taken to assist with the natural resource evaluation of the Magee site by all proper jurisdictional authorities:

- All potential jurisdictional wetland areas be defined and mapped in a valid, U.S. Army Corps of Engineers comprehensive wetland delineation report format before the project is allowed to proceed. Additionally, a CRLF Habitat Assessment and a Habitat Mitigation and Monitoring Plan should be submitted to USFWS through a formal Section 7 consultation process and a WPT Habitat Management Plan, subject to a CDFG approval process, should be prepared for the property and agreed to by the applicant prior to the California Coastal Commission de novo hearing.

- Suitable areas of upland CRLF habitat (i.e. seeps, wet grasslands, willow woodlands and/or areas of wetland/riparian plant species) must be identified, and properly staked and flagged for setback and avoidance from all project development, including road and structure development. By failing to adequately characterizing and/or misidentifying and properly buffer all potentially suitable areas of upland WPT and CRLF habitat from project development areas, the project is at serious risk of species take. Even if the project were to avoid operating until after the rainy season, aestivating/nesting WPT and/or CRLF could be harmed, injured or harassed during project implementation, if the applicant were allowed to excavate upland areas within 200 feet of the swale and/or freshwater seeps. The recommended minimum setback distance from any and all upland WPT and CRLF habitat features is 200 feet.

- A focused habitat assessment for CRLF and WPT should be prepared immediately. The CRLF habitat assessment would quantify suitable WPT and CRLF habitat features within the entire property boundary. Consistent with the Coastal Act, these features would be defined as ESHA and under the Coastal Act, avoidance of these features is required (with the only exception being for resource dependent development, which the proposed project is not). The fact that components of the project would be developed within 200 feet of suitable

dispersal corridor habitat, as well as within 200 feet of the occupied habitat of the blue-line creek (the proposed commercial brandy distillery is within 135 feet of this unnamed creek) presents a potential conflict with state and federal ESA guidelines and habitat protections, including protections afforded the WPT through the California Environmental Quality Act review process.

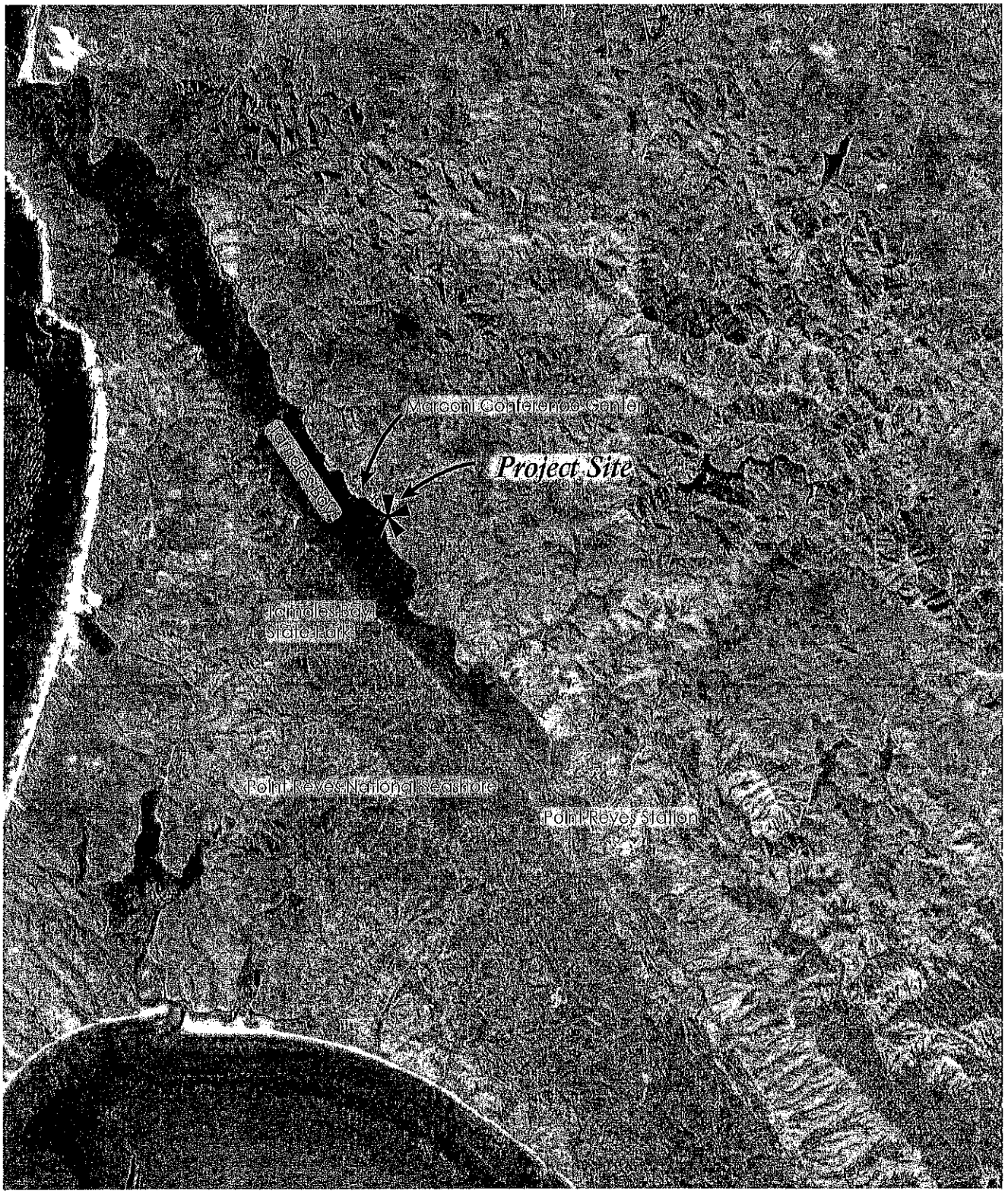
- With various types of project development actions (i.e., road/structure/distillery construction, cut and fill slope recontouring, grading, etc.) proposed to occur within on- site grassland areas having the potential to provide suitable breeding/nesting habitat for the State Species of Concern WPT, the CDFG should be consulted to identify appropriate impact avoidance mitigation measures/approaches prior to the California Coastal Commission de novo hearing. Additionally, these impact avoidance and mitigation measures should be incorporated into the project plans and permits. The delineation of all grassland areas within 300 feet of the stock pond and that provide suitable habitat for WPT breeding/nesting be prepared and WPT nesting/breeding site surveys should be undertaken in the spring 2012 and, due to the lateness of this season, in 2013 season to properly protect this species.

Should you have any questions or comments concerning the results and/or recommendations presented in this memo, please feel free to contact me at (831) 649-1799, ext. 208.

Sincerely,

William Goggin
Senior Biologist

ATTACHMENTS:
Figure 1 - Site Location Map
Figure 2 - Biological Resources Map
Figure 3 - Representative Photographs

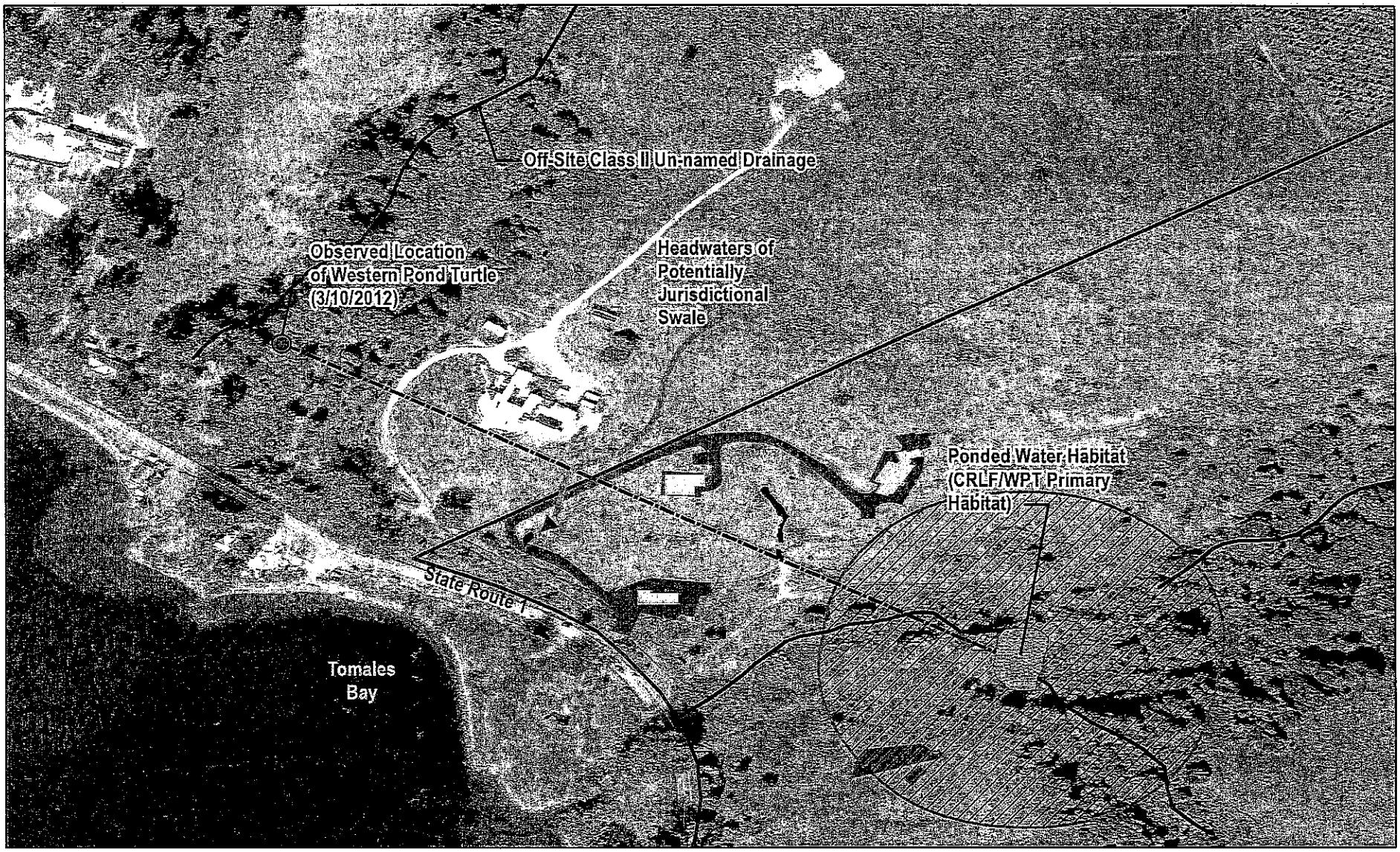


Source: Google Earth 2009

Figure 1

Site Location

17790 Shoreline Highway Coastal Development Permit Appeal Project
Western Pond Turtle Memo



0 300 feet

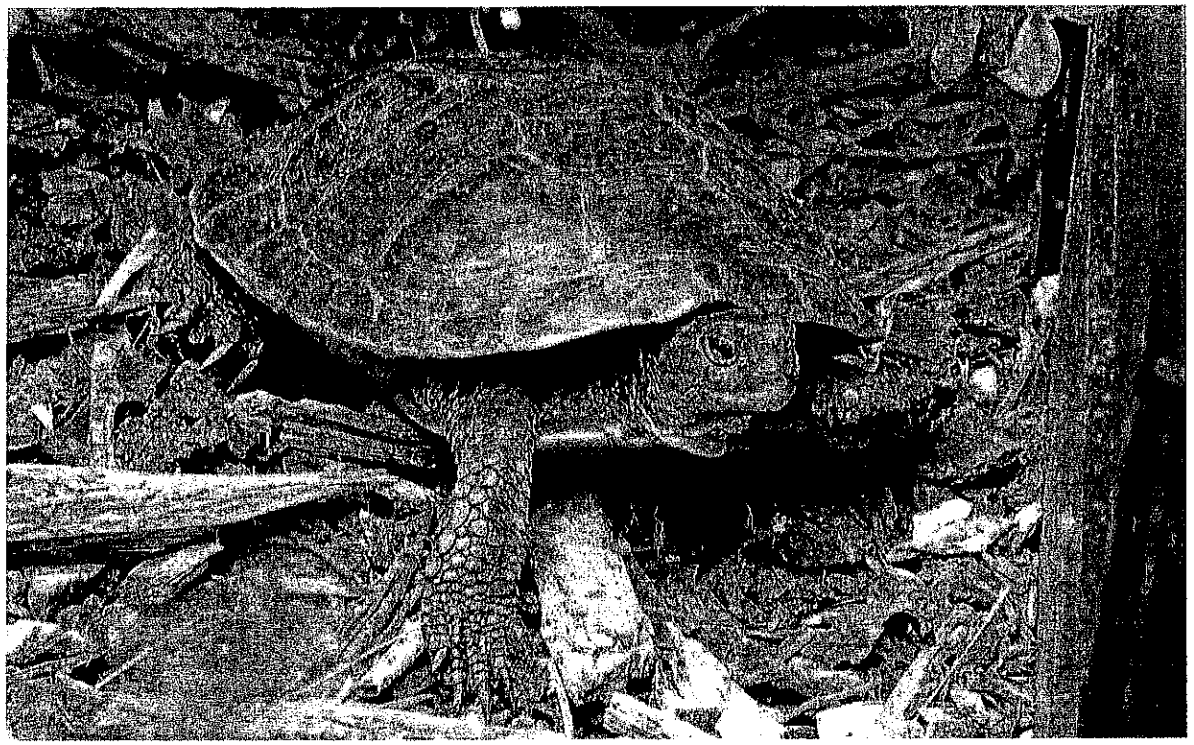
Project Area
Un-named Class III Drainage
300 ft Western Pond Turtle nesting (grasslands) habitat buffer
Hypothetical dispersal pathway traveled by Western Pond Turtle
Wetland Seeps
Structures
Project Development Areas

Source: Google Earth 2009, EMC Planning Group 2012

Figure 2

Biological Resources Map

17790 Shoreline Highway Coastal Development Permit Appeal Project
Western Pond Turtle Memo



Adult Western Pond Turtle observed by L. Emme on March 10th, 2012 at un-named drainage north of MaGee Project Site.

Adult Western Pond Turtle observed by L. Emme on March 10th, 2012 at un-named drainage north of MaGee Project Site.

Source: L. Emme 2012

Figure 3

Representative Photographs

17790 Shoreline Highway Coastal Development Permit Appeal Project
Western Pond Turtle Memo

FENTON & KELLER
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
2801 MONTEREY-SALINAS HIGHWAY
POST OFFICE BOX 791
MONTEREY, CALIFORNIA 93942-0791
TELEPHONE (831) 373-1241
FACSIMILE (831) 373-7219
www.FentonKeller.com

MARK A. CAMERON
JOHN S. BRIDGES
DENNIS G. MCCARTHY
CHRISTOPHER E. PANETTA
DAVID C. SWEIGERT
SARA B. BOYNS
BRIAN D. CALL
SHARILYN R. PAYNE
BRIAN E. TURLINGTON
CAROL S. HILBURN
TROY A. KINGSHAVEN
KATHERINE M. HOGAN
BIANCA KARIM

LEWIS L. FENTON
1925-2005

OF COUNSEL
CHARLES R. KELLER
THOMAS H. JAMISON

May 17, 2012

JOHN S. BRIDGES

JBridges@FentonKeller.com
ext. 238

Larry Simon
Federal Consistency Coordinator
California Coastal Commission
Energy, Ocean Resources and Fed Consistency Div
45 Fremont Street, Suite 2000
San Francisco, CA 94105

RECEIVED
MAY 18 2012
CALIFORNIA
COASTAL COMMISSION

Re: Magee Distillery Project (A-2-MAR-10-022; West Marin County)
Our File: 33447.31025

Dear Larry:

Please see the attached response from EMC Planning Group to the February 10, 2012, letter from Zander Associates regarding the above referenced project. Please consider all issues raised by EMC in your review of the project for LCP consistency and your functional equivalent CEQA review. Thank you.

Very truly yours,

FENTON & KELLER
A Professional Corporation

John S. Bridges

JSB:kmc

Enclosure

cc: Dan Carl (w/encl.)
Dr. John Dixon (w/encl.)
CA Department of Fish & Game, Attn: Timothy S. Dodson (w/encl.)
U.S. Fish and Wildlife Service, Attn: Ryan Olah (w/encl.)
Scott Kivel/Lia Lund (w/o encl.)
EMC Planning (w/o encl.)

{JSB-217552;1}

Planning for Success.

May 16, 2012

Mr. John Bridges, Esq.
Fenton and Keller
2801 Monterey-Salinas Hwy
Monterey, CA 93940

Re: Response to Zander Associates Letter, A-2-Mar-10-022 (Brader-Magee Project), West Marin County, California

Dear Mr. Bridges:

EMC Planning Group has prepared this letter to generally address issues raised in a February 10, 2012 letter prepared by Zander Associates (Zander) regarding biological resources issues at the Brader-Magee project site. Over time, EMC Planning Group has evaluated the completeness of the biological information prepared by Zander. The purpose has been to identify potential data gaps and to make recommendations for additional evaluations where appropriate to ensure that the potential presence of special-status species and the types and extent of ESHA are adequately evaluated and disclosed. Such disclosure is needed as a basis for fully assessing potential impacts on protected biological resources and consistency with the Local Coastal Plan (LCP) and Coastal Act.

Zander's February 2012 letter identifies issues about previous information submitted by EMC Planning Group regarding protections and buffers needed to avoid significant impacts on the California red-legged frog (CRLF). That information was intended to provide context for the need, given the verified presence of CRLF and western pond turtle (WPT) on the project site, to maintain sufficient protective buffers from development that would safeguard CRLF and WPT breeding, foraging habitat and movement corridors and to factor on-site ESHA into the project design.

We recognize and appreciate the site-specific CRLF and WPT habitat assessments and focused surveys conducted at the site by Dr. Jennings during the summer of 2011 on behalf of the applicant. However, it appears that the assessment did not fully consider two important factors. The first is the impact on potential CRLF upland refugia sites within the

northwestern corner of the site that the applicant's (illegal) diversion of surface runoff has likely impacted. By diverting winter rainfall from a swale that feeds a freshwater seep/wetland in this location, the diversion has potentially altered the size and composition of this seasonal wetland (ESHA) and potential habitat feature by causing it to dry prematurely. The diversion, therefore, may have degraded the overall suitability of this seep wetland as potential CRLF non-breeding refugia habitat and adversely impacted a delineated ESHA feature. Having conducted numerous CRLF habitat assessments and presence/absence surveys, I can attest to having personally observed CRLF utilizing isolated upland, seasonally-fluctuating seeps in coastal California for foraging/dispersal habitat and can document this with both written and photographic evidence. Because the baseline quality and surface extent of this habitat feature prior to the diversion is not known, a determination as to the extent to which the feature may have been diminished as a result of the diversion cannot be made. Nevertheless, an increase in the size of the standard setback from this wetland feature could be warranted to account for this effect.

Second, it is unclear whether Dr. Jennings considered the full potential impact of the project on CRLF dispersal corridors or upland refugia, as both are influenced by the presence of the now defined freshwater seep wetland (versus the term "spring" as the report describes the feature) referenced above. In this context, it is suggested by the applicant's consultant that the proposed project improvements would pose no significant barrier to the dispersal of CRLF to upland areas, or specifically, whether on-site seep wetlands could provide suitable upland, foraging refugia. In either case, the proposed brandy distillery and its associated ancillary improvements (i.e. parking lot) are sited between the wetland seep and the blue-line drainage (breeding habitat) within a pathway potentially utilized by CRLF. These potentially significant impediments to CRLF (and possibly WPT) dispersal should be relocated as they may influence the size and quality of the dispersal corridor. While it is acknowledged that CRLF can negotiate various small-scale obstacles in their dispersal journeys, the brandy distillery improvements should not be considered small-scale within this context. Along with the blue-line stream and the wetland seep, a potential dispersal/movement corridor between these features should be considered as potential ESHA and adequately buffered from development.

During the May 2011 site visit attended by Dr. Dixon, California Coastal Commission biologist, myself, and others, Dr. Dixon alluded to the need to maintain a 200- to 300-foot buffer measured from the outward edge of riparian vegetation along the blue-line stream, if it was determined to be occupied CRLF breeding habitat. In his report, Dr. Jennings suggests that, with the incorporation of Best Management Practices (i.e., instillation of

siltation/environmentally sensitive area fencing, etc.), a 100-foot buffer would be sufficient to protect the species. We would recommend the greater buffer distance alluded to by Dr. Dixon for the reasons noted above and suggest that the difference between these two approaches be reconciled through a U.S. Fish and Wildlife Service Section 7 consultation process.

Regarding ESHA, we recognize that the applicant is continuing to evaluate the locations and types of biological resources present on the project site. However, in our opinion, information regarding on-site biological resources has been developed piecemeal over time and as far as we know, has not been fully consolidated to date. As indicated in prior communications from Larry Simon, Coastal Commission staff, one of the critical outstanding pieces of information expected from the applicant is a composite ESHA map which reflects the outcome of all biological resource evaluations conducted to date, overlaid onto a final site plan. We presume the map would show the locations of all potential ESHAs and their associated setbacks. Critical review of the composite ESHA map as well as field verification through staking of all habitats, buffers, and development, will be needed to accurately determine whether or not it is sufficiently comprehensive and represents all potential ESHA that could be impacted.

As is clear based on our prior evaluations of biological resource conditions and on new information being developed by the applicant at the request of California Coastal Commission staff, the portion of the project site proposed for development is highly environmentally sensitive. It contains diverse biological resources that constitute important ESHA. The confluence of known environmental constraints at the site suggests that a conservative approach to defining ESHA and providing maximum setbacks is needed. Requiring only minimum setbacks from ESHA as may be defined in the County's LCP would be, in our opinion, insufficient to avoid impacts on the complex set of ESHA resources found within and adjacent to the proposed building envelope.

On another note, EMC Planning Group's botanist reviewed the Additional Grassland Data letter submitted by Zander dated April 26, 2012. The grassland sampling was conducted in early February. Sampling for native and non-native springtime annual species including grasses and forbs/wildflowers would be more appropriately conducted in mid-spring when annual and perennial species are observable. The later sampling period would provide a more accurate picture of species diversity, though the results of a seasonally appropriate plant survey may not differ significantly from those presented by Zander.

As noted previously, the biological resources assessment work done on behalf of this project has been conducted piecemeal over the past four years. It will be critical for the applicant to consolidate the information in the form of a detailed ESHA map to enable California Coastal Commission staff to conduct an adequate analysis of project impacts on biological resources. At your request, we would be happy to review the ESHA map and to provide input to Commission staff as a component of its environmental review process.

Please feel free to contact me at (831) 649-1799, ext. 208 if you have any questions.

Sincerely,

Bill Goggin
Senior Biologist
EMC Planning Group

FENTON & KELLER
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
2801 MONTEREY-SALINAS HIGHWAY
POST OFFICE BOX 791
MONTEREY, CALIFORNIA 93942-0791
TELEPHONE (831) 373-1241
FACSIMILE (831) 373-7219
www.FentonKeller.com

MARK A. CAMERON
JOHN S. BRIDGES
DENNIS G. MCCARTHY
CHRISTOPHER E. PANETTA
DAVID C. SWEIGERT
SARA B. BOYNS
BRIAN D. CALL
SHARILYN R. PAYNE
BRIAN E. TURLINGTON
CAROL S. HILBURN
TROY A. KINGSHAVEN
KATHERINE M. HOGAN
BIANCA KARIM

LEWIS L. FENTON
1925-2005

OF COUNSEL
CHARLES R. KELLER
THOMAS H. JAMISON

May 17, 2012

JOHN S. BRIDGES

JBridges@FentonKeller.com
ext. 238

Blair D. Allen
Water Resources Control Engineer
Watershed Management Division
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

RECEIVED
MAY 18 2012
CALIFORNIA
COASTAL COMMISSION

Re: Adequacy of Waste Discharge Requirements Application for the Magee Distillery Project, Local Coastal Program Permit Application, A-2-MAR-10-022 (Magee Project), Marin County, California
Our File: 33447.31025

Dear Mr. Allen:

This letter is to further follow up on my May 10, 2012, letter regarding the above referenced project. As you know, my client is very concerned about the potential environmental impacts of the proposed brandy distillery project, particularly in light of its close proximity to numerous sensitive resources and environmentally sensitive habitat areas. Enclosed is information you may find relevant and/or helpful to your assessment of the project. Thank you for your time and attention to this important matter.

Very truly yours,

FENTON & KELLER
A Professional Corporation

John S. Bridges

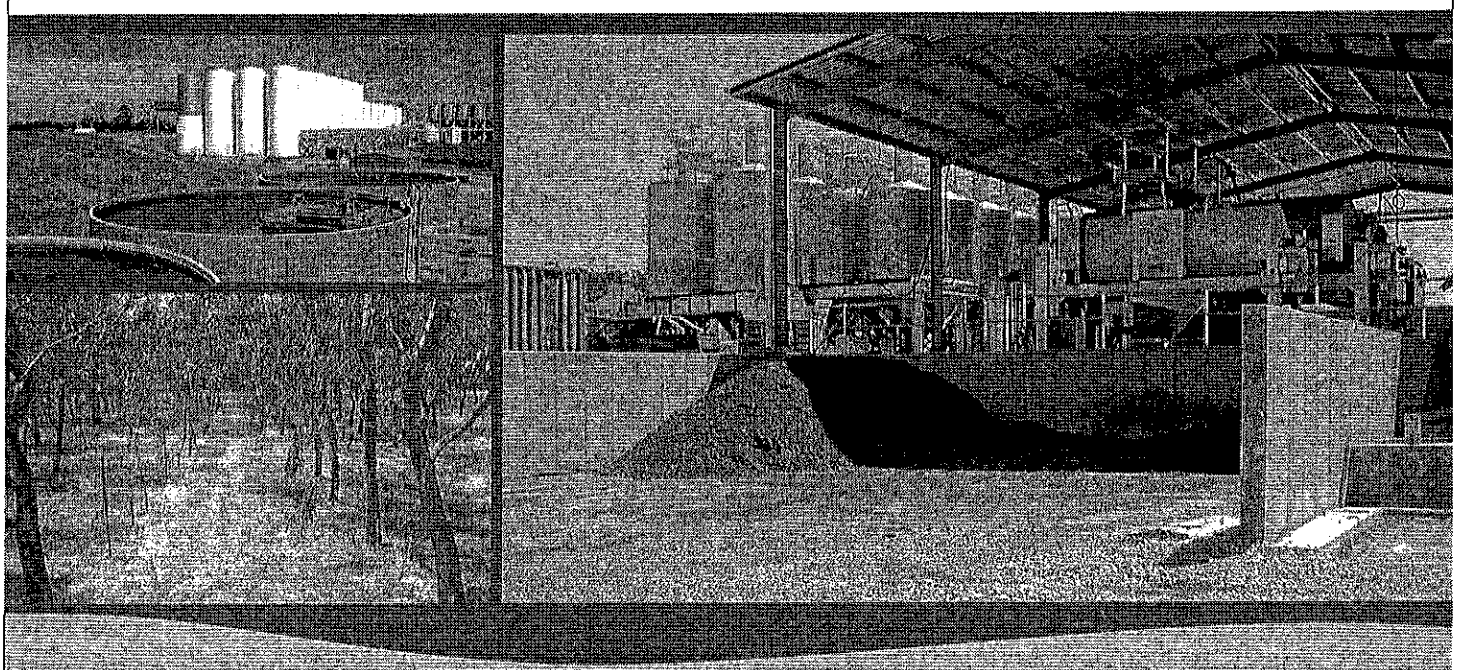
JSB:kmc
Enclosures

cc: Larry Simon/Dan Carl (w/encls.)
Ron Sissem (w/o encls.)
Scott Kivel/Lia Lund (w/o encls.)

{JSB-217576;1}

E N V I R O N M E N T P R O T E C T I O N A U T H O R I T Y

EPA Guidelines for **Wineries and Distilleries**



Government of South Australia

EPA South Australia

EPA Guidelines for

Wineries and distilleries

EPA Guidelines for Wineries and Distilleries

For further information please contact:

Environment Protection Authority
GPO Box 2607
Adelaide SA 5001

Telephone: (08) 8204 2004
Facsimile: (08) 8204 9393
Freecall (country): 1800 623 445

Web site: www.epa.sa.gov.au

This guideline was developed with the assistance of the
South Australian Wine Industry Association Environment Committee.

ISBN 1 876562 66 8

January 2004

© Environment Protection Authority

This document may be reproduced in whole or part for the purpose of study or training, subject to the inclusion of an acknowledgment of the source and to its not being used for commercial purposes or sale. Reproduction for purposes other than those given above requires the prior written permission of the Environment Protection Authority.

Printed on recycled paper

CONTENTS

Introduction 1
Legislation 1
Environmental impacts of wine production 1
Objectives of monitoring 3
Monitoring and reporting requirements 3
Production process description 4
Monitoring the pollutant load in wastewater 4
Water supply 4
Wastewater 5
Monitoring the effects of wastewater disposal 8
Soil 9
Groundwater 11
Watercourses 12
Stormwater 12
Vegetation health 12
Monitoring the management of solid wastes 12
Monitoring the impacts of noise and odour 13
National Pollutant Inventory 14
Individual review of monitoring data 14
References and related reading 15
Definitions and abbreviations 16
Appendix—Environmental monitoring checklist 18

List of tables

Table 1 Potential environmental impacts of winery and/or distillery wastes 2
Table 2 Parameters to be analysed in influent water 5
Table 3 Description of winery wastewater production periods at wineries 6
Table 4 Prescribed wastewater monitoring frequencies 7
Table 5 Parameters to be analysed in wastewater 8
Table 6 Parameters to be analysed in soil 10
Table 7 Parameters to be analysed in groundwater 11
Table 8 Parameters to be analysed in watercourse 12
Table 9 Parameters to be analysed in wastewater treatment sludge 13

EPA Guidelines for

Wineries and distilleries

This guideline replaces EPA Guideline 'Wineries and Distilleries – wastewater monitoring programs' (originally Technical Bulletin No. 11, November 1996). It provides information that will assist wineries and distilleries to develop an environmental monitoring program to comply with the Environment Protection Act and relevant Environment Protection Policies.

Introduction

Facilities that process more than **50 tonnes** of grape or grape product per annum within the Mount Lofty Ranges Watershed Protection Area – as declared under Part 8 of the *Environment Protection Act 1993* (the Act) – or more than **500 tonnes** elsewhere in the state, must have an Environment Protection Authority (EPA) licence. Licensed wineries and distilleries must develop and implement an environmental monitoring program and submit the data collected to the EPA annually.

Whilst this guideline is intended for licensed wineries and distilleries, it will also assist unlicensed facilities to meet the provisions of the Act and the relevant environment protection policies (EPPs). It should be emphasised that conditions attached to EPA authorisations take precedence over the guideline.

The terms 'winery' or 'wineries' when used in this guideline also imply 'distillery' or 'distilleries', unless the term 'distillery' or 'distilleries' is used alone within the text.

Legislation

The principal legislation that addresses pollution in South Australia is the Environment Protection Act. In particular, section 25 of the Act imposes a general environmental duty on anyone who undertakes an activity that pollutes, or has the potential to pollute, to take all reasonable and practicable measures to prevent or minimise environmental harm.

Environment protection legislation also includes EPPs, which outline both recommendations and mandatory requirements to address environment protection matters such as water quality, solid wastes, air quality and noise.

Environmental impacts of wine production

The main environmental impacts associated with wineries are:

- pollution of water, degradation of soil and damage to vegetation arising from liquid and solid waste disposal practices
- odours and air emissions resulting from the management of raw materials, and wastewater, solid and semi-solid by-products from the winemaking process
- noise from pumps, chillers, crushers and other winery equipment, as well as vehicle noise, particularly during vintage.

Some of the potential effects on the environment of the various constituents of liquid and solid waste by-products from the winemaking process are summarised in the table below.

Table 1 Potential environmental impacts of winery and/or distillery wastes

Winery waste constituent	Indicators	Effects
Organic matter	BOD [1], TOC [2], COD [3]	depletes oxygen when discharged into water. leading to the death of fish and other aquatic organisms
		odours generated by anaerobic decomposition cause nuisance if waste is stored in open lagoons or applied to land
Alkalinity /acidity	pH	death of aquatic organisms at extreme pH ranges
		affects microbial activity in biological wastewater treatment processes
		affects the solubility of heavy metals in the soil and availability and/or toxicity in waters
		affects crop growth
Nutrients	N,P, K	eutrophication or algal bloom when discharged to water or stored in lagoons; algal blooms can cause undesirable odours in lagoons
		N as nitrate and nitrite in drinking water supply can be toxic to infants
		toxic to crops in large amounts
Salinity	EC [4], TDS [5]	imparts undesirable taste to water
		toxic to aquatic organisms
		affects water uptake by crops
Sodicity	SAR [6], ESP [7]	affects soil structure, resulting in surface crusting, low infiltration and hydraulic conductivity, hard and dense subsoil
Heavy metals	Cadmium, chromium, cobalt, copper, nickel, lead, zinc, mercury	toxic to plants and animals
Solids	TSS [8]	reduces soil porosity, leading to reduced oxygen uptake
		can reduce light transmission in water, thus compromising ecosystem health
		smothers habitats
		odour generated from anaerobic decomposition

1 Biochemical oxygen demand
2 Total organic carbon
3 Chemical oxygen demand
4 Electrical conductivity
5 Total dissolved salts
6 Sodium adsorption ratio
7 Exchangeable sodium percentage
8 Total suspended solids

Objectives of monitoring

Environmental monitoring is an effective tool that will assist the EPA and wineries to:

- determine the load and effects of winery wastes on the environment
- monitor and maintain or improve the performance of waste management systems
- analyse environmental management performance and compare it with EPA standards.

Monitoring and reporting requirements

Wineries **must** develop procedures to sample and monitor influent water (water coming into the winery), wastewater, soil, groundwater and other receiving environments (e.g. vegetation and watercourses) as required by the EPA licence. The following points should be considered:

- Influent water and wastewater sampling and monitoring procedures **should** be developed and undertaken to comply with both the Australian/New Zealand Standards (AS/NZS 5667:1998) and relevant EPA guidelines.
- Soil sampling and monitoring **should** be developed and take into account relevant schedules of the *National Environment Protection (Assessment of Site Contamination) Measure 1999* (Site Contamination NEPM) to suit specific situations (e.g. Schedule B(2) Guideline on Data Collection, Sample Design and Reporting, and Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils).
- Groundwater sampling and monitoring procedures **should** be developed, and take into account both the AS/NZS 5667.11:1998 and the relevant schedules of the Site Contamination NEPM (e.g. Schedule B(2) Guideline on Data Collection, Sample Design and Reporting).
- Analysis of samples must be undertaken by a National Association of Testing Authorities (NATA) accredited laboratory and use NATA accredited procedures to ensure the integrity of the data. The NATA web site—*www.nata.asn.au*—contains a list of suitable accredited laboratories.
- Other laboratories can be used to undertake the analysis on occasions not prescribed by the EPA licence (e.g. to provide information to help review and improve waste management systems, monitor the performance of a newly installed wastewater treatment plant, or determine a chemical dose for pH adjustment). Submission of this data to the EPA is optional.
- The monitoring program **must** be approved by the EPA before it is implemented. The EPA must be consulted before changes to the approved monitoring program are made.
- Data obtained from the monitoring requirements of the licence **must** be forwarded to the EPA, where it will be used to establish industry benchmarks and inform the public.

In reporting the data, the EPA recommends that wineries:

- use the EPA reporting format for ease in data management and consolidation
- present the concentrations of substances in water and wastewater to two significant figures, where possible using the preferred units indicated in Tables 2 and 5 of this guideline.

As part of the EPA's quality management system, the EPA also requires that the monitoring activity and resulting data are verified by an independent qualified professional, at intervals prescribed by the licence.

In undertaking the verification audit, the verifier must be able to:

- make an independent professional examination of records, procedures and processes in the winery
- give an opinion on the accuracy and integrity of the winery's monitoring results
- confirm whether the approved monitoring program has been followed
- confirm whether sampling and monitoring was undertaken in accordance with the guidelines specified above
- undertake other requirements that may be specified by the winery's licence.

When selecting someone to conduct the verification audit, the winery should take into account that they:

- are independent of the winery
- are a member of appropriate professional bodies
- have experience in the development and implementation of monitoring programs
- have a degree in or knowledge of a relevant field of environmental science.

Note: Before undertaking verification audits, the winery **must** contact the EPA to confirm that the independent verifier selected meets the above criteria.

Production process description

The quantity and types of wastes produced by a winery vary due to waste management practices and the activities undertaken. Wineries must review and amend their monitoring programs regularly to allow for changes in production methods and scale, and to incorporate recommendations from independent verification audits.

The environmental monitoring program submitted to the EPA **must** include the following information:

- a schematic diagram to show the inputs (e.g. grapes, grape juice, chemicals, water) and outputs (e.g.various wastewater streams, grape marc, lees, filtered solids, stalks, wastewater sludge)
- a clear and concise description of the processes being undertaken in the winery (e.g. crushing, fermentation, storage, maturation, bottling, sparkling wine production, distillation)
- details of annual processing inputs and outputs (e.g. crush size, volume of grape juice produced, ratio of red to white grapes processed, volume of processed grape product taken in from other sites, volume of grape product sent for off-site processing, and percentage of wine, sparkling wine and spirits).

This information will assist the EPA to consolidate and analyse the monitoring data and to understand the waste characteristics and generation patterns of each site. The information can also be used as the basis for undertaking environmental improvement initiatives on site, such as cleaner production.

Monitoring the pollutant load in wastewater

Water supply

The source of water used in the winery will influence the quality of the effluent stream. For instance, if water is taken from the River Murray, its relatively high salt content will make the effluent more saline than would be the case if the water was sourced from stormwater collected

from roofs and clean paved areas. Table 2 lists the parameters that must be analysed in influent water at least annually.

Table 2 Parameters to be analysed in influent water

	Parameter	Standard units
Required	EC	dS/m
	pH	pH units
	Sodicity	SAR
	Sodium [1]	mg/L
	Magnesium [1]	mg/L
	Calcium [1]	mg/L
Optional	BOD [2] (or TOC, if BOD/TOC ratio can be determined accurately)	mg/L
	Total nitrogen (Total N) [2]	mg/L
	Total potassium (Total K) [2]	mg/L
	Chloride [3]	mg/L

1 To be used in determining SAR.
2 Optional, but will be useful when applying the WASTLOAD model (contained in the *Manual for Spreading Nutrient-Rich Wastes to Agricultural Land*) if the influent water is also used for dilution of effluent irrigated to land.
3 Optional, but as the major problem with sodium is from the damage done by excess salt (as NaCl), it would be in the winery's best interest to determine chloride concentration if the influent water was being used for irrigation purposes.

For facilities supplied by SA Water, analytical results provided by SA Water will be acceptable to the EPA for water used directly from the supply. However, water supplied by SA Water but stored in open dams **must** be tested at least annually.

Wastewater

Wastewater quantity

Wastewater flow volumes **must** be measured by using acceptable and properly calibrated flow meters. This will make it easier to accurately determine hydraulic and chemical loads .

Magnetic flow meters are the best devices for measuring winery wastewater volumes. These flow meters are recommended because they are accurate and low maintenance, as well as being able to measure wastewater containing solid materials that would normally block traditional mechanical meters. Other acceptable wastewater volume monitoring methods include calibrated 'pump hours run' meters; ultrasonic (doppler), orifice plate, or mechanical flow meters; and open-channel weirs or flumes. As these methods are subject to error due to fouling, poor maintenance, equipment faults, etc, they **must** be calibrated according to the manufacturer's specifications.

Winery wastewater flow volumes **must** be measured at a single location after wastewater has been collected and treated and before it is disposed of or re-used. Flow measurements must be synchronised with wastewater quality monitoring to enable accurate pollutant load calculations.

A record of winery wastewater volume **must** be provided annually to the EPA. Calibration records of the flow-measuring device **should** be kept at the winery in electronic or hard copy form; this record **should** be available for inspection at any time by an officer authorised under the Act.

Licensed facilities that discharge wastewater to the sewer or septic tank effluent disposal schemes (STEDS) **must** comply with the trade waste requirements of the SA Water facility or STEDS management. However, in these cases, monthly wastewater generation data must be reported to the EPA annually. As a good management practice, the EPA also encourages unlicensed facilities to keep a record of their monthly wastewater production.

Wastewater quality

Winery wastewater comes from a number of sources that include:

- cleaning of tanks
- ion exchange columns
- hosing down of floors and equipment
- rinsing of transfer lines
- barrel washing
- spent wine and product losses
- bottling facilities
- filtration units
- laboratory wastewater
- stormwater diverted into, or captured in, the wastewater management system.

Wine production is seasonal, and the characteristics of wastewater vary with the production period. Up to six production periods can be defined; these are summarised in Table 3.

Table 3 Description of winery wastewater production periods at wineries [1]

Period [2]	Typical months of the year	Description
Pre-vintage	January–February	Bottling, caustic washing of tanks, non-caustic washing of equipment in readiness for vintage
Early vintage	February–March	Wastewater production is rapidly rising to peak vintage flows and has reached 40% of the maximum weekly flow; vintage operations dominated by white wine production.
Peak vintage	March–May	Wastewater generation is at its peak; vintage-only operations are at a maximum.
Late vintage	April–June	Wastewater production has decreased to 40% of the maximum weekly flow; vintage operations dominated by production of red wines; distillation of ethanol spirit may coincide with this period.
Post-vintage	May–September	Pre-fermentation operations have ceased; effect of caustic cleaning, ion exchange etc. is at its greatest, and wastewater quality may be poor.
Non-vintage	June–December	Wastewater generation is at its lowest—generally less than 30% of maximum weekly flows during vintage; wastewater quality is highly dependent on day-by-day activities.

1 Chapman et. al., *Winery Wastewater Handbook 2001*
2 The demarcation between one period and another, and the timing or existence of each period, will vary between wineries and regions.

To accurately determine the pollutant load that is discharged to the environment, sampling **must** reflect wastewater quality during the production period. It must be performed at a suitable location before it is disposed of to land or re-used for irrigation. Monitoring programs submitted to the EPA to comply with licence requirements **must** be accompanied by a schematic diagram. This must indicate the sequence of wastewater treatment processes

employed and where the wastewater sampling is to be performed, to enable the EPA to advise on the suitability of the monitoring point.

Table 4 shows the EPA monitoring frequency requirements for differing volumes of wastewater generated by wineries. For facilities that do not have distinct production periods, a suitable frequency **must** be discussed with the EPA.

Table 4 Prescribed wastewater monitoring frequencies

Wastewater produced per year, ML	Frequency
<10	once per production period
10–20	twice per production period
>20	three times per production period

For a winery that generates more than 10 ML of wastewater per year the EPA may permit a reduction in wastewater monitoring frequency if:

- an adequate treatment system, approved by the EPA to treat wastewater before application to land, has been installed
- the facility fully implements an irrigation management plan (IMP) approved by the EPA
- the wastewater management system is equipped with in-line monitoring devices for dissolved oxygen (DO), and pH or EC to indicate irregularities that may indicate a need for further testing.

The parameters to be monitored in wastewater are listed in Table 5. The winery may need to consult its EPA licence coordinator to confirm whether the optional parameters listed in the table need to be monitored.

If a winery generates less than 1 ML of wastewater per year, the EPA may permit the omission of some minor wastewater parameters from the monitoring regime if it can be demonstrated that the risk to the environment is low, and the wastewater management system has been working effectively for the past two years.

The EPA recommends that winery effluent not be combined with wastewater generated from cellar door and food preparation activities. This is due to health concerns. If separation is not possible, the winery **must** seek advice from the Department of Human Services.

Table 5 Parameters to be analysed in wastewater

	Parameters	Standard units
Required	BOD	mg/L
	Total N	mg/L
	Total P	mg/L
	Total K	mg/L
	EC	dS/m
	pH	pH units
	Sodium [1]	mg/L
	Magnesium [1]	mg/L
	Calcium [1]	mg/L
	Sodicity	SAR
	Chloride	mg/L
	Total suspended solids [2]	mg/L
Optional	TOC [3]	mg/L
	COD [3]	mg/L
	Sulphate [4]	mg/L
	Carbonate [5]	mg/L
	Bicarbonate [5]	mg/L

1 To be used in determining SAR.
2 Solids may generate odours upon anaerobic decomposition and may result in the clogging of drippers.
3 Although BOD is the accepted environmental pollution indicator, TOC or COD can provide a quicker indication of irregularities in the wastewater system
4 Sulphate reduction under anaerobic conditions may generate odours; measurement may only be necessary where wastewater is stored in open tanks and lagoons; precipitation with calcium can lead to white scale formation and clogging of drippers.
5 Precipitation with calcium can lead to white scale formation and clogging of drippers ; measurements of these parameters will also allow for determination of alkalinity and Adjusted SAR.

Monitoring the effects of wastewater disposal

To ensure the sustainability of the State's soil and water resources and to meet the water quality objectives set by the *Environment Protection (Water Quality) Policy 2003* (Water Quality Policy), the EPA requires that the rate of wastewater application to land must be regulated according to:

- the dominant soil types in irrigated sites (including texture, structure, chemistry, moisture holding ability, depth of topsoil, effective rooting depth, depth to impeding clay layers or to layers highly permeable to water)
- the concentration of organic carbon, nutrients and salts in the wastewater
- an organic carbon, nutrient and salt balance analysis to determine the potential effects on crop growth and long-term soil loadings
- the sensitivity of the area (including depth to groundwater, proximity to watercourses, public roads, residences and other facilities, slope of the site, areas prone to waterlogging, salinisation, flooding and/or erosion).

For irrigated sites that contain more than one soil type, hydraulic and chemical loading rates must be determined in accordance with the requirement of each Irrigation Management Unit (IMU).

Soil

Wineries that irrigate with wastewater (treated or untreated) at a rate greater than 100 mm (1 ML/ha) per year must include annual soil chemistry monitoring in their monitoring program to detect any changes in soil properties. An exemption from this requirement may be provided if the winery is able to demonstrate that:

- the hydraulic load applied to land is based on proper water budget calculations
- nutrient uptake by crops far exceeds the rate at which the nutrients are applied
- the soil microorganisms can easily sustain the organic carbon loading
- any other constituents in the wastewater (e.g. sodicity, acidity/alkalinity, chloride concentration) can be easily tolerated by the crops or sustained by the soil
- no significant changes in soil chemistry have been observed in the past three years.

Facilities that undertake intensive wastewater irrigation, or are located in sensitive areas, may also be required to develop and implement an irrigation management plan (IMP).

A map of the wastewater-irrigated site that shows the areas of the IMUs and the locations of soil moisture monitoring devices, and the sampling location for soil chemistry analysis for each IMU, must be attached to the monitoring program or IMP submitted to the EPA. The locations of monitoring sites must be consistent with previous monitoring locations to make it possible to analyse the data.

Soil moisture

Only a portion of soil-stored water, called readily available water (RAW), can be extracted by plants before water stress becomes evident. RAW is governed, among other factors, by the ability of different soil textures to store water against gravity, and by root depth and distribution.

To minimise percolation to groundwater, wastewater must be applied at a rate equal to that at which it it is removed by plants. Daily water requirements can be estimated from a water balance (otherwise referred to as water budget) that takes into consideration the following:

- irrigation and rainfall contributions
- canopy interception of rainfall
- depth of active root zone
- crop water requirements (crop factor x evaporation and as measured with calibrated soil water monitoring devices)
- salt leaching requirements to ensure that soil salinity levels do not exceed crop tolerance
- efficiency of irrigation systems.

Rainfall and evaporation data can be obtained from the SA Bureau of Meteorology or by installing a weather station on site.

Soil moisture monitoring before and after wastewater application is an important tool for irrigation management. Submission of the soil moisture data to the EPA is not mandatory, unless specified in the EPA licence. However, records of the soil moisture and water budget calculations should be kept and made available to the EPA for inspection when required.

The installation, maintenance and operation of soil moisture monitoring equipment require a high level of technical expertise. Many facilities have linked their irrigation systems to soil moisture monitoring devices for automated control. The EPA recommends that wineries seek the assistance of irrigation specialists to determine the system that best suits the needs of the site.

Soil chemistry

The accuracy of soil monitoring data relies highly on the sampling methods and techniques employed and hence **must** be undertaken only by qualified professionals or suitably trained and/or experienced persons. Winery employees must only be allowed to undertake this activity if they have satisfactorily completed suitable soil sampling and monitoring training.

The monitoring location must be properly marked to enable samples to be collected at locations adjacent to previous sampling points for valid comparison of results. Two samples for each dominant soil type **must** be collected once a year (preferably in September or October) from depths which correspond to horizontal stratigraphy to take into account the soil profile physical variation. For each sample, the EPA prefers composite portions taken from at least two sampling points for a more representative result.

For wastewater-irrigated sites with more than two dominant soil types, a practical soil sampling intensity must be discussed with the EPA.

The following depths can be taken as a guide for sampling:

- topsoil—separate samples from the following soil layers:
  - (a) 0–20 cm
  - (b) 20–60 cm
- subsoil—typically from 60 cm to bottom of the rootzone or depth of first impeding layer.

The samples collected **must** be analysed for the parameters listed in Table 6.

Table 6 Parameters to be analysed in soil

Parameters[1]	Standard units
TOC	%
Total N	mg/kg
Total P	mg/kg
Total K	mg/kg
pH (1:5 soil:water)	pH units
ECe[2]	dS/m
Sodium	mg/kg
Magnesium	mg/kg
Calcium	mg/kg
Sodicity (1:5 soil:water)	SAR

1 The WASTLOAD model requires the use of specific methods of analysis for data to be entered into the model. The recommended methods are listed under the WASTLOAD Model Operating Instructions section of the manual.
2 Saturated electrical conductivity

Facilities that apply sludge produced from wastewater treatment systems **must** also monitor the soil in the receiving area for the heavy metals listed in Table 9. The information so gained will make it possible to calculate the maximum rate at which sludge can be applied to land, following the principles outlined in the EPA Guideline *Use of Water Treatment Solids (WTS), August 2002.*

For comparative purposes, the winery must also monitor the soil chemistry of a reference site at the same time and frequency. Each IMU may require a separate reference site.

Groundwater

Wastewater-irrigated sites

Wineries that irrigate with wastewater at a rate greater than 100 mm per year **must monitor** groundwater in the irrigation site if there is a confined or unconfined groundwater aquifer less than 15 metres below the surface. Again, the rule may be varied depending on the sensitivity of the irrigated site (e.g. presence of fractured rock, limestone aquifer or permeable soil layers, or proximity to a watercourse or groundwater extraction bore).

If the depth of the aquifer is unknown, the EPA recommends that an exploratory bore be drilled to 15 metres, or the uppermost impeding layer, to confirm the depth to groundwater. For areas where the depth to groundwater is known to be more than 15 metres, drilling an exploratory bore will detect a developing perched water table. Contact the Department of Water, Land and Biodiversity Conservation (DWLBC) or the Primary Industries and Resources SA (PIRSA) for information on the presence and/or location of existing bores in your area.

Due to the complexity of groundwater systems, the layout and installation of groundwater monitoring bores must be undertaken by qualified groundwater professionals. For small irrigation areas (<20 ha), the EPA requires a minimum of three observation bores arranged in a triangular configuration, with one bore hydrologically uphill of the irrigation area to provide reference data for comparison with wastewater-irrigated sites. Large irrigation sites and areas lying above complex groundwater systems require advice from groundwater specialists to determine the required number of monitoring bores.

The use of existing wells or bores is not recommended unless it can be demonstrated that they are suitable for the winery's sampling and monitoring objectives and procedures.

Groundwater sampling and monitoring **must** only be undertaken by qualified groundwater professionals or suitably experienced and/or trained operators. The depth to groundwater in monitoring bores **must** be measured in AHD (Australian Height Datum) at least quarterly, and the quality of groundwater **must** be analysed once every six months for the parameters listed in Table 7.

Table 7 Parameters to be analysed in groundwater

Parameters	Standard units
TOC	mg/L
pH	pH units
EC	dS/m
Oxidised nitrogen (nitrite and nitrate)	mg/L
Ammonia nitrogen[1]	mg/L

1 Optional but can be used as an indicator for the development of anaerobic conditions in the aquifer system.

Wastewater storage lagoons

To ensure the integrity of wastewater storage lagoons, groundwater in the vicinity of lagoons **must** be monitored. Again, wineries must seek advice from qualified groundwater professionals to locate a suitable place for monitoring to be conducted. If a lagoon is equipped with a leakage detection device, monitoring may not be necessary.

The mandatory provisions for wastewater lagoon construction and reconstruction are outlined in Clause 18 of the Water Quality Policy. Information can also be found in the EPA Guideline *Wastewater Lagoon Construction, September 2003.*

Watercourses

Where wastewater management system components (sumps, settling tanks, lagoons, wetlands, irrigated sites, etc.) are located within 50 metres of a watercourse, the quality of the water in the watercourse during periods of flow **should** be monitored at frequencies agreed to with the EPA. The parameters to be measured are listed in Table 8. A suitably experienced and/or trained winery staff member can undertake the measurements using properly calibrated instruments.

Table 8 Parameters to be analysed in watercourse

Parameters	Standard units
Dissolved oxygen	mg/L
pH	pH units
EC	dS/m

The watercourse **should** be monitored at locations upstream and downstream of, and adjacent to, the facility. If there is any indication that the watercourse may be contaminated, it is in the winery's best interests to extend the range of tests made on the water and to notify the EPA as soon as possible.

Stormwater

The EPA recommends that clean stormwater run-off from roofs and hard-paved surfaces in the winery be put to some productive use (e.g. for re-use within the winery, or to increase the flow of adjacent rivers and creeks). Some facilities have installed devices to detect whether captured stormwater has become polluted before it is diverted to watercourses. The EPA recommends that potentially polluted stormwater be stored temporarily so that it can be checked for quality prior to discharge to a watercourse.

Before the discharge to any watercourse of stormwater that may be polluted with winery or other wastes, the water **must** be analysed to ensure that it meets the water quality criteria outlined in the *Environment Protection (Water Quality) Policy 2003* (Water Quality Policy). If the water quality does not meet the criteria of the Water Quality Policy, the polluted stormwater must be diverted to the wastewater management system if capacity allows, transported to an off-site wastewater treatment facility licensed by the EPA, or treated to meet the levels of the Water Quality Policy before disposal to the watercourse.

However, under very special circumstances, the EPA may grant an exemption to allow the discharge of this stormwater to the watercourse upon meeting certain water quality criteria and conditions agreed to by both parties.

Vegetation health

The EPA recommends that the health of vegetation in treelots, pastures or vineyards irrigated with winery wastewater is monitored. Visual observation and recording of the condition of marked patches of vegetation will allow early detection of extremely poor wastewater quality or accidental discharges to the wastewater stream.

Monitoring the management of solid wastes

Wineries **must** maintain and submit to the EPA a record of solid wastes (e.g. grape marc, filtered solids, wastewater sludge, stalks, lees) produced each year. The record should include:

- the quantity of each waste produced

- what is done with it (on-site management or composting, or off-site disposal)
- if managed on-site, the date, area covered and location of the application (e.g. name of vineyard, woodlot)
- the waste management company used (if applicable).

Some waste depots are licensed by the EPA to receive wastewater treatment sludge. These facilities may require information on the leachability characteristics of the sludge before accepting such waste. The EPA recommends that wineries contact waste depots for disposal requirements before using their services.

If sludge is applied to land owned by the winery, the EPA recommends that it be applied uniformly to the largest possible area. Wineries that undertake this practice **must** monitor, at least annually, the heavy metal content (as listed in Table 9) of the sludge and the soil to which it is applied .

Table 9 Parameters to be analysed in wastewater treatment sludge

Parameters	Standard units
Arsenic	mg/kg
Cadmium	mg/kg
Copper	mg/kg
Lead	mg/kg
Mercury	mg/kg
Nickel	mg/kg
Zinc	mg/kg
Chromium	mg/kg
Aluminum	mg/kg

Wastewater treatment sludge is composed mainly of microbial cells and grape residues that may increase the organic carbon and nutrient levels in the soil. If sludge and other solid wastes are applied to land at frequent intervals, or in large quantities, their contribution **must** be incorporated into soil organic carbon and nutrient balance analyses.

If flocculating or coagulating agents are used to treat wastewater, then the health and ecotoxicological effects of these substances **must** be examined before applying the sludge to land.

Wastewater sludge from combined winery and domestic wastewater disposal systems may contain other substances that have significant health concerns associated with them. The application of this sludge **must** comply with the *South Australian Biosolids Guidelines.*

For facilities that compost on site, a suitable monitoring program **must** be developed to assess any effect composting may have on the environment.

Monitoring the impacts of noise and odour

The EPA encourages all industries, licensed or unlicensed, to keep a complaint register and have a telephone number for receiving complaints. Odour and noise are the most common complaints against wineries.

If there is a complaint, the EPA recommends that the winery and the other party(s) discuss the matter openly. For noise complaints, the EPA may request that the noise be measured by

qualified acoustic engineers in accordance with the *Environment Protection (Industrial Noise Policy) 1994*. This will determine whether noise reduction measures need to be implemented.

Some wineries that have received occasional odour complaints have incorporated crude odour rating systems into their monitoring programs. If the problem becomes persistent and difficult to overcome, expert advice **must** be sought from consultants who specialise in waste or wastewater management. In these cases, the EPA may also require that the odour be assessed using the methodology and the criteria outlined in the EPA Guideline *Odour Assessment Using Odour Source Modelling, March 2003*.

National Pollutant Inventory

Monitoring of air emissions is not required under current winery licences. However, estimations of emissions may be required for the National Pollutant Inventory (NPI).

NPI reporting is mandatory under the *Environment Protection Act* (1993), and estimates of emissions of NPI-listed substances to air, water and land **must** be reported for each substance emitted at above threshold levels. (The full list of 90 reportable substances can be seen on the NPI web site—*www.npi.gov.au/about/list_of_subst.html*). The full list must be considered when determining if thresholds are being exceeded. NPI reporting of pollutant emissions is required annually by 30 September for financial year reporters (calendar year reporting can be negotiated). Greenhouse gases and ozone depleting substances are currently not reported to the NPI.

A *Wine and Spirit Handbook* has been developed to advise on what a winery is required to provide or retain for NPI reporting purposes, including emission estimation techniques. The *Wine and Spirit Handbook* and associated *Emission Estimation Technique Manuals* are available from the NPI website at *www.npi.gov.au*.

Individual review of monitoring data

Monitoring is an expensive and resource-intensive process, so wineries **must** effectively use the data obtained for improvement of their processes and environmental management practices.

Each winery **must** develop a database to consolidate its monitoring data, and a trained employee of the winery **must** regularly review the monitoring data. The results and trends **must** be examined to determine:

- if waste generation patterns in the winery have changed
- if there are any characteristics of the wastewater that make it unsuitable for irrigation or management on site
- the organic carbon, nutrient and salt loads to the environment
- whether there are changes to the soil, including increased sodicity, alkalinity, acidity, etc.
- how wastewater management and irrigation affect soil and water (surface and groundwater) in comparison with control or reference sites
- if there are potential breaches of the water quality criteria for the protected environmental values as outlined in Schedules 1 and 2 of the Water Quality Policy
- whether there is an accumulation of heavy metals within or in the vicinity of the application area.

Wastewater management systems **must** be modified in accordance with the monitoring results obtained. Specialist advice **must** be sought to develop an Environment Improvement Program to address suspected declines in environmental performance or if environmental impacts are evident.

References and related reading

Agriculture and Resource Management Council of Australia and New Zealand 1998, *Effluent Management Guidelines for Wineries and Distilleries.*

Chapman J, Baker P and Wills, S 2001, *Winery Wastewater Handbook: Production, Impacts and Management,* Winetitles Publishers, Adelaide, South Australia.

National Environment Protection Council Service Corporation 1999, *National Environment Protection (Assessment of Site Contamination) Measure 1999.*

Primary Industries and Resources SA 2003, *Manual for Spreading Nutrient-Rich Wastes on Agricultural Land.*

[1]South Australian EPA 1996, *South Australian Biosolids Guideline for the Safe Handling, Reuse or Disposal of Biosolids.*

South Australian EPA 2002, *Use of Water Treatment Solids,* August 2002.

South Australian EPA 2002, *Wastewater Lagoon Construction,* September 2002.

South Australian EPA 2003, *Environment Protection (Water Quality) Policy 2003.*

South Australian EPA 2003, *Independent Verification of Monitoring Programmes,* March 2003.

South Australian EPA 2003, *Odour Assessment Using Odour Source Modelling,* March 2003.

South Australian EPA 2004, *Bunding and Spill Management,* January 2004.

South Australian Wine and Brandy Industry Association 1996, *Cleaner Production for the Wine Industry.*

Standards Australia 1998, Australian/New Zealand Standard AS/NZS 5667:1998 Water Quality Sampling.

[1] All SA EPA publications are available from the EPA web site—www.epa.sa.gov.au—or by contacting the EPA (telephone: (08) 8204 2004)

Definitions and abbreviations

AHD	Australian Height Datum (in metres); mean sea level for 1966–1968 was assigned the value of zero on the Australian Height Datum at thirty tide gauges around the coast of the Australian continent
anaerobic	in the absence of air (oxygen)
biochemical oxygen demand	a measure which provides an indication of the amount of oxygen required for microbiological oxidation of organic materials to carbon dioxide
chemical oxygen demand	a measure of the oxygen equivalent of the organic matter content of the sample that is susceptible to oxidation by a strong chemical oxidant
distillery	a plant where winery by-products are distilled
electrical conductivity (EC)	a measure of electrical conductance due to dissolved salts. EC can be converted to an approximate salt content.
saturated electrical conductivity, ECe	a measure of electrical conductivity of water extracted from saturated soil
exchangeable sodium percentage	the proportion of sodium ions to other exchangeable cations in soil, expressed as a percentage
groundwater	water below the ground surface in a zone of saturation
heavy metals	group of metallic elements with, generally, a specific gravity greater than 5
irrigation management unit (IMU)	a delineated area of land of one dominant soil type, that receives the same quantity of wastewater per irrigation
lees	the material which accumulates in the bottom of grape juice or wine fermentation tanks
marc	the grape material (mainly skin, pulp and seeds) which is left over after grape crushing and pressing
production period	cycles in winery operations that influence the volume and characteristics of waste streams
readily available water (RAW)	water that can be extracted by the crop between field capacity and the irrigation point.
septic tank effluent disposal scheme (STEDS)	a system for the common collection and disposal of wastes from septic systems
sewer	the pipe network used for the common collection of untreated wastewater generated on individual properties in centres with large human populations

sludge	material that has settled to the bottom of a wastewater collection, treatment or storage device
sodium adsorption ratio (SAR)	amount of sodium relative to calcium and magnesium in wastewater
stormwater	rain or melted precipitation that runs off land or structures on land
wastewater storage lagoon	any dam, pond or lagoon constructed and used for the purpose of holding wastewater; does not include a sediment retention basin
wastewater management system	a system designed and operated for the purpose of collecting and managing wastewater to minimise adverse impacts of wastewater on the environment
watercourse	means any of the following (whether or not temporarily dry): (a) a river, creek or other natural watercourse (whether modified or not) (b) a dam or reservoir that collects water flowing in a watercourse (c) a lake, wetland or other water body through which water flows (d) the Coorong (e) an artificial channel (f) a public stormwater disposal system (g) part of a watercourse
winery	works for the processing of grapes, grape juice, must or wine into liquids used by other wineries or into finished wine ready for bottling; excludes works for bottling only
wastewater	means waste principally consisting of water. Includes wash down water, cooling water, effluent, irrigation runoff and contaminated stormwater

Appendix Environmental monitoring checklist

The following checklist will assist all wineries and distilleries (licensed or unlicensed) in the development of best practice environmental monitoring programs. It is recommended that the checklist be used only after the guideline has been read and understood.

Follow the sequence unless directed otherwise.

---

1. Does the winery dispose of wastewater on site?

- ☐ No → Measure monthly wastewater generation. Go to 5.
- ☐ Yes → Monitor the following:
  - influent water supply quality
  - wastewater volumes
  - wastewater quality
  - volume of wastewater applied to land per year.

---

2. Is the wastewater irrigated at a rate greater than 100 mm (1 ML/ha) per year, or is the wastewater-irrigated site located in a sensitive area? (Note: *Wineries irrigating at a rate less than 100 mm within the Mount Lofty Ranges Watershed Protection Area may also be required to undertake soil monitoring.*)

- ☐ No → Go to 4.
- ☐ Yes → Monitor the following in the irrigation site:
  - soil moisture
  - soil chemistry.

---

3. Is there a confined or unconfined groundwater aquifer less than 15 m below ground, or is the wastewater-irrigated site located in a sensitive environment?

- ☐ No → Go to the next question.
- ☐ Yes → Monitor the following in the irrigated site:
  - depth to groundwater
  - groundwater quality.

---

4. Do the wastewater-irrigated sites show signs of poor health?

- ☐ No → Go to the next question.
- ☐ Yes → Undertake regular vegetation monitoring.

---

5. Is any component of the wastewater management system located within 50 metres of a watercourse?

- ☐ No → Go to the next question.
- ☐ Yes → Monitor the quality of water in the watercourse.

---

6. Is there a wastewater storage lagoon on the property?

- ☐ No → Go to the next question.

- ☐ Yes → Monitor the following in the vicinity of the lagoon:
  - depth to groundwater
  - groundwater quality.

7. Does the EPA licence require noise and/or odour monitoring?

- ☐ No → Go to the next question.
- ☐ Yes → Monitor noise and/or odour in accordance with EPA requirements.

8. Does the winery receive occasional noise and/or odour complaints?

- ☐ No → Go to the next question.
- ☐ Yes → Maintain a complaints register.

9. Does the winery keep a record of its solid wastes generation and management?

- ☐ No → Develop a solid wastes management record in accordance with the guideline.
- ☐ Yes→ Go to the next question.

10. Does the winery apply wastewater treatment sludge to land?

- ☐ No → Go to the next question.
- ☐ Yes→ Monitor the heavy metal content in sludge and soil.

11. Does the winery discharge potentially polluted stormwater to any watercourse?

- ☐ No → Go to the next question.
- ☐ Yes → Monitor the quality of the captured stormwater and ensure that, before each discharge, it meets the criteria outlined in the Water Quality Policy 2003.

12. Does the winery or the wastewater management system produce any NPI-listed substances at levels that could exceed the allowable threshold?

- ☐ No→ Go to the next question.
- ☐ Yes →Report emissions to the NPI.

13. Is there evidence of any of the following?

a) extreme or strange results that were not observed in previous years

b) increasing pollutant load generation rates

c) excessive hydraulic, organic carbon, nutrient or salt loading

d) significant changes in soil chemistry

e) breaches of the water quality criteria for the protected environmental values as outlined in the Water Quality Policy

f) accumulation of heavy metals in soils where sludge is applied

g) significant differences in soil chemistry, and groundwater depth and quality, between irrigated and reference sites

h) significant differences in groundwater depth and quality between wastewater lagoon areas and reference sites

i) significant differences in water quality upstream and downstream of an adjacent watercourse

j) continuous vegetation health decline

k) increasing noise and odour complaints

l) other evidence of environmental degradation

- ☐ No→ Maintain the monitoring program.
- ☐ Yes → You may need to
  - look for ways to improve production or housekeeping
  - undertake changes or improvements to waste or irrigation management systems
  - seek specialist advice.

Comparison of anaerobic treatment alternatives for brandy distillery process water

R. Chrobak and R. Ryder

Kennedy/Jenks Consultants, 622 Folsom Street, San Francisco, CA 94107, USA
(E-mail: *BobChrobak@KennedyJenks.com*)

Abstract This paper compares the conceptual design of anaerobic treatment alternatives for brandy distillery process water from the production of wine, brandy, high proof alcohol, and cleanup activities that will be land applied. The results of process water characterization and treatability testing are included. The wine industry's sustainable practices movement and recent tightening of the State of California requirements for land application of food and beverage processing wastewater, have forced facilities to reevaluate the characteristics, segregation options, and treatability requirements for recycling, reuse, or discharge of effluent to land treatment facilities. The treatment alternatives, results of characterization, and bench- and pilot-scale treatability testing for solids, organics, and nutrient removal using anaerobic and aerobic biological and physical-chemical treatment methods are presented. Based on test results and evaluation, we developed a conceptual design and cost estimates for process water treatment systems to remove solids, organics and nutrients that include energy recovery and produce effluent of improved quality for land application.

Keywords Aerobic; anaerobic; brandy process wastewater; energy recovery; land application

Water Science and Technology Vol 51 No 1 pp 175–181 © Kennedy/Jenks Consultants Inc. 2005

Introduction

This paper compares conceptual designs of anaerobic treatment alternatives for land application of distillery process water from the production of wine, brandy, and high proof alcohol.

The California wine industry has increasingly emphasized the development and implementation of sustainable practices for vineyards and winery operations, as evidenced by the Wine Institute's recent Code of Sustainable Winegrowing Practices project, initiated in 2001. That project compiled references and resources in a self-assessment workbook that the wine industry uses to evaluate sustainability (Wine Institute, 2002). As the industry increases emphasis on economical, sustainable process water treatment systems, facilities will have to reduce organic and inorganic concentrations in the process water, reduce loadings and improve effluent quality for land application systems to minimize groundwater quality degradation.

Also, increasing urbanization and rising land values restrict expansion of many brandy distilleries, particularly for existing process water land application systems. Recent cost increases for natural gas and electricity in California are changing the economics of energy conservation and recovery for process water treatment systems. These factors and increased scrutiny from Regulators regarding groundwater degradation have led many operations to reevaluate existing practices and plan for changes (Chrobak, 2002). Tighter restrictions are proposed for land application processes because groundwater quality has been degraded in the vicinity of some operating facilities. Regulators are concerned about the role of inorganic dissolved salts and nitrate in degrading groundwater quality.

Some of the large brandy distilleries have investigated and developed planning level costs and assessed the effectiveness of process water treatment by aerobic, anaerobic or combined biological stabilization processes prior to land application. The goals were to improve cost-effectiveness, energy-efficiency in process water handling, and potential reclamation for more sustainable practices that meet increasingly stringent disposal regulations.

This study used available process water characterization data, an evaluation of segregation options, and available bench- and pilot-scale treatability testing data for solids and organics removal (using Chemical Oxygen Demand [COD] and Biochemical Oxygen Demand [BOD]) to develop and compare conceptual alternatives for treatment systems that meet the objectives of reducing the organic load and improving the quality of effluent discharged to land application systems. The treatment systems used physical-chemical, anaerobic and aerobic biological treatment methods to achieve the objectives.

Facility process water

Process water generated from washing and cleaning tanks, equipment and floors is typically combined and discharged to land application systems. The facilities investigated averaged about 8.44×10^5 to 2.23×10^6 litres (L) (223,000 to 590,000 gallons [gal]) of process water per day that was discharged to land application systems for treatment and disposal. The maximum daily flows during the peak crush period, typically in September, ranged from approximately 2.77×10^6 to 8.7×10^6 L (733,000 to 2,300,000 gal).

The process water produced at the facilities is treated on 0.324 to over 2.02 km^2 (80 to over 500 acres) of spreading basins. This type of treatment was developed for the Wine Institute by Coast Laboratories more than 50 years ago, primarily for odor control for brandy stillage process wastewater in the Fresno, California, area (Coast Laboratories, 1947). Large seeds and solids are removed and winery stillage process wastewater, with BOD as high as 20,000 milligrams per litre (mg/L) and pH ranging from 3.5 to 5.5, is spread to a depth of about 10.2 centimetres (cm) (4 inches), at an application rate of 0.067 kg BOD/m^2/day (600 pounds of BOD/acre/day) in multiple fill and drain basins. The process water percolates into the soil where BOD and nutrients are stabilized and pH is elevated by a combination of soil microbial growth and reaction with alkaline-calcerous soils typical of the California Central Valley.

Methods

The study reviewed available process water characterization and treatability testing data from the facilities, segregation options, and treatment alternatives to meet the objectives.

Historical process water data collected from the facilities was evaluated and used to estimate characteristics based on anticipated future operating or expansion plans. The facilities provided monthly operation schedules, expected flow, organic and inorganic concentrations and mass emissions. Frequently, large winery crushing and fermentation facilities were at the same location. However, the flow and concentrations of constituents in the distillery process water were typically several times that of the onsite winery process water in a typical production year and relatively continuous, in contrast to the seasonally variable winery process water.

The study used available data from bench- and pilot-scale treatability testing of process water from major sources to evaluate the effectiveness of physical-chemical, and aerobic and anaerobic biological processes to remove solids, organics (COD), and nutrients (total nitrogen). Treated process water quality criteria were established for land application, recycling and reuse options at the facilities.

Results

Process water characteristics

The study used historical information and data compiled from existing operations to project anticipated process water characteristics. Results are listed in Table 1. The estimated characteristics in Table 1 are consistent with and representative of the range of data for wineries and distilleries in the literature (Joyce *et al.*, 1977 and Ryder, 1994).

Treated process water reuse options

The identified treated process water reuse options included land application, vineyard irrigation, cooling tower makeup, and plant service water for clean up.

General water quality criteria for reduced load land application, vineyard irrigation, and cooling water makeup were developed to assist with the evaluation. Water quality guidelines for clean up are similar to those for irrigation or cooling tower makeup. Depending upon the use, lesser quality may be suitable. These water quality criteria were used as guidelines that can be refined for site-specific requirements and used as preliminary treated process water quality goals for the investigations. Site-specific soil characteristics also need to be evaluated in conjunction with irrigation water quality criteria.

Bench- and pilot-scale treatability studies

For the investigations, the study used available characterization and bench- and pilot-scale treatability study data from various suppliers of solids separation and biological treatment process equipment.

Bench-scale tests using gravity settling and dissolved air flotation were used to evaluate solids and COD removal from process water samples and blends of the samples. Gravity settling test data ranged from 57% to 78% for TSS removal, without and with chemical coagulant additions, respectively. Gravity settling test data indicated that COD removals were negligible both with and without chemical coagulant additions.

Dissolved air flotation test data indicated removal efficiencies ranging from 33% to 98% for TSS, without and with chemical coagulant additions, respectively. COD removals ranged from negligible to 53%, without and with chemical coagulant additions.

Results of a biological methane potential (BMP) test that was run on a representative sample of distillery process water were also used. Overall COD removal for the BMP study was greater than 90%.

Table 1 Distillery process water characteristics

	Units	Maximum	Minimum
BOD_5(a)	mg/l	21,000	1,900
TSS(b)	mg/l	5,400	500
pH(c)	units	9.4	3.5
Electrical Conductivity	µmhos/cm	6,900	400
TDS(d)	mg/l	16,400	8,000
TKN(e)	mg/l	510	130
Total N(f)	mg/l	560	130

(a) BOD_5 = Biochemical Oxygen Demand
(b) TSS = Total Suspended Solids
(c) pH = $-\log [H+]$
(d) TDS = Total Dissolved Solids
(e) TKN = Total Kjeldahl Nitrogen
(f) Total N = Total Nitrogen Concentration

The study used data collected from a pilot-scale anaerobic and aerobic treatability study. BOD removal efficiencies ranged up to 62%, COD removal was 57%, and the BOD and COD removal ratios for process water samples collected from across the treatment process ranged from 46% to 62%. The pilot study results were used to solicit and refine proposals from process wastewater treatment equipment suppliers for the conceptual design and estimated cost of the full-scale system.

Discussion

The study developed a list of feasible technologies and equipment suppliers based on experience and knowledge in treating high strength organic process water, and winery and distillery process water. The process water characterization data and bench- and pilot-scale treatability test results helped identify, evaluate, and screen technologies using the following criteria:

1. Potential and ability to handle large process water quality and quantity changes
2. Potential for handling or minimizing process upsets
3. Ability to meet process water effluent quality goals
4. Efficient use of space
5. Minimal use of additive nutrients and neutralizing chemicals
6. Efficient use and/or recovery of energy
7. Minimal process residuals (e.g., sludge, air emissions)
8. Simple to operate, maintain and monitor
9. Reliable and durable equipment and materials
10. Constructable and/or implementable
11. Compatible with existing and proposed facilities
12. Safe
13. Acceptable environmental and aesthetic conditions
14. Cost-effective

Process water treatment

Initial screening of aerobic treatment processes, including aerated lagoons and hybrid fixed-film activated-sludge processes, indicated high energy costs. Because anaerobic processes would be more cost effective, they were selected as the primary stage of the process water treatment system, which will require an overall BOD and TSS removal of 90% to meet effluent goals for reduced load land application. Selection was based on the process water quality characteristics identified in Table 1 and results of the technology screening using the criteria listed above. Two types of mesophillic anaerobic biotechnology processes, low rate covered lagoon anaerobic reactors and upflow anaerobic sludge blanket (UASB) reactors, were selected for the following reasons (Speece, 1996).

1. Provides process stability under the expected fluctuations in influent quality, and reduces potential for upset.
2. Reduces waste biomass disposal costs. Anaerobic biotechnology eliminates the need for aerobic oxygen transfer, which has high microbial synthesis when treating the raw, high strength organic process water. This will produce cost savings because sludge disposal can be reduced to as low as 5% to 20% of the sludge produced by typical aerobic processes.
3. Reduces nitrogen and phosphorus supplementation costs. The amount of supplemental nitrogen and phosphorus required by anaerobic biotechnology can be as low as 5% to 20% of aerobic process requirements. The theoretical minimum COD/N/P ratio is 350/7/1 for a highly loaded system such as this application. Also, nitrogen concentrations

in the anaerobic reactor must range from 40 to 70 mg/L to prevent nitrogen limitations for the process.

4. Reduces the addition of pH neutralization salts. The pH of an anaerobic reactor must range from approximately 6.5 to 8.2. Under some conditions, it may be possible to operate satisfactorily at a pH as low as 6.0.
5. Reduces space and costs for installation. Volumetric organic loading rates are 5 to 10 times higher for anaerobic processes than for aerobic processes.
6. Conserves energy (especially aeration), providing environmental and economic benefits. There are no aeration requirements for this stage of the treatment process, while aerobic processes require 500 to 2,000 kw-hr/ton of BOD.
7. Produces burnable gas that can be recovered and used as energy for a portion of the distillery boiler gas supply. Anaerobic biotechnology produces 12×10^6 BTU as methane per 1,000 kg of COD converted to methane.
8. Minimizes operational requirements. Oxygen transfer systems and clarifiers demand substantial operator attention in aerobic systems, but are not required for the anaerobic portion.
9. Eliminates off-gas emissions. Many volatile organic contaminants that are air stripped from aerobic treatment systems are eliminated with anaerobic systems.
10. Avoids foaming when surfactants are present. Severe foaming, which often occurs with aerobic treatment of surfactant wastewater, is avoided with an anaerobic process.
11. Biodegrades some compounds not degraded by aerobic processes. Certain organic compounds, e.g. chlorinated organics, are transformed anaerobically, reducing toxicity.
12. Accommodates seasonal variability in treatment needs for greater process flexibility. The anaerobic process may be applied to seasonally produced wastewater because the biomass viability is maintained in periods of biomass starvation, due to reduced decay.

However, anaerobic technology does have some drawbacks and usually requires additional aeration treatment to control odor for the reduced-load land application system. For certain applications, treatment would be required to meet more stringent treated process water reuse goals.

Figure 1 shows a conceptual diagram of the process water treatment. It outlines the proposed unit processes to achieve the treated process water reuse goal for reduced-load land application. The unit operations and processes include screening, flow equalization for one quarter of peak daily flow, a feed and recirculation pump station, two anaerobic bio-reactors (low rate or UASB type), an effluent reaeration tank to suppress odor, a biogas

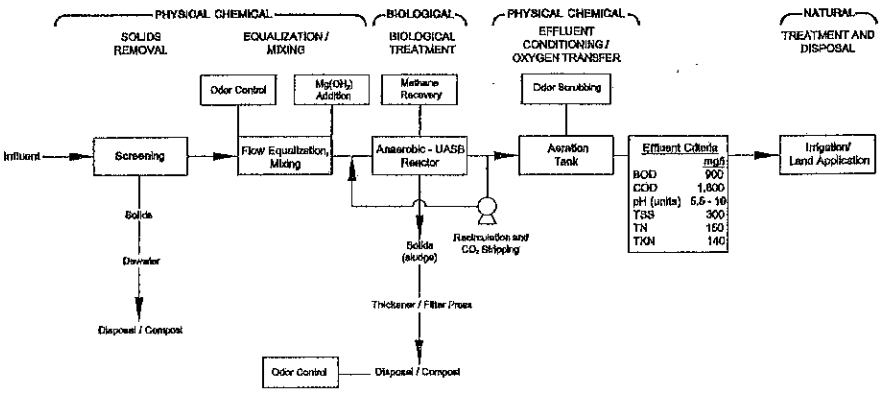


Figure 1 Conceptual distillery process water treatment diagram

energy electric generator, heat recovery system, a carbon dioxide stripper for the recycle stream, magnesium hydroxide system to adjust pH, a sludge thickener and belt filter press for dewatering, and biological odor scrubbers.

If other treated process water reuse options are desired, such as vineyard irrigation, cooling tower makeup, and service water for clean up, additional treatment steps will be required to polish process water at the point of use.

Identification, development and evaluation of alternatives

This study developed a short list of two primary process water treatment alternatives, a low-rate system and a high-rate UASB, based on experience and knowledge in treating high strength organic process water and winery and distillery process water. We identified and developed two primary process water treatment alternatives using the key technology screening criteria, a conceptual process water treatment train, and based on discussions and proposals from various manufacturers.

The two primary process water treatment alternatives were compared against the evaluation criteria using a relative ranking system. To a degree, the relative ranking system was subjective since it was based on the review and evaluation of proposals and correspondence prepared by the candidate suppliers.

In general, however, the relative ranking among alternatives was based on quantifiable information (e.g., biogas or sludge production estimates) obtained from proposals and other correspondence when available. When no quantifiable information was available or relative differences were not easily discernable, then a tie resulted. In some cases, relative differences between processes, such as low-rate and high-rate technologies were used as the basis to differentiate ranking.

The estimated comparative costs for the UASB-based treatment system were $9,760,000 for capital and $535,000/year for operations, versus the costs for the low rate anaerobic treatment system of $10,900,000 for capital and $507,000/year for operations. Overall operations costs, deducting biogas credit over a 10-year project life, were $0.89 for the UASB compared to $0.97 per thousand gallons treated.

The UASB-based treatment system would occupy one-quarter the area and have an overall advantage of one and one-third of the low rate anaerobic treatment system considering both cost and non-cost factors.

The total organic (represented by BOD) and mineral salts loading to the land application areas are critical parameters in evaluating the potential to degrade groundwater quality. It is important to critically evaluate mineral salts addition to process water in the form of conservative non-reactive ions such as sodium and chloride, and consider opportunities to reduce mineral additions for process water pH neutralization and other processes.

For example, we used carbon dioxide stripping of anaerobic process recycle streams to reduce the need for adding mineral salts. Bioscrubbers have been proposed for odor control, and ozone or paracetic acid disinfectants are recommended in lieu of sodium hypochorite for process disinfecting within the winery and distillery when possible. Magnesium hydroxide is used rather than sodium hydroxide whenever neutralization of acid wastes or recycle streams is necessary. Flow equalization and mixing and odor control by dissolved oxygen eductors also serves to neutralize pH without adding salts. Membrane nanofiltration rather than sodium zeolite softeners for cooling tower, boiler feed makeup and bottling line washing also reduce sodium and chloride salts.

These anaerobic processes, sometimes coupled with aerobic biological polishing processes, and their cost implications are being reviewed and evaluated at a number of brandy distilleries in California. These approaches may need to be implemented in the future as the regulatory criteria for land application discharge permits are being reviewed

and renewed at five-year intervals, often with more stringent BOD loadings and nutrient and mineral salts reduction requirements. These processes may be appropriate where groundwater quality has been degraded by increased salts concentrations, increased soluble iron and manganese leached from soil minerals due to lower oxidation-reduction potential (ORP), decreased pH, and increased alkalinity.

Conclusions

This paper identifies a conceptual design of a winery and distillery process water treatment system for organics and nutrient removal (see Figure 1). The conceptual design was based on process water characteristics, treated effluent quality goals, and bench- and pilot-scale treatability evaluations. The design includes energy recovery for use in other processes at the distillery. The treated process water effluent will be of suitable quality for reduced load land application, recycling and reuse for facility cooling and clean up, or for vineyard irrigation with additional polishing. Facility engineers can use the conceptual design to refine project objectives, design criteria, and select candidate process water treatment equipment suppliers for planning purposes.

References

Coast Laboratories (1947). *Grape stillage disposal by intermittent irrigation.* Report to the Wine Institute.

Chrobak, R.S. (2002). "California's tightening winery wastewater requirements." Poster presented at 53rd Annual Meeting of the American Society for Enology and Viticulture in Portland, Oregon. Reprinted with permission by *Wine Business Monthly*, September 2002, pp. 44–47.

Joyce, M.E., Scaief, J.F., Cochcrane, M.W. and Dostal, K.A. (1977). U.S. EPA Report 600/2-77-048. *State of the art: wastewater management in the beverage industry*, Table 32, page 49.

Ryder, R.A. (1994). Aerobic pond treatment of winery wastewater for vineyard irrigation by drip and spray systems in California, *Actes du Congrès International sur le Traitement des Effluents Vinicoles*, pp. 67–72.

Speece, R.E. (1996). *Anaerobic Biotechnology for Industrial Wastewaters.* Archae Press.

Wine Institute. (2002). *Code of Sustainable Winegrowing Practices, Self-Assessment Workbook.*

Anaerobic Methods of Distillery Waste and Wastewater Treatment

Technical Field:
☐ Energy / Environment (E)
☒ Water / Sanitation (W)
☐ Agriculture (A)
☐ Foodprocessing (F)
☐ Manufacturing (M)

This Technical Information is available in:
☒ English (e)
☐ French (f)
☐ German (g)
☐ Spanish (s)
☐ Other:.....

Naturgerechte Technologien, Bau- und Wirtschaftsberatung (TBW) GmbH Frankfurt, Germany
June 2000

During alcohol production, large amounts of waste and wastewater are produced. These may have a considerable environmental impact by polluting both water bodies and soil, by causing an adverse climatic effect and odour nuisance. Due to the high concentration of organic matter, both distillery waste and wastewater at the same time do have a great nutrient and energy potential that can be utilised for fertilising or power generating purposes. The water can principally be reused for irrigation purposes.

1 Introduction

Alcohol production through the process of fermentation is an industrial activity implemented almost world-wide. Due to the agricultural origin of the primary matter used, distilleries are usually located in rural areas. Agricultural products like sugar cane, sugar beet, different cereals, grapes etc. are either fermented directly or in the form of sub-products, after being processed in order to condition the sugar contained in the plants for the alcoholic fermentation with yeast.

The distillation (i.e. the separation process) with 2 or 3 columns – the number depending on the required concentration of ethanol – produces a highly polluting residue. For the production of every litre of alcohol, 10 to 30 litres of industrial wastewater, called vinasse, stillage or slops, are generated. Its organic load is high, varying from 20 to 120 g COD (or 2,000-12,000 mg) per litre, the effluent temperature is high (around 90 C), the average pH-value is low (3,5 to 6). Table 1 represents a summary of research results on cane molasses, confirming these average values. The named characteristics make the distillery wastewater one of the industrial residues most difficult to treat and dispose off properly.

Table 1: Average values for stillage from cane molasses (Source: [2])

Parameter	Range of Values for Cane Molasses
pH	3.5 – 5.7
Temperature	80 – 105 °C
COD	15 – 176 g/l

The high organic loading is the cause for a great potential for negative climatic impacts and heavy pollution of water and soil if the residues are being disposed of untreated. The large production of fuel ethanol in Brazil for example, has generated severe problems of water pollution. Brazil is producing more than 13×10^6 litres of ethanol per year (a typical distillery in Brazil producing about 120,000 l/d), utilising sugar cane juice, molasses or mixtures from both as substrate for the ethanol production.

Different forms of utilisation, treatment and final disposal have been developed to avoid environmentally negative impacts of stillage. Physical and chemical treatment options of the residue have not been very successful until now, whereas the high organic content of the residue make it well suitable for biological treatment, especially for anaerobic fermentation. Therefore, the treatment of distillery wastewater with

gate Information Service / gtz, PO Box 5180, 65726 Eschborn, Germany
Phone: +49 (0)6196 / 79-3094, Fax: +49 (0)6196 / 79-7352, Email: gate-id@gtz.de, Internet: http://www.gtz.de/gate/gateid.afp

anaerobic systems is broadly applied and accepted and more than 40 industrial treatment plants in distilleries are in operation world-wide. Mostly, the so-called UASB (Upflow Anaerobic Sludge Blanket) and the anaerobic filter, in some cases anaerobic contact systems, are applied.

The high organic concentration in the stillage can make anaerobic treatment profitable, particularly due to the primary energy yield in form of methane, combining environmental soundness with economical usefulness due to possible savings in the fuel needs of the distillery.

2 Social aspects

Social impacts associated with the production of alcohol can be considered from two main points of view: a positive one in terms of job creation and a potentially negative one due to the environmental pollution caused by the industrial production process.

The disposal of the high-strength stillage (vinasse) into rivers and streams poses particularly serious risks to the neighbouring population since the sugar-growing regions are usually rural areas with a considerably high population density, in Cuba even the highest in the whole country. This is the result of sugar cane cultivation being labour intensive, especially during the harvest season, which extends during six to eight month a year. Many seasonal workers come from neighbouring regions or countries, other provinces or from suburban sectors and settle down temporarily in villages and camps, in addition to people permanently living downstream in villages and cities close to the rivers. As these foul up with continuous discharge of highly polluted, untreated wastewater, water-quality related illnesses like diarrhoea or viral hepatitis become an ever recurring problem.

Fish, representing a valuable source of protein within the diet of the local and the temporary population, is being wiped out by the discharge of stillage into surface waterbodies, causing eutrophication and, as a result, lack of oxygen. Foul smells are commonplace near a distillery and downstream of alcohol production sites.

3 Distillery process

The distillation process has three main steps:

Step 1: The fermentation of the carbon (sugar) source:

The substrate – e.g. molasses from sugar cane (molasse is the residual syrup from sugar production from which no crystalline sucrose can be obtained by simple means) – is brought into contact with yeast cultures. Under appropriate conditions (pH 4-4.5, 10-20% sugar in the substrate, balanced nutrient content), the enzymes transform the glucose into ethanol within a time span of 20-26 hours. Nutrients and inoculum are added for optimum conditions, sulphuric acid in order to reach the optimum pH. If molasse is used as raw material, it has to be diluted with water or sugar cane juice before fermentation.

Step 2: The separation of yeast and alcoholic solution:

After the fermentation process ends by reaching the inhibitory alcohol concentration or the temperature limit (around 40 C), the substrate is usually separated into alcoholic solution and yeast sludge by centrifugation. The recuperation of yeast is important in order to reduce the organic load of the wastewater. The dried yeast can be utilised as animal feed with high protein content.

Step 3: The extraction of alcohol by distillation:

The produced alcohol is distilled utilising a counter current of steam. A first distillation column removes the biggest part of the water (and yeast if it was not removed

gate Information Service / gtz, PO Box 5180, 65726 Eschborn, Germany
Phone: +49 (0)6196 / 79-3094, Fax: +49 (0)6196 / 79-7352, Email: gate-id@gtz.de, Internet: http://www.gtz.de/gate/gateid.afp

before) which represents the principal residue of the distillery. A second column concentrates and purifies the ethanol to a content of 60%, a third column (rectification column) – if installed – is designated for the production of ethanol of more than 95%.

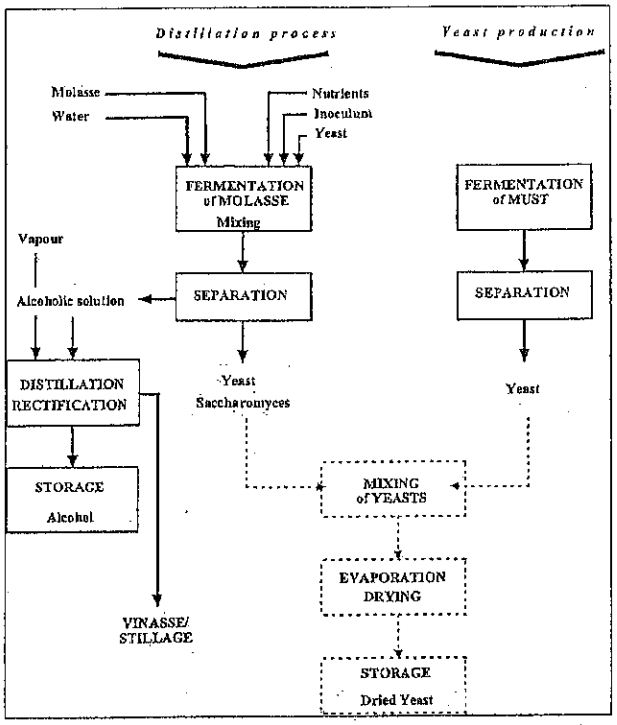


Fig. 1: Fermentation process for alcohol and yeast production

4 Origin and composition of distillery waste and wastewater

The liquid wastes from alcohol production can mainly be divided into (see Fig. 2)

- **stillage** from the
  - separation (centrifuge) and
  - distillation process;
- **cleaning water** from the different plant components, i.e.
  - fermenters,
  - distillation columns,
  - floors;
- **refrigeration water** from cooling after distillation.

The **stillage** from the **separation** process contains a large amount of yeast which, as mentioned above, should be dried and utilised as animal feed. This yeast sludge is therefore usually not being treated within a wastewater treatment system.

Speaking of wastewater treatment, the **stillage** from the **distillation** process is the major stream of liquid waste with the highest organic loading. Its composition depends significantly on the raw material used for the fermentation process. All stillages do however contain sugar compounds (glucose, polysaccharides) and alcohol (ethanol, glycerol). Yeast residues will lead to the presence of amino acids and proteins in the wastewater.

Speaking of molasse as substrate for alcohol fermentation, only about 10% of the substrate are retained in the process, 90% will be contained in the wastewater, including caramels developed during sugar production that are causing a darker colour of the wastewater. Because molasse already is a more concentrated liquid, its stillage will also have higher concentrations of salts and organic matter as well as sulphate. Stillage from sugar cane molasse in average contains 93% of water, 5% dry matter and 2% minerals.

Table 2 shows average values for different wastewater parameters in the alcohol industry in Cuba.

Table 2: Average values for composition of stillage from alcohol production from sugar cane molasse in Cuba

Parameter	Unit	Value
Stillage produced	l/l alcohol	17 – 25
COD total	mgO_2/l	70,000
BOD_5	mgO_2/l	34,000
pH	(none)	4.2 – 4.4
Total Solids	g/l	70 – 95
Suspended Solids	g/l	2.8 – 3.4
Volatile Solids	g/l	65 – 75
Total Fixed Solids	g/l	7 – 37
Total Nitrogen	mgN/l	800
Total Phosphor	mgP_2O_5/l	200
Potassium	mgK_2O/l	3,200
Sulfate	$mgSO_2/l$	2,670
Sodium	mgNa/l	310

Source: [3]

gate Information Service / gtz, PO Box 5180, 65726 Eschborn, Germany
Phone: +49 (0)6196 / 79-3094, Fax: +49 (0)6196 / 79-7352, Email: gate-id@gtz.de, Internet: http://www.gtz.de/gate/gateid.afp

The **cleaning water** has a comparably low organic loading and can be used to dilute the heavily polluted stillage in order to condition it for anaerobic treatment.

The **refrigeration water** is only exposed to "heat pollution", i.e. a rise in temperature, and is usually not contaminated additionally during the process, as it is led in a closed cycle within the heat exchange system. Therefore, it generally will not be subject to wastewater treatment.

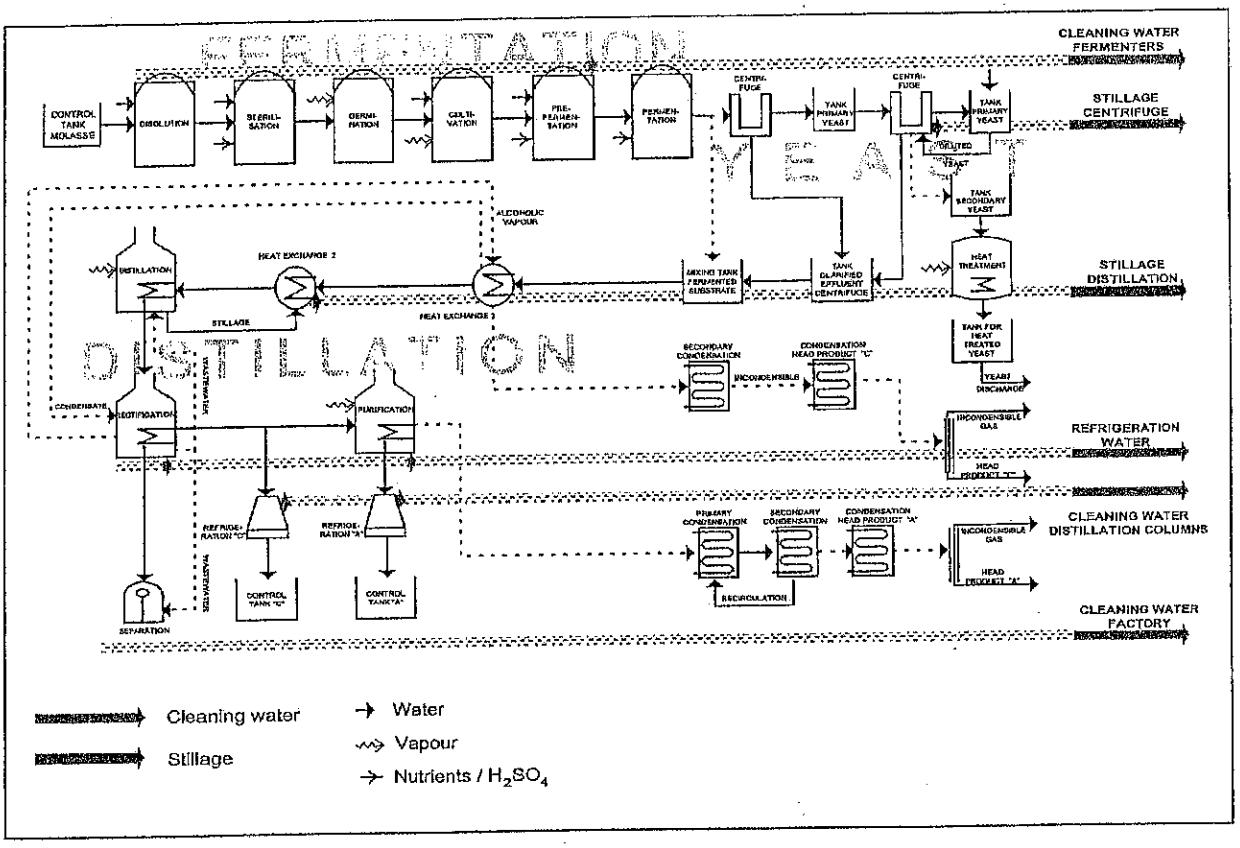


Fig. 2: Alcohol production and wastewater streams (Source: TBW, [3])

gate Information Service / gtz, PO Box 5180, 65726 Eschborn, Germany
Phone: +49 (0)6196 / 79-3094, Fax: +49 (0)6196 / 79-7352, Email: gate-id@gtz.de, Internet: http://www.gtz.de/gate/gateid.afp

5 Suitability of distillery wastewater for anaerobic treatment

Due to its high energy content in the form of contained organic material, distillery stillage is generally very well suitable for anaerobic treatment. Owing to its characteristics, a possible COD-removal of 65–75% can be assumed.
Prior to the actual treatment steps, some conditioning measures for the stillage do however have to be taken:

5.1 Necessary conditioning of stillage

Cooling

The high temperature of the stillage from the distillation process have to be adjusted at least to the maximum values tolerable for the biologic degradation.

Flow regulation, mixing
Strong variations in the volumetric flow of the wastewater have to be compensated by storage/equalisation capacities and appropriate dosage/mixing device. The stillage should be kept separately from other wastewater streams (cleaning water) in order to ensure maximum control of its concentration.

Conditioning of pH-Value
The usually low pH-value has to be corrected by neutralisation. Further to the addition of alkaline solution, treated substrate, having a pH-value of about 7, can be recirculated for this purpose.

Nutrients, alcalinity, suspended solids
The content of macro-/micro-nutrients and suspended solids as well as the alcalinity of the substrate usually range within the tolerable limits for anaerobic bacterial activity. Should the values exceed the limits in individual cases, these need to be adjusted.

5.2 Suitable anaerobic processes

Among a number of different treatment alternatives generally applicable, the following processes are considered to be the most suitable ones for the anaerobic treatment of distillery wastes.

UASB (Upflow Anaerobic Sludge Blanket) – Reactor
Anaerobic reactor with up-flow regime of the treated wastewater, sludge retention and 3-phase separation for the separation of methane, sludge and treated wastewater. The EGSB – Expanded Granular Sludge Bed Reactor – may be used as alternative: this is in principle a High, lean UASB with high upflow velocity.

Anaerobic Filter (Fixed Bed Reactor)
Reactor with an inert filter medium with a high specific surface for on-growth of biomass (today mostly plastic material), mostly with external separation and recirculation of sludge.

Anaerobic Contact Process
Totally mixed reactor with separation and recirculation of sludge to the methanogenic reactor. The realisation of sludge-degassing improves the sludge consistency for separation.

6 Advantages of anaerobic treatment of distillery wastewater

6.1 Environmental aspects

The implementation of anaerobic technology for the treatment of distillery wastewater has several environmental benefits as a considerable contribution to a sustainable development:

Prevention of pollution of water and soil:
Anaerobic treatment of the wastewater avoids – as any other installed treatment technology would – the discharge of highly polluted wastewater into water, onto surface land and its possible infiltration into the groundwater level.

gate Information Service / gtz, PO Box 5180, 65726 Eschborn, Germany
Phone: +49 (0)6196 / 79-3094, Fax: +49 (0)6196 / 79-7352, Email: gate-id@gtz.de, Internet: http://www.gtz.de/gate/gateid.afp

Mitigation of greenhouse gases

- *Reduction of methane emissions:* The emission of large amounts of methane to the atmosphere from uncontrolled disposal and discharge of wastewater are prevented by controlled anaerobic digestion of the organic matter in the wastewater. The methane produced within the digestion process has to be collected and must not be released to the atmosphere.

- *Reduction of fossil fuel demand:* If the methane produced is utilised as a renewable source of energy for power and heat production, the fossil fuel demand of the distillery can be reduced considerably. In contrast to fossil fuels, methane represents a CO_2-neutral source of energy, i.e. no additional CO_2-equivalents adding to the greenhouse effect are emitted by its use.

For an exemplary distillery producing an average of 800–1,000 litres of stillage per day (50,000 l/d of alcohol), the reduction of CO_2-emissions by collection and utilisation of methane is in the order of 10,000 t/a of CO_2-equivalents, the reduction by substitution of fossil fuels is in the order of 10,000 t/a of CO_2-equivalents.
An examplary distillery ([3]; plant concept: stillage treatment in ponds transformed into modular anaerobic reactors (digester volume: 10,000 m³) with upflow-regime (UASB) and gas collection) may clarify both above named aspects:

- generation of 12 m³ to 14 m³ of biogas per m³ of stillage;
- avoidance of methane emissions with a CO_2-equivalent of 60,000 t/a by gas collection and combustion;
- avoidance of further 10,000 t/a of CO_2 emission by substitution of fossil fuels in the production process.

6.2 Socio-economic aspects

Hygiene aspects
The hygiene conditions for the population in the neighbourhood of distilleries will be significantly improved, reducing health risks by waterborne diseases and ensuring a better water quality of potential sources for drinking water.

Nutritional aspects
The necessary ambient conditions for fish can be restored to a certain extent, thus again making available an important source of food for the people.

6.3 Economic aspects

Fuel savings
Significant amounts of fossil fuel can be saved in the distillery by generating power and heat from the methane produced during wastewater treatment in co-generation units and using the generated form of energy within the alcohol production process. One of the most important process steps in this respect is the production of vapour for the distillation process. Produced electric power can also be utilised for process control, steering devices or other electric appliances within the industrial plant.

Revenues from energy sales
If the methane is utilised in co-generation units, the high energy content of the wastewater will often lead to a production of surplus energy which can be fed to regional or national power grids. Given appropriate legislation that guarantees the remuneration of power feeding to the grid, this will contribute to the economy of the wastewater treatment plant and may even lead to an economic benefit.

In the above named distillery (chapter 6.1), only 10 % of the total electricity produced by biogas utilisation are used in the alcohol production process, so that in theory the entire energy demand could be substituted – in order to be independent of possible irregularities of biogas and electricity production, 10 % of the energy

gate Information Service / gtz, PO Box 5180, 65726 Eschborn, Germany
Phone: +49 (0)6196 / 79-3094, Fax: +49 (0)6196 / 79-7352, Email: gate-id@gtz.de, Internet: http://www.gtz.de/gate/gateid.afp

demand are still calculated to be provided by fossil fuels.
If the produced energy surplus of more than 15 Mio kWh/a is fed to the public grid at a rate of for example 0.067 US$/kWh, revenues from energy sales will amount to about 1 Mio US$.

7 Alternative treatment and disposal options for stillage

Further to the anaerobic treatment option, there are several other possibilities for treatment and/or reuse of waste streams from alcohol production. Some examples are listed below.

Incineration after evaporation
The water content of the stillage is significantly decreased by evaporation, so that the dried substrate – that may also be used as animal feed – is suitable for incineration. The ashes can be utilised as fertiliser or, with the addition of chemicals, for the recuperation of K_2SO_4 and $CaSO_4$. The adverse environmental effects of disposal of untreated stillage are avoided, but the high energy demand of the evaporation process that will in most cases be met by using fossil sources of energy should be taken into consideration.

Spray-irrigation
The stillage is applied directly to agricultural land for fertilising purposes. Due to the high organic loading, this can however lead to undesired accumulation of nutrients in the soil and to infiltration of soluble components to groundwater. In Brazil, where spray irrigation is very popular, high concentrations of nitrate and chlorine were found in the groundwater.

Growing of algae and fungus
Owing to its high protein content and nutritional value, the stillage can be used as nutritional substrate for the growing of algae and fungus.

8 Example: Coconut Toddy Distillery

The distillery produces alcohol through distillation of coconut toddy. Bottling is carried out at a different section on the same site. The distillery is situated close to a river. It operates during the daytime from 8 a.m. to 5 p.m.

8.1 Industrial process

Coconut toddy distillery has two continuous and three pot distillation columns out of which 3-4 columns normally operate. Two pot distillation columns have a daily capacity of 6,750l/ batch each, the third of 4,050l/ batch. Distillation rates of the two continuous columns are 4,500 l/h and 1,000 l/h. Toddy is received from 1 p.m. to 9 p.m. and stored in the two receiving tanks from which it is transferred to wash backs (collection tanks). There are 27 wash backs of 1,700-2,000 l capacity each. After pumping the toddy into the pot distillation columns and the overhead tank to feed the continuous distillation columns, the wash backs and collection tanks are washed using a hose connected to a pipe. This wash water is pumped to the overhead tank to be fed to the continuous distillation columns. Similarly, the overhead tank wash water is fed to a continuous column. After washing the wash backs, a lime solution is applied on the tank surfaces with a brush. Floor washings in the toddy collection area go to the river through a drain. The amount of toddy distilled per day is in the range of 40 m^3 -60 m^3. Since the alcohol present in the toddy is about 5-8%, the maximum volume of effluent generated in the distillery per day can be assumed to be 60 m^3. Bottle washing is also carried out using a bottle washer with a capacity of 6,000 bottles per hour and the continuous flow of effluent ends up in the river along with wash water from manual washings. The washing starts with a fresh water bath which is discharged daily followed by two caustic baths, two water baths and three more water baths

gate Information Service / gtz, PO Box 5180, 65726 Eschborn, Germany
Phone: +49 (0)6196 / 79-3094, Fax: +49 (0)6196 / 79-7352, Email: gate-id@gtz.de, Internet: http://www.gtz.de/gate/gateid.afp

used counter currently. The caustic baths of capacity of 9,000 l and 6,600 l are replenished daily and discharged twice a week and once a week respectively. 500 kg -700 kg of NaOH is applied per month. The labels removed from the bottles are extracted from the machine adhering to a screen and are detached with fresh water.

8.2 Effluent generation (Quantity and quality)

The two sources of effluent identified in this distillery are:

1. Stillage from distillation process and wash water from distillation columns
2. Waste water from bottling plant
   - ➢ Distillery effluent

   flow: 90 m³/d (estimated amount including washing effluent),

   effluent quality:

   pH: 3.2
   BOD: 15,000 mg/l
   COD: 30,000 mg/l
   SS: 750 mg/l
   TS: 21,150 mg/l
   Temp.: 95°C

   - ➢ Bottle washer effluent

   flow: 69m³/d,

   effluent quality:

   pH: 12 – 14
   COD: 385 mg/l
   NaOH: 0.003 %

8.3 Recommended waste minimisation options

1. Good house keeping should be maintained at all times in the wash back area. Frequent washing and cleaning is therefore necessary.
2. Stillage is discharged at a temperature above 90°C. A waste heat exchanger could be designed to lower the temperature from 90°C to 65°C. The discharge rate is 5,500 l/h. The cooling water temperature will be elevated from 30°C to 55°C, recovering 574 MJ of heat at the same rate per hour. If the energy content of the hot water from this system is used for the boiler, approximately 15 l of fuel oil can be substituted. In this, capital investment is needed for the counter current heat exchanger and for the cooling water pumps. Further, this will eliminate the necessity of including a cooling tower in the effluent treatment system.
3. Spillage of furnace and other oil should not be discharged to the effluent drain. The oil can be separated and collected by installing suitable oil interceptors.
4. In the anaerobic digester system suggested for the treatment of distillery effluent, a reduction of 96% BOD is expected. The daily total BOD removal of 864 kg will generate about 260 m³ of biogas (based on 0.3 m³ biogas generation per kg of BOD removed). This is equivalent to 170 l of fuel oil. In this, capital investment is needed for the gas holder, gas burner and distribution line.
5. Collection of concentrated alkaline effluent separately and using it for the neutralisation of distillery stillage. By this, consumption of alkaline solution for neutralisation purposes could be minimised. Capital investment is requested for the construction of a separate drain for alkaline effluent, collection tank, filter unit and the dosing pump.
6. Recycling of wastewater generated in the screen-washing unit of bottle washer after filtration. This source is measured as 2.7 m³/h. This option reduces daily effluent flow from 69 m³ to 47 m³. This option necessitates investments in a filter unit and feed pump.

8.4 Motivation for investment

- ➢ Waste heat recovery from stillage
- ➢ Recovery of biogas from anaerobic digesters
- ➢ Use of alkaline effluent for neutralisation of stillage
- ➢ Recycling of screen wastewater
- ➢ Cleaner Production options given

gate Information Service / gtz, PO Box 5180, 65726 Eschborn, Germany
Phone: +49 (0)6196 / 79-3094, Fax: +49 (0)6196 / 79-7352, Email: gate-id@gtz.de, Internet: http://www.gtz.de/gate/gateid.afp

8.5 Benefits from investment

- Use as fuel oil for boiler to heat boiler feed water
- Reduction in NaOH consumption.
- Reduce total effluent volume.

9 References and further information

[1] Arnoux M. and Michelot E. 1988: Méthanisation des vinasses de mélasse de canne à sucre par le procédé SGN à film fixe à la Societé industrielle de sucrerie – Guadeloupe. EU-Direction Générale Énergie, Brussels (Belgium).

[2] Noyola, A. 1996: Tratamiento de Aguas Residuales de Destilerías. Memorias IV Seminario-Taller Latinoamericano sobre Tratamiento de Aguas Residuales, Bucaramanga (Colombia).

[3] TBW GmbH Frankfurt 1998: Energetic Reuse of Distillery Wastewater CDC-TBW, Frankfurt (Germany).

[4] TBW GmbH Frankfurt 1998: Endbericht zur Förderung der Anaerobtechnologie zur Behandlung kommunaler und industrieller Abwässer und Abfälle. GTZ-TBW-BMZ, Frankfurt (Germany).

[5] Tilche A. and Rozzi A. 1988: Poster Papers of the Fifth International Symposium on Anaerobic Digestion. Monduzzi Editore, Bologna (Italy).

[6] Verink J. 1994: Anaerobic Wastewater Treatment at the Distillery in Cardenas. TBW, Frankfurt (Germany).

9.1 Useful Links

http://www.sunbeam.net/vsi/
(Vasantdada Sugar Institute, India)

http://www.gtz.de/anaerob/index.html
(GTZ Sectoral Project "Promotion of anaerobic treatment for municipal and industrial sewage and waste")

http://www.execpc.com/~drer/anadoc.htm
(Bioenergy from anaerobically treated wastewater)

http://www.distill.com/spanish.html
(Distillery terminology in English and Spanish)

9.2 Institutions and Organisations

Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH, German Appropriate Technology Exchange GATE Information Service
P.O. Box 5180, 65726 Eschborn, Germany
Phone: ++49 (0)6196 / 79-3094,
Fax: ++49 (0)6196 / 79-7352,
Email: gate-id@gtz.de
Internet: http://www.gtz.de/gate/gateid.afp

Naturgerechte Technologien, Bau- und Wirtschaftsberatung (TBW) GmbH
Baumweg 10, 60316 Frankfurt, Germany
Phone: ++49 (0)69 / 943507-0
Fax: ++49 (0)69 / 943507-11
Email: tbw@tbw-frankfurt.com

Universidad Autónoma Metropolitana (UNAM), Instituto de Ingeniería, Apartado Postal 70-472, Coyoacán 04510, Mexico, D.F.

Ministerio del Azúcar (MINAZ), Calle 223 No. 171, e/ N y O, Vedado, Ciudad La Habana, Cuba.

Top 5 To Try
How to Make a Distillery
How to Build a Wood Distillery
Wastewater Management Courses
National Wastewater Associations
How to Open a Distillery in Seattle

Ads by Google

Characteristics of Wastewater in a Distillery

By Ronny Kalyango, eHow Contributor updated August 03, 2011

The type of wastewater coming out of a distillery depends on the type of alcohol produced, the processes followed in making the wine and the type of additives used. The volume of wastewater generated from a distillery is usually about 10 times that of ethanol produced. The characteristics of the wastewater make it cause a few problems with its utilization.

Related Searches: Distilling Equipment Water Quality

Organic Content

Wastewater from distilleries contains large amounts of organic and inorganic content. This makes it have extremely high chemical oxygen demand (COD) and biochemical oxygen demand (BOD). This is in addition to having a strong odor and dark brown color. It contains nutrients such as nitrogen, phosphorus and potassium. These can cause eutrophication of water bodies. This is why water bodies polluted with wastewater from distilleries have little aquatic life.

Acidity

Wastewater contains a high volume of highly acidic material that presents a lot of disposal and treatment problems. On average, it usually has a pH of 3.8 -- 4.4 and this is due to acidic contents such as calcium carbonate. This makes the wastewater corrosive to tanks in which it is stored or pipes through which it flows. The acidic waste water causes soil leaching and

also interferes with the pH of the soil it washes over. If released untreated into rivers and other water bodies, it can cause death or migration of some organisms. The acidity also makes the recycling process more expensive.

Molasses Spent Wash (MSW)

Molasses-based distilleries release effluent that contains large amounts of dark brown colored molasses spent wash (MSW). This waste product pollutes the environment in two major ways. First, the dark colored nature of the molasses spent wash blocks out the sunlight on rivers and streams, interfering with normal processes of photosynthesis. This reduces the oxygenation of the water and leads to the death of aquatic life. The molasses spent wash also has a high pollution load which results in eutrophication of contaminated water sources. This waste product makes the rivers and canals produce an obnoxious smell since it contains putriciable organics such as skatole, indole and other sulfur compounds.

Parameter Ranges

Waste water from distilleries has a pH range of 3.8 to 4.4 with calcium carbonate content of 8000-16000 mg/L. The total amount of solids in mg/L is between 60,000 to 90,000, with total suspended solids (2,000-14,000mg/L) and total dissolved solids (58,000-76,000 gm/L). The chemical oxygen demand (COD) varies between 70,000 to 98,000mg/L and biochemical oxygen demand (BOD) measured for 5 days at 200C was found to be 45,000-60,000 mg/L. Waste water also contains nitrogen (1,000-1,200mg/L), phosphate (500-1,500mg/L) and potash (5,000-12,000mg/L).

References

Seminar Projects: Treatment of Distillery Wastewater Using Membrane Technologies

ISRJ: Acceptability of Distillery Wastewater by Soils to

National Water Quality Management Strategy

Effluent Management Guidelines for Australian Wineries and Distilleries

1998

Agriculture and Resource Management Council of Australia and New Zealand

Australian and New Zealand Environment and Conservation Council

Copies of this publication may be obtained from:

Australian Water and Wastewater Association
PO Box 388
ARTARMON NSW 2064
Telephone (02) 9413 1288
Facsimile (02) 9413 1047

or:

Commonwealth Government bookshops in the States and Territories

or:

DPIE Shopfront
Edmund Barton Building
BARTON ACT 2601
Telephone TOLL FREE 008 020 157

or:

ANZECC Secretariat
GPO Box 787
CANBERRA ACT 2601
Telephone (02) 6274 1428
Facsimile (02) 6274 1858

For further information, contact:

The Secretary
Agriculture and Resource Management Council
of Australia and New Zealand
Department of Primary Industries and Energy
GPO Box 858
CANBERRA ACT 2600
Tel: (02) 6272 5216
Fax: (02) 6272 4772

or

The Secretary
Australian and New Zealand Environment
and Conservation Council
GPO Box 787
CANBERRA ACT 2600
Tel: (02) 6274 1428
Fax: (02) 6274 1858

© Commonwealth of Australia

ISBN 0 642 24474 X
ISSN 1038 7072

Printed on recycled paper.

Printed in Australia for the Agriculture and Resource Management Council of Australia and New Zealand, and the Australian and New Zealand Environment and Conservation Council.

Contents

PREAMBLE 1

INTRODUCTION 2

OBJECTIVES OF GUIDELINES 2
ENVIRONMENTAL OBJECTIVES 3
APPLICATION OF EFFLUENT MANAGEMENT GUIDELINES 3
The industry 3
Regulators and planning authorities 4
The broader community 4
Further information 4

PRINCIPLES OF ENVIRONMENTAL MANAGEMENT 6

GENERAL CHARACTERISTICS OF WINERY AND DISTILLERY WASTE 8

SOURCES OF WINERY AND DISTILLERY WASTES 8
COMPOSITION OF EFFLUENT 11

GUIDELINES 13

SITE SUITABILITY ASSESSMENT 13
Objectives 13
Guidelines 14
Existing operations 14
New developments 14
Odour control 15
Performance assessment options 16
Existing sites 16
New sites 16
New and existing sites 16
DESIGN OF THE EFFLUENT MANAGEMENT SYSTEM 17
Objective 17
Guidelines 17
Separating stormwater from winery and distillery effluent 17
Optimising effluent and enhancing recycling 18
Separating the various waste streams 18
Effective effluent containment and storage 18
Controlling spillages 19
Preventing contamination of public water supplies 19
Performance assessment options 19
TREATMENT OF WINERY AND DISTILLERY EFFLUENT 19
Objective 19
Guidelines 19
Treatment options 22
Physical and Chemical treatment 22
Biological treatment 22

Siting and design of treatment lagoons 22
Lagoon siting and soils 22
Design and sizing 22
Capacity of the effluent management system 23
Performance assessment options 23
USE OF WINERY AND DISTILLERY EFFLUENT 24
Objective 24
Guidelines 24
Land requirement 25
The nature of the soils 25
Land application rates 26
Water budgets 27
Surface runoff/soil erosion 27
Groundwater 28
Surface waters 28
Climatic conditions 28
Agricultural and horticultural practices 29
Characteristics of the effluent 29
Biochemical Oxygen Demand (BOD) 29
pH 30
Total dissolved solids or salinity 30
Salt management plan 31
Sodium Adsorption Ratio (SAR) 31
Nutrients 32
Irrigation Management 32
Irrigation equipment 33
Control of stormwater and irrigation tailwater 33
Performance assessment options 33
SOLIDS MANAGEMENT 34
Objective 34
Guidelines 34
Performance assessment options 34
USE OF SLUDGES 35
Objective 35
Guidelines 35
Lagoon sludges 35
Performance assessment options 35
DISPOSAL OF WINERY AND DISTILLERY EFFLUENT 36
Objective 36
Guidelines 36
Performance assessment options 36
MONITORING AND REPORTING 37
Objectives 37
Guidelines 37
Performance assessment options 38
CONTINGENCY MEASURES 38
Objective 38

Guidelines 38
Performance assessment options 39

APPENDICES

APPENDIX 1: THE NATIONAL WATER QUALITY MANAGEMENT STRATEGY (NWQMS) 40
APPENDIX 2 : FURTHER INFORMATION 42
Further reading 42
APPENDIX 3: SOURCES OF FURTHER ADVICE 43
APPENDIX 4: GLOSSARY 44

Figures and Tables

Figure 1. Structure of the Effluent Management Guidelines for Specific Industries 1
Figure 2. Components of a Winery Effluent Management System 10
Figure 3. Components of a Distillery Effluent Management System 11
Figure 4. Winery and Distillery Effluent Management Options 20
Figure 5. Winery Effluent Treatment Options 21
Figure 6. Distillery Effluent Treatment Options 21
Figure A1: National Water Quality Management Strategy 39

Table 1. Winery Effluent Quantities 8
Table 2. General characteristics of liquid winery and distillery effluent 12

Preamble

This document is one of a suite of documents forming the National Water Quality Management Strategy. This Strategy aims to achieve the sustainable use of the nation's water resources by protecting and enhancing water quality, while maintaining economic and social development.

The series, Effluent Management Guidelines, covers guidelines for specific industries. Six separate documents deal with specific industries as set out in Figure 1. This document provides national Effluent Management Guidelines for Australian Wineries and Distilleries. It sets out principles that can form the basis for a common and national approach to effluent management for the winery/distillery industry throughout Australia.

<table>
<tr><td colspan="6">Effluent Management Guidelines</td></tr>
<tr><td colspan="2">Dairy</td><td rowspan="2">Intensive Piggeries</td><td rowspan="2">Aqueous Wool Scouring and Carbonising</td><td rowspan="2">Tanning and Related Industries in Australia</td><td rowspan="2">Australian Wineries and Distilleries</td></tr>
<tr><td>Sheds</td><td>Processing Plants</td></tr>
</table>

Figure 1. Structure of the Effluent Management Guidelines for Specific Industries.

Further information on the National Water Quality Management Strategy is given in Appendix A.

While prepared by a joint ANZECC/ARMCANZ working group these guidelines are designed primarily for the Australian situation, in recognition of the different legislative framework in New Zealand. However they could serve as a basis for discussion in New Zealand on the issues addressed in the guidelines.

Introduction

The main wine-producing areas in Australia are situated between latitudes 30_ and 40_ South in South Australia (with about 50 per cent of Australia's wine production), Victoria (about 20 per cent), and New South Wales (about 25 per cent). Western Australia accounts for some 2 per cent of Australia's wine production, and Tasmania and Queensland each about 0.5 per cent.

A small number of wineries have associated distilleries which produce spirits including brandy. There also are a very small number of stand alone distilleries.

Objectives of Guidelines

The objective in developing the *Effluent Management Guidelines for Australian Wineries and Distilleries* is to support the overall goal of the National Water Quality Management Strategy that is to 'to achieve sustainable use of the nation's water resources by protecting and enhancing their quality while maintaining economic and social development'. They do this by ensuring a nationally consistent approach to effluent management by the Australian winery and distillery industry. The guidelines aim to establish important principles for environmental management and provide guidance on acceptable waste management practices which can be applied consistently across Australia.

The Guidelines can serve as a basis for sustainable resource development extension programs and for negotiations between regulatory authorities, local government and the industry on conditions for managing, monitoring and reporting for effluent management that should apply locally. They are sufficiently flexible to allow adaptation to codes of practice, and general industry agreements, as well as the range of legislative controls around Australia. It is not practicable to produce guidelines which will be immediately applicable to licensing in all jurisdictions without adaptation and discussion of local needs and conditions.

As the Guidelines deal with effluents and associated solid components including sludge and not total site management, the document would be one of a number that may need to be used for the overall environmental management of a particular winery or distillery.

The Guidelines will be reviewed as appropriate, but it could be reasonably expected that this would be within three years.

Environmental Objectives

The Guidelines' main environmental objectives are that the operation of wineries and distilleries should:

- maintain the environmental values of surface and groundwaters, including their ecology, by minimising the discharges of effluents containing organic matter, nutrients, salts or chemical constituents
- minimise the effect of effluent addition to land, which may lead to the degradation of soil structure, salinisation, waterlogging, chemical contamination or erosion
- avoid off-site nuisance or interference with amenity, such as odours associated with inappropriate or poorly-operated waste treatment processes.

Achievement of these environmental objectives requires that winery and distillery operations throughout Australia should be managed to protect:

- surface waters
- groundwaters
- soils
- vegetation
- public amenity.

The main emphasis of these Guidelines is water quality protection. Achievement of these environmental objectives, and the specific objectives in the Guidelines section, should help ensure that winery and distillery operations are ecologically sustainable both in the short and long term.

Application of Effluent Management Guidelines

These Guidelines are intended for use by the winery and distillery industry (including consultants), regulators, planning authorities and the broader community.

The industry

The Guidelines aim to assist operators of wineries and distilleries to:

- minimise and use as far as possible the effluent they produce
- prevent the unacceptable degradation of water, land and environmental quality.

The Guidelines should be consulted where extensions or new developments are planned, or where environmental protection at existing operations is to be enhanced.

Regulators and planning authorities

Effluent Management Guidelines for Australian Wineries and Distilleries should provide the framework where State or local guidelines or codes of practice are to be developed for the regulation of wineries and distilleries. Any such guidelines should be consistent with and at least as stringent as these Guidelines. Existing codes of practice or regulations should also be consistent with and at least as stringent as these Guidelines.

In general, State, Territory, regional and local government guidelines, laws and regulations will be more detailed than these Guidelines to take account of site specific circumstances of the winery or distillery industry. Local knowledge and data specific to individual wineries or distilleries are essential to manage them responsibly.

The broader community

Integrated catchment management is increasingly becoming the "umbrella" for sustainable natural resource management. It provides the framework for the community, industry and government to work together to overcome environmental and resource management problems.

This document provides information which will help communities to participate in an informed manner in integrated catchment management, including decisions on new or existing wineries or distilleries and local resource management issues. Development of catchment-based plans and strategies is central to integrated catchment management.

Further information

Where further information is required to assist decisions relating to the management of effluent, reference should be made as appropriate to other National Water Quality Management Strategy documents (Appendix 1), or the sources listed in both Appendices 2 and 3.

The development of detailed guidelines and environmental codes of practice is the responsibility of relevant State and Territory authorities. Proponents are thus encouraged to seek advice from the relevant State and Territory authorities about current regulations and codes of practice when new developments are being contemplated, or when the effluent management system of existing operations is to be upgraded.

These Guidelines should apply immediately to any expansion and new developments, and be phased in for existing facilities to timetables agreed with State and local government authorities.

Principles of Environmental Management

The main principles of effective management of winery and distillery effluent, in order of importance, are:

- avoidance or elimination of excessive waste generation through better planning
- optimisation of waste management processes
- effective and feasible recycling and reuse of waste
- disposal of waste where its use is not practicable, in a manner that will not cause short or long term adverse environmental impact.

A fundamental consideration for sustainable management of winery and distillery effluent should be the development of an Environmental Management Plan through the implementation of an Environmental Management System. In some States an operator can be required to produce an Environmental Management Plan as a stand alone document, not as part of an Environmental Management System. The amount of detail provided in the plan will depend on the size of the enterprise, siting considerations in relation to neighbouring communities and the environmental sensitivity of the location such as proximity to surface and groundwater. The Environmental Management System provides for the management, administration and monitoring framework for the environmental aspects of an operation. It includes the principles of Total Quality Management and should incorporate the principles of risk management (see glossary).

In August 1995, the International Standards Organisation (ISO) released the draft international standard ISO 14001 on *Environmental Management Systems: Specification with guidance for use*. In late 1995 ISO 14001 was published as an interim standard within Australia and New Zealand by Standards Australia. This standard can be used to provide guidance when implementing an environmental management system.

The Environmental Management System should incorporate the principles of cleaner production to minimise the adverse environmental impacts of the production process. In the context of these Guidelines, cleaner production involves the use of:

- better housekeeping
- improved management practices
- state-of-the-art in-plant production processes

- the concept of management of all aspects of the entire production process, from the raw materials to finished product including any associated waste.

These Guidelines are not intended to present detailed performance standards as the concept of continuous improvement for performance is reflected in the Guidelines' focus on Environment Management Systems and Plans.

Effective effluent management is an important part of a winery or distillery operation, and should be allocated an appropriate share of management effort and expenditure. Good communication within the operation is important for increasing the operation's overall efficiency, including effective environmental management, and can help identify problems early to rectify them before they become significant.

Development of an Environmental Management System and/or Plan should involve consultation with regulators, planning authorities and the broader community. State and Territory environment protection authorities can provide information on the development of Environmental Management Systems and/or Plans.

General Characteristics of Winery and Distillery Waste

Sources of Winery and Distillery Wastes

Wine is produced through the crushing and fermentation of grapes, followed by the straining of skins and seeds, storage, clarification, and maturation of the young wine.

Winery effluent is mostly cleaning waste, as wineries must be kept meticulously clean to avoid contamination and spoilage. Effluent is from:

- rinsewater
- water used to wash outsides of equipment and floors
- washwater containing alkali salts (eg caustic soda) to remove tartrate and other organic acids from insides of equipment
- earth filtering
- ion exchange processes.

Wineries can produce up to five kilolitres of effluent per tonne of grapes processed depending on the extent of washwater recycling and whether stormwater is allowed to enter the effluent stream. Typical quantities of winery effluent are given in Table 1. Just under half the total effluent volume is produced within 12 to 20 weeks during vintage.

Size of winery	Weight of grape crush/per vintage (tonnes)	Effluent quantity /per annum (megalitres)
Small	up to 5000	1-9
Medium	5000 - 20 000	5-100
Large	over 20 000	40-240

Table 1. Winery Effluent Quantities

In contrast, distillation produces relatively small volumes of effluent, mainly rinsewater and spent (non-alcoholic) liquors.

Winery and distillery solid waste comprises:

- stalks, seeds and skins (marc) produced during the crushing, draining and pressing stages, almost all of which is delivered to distilleries for the recovery of ethanol
- sediments (lees) containing pulp, tartrates and yeasts from the fermentation stage
- bentonite clay and diatomaceous earth from the clarification processes much of which is delivered to third party processors for producing cream of tartar and tartaric acid.

The amount produced depends on the extent of juice extraction, the number of fermentation and clarification stages used in the manufacture of each wine type and the type of equipment used.

A typical winery produces about one tonne of marc per 9-13 tonnes of fresh grapes crushed, of which about 65 per cent is water.

Distillation produces spent fruit and other dried forms of waste. Large amounts of solids are also generated from the desludging of lagoons. Processes involved in winery and distillery operations, including stages where effluent is generated, are described in Figures 2 and 3.

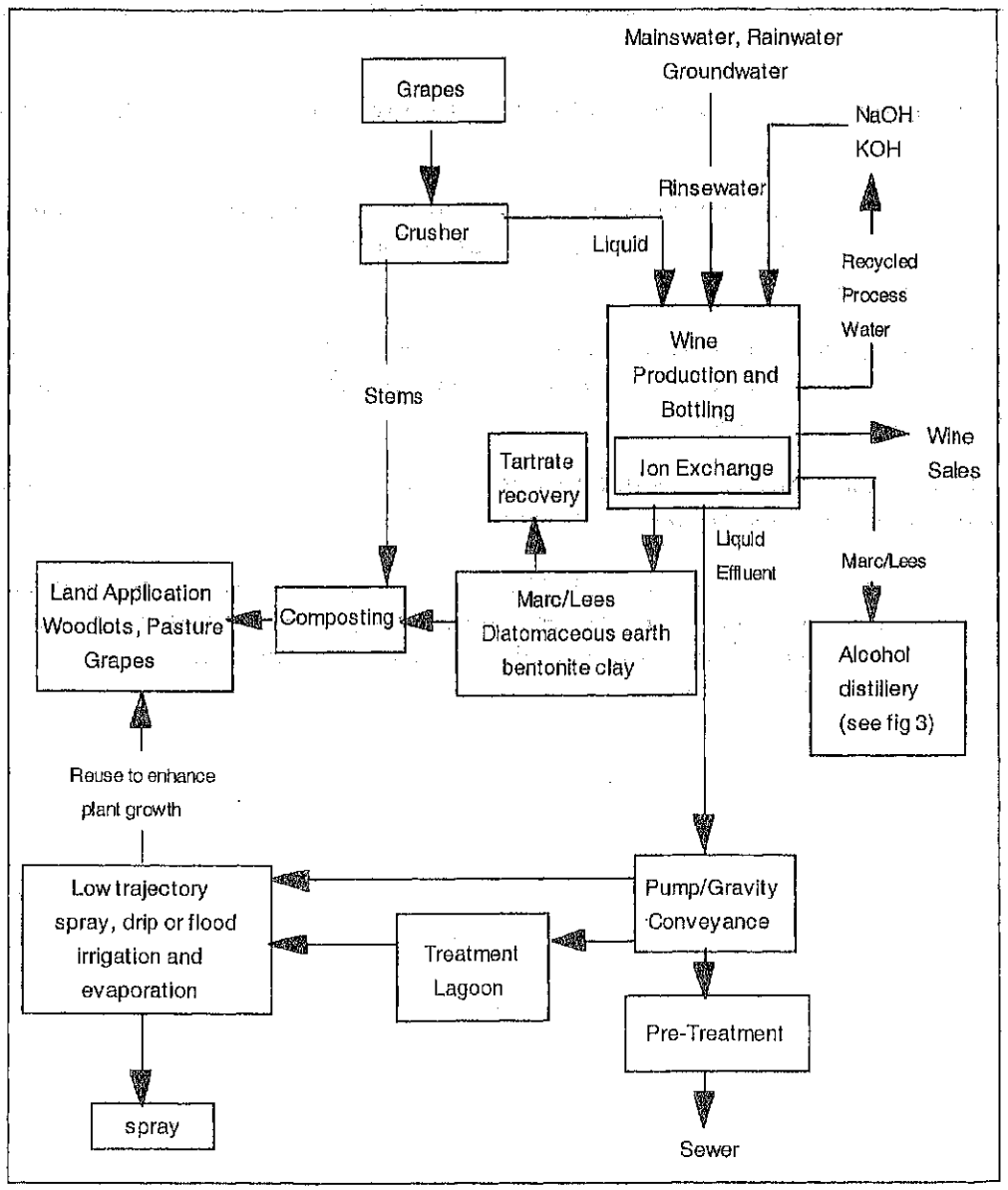


Figure 2. Components of a Winery Effluent Management System

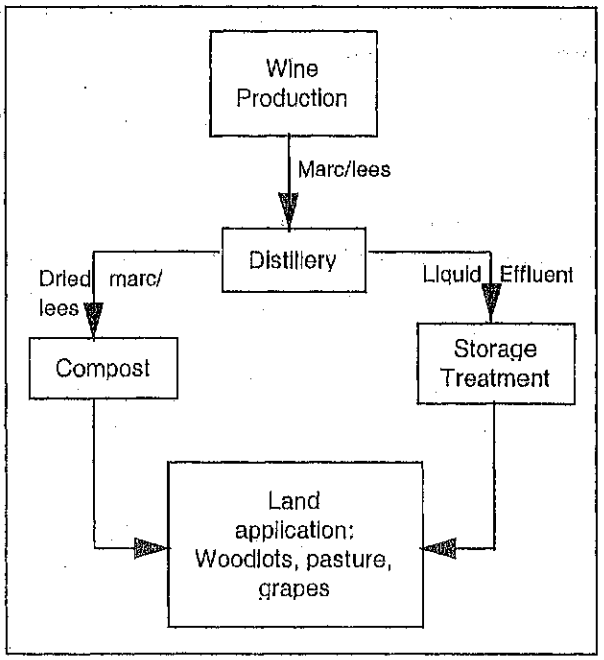


Figure 3. Components of a Distillery Effluent Management System

Composition of Effluent

Both winery and distillery effluents contain:

- simple organic acids, sugars and alcohols from grapes and wine. As a result, the effluents have a high requirement for oxygen for biological decay (BOD) (see Table 2). The BOD of distillery effluent can be as high as 35 000 mg/L
- a pH in the range of 3 to 10 - the pH of the fresh winery and distillery effluents varies with the relative concentrations of organic acids and caustic cleaning wastes (which can change very quickly)
- moderate salinity
- a proportionally high concentration of sodium relative to that of calcium plus magnesium
- low amounts of nitrogen and phosphorus relative to total carbon
- inorganic components from the water supply, alkali washwaters and processing operations.

Best practice for wineries is to screen their products (juice and wine) for agrochemicals to ensure they comply with local and overseas Agrochemical Maximum Residue Limits (MRL's). Refer to Appendix B, Australian Wine Research Institute for further information. The juice component of the effluent is negligible which means that chemical fertilisers, pesticides and herbicides used in growing grapes are insignificant components of the effluent.

Winery effluent contains a small amount of suspended and settleable solids, with the latter normally forming part of the solid waste.

Distillery effluent originating from spent liquor can have more than 30 000 mg/L particulate material.

The carbon content of the organic solid wastes is dominated by complex materials including polysaccharides which are readily degradable by soil micro-organisms, and lignins and tannins which are less degradable and can be incorporated as soil carbon in the form of humus.

Due to their fine particulate nature, bentonite clay and diatomaceous earth have poor physical properties including a tendency to set hard and an inability to transmit water.

Analysis	Distillery	Winery vintage	Winery non-vintage
Suspended solids (mg/L)	5000-30 000	100-1300	100-1000
pH	3-5	4-8	6-10
Total dissolved solids (mg/L)	1100-4500	<550-2200	<550-850
Biochemical oxygen demand (mg/L)	13000-35000	1000-8000	<1000-3000
Total organic carbon (mg/L)	1000-15000	1000-5000	<1000
Total Kjeldahl Nitrogen (mg/L)	500-1700	5-70	1-25
Sodium (mg/L)	260-540	110-310	250-460
Total Phosphorus (mg/L)	100-400	1-20	1-10
Carbon:Nitrogen:Phosphorus	10-50:4:1	30-100:4:1	15-30:5:1
Calcium (mg/L)	90-140	13-40	20-45
Magnesium (mg/L)	70-100	6-50	10-20
Sodium Absorption Ratio (SAR)	8	4-8	7-9
Potassium (mg/L)	1300-2100	80-180	40-340

Table 2. General characteristics of liquid winery and distillery effluent

Table 2 is indicative only. Site specific information on the particular effluent stream should be obtained for modelling purposes when developing effluent processes.

Guidelines

The Guidelines are designed to provide general principles for the nationally consistent environmental management of wineries and distilleries to protect water quality. The principles of these guidelines can be adapted by jurisdictions to take account of their own legislative and environmental requirements for the approval of new projects, setting licensing conditions and the general environmental management of wineries and distilleries. They are not intended to provide detailed prescriptive standards.

The important factors in planning, developing and managing wineries and distilleries to ensure economic and ecological sustainability are:

- site suitability assessment
- effluent management system design
- effluent treatment
- effluent use
- solids/sludge management
- effluent disposal in circumstances where reuse is not practicable
- monitoring and reporting
- contingency measures.

Site Suitability Assessment

Siting has a significant impact on the intensity and cost of effluent treatment, and the management required to protect water quality. Carefully planned siting of facilities, particularly the effluent utilisation areas, facilitates the environmental management of the operation. Where possible the site selected should be one which avoids the need for costly environmental protection measures and which ensures preservation of community amenity.

Objectives

For existing operations to:

- identify site constraints which can result in adverse environmental impacts

- manage the winery or distillery operations through effective use of appropriate practices, techniques and technologies to allow for these constraints

- enhance or maintain the water quality of relevant water resources based on their agreed environmental values.

For new winery or distillery developments to:

- avoid unacceptable environmental impacts on water resources, soils and amenity

- enhance or maintain the water quality of relevant water resources based on the agreed environmental values for the resources.

Guidelines

The following factors should be taken into account when choosing a site.

Existing operations
Existing operations with site constraints (eg high watertable, nature of the soils, topography, presence of incompatible land uses, size of site, availability of services) should implement the following:

- innovative and effective technologies to minimise effluent and allow for its reuse

  - effective design of the plant

  - effective housekeeping and best management practices

  - an effective monitoring system to enable potential problems to be detected early

  - replacement of obsolete technology

  - liaison with regional planning/zoning authorities.

If the operation cannot overcome the constraints, its scale should be reduced to a manageable level, be re-established in a suitable location, or closed..

New developments
Siting of new operations should consider:

- the amount of land required for establishing the enterprise, in particular for the treatment, storage and application of effluent and solid wastes/sludges on or off site

- characterisation of the soil to determine its suitability for the storage, treatment and application of effluent and other solid wastes/sludges

- estimation of quality and quantity of effluent and solid wastes/sludges produced at all stages of the process (ie, pre treatment, post treatment, etc)
- land suitability (including topography, slope, surface soil type and previous landuse practices)
- climate (including rainfall, prevailing winds, katabatic wind/ drainage, evaporation)
- type of effluent storage and treatment system to be used
- neighbouring landuse, including residential, commercial, industrial and agricultural
- proximity to sensitive sites, including surface and groundwaters, areas of scientific value, areas of Aboriginal significance and areas containing unique, uncommon or endangered fauna and flora
- the proximity of services and amenities including water supply
- the need for appropriate buffer zones between the enterprise and sensitive areas including waters and residences
- hydrogeological considerations including depth to groundwater and potential beneficial uses of groundwater
- other factors outlined in, Use of Winery and Distillery Effluent section, eg surface runoff/soil erosion.

Once the site has been chosen, it should be benchmarked to:

- develop siting, operational and management systems that ensure the facility is managed to minimise environmental impact
- compare benchmark information with subsequent monitoring information to assess environmental performance.

Odour control

Odours from winery or distillery operations can be detected up to several kilometres from the site, resulting in loss of public amenity. These odours arise from poor design and management of winery and/or distillery effluent treatment systems, and the stockpiling of used bentonite clay/diatomaceous earth at wineries.

The effectiveness of buffer zones in protecting the community from odours depends on several factors, including:

- whether methods are used to minimise odours generated from effluent treatment, storage and disposal

- whether effective buffer zones have been considered at all stages of the planning process for the operation, including
  - the distance between sites on the property where operations are undertaken and the surrounding amenities
  - physical barriers, including topography and vegetation
  - climatic conditions, including wind direction, speed and turbulence
- community consultation and involvement.

By themselves, buffer zones do not protect the community from odour unless they are effectively managed. Most odour problems will be alleviated if the effluent management practices recommended elsewhere in these guidelines (ie direct land application of effluent and only short term storage of bentonite clay/diatomaceous earth) are adopted for new and existing wineries and/or distilleries. Proponents, as well as operators of existing wineries and distilleries, are encouraged to discuss separation distances for buffer zones, and other related requirements, with the relevant State or Territory agencies or authorities and the local community.

Performance assessment options

Performance Indicators for site suitability could include whether:

Existing sites

- appropriate practices, techniques and technologies have been developed and used on site
- an acceptable Environmental Management System and/or Plan is in place
- public amenity has been maintained by odour control
- a monitoring program is in place for water and odour (for monitoring of water resources, see the NWQMS documents: *Australian Water Quality Guidelines for Fresh and Marine Waters*, and *Guidelines for Water Quality Monitoring and Reporting*).

New sites

- Best Available Technology has been implemented, where possible at reasonable cost, to ensure environmental protection measures specific to the site have been undertaken
- an acceptable Environmental Management System/Plan has been developed.

New and existing sites

- risk management assessment of the site has been undertaken

- assessment has been made of the suitability of the soil and hydrology at the site for a winery and distillery
- protection measures specific to the site have been established
- adverse impacts on water resources, land and amenity have been minimised
- adequate safeguards for possible system failure are in place.

The proponent's past environmental performance should be considered where approval is to be given for the development of new wineries or distilleries or for extensions to existing operations.

Design of the Effluent Management System

The design of wineries and distilleries should incorporate modern technologies and processes for producing wines and spirits. This involves adopting technology which has consistently achieved the desired effluent quality levels in economically viable operations. It should also consider state-of-the-art engineering and scientific developments in effluent treatment, as well as opportunities for waste minimisation. It is recognised that good effluent management is not necessarily dependent on high technology and may often involve simple, innovative solutions.

Objective

To effectively design winery and distillery operations to minimise the volume of effluent, and control effluent quality and treatment, prior to its application to land or discharge to sewer.

Guidelines

Separating stormwater from winery and distillery effluent
Stormwater not contaminated from the winery and distillery operation should be separated from the effluent system, and either collected for use within the plant or directed to watercourses to maintain environmental flows and recharge aquifers. Separating stormwater from the effluent will reduce the effluent volume and will improve treatment performance due to more even hydraulic loading. Stormwater separation may be required by some sewage authorities before disposal to sewer will be permitted.

Contaminated stormwater should be directed to effluent collection ponds, provided the ponds have the capacity to handle the extra volumes that may be involved. If the effluent system cannot handle the volume, then the plant should be designed to allow for the separate collection of contaminated stormwater.

In urban areas where wineries or distilleries discharge to the sewer, some authorities may require the operation to have the capacity to store all polluted stormwater for discharge after heavy rain. Where the first downpour of rain will flush an open area

clean, the relevant authority may accept this polluted water with the discharger being required to divert the following rainfall to stormwater, on the grounds that it is no longer polluted.

Best management practice will minimise, where practicable, the opportunity for stormwater to be contaminated. This should be considered in the Environmental Management System/Plan for both new and existing wineries and distilleries.

Optimising effluent and enhancing recycling
Efficient water use throughout the plant, including recycling, will minimise the volumes of effluent generated as well as the consumption of clean water. The use of waste by-products will reduce total effluent load and may improve the effluent quality.

The key consideration is to ensure the plant is designed to optimise the overall operation. This can be achieved by ensuring that the plant's various components, including the effluent management systems, are mutually compatible and well-integrated.

Separating the various waste streams
Attention should be given to separating the waste stream components related to their characteristics and specific treatment needs to improve the resultant effluent quality. This would obviate the need for costly treatment and enhance opportunities for reuse. The main components to be considered for separation are:

- solids and liquids
- high and low salinity effluent
- effluent from ion exchange processes.

Effective effluent containment and storage
Storage and treatment lagoons should be designed to contain their maximum operational load safely, including provision of sufficient freeboard. This should take into account the maximum volumes of effluent to be stored when land application may not be possible because of climatic conditions, as well as increased volumes resulting from unusually heavy rainfall events (relevant authorities should be consulted on conditions required to satisfy local requirements). A generally accepted standard is to design any system to cope with the wettest year in ten.

Storage systems may also need to incorporate a spillway to prevent damage during any overtopping under extreme conditions (relevant authorities should be consulted on conditions required to satisfy local requirements). The base should be constructed with low permeability materials or lined with such materials to prevent leakage from the storage facilities. Leakage of effluent to groundwater resources also needs to be minimised. In addition, lagoons should be designed and constructed to prevent potential pollution of surface water through runoff.

Controlling spillages
Areas where accidental spillage of effluent or products could occur should be adequately bunded or sloped to waste drains and directed to storage or effluent treatment areas. Effective alarm systems should be installed particularly in areas where equipment malfunction or a spillage would cause pollution, to enable immediate detection of accidents and remedial action to be instituted without delay.

Preventing contamination of public water supplies
When water supply is from a reticulated source, surface water impoundment or direct from groundwater bores, backflow prevention devices which meet the relevant Australian standards should be installed. Water authorities should be contacted to ascertain any controls on establishing and operating wineries or distilleries within declared drinking water source areas.

Performance assessment options

Monitor:

- the volume and characteristics of treated and untreated effluent so that they are kept within sustainable and manageable limits
- quantities of recycled and reused process liquors and effluent
- spillages; ensure they are contained and deal with sources of spillages
- any odours.

Assess the winery and distillery's overall performance in consultation with the community and relevant government authorities.

Treatment of Winery and Distillery Effluent

Suitable treatment in a properly constructed and maintained treatment system will normally be required prior to utilisation of the effluent.

Objective

To treat winery and distillery effluent to enable its use or disposal in an environmentally acceptable manner for a particular site.

Guidelines

The treatment systems should permit safe, effective and sustainable land application of liquids and separated solids. For disposal to sewer, the treatment should achieve the quality required by the treatment plant owner/operator for trade waste acceptance to sewer. Selection of an effluent treatment system could be based on the factors outlined in Use of Winery and Distillery Effluent section. Any treatment system will need to be able to either reduce or deal with:

- total suspended solids
- BOD
- nutrients
- odour
- pH

Options for effective treatment and management of winery and distillery effluent are summarised in Figures 4, 5 and 6.

While treatment methods will vary between wineries and distilleries, methods should be the best available considering:

- the required level of treatment
- cost
- technical capabilities and backup
- ability to handle extreme events, eg shock loadings, maintenance periods, storm events.

After treatment, the effluent can be applied to the land at a managed rate which ensures long term sustainable application. Any treatment system needs to be carefully managed and regularly maintained. It is important to ensure that the management expertise for efficient effluent treatment is available at all times.

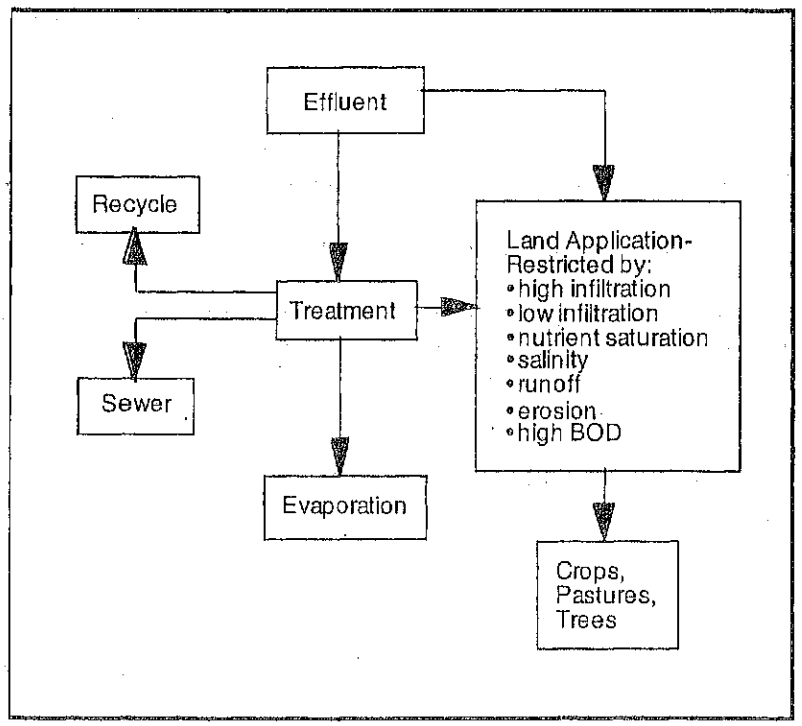


Figure 4. Winery and Distillery Effluent Management Options

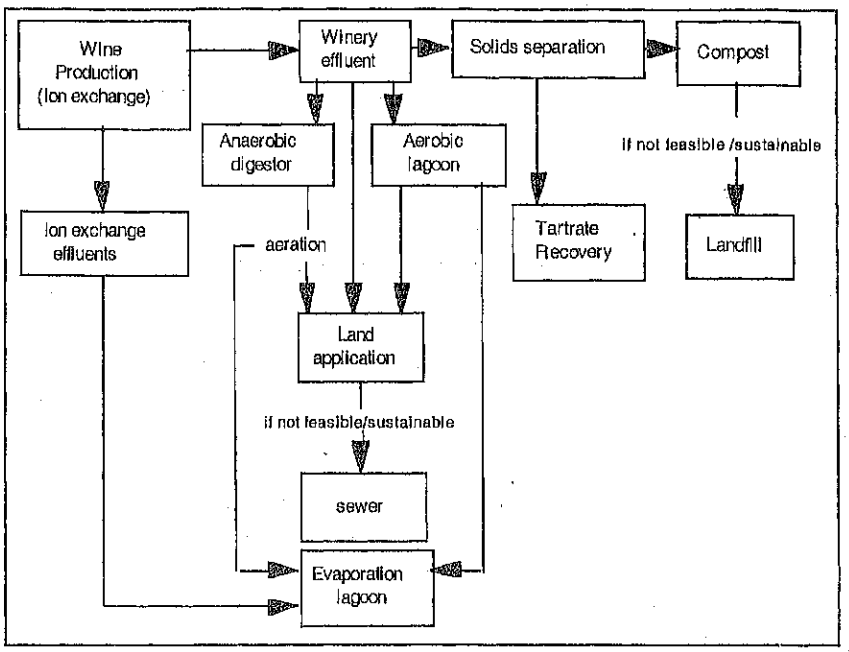


Figure 5. Winery Effluent Treatment Options

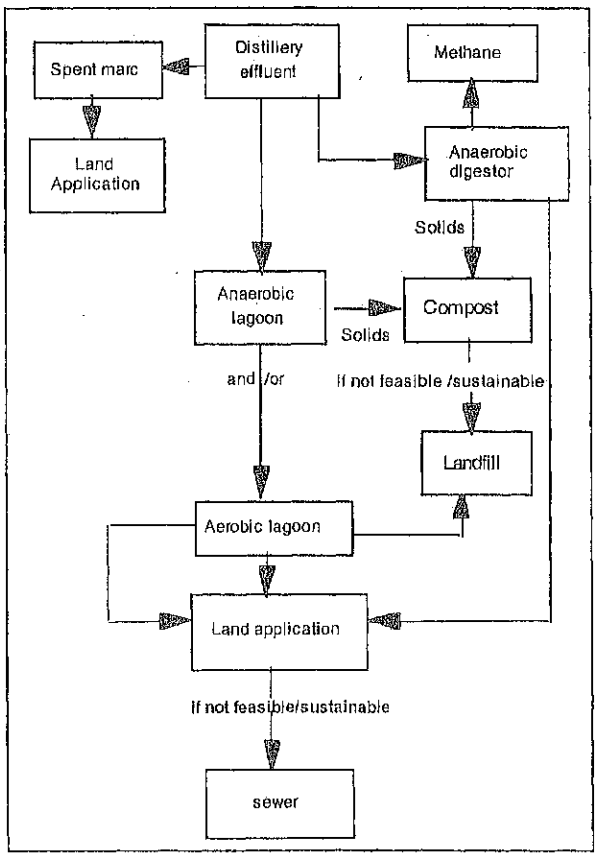


Figure 6. Distillery Effluent Treatment Options

Treatment options

There are a range of methods which if used in an appropriate combination can achieve effluent treatment objectives.

Physical and Chemical treatment
Solids and suspended matter can be separated from the effluent stream by using equipment such as coarse screening, sedimentation tanks, centrifugation and micro-filtration.

This type of treatment not only reduces the rate of sludge build up in lagoons and wear on pumps, but also is a rapid way of reducing the BOD concentration in effluent before disposal or reuse.

Chemicals can be used to enhance treatment characteristics, (eg settling of solids maybe enhanced by pH correction) and to improve treatment performance or suitability for land application.

Biological treatment
The most common form of biological treatment is anaerobic and/or aerobic lagoons. Small package proprietary treatment systems are also available. Lagoon systems should be designed to take account of quantity, quality and intermittent generation of effluents, the likelihood of odours affecting nearby landowners, and the ultimate reuse/disposal method to be adopted.

Siting and design of treatment lagoons

Lagoon systems are suitable for effluent treatment where odour buffers, climate, topography, soil and groundwater conditions favour their installation. Some State regulatory authorities may have information on the siting and design of treatment lagoons to prevent surface and groundwater contamination.

Lagoon siting and soils
Lagoons may be installed where the slope of the land is not too steep to cause problems with their construction and where soils are sufficiently impermeable to retain effluents in the lagoon. Low permeability clay and/or liners should be used in lagoon construction to minimise effluent leaching to groundwater. Great attention must be paid to their installation. Lagoons should not be constructed where overflows can enter surface waters or natural wetlands. They should not be installed across watercourses. Adjacent surface water runoff should be prevented from entering the lagoon.

Design and sizing
Lagoons should be designed to cater for maximum hydraulic and waste load and future expansion of a winery or distillery. In areas where soils may be saturated for a period, such as those with ample winter dominant rainfall, lagoon systems should be large enough to retain the total volume of effluent during these periods.

Allowance needs to be made for primary lagoons to be taken out of service, solar dried and desludged after about 5-10 years of service.

The sludge should be stored so as to prevent leaching to susceptible groundwaters, with any discharge from the stored sludge being directed to the effluent system. Provision for desludging and the effect of application to land should be considered in the Environmental Management Plan in all situations.

If sludge is unable to be utilised productively, for example as a soil conditioner, it should be disposed of in an authorised land fill.

Capacity of the effluent management system

Planning for any increase in winery or distillery production needs to consider the capacity of the effluent treatment system to accommodate the possible production increase. An augmentation of treatment capacity can be accomplished in several different ways, including:

- load reduction due to improved housekeeping and/or effluent stream segregation
- physical pre-treatment processes
- enhanced aeration of lagoons
- expansion of the lagoon capacity
- new effluent treatment facilities
- chemical or microbiological supplements
- anaerobic pre-treatment processes with appropriate controls on gases generated.

Performance assessment options

These include:

- effluent characteristics are monitored before and after treatment to gauge the effectiveness of any treatment
- whether winery and distillery effluent is used for land application, eg irrigating crops, pastures and trees and if so,
- land application does not lead to:
    - polluted runoff

- accession of harmful components to surface or groundwaters, (surface and groundwater is monitored for ambient levels of salt, BOD, nitrogen, phosphorus, potassium, pH, and carbon, and C:N:P (Carbon:Nitrogen:Phosphorus) does not exceed recommended levels for sustainable downstream environmental values as indicated in *Australian Water Quality Guidelines for Fresh and Marine Waters*);

- degradation of soils, including physical, chemical and biological characteristics (soils are monitored and do not show, for eg, surface crusting and sealing due to poor salinity management, toxic chemical build-up or the development of anaerobic conditions)

- loss of public amenity - observe buffer zones and keep note of any public complaints

- crops, trees and pasture are monitored for yield and foliar symptoms, growth rates and health

- records are maintained from which the history of loading of water, nutrients, salts and contaminants can be calculated for all areas where effluent is applied.

Use of Winery and Distillery Effluent

Objective

To encourage the use of:

- nutrients
- organic matter
- water values.

Of the effluent and solid waste/sludge, where this use is not precluded by other components of the effluents, such as salts, in a manner which protects water quality consistent with the environmental objectives.

Guidelines

Generally, land application provides the most efficient means of recycling valuable water, along with the effluent's nutrient and organic components. Suitable treatment in a properly constructed and maintained treatment system will normally be required.

Further information on the use of treated effluent by irrigation is available from relevant State and Territory Environment authorities, including, the Victorian and NSW Environment Protection Authorities (EPA (Victoria) (1992) and EPA - NSW (1995)).

Land requirement

The amount of land required depends on a number of factors including:

- susceptibility to surface runoff and soil erosion
- potential effect on groundwater and surface water
- climatic conditions (amounts of rainfall, evapotranspiration)
- the nature of pasture or crop grown
- pastoral, agricultural and horticultural practices
- the properties of soils (structure, infiltration rate including phosphorus sorption capacity, moisture storage capacity in the root zone and chemical and physical characteristics)
- the quality and quantity of the effluent
- maximum operational life of the application site determined by phosphorus sorption capacity of the site and predicted salt accumulation.

The nature of the soils

Long term application of winery and distillery effluent at excessive levels could damage soils. To select land for irrigation with winery and distillery effluent, it is important to ensure that the soils have the following characteristics:

- a structure that permits air movement and water penetration
- sufficient depth to permit optimum root development by the crop
- adequate natural drainage, or suitable artificial drainage
- sufficient capacity to hold water for plant use between successive irrigations
- nutrients in sufficient but not excessive quantities for adequate plant growth
- moderate pH, ie it should be neither too acid nor too alkaline
  - neutral to slightly acid soils are best for most irrigated crops
- ease of cultivation
- no salinity problems
- sodium content of subsoil
- depth to bedrock.

It is not always possible to have all of these qualities, and the relative importance of each will depend to some extent on the type of crop to be grown, as well as the characteristics of the effluent.

The most satisfactory soils for efficient irrigation are deep, well structured and well drained, ranging in texture from loam to clay loam. They are generally preferred to sandy soils, which are very permeable, and heavy clay soils, although the range of soils that are satisfactory for crop production under irrigation is quite wide.. These types of soils may also be suitable for effluent irrigation. For solid waste/sludge application soils should be suitable for improved pasture or dryland cropping, able to withstand cultivation without incurring significant erosion or major structural declines and not prone to waterlogging.

Soils generally considered unsuitable for irrigation include:

- poorly structured clays
- shallow soils with rock, gravel or impeding clay close to the surface
- swamps that cannot be drained
- soils with poor drainage
- soils with a high salt content and low permeability
- coarse silica sand soils (without iron or aluminium-rich fines).

A soil survey is the most satisfactory way of determining the suitability of different soils for the different types of irrigated agriculture.

Land application rates
Before and during land application, scheduling and application rates based on the properties of the effluent including its salinity and nutrient content, pH and BOD need to be considered. This should be assessed seasonally.

While maximum application rates for land treatment of effluent will depend on site-specific conditions, in general the maximum application rate will be limited by one or more of the following:

- hydraulic loading
- nutrient loading/balance (N, P, K)
- salt loading
- BOD of effluent.

Guidelines which aim to maintain effluent loading at a rate which, after accounting for rainfall, is balanced by evapotranspiration are inadequate to protect groundwater. This is especially so in areas where rainfall can exceed evapotranspiration over periods which are sufficiently long that excess water (and solutes) can leach beneath the root zone.

As rainfall cannot be controlled, the only effective way of preventing excessive contamination of groundwater is to ensure that concentrations of nutrients and salt below the root zone remain at an acceptable level. This may require land application of effluent to be suspended during wet periods or seasons.

A nutrient balance can be developed, where the losses from the system are:

- the uptake of nutrient by plants which are removed
- gaseous losses of nitrogen and
- net accumulation of nutrients in the soil.

Such balances should be calculated to account for seasonal variations in components of the nutrient budget (particularly plant uptake, net mineralisation and leaching). Long term nutrient monitoring of the soil and/or soil solution could substitute this approach.

Water budgets
Water budget studies are an important tool for quantifying land requirements and the volume of effluent which may be applied.

Surface runoff/soil erosion
To minimise surface runoff and soil erosion, effluent should not be used on land which is:

- immediately adjacent to streams and water courses
- subject to flooding (flood risk analysis should be undertaken)
- waterlogged or saline
- sloping with inadequate ground cover
- rocky, slaking and highly erodible
- of highly impermeable soil type.

Bunding and cut off drains, etc can be used to control accidental irrigation runoff. The use of expert advice is recommended.

Groundwater

Important factors to consider are the depth to groundwater including perched and seasonal watertables and soil type, which can influence infiltration rates, and the location, characteristics and potential use of groundwater. A small increase in infiltration from the surface to groundwater can cause a significant rise in groundwater pressures and watertable levels. As the watertable rises, it carries the salts in the soil towards the surface, increasing salt levels in the root zone and possibly causing waterlogging. It is unlikely to occur where winery or distillery effluent is applied to dryland crops and pastures (in permeable soils with a substantial separation between the surface and watertable).

The NWQMS document *Guidelines for Groundwater Protection* should be consulted when considering groundwater issues. Factors to consider are:

- the watertable level
- groundwater quality
- current and potential usage of groundwaters.

Hydrogeological expertise will be required to evaluate the characteristics of the groundwater beneath the land application area. This will include evaluation of mixing and dilution, travel times, direction of groundwater flow, and the possibility of contamination occurring.

Surface waters

The following should be taken into account:

- general features - distances of various waterbodies and water uses from proposed winery and distillery and / or land application site
- hydrological features - catchment area and drainage patterns.

Climatic conditions

Factors include the following, all of which affect evapotranspiration rates and any tendency to flooding or waterlogging:

- regional climate - rainfall, temperatures, humidity, winds and evaporation
- local microclimate - diurnal pressure and associated air movement patterns.

Effluent should only be applied during conditions which will minimise polluted run-off or groundwater contamination. However if managed correctly polluted runoff and groundwater contamination should not occur.

Agricultural and horticultural practices
The decision to use either crops, trees or pasture, and the selection of species should be based on the characteristics of the effluent and on other factors discussed in this section.

Characteristics of the effluent

The characterisation of the effluent for a particular enterprise is fundamental to the operation and management of that enterprise and for the adequate assessment for any land application program. Collection of data by operators is encouraged and should include the following where required for initial characterisation and ongoing monitoring:

- total solids
- suspended solids
- BOD
- COD
- organic carbon
- electrical conductivity (EC)
- exchangeable cations (sodium, magnesium, calcium)
- sodium adsorption ratio
- pH
- total Kjeldahl nitrogen
- nitrate-nitrogen
- phosphorus.

Concentrations of nutrients, total dissolved solids or salinity, organic matter, BOD, sodium adsorption ratio (SAR) and suspended solids (non-filterable residue) should be tested for regularly in effluent and solid wastes/sludges. This is particularly important just prior to land application to calculate and determine appropriate application rates.

Biochemical Oxygen Demand (BOD)
Application of untreated winery and/or distillery effluent can deplete the soil and soil micro-organisms of oxygen as the BOD is moderately high, and that of distillery effluent very high. Prolonged oxygen depletion reduces the soil micro-organisms' capability to break down the organic matter in the effluent and may ultimately lead

to odours and surface and/or groundwater pollution. It is therefore essential to apply effluent at rates that will not cause the development of anaerobic conditions. Resting periods between applications may also be required to permit re-aeration of the soil. However, the quantity of oxygen which can be held in different types of soil varies according to soil texture and structure. State authorities may be able to advise on loading rates which do not cause environmental effects under various climatic conditions.

pH

Distillery effluent is often very acidic and winery effluent can also have a low pH. Adding lime to the soil can be used to correct low pH. Low pH effluent could also be blended with near neutral effluent or effluent pH automatically adjusted using pH probes and the addition of lime. This will also reduce the effluent's Sodium Adsorption Ratio (SAR). Over a long period, however this may impact on soil structure, erodibility and infiltration. A better option may be to pre-treat the effluent before irrigation.

Total dissolved solids or salinity

The salinity or total dissolved solids (TDS) concentration of irrigation water, measured as electrical conductivity (EC) is an extremely important water quality consideration. An increase in salinity or EC levels causes an increase in the osmotic pressure of the soil solution, and results in reduced availability of water for plant consumption and possible retardation of plant growth. Recommended guidelines for irrigation water quality are given in the NWQMS document *Australian Water Quality Guidelines for Fresh and Marine Waters* and cover a number of parameters including salts (TDS) and sodium adsorption ratio (SAR). Soil loadings for particular contaminants are influenced by soil characteristics, crop tolerance, climate and irrigation practices.

With adequate drainage, salt accumulation in the soil can be controlled to an extent by the application rate of water. If the sum of applied irrigation water and rainfall is lower than evaporation and plant consumption, accumulation of salts in the main root zone will result. However long-term application of low salinity effluent may result in a build-up of sodium. Proper irrigation management will allow application of sufficient excess water (leaching fraction) to move a portion of the salts out of the root zone, without causing excessive increases in the groundwater table. (NWQMS - *Australian Water Quality Guidelines for Fresh and Marine Waters, p 5-7*).

Where the winery/distillery effluent is moderately saline, potential irrigation areas should have free draining soils (sandy loam to loam texture with macropores penetrating to at least one metre below the root zone). They may need to be planted with salt tolerant species and managed to drain excess salt to surface and/or groundwater at a rate which is not detrimental to existing and potential future water users. Sites should not be irrigated with effluent if sub-surface drainage is likely to cause rising groundwater tables and the threat of land salinisation in the direction of groundwater flow.

Other points to consider:

- grapevines are moderately sensitive to salinity based on yield and foliar symptoms with documented yield loss varying between 600-2000 mg/L total dissolved solids

- salinity due to sodium chloride should be distinguished from that due to other dissolved solids, some of which may be beneficial to soil

- use effluent with moderate salt content only when it is in accordance with conditions outlined in Australian Water Quality Guidelines for Fresh and Marine Waters.

Salt management plan

A salt management plan that takes into account the issues discussed in the previous section, and which will consequently adequately manage salt in a land application program, should be developed. The decision to apply saline effluent will need to be dealt with on a case by case basis. Unless a detailed salt management plan can be developed to adequately manage the salt in a land application program, alternative methods of reuse/disposal of effluents should be considered.

Sodium Adsorption Ratio (SAR)

Excessive sodium in irrigation water relative to calcium and magnesium can adversely affect soil structure and reduce the rate at which water moves into and through the soil. Problems of soil permeability increase when SAR approaches 10 (NWQMS - *Australian Water Quality Guidelines for Fresh and Marine Waters, p 5-5*).

Where possible, application to land of winery and distillery effluent with a SAR greater than 10 should be avoided to minimise the risk of soil waterlogging and destabilising soil structure. The SAR can be expressed as:

$$S.A.R = \frac{Na^{+}}{\sqrt{\frac{Ca^{++} + Mg^{++}}{2}}}$$

Na = sodium concentration (meq/L)
= (mg/L in effluent) / (22.99)

Ca = calcium concentration (meq/L)
= (mg/L in effluent) / (40.08)

Mg = magnesium concentration (meq/L)
= (mg/L in effluent) / (24.32)

Where effluent with a high SAR poses a problem, consideration could be given to blending it with better quality water. Dilution of effluent streams with high quality water is not recommended practice in areas where water resources are scarce. Evaporative disposal may be an alternative worth considering. Alternating irrigation with high quality water is not recommended unless soil amelioration is also made. Alternating low salinity water after using high salinity water must be monitored to avoid crusting and sealing which can lead to an appreciably reduced

infiltration rate. As with all other parameters in design of a land irrigation system the actual suitable SAR of the effluent will depend on the soil characteristics of the site. Sodium is required in limited amounts for most plant growth. However, some plants are sodium-sensitive and can be affected by low concentrations of exchangeable sodium. It has been reported that sodium toxicity can occur in sensitive fruit crops when SAR is as low as 5.5 (Bernstien (1962) p 5-6 NWQMS - *Australian Water Quality Guidelines for Fresh and Marine Waters*).

Nutrients
The nutrients in effluent most likely to be utilised by plants are nitrogen, phosphorus and potassium.

Irrigation Management

An irrigation management plan should be developed detailing the following:

- irrigation methods
- crop, water and nutrient requirements
- application rates
- scheduling
- design for the collection of effluent
- storage
- utilisation and management of stormwater and tailwater
- a salt management plan.

Irrigation of vines after harvest will help reduce problems associated with peak effluent production during vintage as well as allow the winter rainfall to flush out salts. Depending on local climatic conditions one or two irrigations during or immediately after winter may reduce the need for extra storage lagoons to cover for times when it is too wet to irrigate.

The intensity and depth of irrigation should be adapted to the soil and vegetation to prevent excessive leaching of effluent beneath the root zone. This can be determined by appropriate monitoring of soil moisture and salinity profiles.

Applications should be scheduled, based on a water deficit. When the soil is saturated in periods where rainfall exceeds evaporation, irrigation waters will need to be stored until the soil is suitable for irrigation. Hydrological expertise should be engaged to design this capacity and to provide guidance on local constraints on effluent irrigation.

Other nutrient-intensive activities incompatible with environmental objectives (such as animal holding) should be excluded from irrigated areas.

Irrigation equipment
The quantity of effluent is an important variable to consider when considering irrigation systems. Equipment which sprays effluent more than 1.5 m into the air and/or produces fine droplets which can be readily carried off-site should not be used when irrigating with winery and/or distillery effluent. Low trajectory, large droplet irrigation equipment or drip irrigation equipment is preferred.

Drip irrigation is the best option where winery effluent is low in suspended solids. Drip lines should be monitored to avoid blockages. Concentrations of salts under the dripper can be avoided by sprinklers dispersing water over a slightly wider area. Frequent short irrigations may be preferred to minimise the risk of concentrating salts and decreasing permeability through the destruction of soil structure.

Control of stormwater and irrigation tailwater
Upslope stormwater should be diverted to prevent it from entering the solid and effluent utilisation areas. The use of earth bunds and contour drains to direct runoff from irrigated areas to storage and recovery dams for re-use should be considered, particularly in areas with long dry summers. Runoff from the sludge and effluent utilisation areas should be managed to minimise discharge to waters by the use of buffers zones, terminal ponds etc. If irrigation runoff occurs, it should be contained.

Wastewater irrigation may yield a tailwater discharge which will ultimately need to be disposed of in an environmentally sensitive way. Management of tailwater must be a key consideration of every wastewater irrigation project, as it is often this issue which provides a major impediment to the sustainability of wastewater irrigation.

Where flood or furrow irrigation is used, terminal ponds should be constructed for the management of tailwaters.

Performance assessment options

The following is a means to assess whether the objective is being achieved:

- winery and distillery effluent is used for land application, eg irrigating crops, pastures and trees
- land application does not lead to:
  - any polluted runoff
  - accession of harmful components to surface or groundwaters (surface and groundwater is monitored for ambient levels of salt, BOD, nitrogen, phosphorus, potassium, pH, and carbon (see recommended levels for sustainable downstream environmental values as indicated in the Australian Water Quality Guidelines for Fresh and Marine Waters)

- degradation of soils, including physical, chemical and biological characteristics (soils do not show surface crusting and sealing due to poor salinity management or the development of anaerobic conditions)

- loss of public amenity - observe buffer zones and keep note of any public complaints

- crops, trees and pasture are monitored for yield and foliar symptoms, growth rates and health

- records are maintained from which the history of loading of water nutrients, salts and contaminants can be calculated for all areas where effluent is applied

- soils are monitored.

Solids Management

Solids arising from winery and distillery operations such as marc can be valuable by-products. Other solids such as lees or diatomaceous earth are waste products which can be utilised following some treatment.

Objective

To make effective and environmentally sound use of solid winery and distillery by-products and wastes.

Guidelines

By-products:

- Spent marc from distilleries can be used as a soil conditioner.

- Fresh marc from wineries not used for distillation should be composted.

Waste products:

- Solid potassium bitartrate and lees or diatomaceous earth containing high concentrations of potassium bitartrate can be sent in a solid or paste form for tartaric acid recovery.

- Solids not feasible for the recovery of tartrate can be disposed of as landfill in an environmentally sound manner.

Performance assessment options

The following is a means to assess whether the objective is being achieved:

- measure the output of solid waste from the winery or distillery and record amounts being utilised to gauge the program's effectiveness

- monitor the levels of solid potassium bitartrate and lees or diatomaceous earth for its concentrations of potassium bitartrate
- record composting duration of fresh marc.

Use of Sludges

Objective

To make effective and environmentally beneficial use of winery or distillery sludge.

Guidelines

Lagoon sludges
Lagoon sludges can be used as a stable, high strength fertiliser. Lagoons should be desludged once the sludge takes up one third of total volume (or half depth) of the lagoon. This typically represents 5 to 7 years and 10 to 12 years use for primary lagoons receiving unscreened and screened effluent respectively. Secondary lagoons rarely need desludging. When sludges are dewatered, the supernatant waters should be drained back to the lagoon system.

Sufficient sludge should be retained in the lagoon to enable its activity to be regained quickly upon recommissioning. Professional advice should be sought on removal from the lagoons and application rates (based on tests of that particular sludge).

Sludge should be stored with bunding and adequate drainage to prevent leaching to susceptible groundwaters, with any discharge from the stored sludge being directed to the effluent system. Stored sludges, if not adequately treated, can be a significant source of odour and attract flies and rodents. They should not be allowed to become anaerobic.

Provision for desludging and the effect of application to land should be considered in the Environment Management System/ Plan.

Performance assessment options

These include whether:

- sludges are being handled and utilised in an effective and environmentally acceptable manner
- the output of sludge from the winery or distillery is measured and amounts being used are recorded
- minimal onsite and off-site impacts on water, land, air or vegetation, with a regular assessment of the condition of the soil, including salt and entrained nutrient content, and surface and groundwater.

Disposal of Winery and Distillery Effluent

Objective

To dispose of winery and distillery effluent in an environmentally acceptable manner, only when effective use of the effluent is not feasible.

Guidelines

No effluent should be discharged to surface or groundwaters unless it can be demonstrated that it is consistent with the integrated catchment management strategy of the area, or the relevant guidelines of the licensing agency. Ambient water quality immediately downstream of the plant should remain within the limits for parameters set for the most sensitive environmental value to be protected in the receiving water body. This may require tertiary treatment (viz. nutrient removal, filtration and disinfection) of the effluent prior to discharge. Environmental values of water and the related ambient water quality parameters are described in the NWQMS document *Australian Water Quality Guidelines for Fresh and Marine Waters*.

Where salinity is a problem, highly saline effluents should be separated and directed to evaporating basins for collection of the salts. In some jurisdictions, particularly in inland areas, disposal of salt to landfills may be rejected. Alternative, secure landfills will need to be found. Treated effluents may be discharged to sewer (where applicable), provided the effluents meet the local treatment authority's criteria. Additional information on the management of industrial effluent is contained in the NWQMS document *Sewerage Systems - Acceptance of Trade Waste*.

Performance assessment options

These include whether:

- the effluent quality of any discharge is monitored
- the environmental values of relevant water bodies are monitored
- if discharge to sewer is permitted, the requirements of the relevant authority are monitored to ensure they are being achieved
- compliance with both a regional catchment plan and the relevant guidelines of the licensing agency or agriculture department regarding effluent disposal, including by sewer
- regular assessment of soil condition, surface water, groundwater and odour
- minimisation of unacceptable off-site impacts on water, land, air or vegetation
- the winery/distillery operator considers environmental guidelines and complies with legislation regarding effluent disposal.

Monitoring and Reporting

Monitoring is an essential part of any Environmental Management System and/or Plan. The extent of monitoring required should be determined on the basis of the winery or distillery and property size, and the location's environmental sensitivity. Monitoring of effluent quality and volumes discharged at land treatment areas is needed to effectively manage an effluent land treatment system. Monitoring of groundwater levels and quality, and soil water concentrations below rooting depths is essential.

Objectives

To ensure that winery or distillery effluent discharge does not adversely affect the environment and that it meets statutory discharge licence conditions if applicable. To ensure the operation is meeting its Environmental Management System/Plan objectives.

Guidelines

- Include monitoring and reporting on the plant's performance as an integral part of the operation's Environmental Management System.
- Maintain records of monitoring data, which should be made available for review by relevant authorities on request.
- Review procedures and data periodically with regulatory authorities to ascertain its usefulness and to effectively monitor performance.
- Develop a Quality Assurance system and use accredited procedures and laboratories to analyse samples to ensure the integrity of monitoring data (eg NATA accredited).
- Conduct regular inspections of facilities, in particular pumps and waste storage reservoirs.
- Undertake regular monitoring of land to which effluent has been applied. The soil should be monitored for nutrient levels, particularly phosphorus adsorption as well as for salt levels. Visual assessment should be made for waterlogging, sealing, erosion etc. Harvested crops should also be sampled and analysed to monitor nutrient removal from the site.
- Regularly monitor surface and groundwater bodies liable to be affected by the winery and distillery's operations.
- Monitor soil water concentrations to ensure the irrigation system is attuned to the needs of the vegetation, and to avoid excessive leaching of contaminants.

- Maintain records of each effluent irrigation area as separate management units including effluent volumes, dates of application, and any pasture/crop management information (eg bales of hay cut and removed).

- Supplement regular reporting with "exception" reporting produced for plant management to alert supervisors to unusual variations in plant performance and to alert regulatory authorities to any significant deviations from licence requirements.

- Provide plant managers with up-to-date information on their plant's environmental performance to enable problems to be detected early and remedial action implemented.

- Provide operators with adequate education and training, particularly in total quality management procedures, and risk management techniques, to assist in ensuring compliance with environmental regulations and requirements.

Relevant State/Territory and/or local authorities should require wineries or distilleries and other related establishments to submit reports on their environmental performance, at least annually. Establishments with a history of consistently poor environmental performance may be required to submit reports on their environmental performance more frequently.

Performance assessment options

These include:

- adequate operational planning, consultation, recording, monitoring, reporting, and education and training of staff in place

- consistent adherence to licence conditions

- number of environment related complaints

- regular reporting to management and staff, including feedback on performance, changes to the system, and an internal audit system with relevant documentation and reporting.

Contingency Measures

Objective

To ensure the plant management includes plans and procedures to respond effectively to emergencies and contingencies.

Guidelines

Contingency plans should address:

- disruption of power supplies which may affect the plant's effluent management system
- disruption to winery/distillery operation or effluent treatment by storms, flooding, fire
- plant breakdowns
- overloading of aerobic or anaerobic treatment plants or lagoons, or unusually low effluent inputs which can affect the biological treatment activity of the system
- accidental discharge of hazardous materials into the effluent stream
- changes in the physico-chemical environment which can disrupt the effectiveness of the treatment system's biological activity
- temporary or permanent loss of access to effluent application and disposal facilities
- temporary or permanent loss of trained operators. All managers and staff should be aware of the plan and their individual responsibilities during emergencies. The plan should be regularly rehearsed and updated
- potential leakage from lagoons.

Performance assessment options

- An up to date contingency plan is disseminated to staff and regularly inspected and trialed.
- Record and regularly analyse the operations response to specific contingencies which have arisen.

Appendices

Appendix 1: The National Water Quality Management Strategy (NWQMS)

The Australian and New Zealand Environment and Conservation Council (ANZECC) and the Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ) are working together to develop a National Water Quality Management Strategy (NWQMS). The guiding principles for the National Water Quality Management Strategy are set out in *Policies and Principles - A Reference Document*, which emphasises the importance of:

- ecologically sustainable development
- integrated (or total) catchment management
- best management practices, including the use of acceptable modern technology, and waste minimisation and utilisation
- the role of economic measures, including user pays and polluter pays.

The process of implementing the Strategy involves the community working with government to set and achieve local environmental values, which are designed to maintain good water quality and to progressively improve poor water quality. It involves developing a plan for each catchment and aquifer, taking account of all existing and proposed activities and developments, and containing the agreed environmental values and feasible management options.

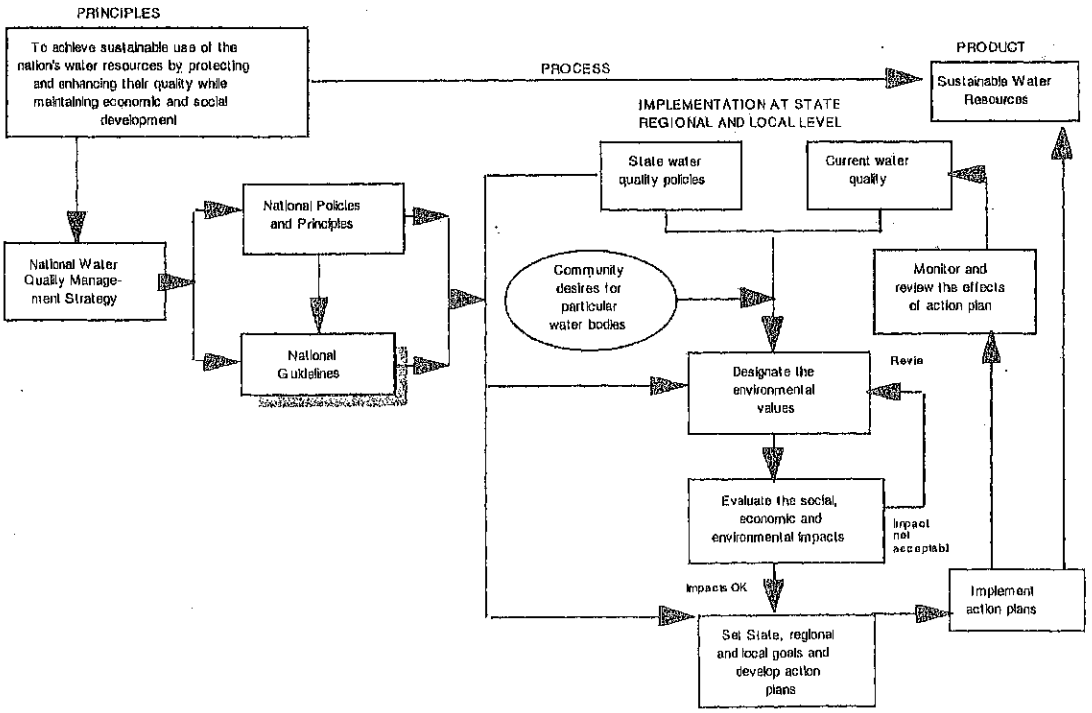


Figure A1: National Water Quality Management Strategy

National Water Quality Management Strategy

Guidelines and Documents

Paper No.	Title
Policies and Process for Water Quality Management	
1	Water Quality Management - An Outline of the Policies
2	Policies and Principles - A Reference Document
3	Implementation Guidelines
Water Quality Benchmarks	
4	Australian Water Quality Guidelines for Fresh and Marine Waters
5	Australian Drinking Water Guidelines - Summary
6	Australian Drinking Water Guidelines
7	Guidelines for Water Quality Monitoring and Reporting
Groundwater Management	
8	Guidelines for Groundwater Protection in Australia
Guidelines for Diffuse and Point Sources	
9	Rural Land Uses and Water Quality - A Community Resource Document
10	Guidelines for Urban Stormwater Management
11	Guidelines for Sewerage Systems - Effluent Management
12	Guidelines for Sewerage Systems - Acceptance of Trade Waste (Industrial Waste)
13	Guidelines for Sewerage Systems - Sludge (Biosolids) Management
14	Guidelines for Sewerage Systems - Reclaimed Water
15	Guidelines for Sewerage Systems - Sewerage System Overflows
16a	Effluent Management Guidelines for Dairy Sheds
16b	Effluent Management Guidelines for Dairy Processing Plants
17	Effluent Management Guidelines for Intensive Piggeries
18	Effluent Management Guidelines for Aqueous Wool Scouring and Carbonising
19	Effluent Management Guidelines for Tanning and Related Industries
20	Effluent Management Guidelines for Australian Wineries and Distilleries

The guidelines for diffuse and point sources are national guidelines which aim to ensure high levels of environmental protection that are broadly consistent across Australia.

Appendix 2 : Further Information

Further reading

Australian Water Resources Council, *Review of Effluent Disposal Practices,* Water Management Series No. 20. 1991

Australian Wine Research Institute, *Agrochemicals registered for use in Australian viticulture* compiled by Alex Sas and Catherine Daniel 24 July 1996.

Bowmer K.H. & P. Laut (1992) *CSIRO Waste Management in Intensive Rural Industries* in Division of Water resources: Research areas pertinent to intensive rural industry waste management. *Divisional Report 92/4 CSIRO.*

Dillon, P & G. Schrale 1993, Wastewater irrigation and groundwater quality protection, *AGSO* J. *Aust.Geol & Geophys. 14 (2/3):*259-262

Dillon P et al., 1993 Groundwater quality protection at wastewater land-treatment operations-workshop summary, *AGSO J.Aust.Geol & Geophys. 14 (2/3):*263-267

Environment Protection Authority NSW 1995, *The Utilisation of Treated Effluent by Irrigation.* Draft Environmental Guidelines for Industry. EPA 95/20.

Environment Protection Authority (Victoria) 1992, *Guidelines for Wastewater Irrigation,* EPA Publication no 168.

Gilpin A 1990, *An Australian Dictionary of Environment and Planning* Oxford University Press Australia.

Hunter Catchment Management Trust 1994, *Management of Winery Wastewater - Interim Code of Practice 1994 Hunter Valley, NSW*

Murray-Darling Basin Ministerial Council 1989, *Salinity and Drainage Strategy,* April 1989 AGPS, Canberra

Standards Australia 1995, *Environmental management systems - Specification with guidance for use.* Interim Australian/New Zealand Standard AS/NZ ISO 14001 (Int):1995

Standards Australia 1995, *Environmental management systems - General guidelines on principles, systems and supporting techniques.* Interim Australian/New Zealand Standard AS/NZ ISO 14004 (Int):1995

Appendix 3: Sources of Further Advice

State and Territory Environment Protection Authorities

State and Territory Environment Departments of Agriculture and Primary Industries

State and Territory Environment Departments of Conservation and Land Management

State and Territory Water Authorities

Local Government Authorities

The CSIRO Division of Water Resources (DWR)

Regional Colleges

Industry Consultants

Appendix 4: Glossary

aerobic	a process where dissolved or free oxygen is present.
anaerobic	a process or condition where there is no dissolved or free oxygen.
aquifer	an underground layer of rock or sediment which holds water and allows water to percolate through.
bentonite clay	used as a clarifier in the winery process
Biochemical Oxygen Demand (BOD)	the amount of oxygen required by aerobic rganisms to carry out oxidative metabolism in water containing organic matter. It is determined by measuring the amount of oxygen gas absorbed during a particular laboratory analytical test (BOD test), in which components of a water sample are broken down by aerobic micro-organisms under specified conditions during a stated number of days. BOD_5 denotes a 5-day BOD.
catchment area	a natural drainage area, especially of a reservoir or river.
Chemical Oxygen Demand (COD)	a measure of the quantity of oxidisable (combinable with oxygen) components present in water. It is determined by measuring the amount of oxygen gas absorbed during a particular laboratory analytical test (COD test), in which components of a water sample are broken down by an inorganic chemical (an oxidising agent) under specified conditions during a certain number of hours.
diatomaceous earth	used as a clarifier in the winery process
distillery	refers in this document to grape not grain distillery
drainage rate	rate of movement of water through the soil
denitrification	removal of nitrogen.

effluent	is used here to refer to the liquid and associated solids (sludge) at all stages from production to utilisation or disposal. It does not include runoff from pastures or crops which have been irrigated with effluent, which is addressed in the NWQMS document *Rural Land Uses and Water Quality - A Community Resource Document.*
electrical conductivity	measure of salinity in water.
Environmental Management System	provides the management, administrative and monitoring framework which ensures that an organisation's environmental risk is minimised and that its environmental policy together with associated objectives and targets are achieved. Stages in an EMS, based on the ISO 14000 series comprise commitment to a policy, planning which includes evaluation of relevant regulatory framework, setting objectives and targets, establishing a management program (EMP), definition of personnel and responsibilities, identifying training needs, establishing and maintaining EMS documentation, emergency and preparedness and response procedures and establishing operational controls, and carrying out audits and reviews including monitoring and review.
environmental values	particular values or uses of the environment that are conducive to public benefit, welfare, safety or health and which require protection from the effects of pollution, waste discharges and deposits. They are often called beneficial uses in the water quality literature. Five environmental values are: . ecosystem protection . recreation and aesthetics . drinking water . agricultural water

	. industrial water Refer to the NWQMS documents *Policies and Principles - A Reference Document,* and *Australian Water Quality Guidelines for Fresh and Marine Waters*
evapotranspiration	Water lost from soil by evaporation and/or plant transpiration.
Exchangeable Sodium Percentage (ESP)	the amount of exchangeable sodium as a percentage of the cation exchange capacity. It is a measure of the sodicity of the soil. Sodicity relates to the likely dispersion on wetting and shrink/swell properties.
facultative	a condition where both the aerobic and anaerobic conditions occur. The surface of a pond may be aerobic and the bottom anaerobic. The term also refers to micro-organisms that can survive and reproduce under both aerobic and anaerobic conditions.
freeboard	the difference between the maximum liquid level of a pond or lagoon and the lowest point of the top of the wall.
groundwater recharge	the rate at which infiltrating water reaches the watertable.
guideline	provides guidance on possible means of meeting desired environmental outcomes. Guidelines are not mandatory.
hydraulic loading	volume of water applied to an area of land.
infiltration rate	rate of entry of water into the soil
ion exchange	purification of water by removal of ions.
katabatic drainage/wind	a wind caused by cold air flowing downhill. When a sloping land surface cools by night time radiation, the cold air in contact with the ground flows downhill and along the valley bottom.
leaching	the downward movement of a material in solution through soil.

leaching fraction	the leaching fraction of soils refers to the ratio of deep drainage to the depth of rainfall plus irrigation over the same time period. The smaller the leaching fraction, the larger the water salt concentration within the root zone, or the higher the salt concentration experienced by plant roots.
lees	winery fermentation sediment, mainly yeasts, pulp and tartrates
marc	wine stalks, pips and skins produced during the crushing and pressing stages
Maximum Residue Limits	maximum concentration of a residue resulting from the officially authorised safe use of an agricultural chemical, that is recommended to be legally permitted in or on a food, agricultural commodity, or animal feed. The concentration is expressed in milligrams per kilogram of the commodity.
osmotic	force associated with the tendency of solvent separated from a solution by a membrane, to pass through the membrane and dilute the solution.
perched watertable	upper surface of a zone of saturation where an impermeable stratum causes groundwater to accumulate above it over a limited lateral extent. It is situated above the main watertable.
Phosphate Sorption Capacity	a measure of the inherent ability of soil particles to adsorb phosphorus from the soil solution.
risk management	is a decision-making process that entails considerations of political, social, economic, and engineering information together with risk-related information to develop, analyse and compare regulatory options and to select the appropriate regulatory response to a potential health or environmental hazard. The entire risk management process consists of eight steps. These are hazard identification, exposure assessment, effects assessment, risk

	characterisation, risk classification, risk benefit analysis, risk reduction, monitoring.
standard	a standard is a quantifiable characteristic of the environment against which environmental quality is assessed. Standards are mandatory.
tailwater	runoff from irrigation areas which contains nutrients and salts. Also first flush rainfall runoff from land used for wastewater disposal
Total Dissolved Solids (TDS)	the total concentration of dissolved anions and cations in a water sample, expressed in mg/L
Total Kjeldahl Nitrogen (TKN)	is a determination of organic nitrogen and ammonia
Total Solids (TS)	the sum of dissolved and undissolved solids in water or waste water, usually expressed in milligrams per litre.
Total Suspended Solids (TSS)	the amount of volatile and fixed suspended solids in waste water.
watertable	the level below which the pore space between sediments and fractures in rock are saturated with water. In an unconfined aquifer, the watertable is the level of the water standing in a well.

WQPN 73, OCTOBER 2006

Wineries and distilleries

Purpose

Western Australia's winemaking industry has experienced significant increases in wine production and exports over the last decade and is one of the fastest growing winemaking industries in Australia. The volume of total wine exported from Western Australia showed significant growth from 1.3 million litres in 1998 - 99 to five million litres in 2002 - 03, an increase of almost 300 per cent.

Wineries and distilleries pose a risk to the quality of water resources if residual solids and effluent (wastewater) are disposed of inappropriately. Potential contaminants include acids, alkalis, nutrients, such as nitrogen and phosphorus, salinity, turbid runoff, volatile organic matter (which can remove dissolved oxygen from water), and residues from chemical equipment cleansers.

This note is designed to complement the *National Water Quality Management Strategy (NWQMS) Effluent Management Guidelines for Australian Wineries and Distilleries* (see Appendix A, Reference 1a).

The Department of Water is responsible for managing and protecting the State's water resources. It is also a lead agency for water conservation and reuse. This note offers:

- the Department's current views on the establishment and operation of wineries and distilleries;
- guidance on acceptable practices used to protect the quality of Western Australian water resources; and
- a basis for the development of a multi-agency code or guideline designed to balance the views of industry, government and the community, while sustaining a healthy environment.

This note provides a general guide on issues of environmental concern, and offers potential solutions based on professional judgement and precedent. The recommendations made do not override any statutory obligation or Government policy statement. Alternative practical environmental solutions to suit local conditions may be considered. Regulatory agencies should not use this note's recommendations without a site-specific assessment of any project's environmental risks. Any conditions set should consider the values of the surrounding environment, the safeguards in place, and take a precautionary approach. The note shall not be used as this Department's policy position on a specific matter, unless confirmed in writing.

Scope

This note applies to all commercial wineries and distilleries Western Australia, particularly those near sensitive water resources. Sensitive water resources are described at Appendix C.

The recommendations made apply to all commercial facilities processing grapes and other fruits into wines, and distilleries that produce alcoholic spirits or fortified wines using stills to vaporise then condense alcoholic fluids. The terms *winery* or *wineries* when used in this Water Quality Protection Note also imply *distillery* or *distilleries* unless noted otherwise.

This note does not apply to vineyards or orchards for fruit wines. For environmental advice about vineyards, see this Department's *Environmental Management Guidelines for Vineyards*. For orchards, see this Department's Water Quality Protection Note *Orchards near sensitive water resources.*

Recommendations

1. Establishment and operation of wineries in Western Australia should be consistent with the Australian Government's National Water Quality Management Strategy document *Effluent Management Guidelines for Australian Wineries and Distilleries* 1998.

2. Premises producing more than 350 kilolitres of wine or alcoholic beverages per year are prescribed premises and require a works approval and licence under the *Environmental Protection Regulations 1987*. This product volume equates to a fruit crush of approximately 500 tonnes per year and an annual effluent discharge between 200 and 500 kilolitres depending on water use efficiency. For further information, see *A Guide to the Licensing System – Licenses and Registration*, available at the Department of Environment and Conservation internet site www.dec.wa.gov.au, select *Environment > Licenses > permits > forms;* then *Guidelines* or *Forms,* or phone 6364 6500.

3. If the winery water needs are supplied via surface or groundwater, located in a declared water allocation management area or drawn from a confined aquifer, a water allocation licence will be required under the *Rights in Water and Irrigation Act 1914*. To apply for a water allocation licence, contact the nearest regional office of this Department or telephone 6364 7600 to request appropriate advice. Further information is available at www.water.wa.gov.au, select *Licensing > Licensing forms.*

4. All above ground storage tanks including fuel, chemicals and juice processing vessels should be consistent with the recommendations made in this Department's Water Quality Protection Note *Tanks for above ground chemical storage.*

5. Stormwater management should be consistent with the recommendations made in this Department's *Stormwater Management Manual for Western Australia,* and the Water Quality Protection Note *Stormwater Management at Industrial Sites* (see Appendix A, Reference 3).

Within Public Drinking Water Source Areas

Public drinking water source areas (PDWSA) include Catchment Areas, Water Reserves and Underground Water Pollution Control Areas proclaimed under the *Metropolitan Water Supply, Sewerage and Drainage Act 1909* or the *Country Areas Water Supply Act 1947*.
For the location of proclaimed PDWSA see web page www.water.wa.gov.au, select *Tools, System and Data > Geographic Data Atlas > Environment layer > Public Drinking Water Source Areas.*

Priority Protection Areas and the constraints that apply within them are explained in this Department's Water Quality Protection Note *Land use compatibility in Public Drinking Water Source Areas* (see Appendix A, Reference 3b).

6. Winery proponents should submit a detailed proposal for any winery development or expansion within any proclaimed PDWSA to the nearest regional office of this Department for appraisal and await a written response advising on the project's acceptability.

7. In Priority 1 protection areas, wellhead protection zones or reservoir protection zones wineries are considered incompatible with water resource protection objectives. New or expanded wineries will be opposed in these areas and zones.

8. Within Priority 2 protection areas, wineries may be approved with conditions subject to their meeting the following criteria:
   a. process an annual fruit crush of no more than 500 tonnes;
   b. fruit processed at the winery is derived from established vineyards located on or adjoining the winery property and these vineyards are owned or operated by the winery proprietor;
   c. the project proponent demonstrates winery process materials and waste products are managed so there is as no increased risk of contamination of local water resources.

8. The following management measures should be employed by any wineries approved within Priority 2 protection areas:
   a. use 'best industry environmental practice' in the winery design and site operation. The management and disposal of any wastes should be compatible with the local environment and the retention of its environmental values including drinking water supply;
   b. the waste management system should be operated to ensure that the concentration of contaminants in any site runoff or groundwater recharge is less than 25 per cent of the relevant health value given in the *Australian Drinking Water Guidelines* (see Appendix A, Reference 1b). Carcinogens or pesticides should not be detected on analysis of any waters discharged onsite;
   c. winery by-products including effluent, solids, contaminated stormwater and sludges from waste management facilities should be reused outside Priority 1 or 2 PDWSA to improve soil fertility or disposed of as approved by the local government authority. Application of waste to land is not compatible with source protection objectives in Priority 2 areas; and
   d. Wineries established in tourism areas may not operate in conjunction with onsite taverns, restaurants or facilities defined as incompatible land uses within the PDWSA.

9. In Priority 3 areas, wineries are not constrained in size or source of fruit, however they should conform to the following criteria:
   a. Use 'best industry environmental practice' for the management and disposal of any wastes in keeping with protection of local water resource values;
   b. The waste management system should be operated to ensure that any contaminant concentration in any runoff or groundwater recharge is less than 50 per cent of the health guideline value given in the *Australian Drinking Water Guidelines*; and

c. Carcinogens or pesticides should not be detected on analysis of any waters discharged onsite.

Near waterways

10. Wineries should not be established on land subject to seasonal flooding or within floodplains.

11. Adequate separation distances should be maintained between all land use facilities and natural waterways to minimise the risk of degradation of water quality. These separation distances are determined on the basis of the waterway values, vulnerability and biophysical criteria (see Appendix A, Reference 3c for supporting information). For advice on buffer selection, see this Department's Water Quality Protection Note *Vegetation buffers to sensitive water resources.*

12. Five Waterways Management Areas have been declared via the *Waterways Conservation Act 1976* to provide special protection to estuaries and their associated waterways that are considered especially vulnerable to degradation. These areas are the Albany Waterways, Avon River, Leschenault Inlet, Peel–Harvey Estuary, and Wilson Inlet. If a development is located within a Waterways Management Area, prior written approval is required from the department administering the waterway. Information on waterway values and the location of these management areas can be obtained by contacting the Department of Water's regional office (see www.water.wa.gov.au and select *Contact us*).

Within the Swan River Trust management area

13. Approval from the Minister for the Environment is required for any land or water based development within or abutting the Swan, Canning, Helena and Southern Rivers and adjoining lands within the management area established via the *Swan River Trust Act 1988.* For details, see web site www.swanrivertrust.wa.gov.au, or phone the Trust on 9278 0900.

Near conservation valued wetlands

The Department of Environment and Conservation aims to ensure that chemicals or contaminated waters do not enter sensitive environments such as wetlands. See Appendix C for a description of *sensitive water resources.*

14. Wetlands require an adequate buffer to protect them from potential adverse impacts (eg associated with nutrients and pollutants) and to maintain ecological processes and functions within the wetland. The width of the buffer should be determined based on the assigned (or notional) management category of the wetland, the threats posed by the adjacent land use and the protective management techniques used at the facility to maintain or improve wetland values. Recommended buffer distances for the Swan Coastal Plain are provided in *Position Statement: Wetlands (Water and Rivers Commission 2001)* see web site www.dec.wa.gov.au, select *Environment* > *Water* > *Wetlands* > *Publications* > *Policy*). A minimum wetland buffer of 50 metres is recommended.

    Additional information on identifying wetland buffers is contained in Chapter B4 of the Western Australian Environmental Protection Authority's *Draft Guidance Statement No. 33 Environmental Guidance for Planning and Development.*

15. Proposed development details within 500 metres of any wetland (eg lakes, sumplands, damplands and palusplain wetlands) should be forwarded to the nearest regional office of the Department of Environment and Conservation for assessment, with supporting information addressing the environmental risks.

Clearing of native vegetation

16. For information on constraints on the clearing of native vegetation, contact the Department of Environment and Conservation's nearest regional office or refer to the brochure *Protecting Native Vegetation – New laws for Western Australia*, available at www.dec.wa.gov.au, select *Environment > Land > Native vegetation protection.*

Design of the effluent management system

17. Operators should ensure that water is used efficiently. The volume of effluent can be minimised via managed cleansing cycles and the use of trigger controlled sprays for floor and equipment wash-down. Control of effluent volumes will normally improve treatment system performance. The recovery and reuse of waste by-products (where practical) will reduce total effluent load and may improve treated effluent quality.

18. Separation of waste types is recommended (solids should not be slurried if practical). Separating the various waste components according to treatment requirements will reduce the need for costly treatment, and enhance opportunities for water recycling. Solids and suspended matter can be separated from the effluent by screening, filtration, chemically-enhanced sedimentation or centrifuging. Bunds or graded flooring should be used to prevent the escape of any spilt process fluids.

19. The effluent management system should be designed to take into account the quantity, quality, and intermittent release of process effluent. In rural areas, the conventional treatment of effluent involves removal of gross solids, aerobic (biological) waste stabilisation and sometimes disinfection depending on the use of the effluent. In built-up areas, discharge to sewer may be accepted, provided the effluent meets the sewerage service provider's industrial waste acceptance criteria such as limitations on volatile organic strength and amount of solids. Any ponds used to stabilise organic wastes, settle suspended solids and contain or solar evaporate effluent should be consistent with recommendations made in this Department's Water Quality Protection Note *Ponds for stabilising organic matter.*

20. Waste stabilisation ponds are most easily installed where the land slope is less than one in ten, and the soils are deep and sufficiently impermeable to retain the effluent ie seepage less than ten centimetres per day.

21. Low permeability pond liners should be used in porous soils, consistent with this Department's Water Quality Protection Notes *Liners for containing pollutants, using engineered soils* and *Liners for containing pollutants, using synthetic membranes.*

22. Waste stabilisation systems should be constructed so that they cannot accidentally overflow into the environment. These systems should be designed and maintained to allow for the effective treatment of the peak flow volume of process water and any captured rainfall from a

10 year average return interval storm event. Rainfall impact may be calculated using Engineers Australia's current version of *Australian Rainfall and Runoff*, with freeboard to allow for wave action in large ponds. This document is available by phoning Engineers Australia on (02) 6270 6555, or may be ordered via their web page (see Appendix A, Reference 2).

23. Pond and tank treatment systems should have an effective scum trapping system to prevent the release of floating matter.

24. The winery design should ensure that any contaminated stormwater is contained and discharged to an adequately designed process waste management system. Clean stormwater should be diverted away from the winery and associated waste management system. For best stormwater management practice, refer to the Department's *Stormwater Management Manual* (see Appendix A, Reference 3d).

25. Holding ponds used to recycle treated effluent for irrigation or evaporation ponds should be designed according to water retaining structure criteria, with have capacity for effective containment during a wet year with an average recurrence interval of ten years.

Treatment of wastes

26. All effluent should be stabilised using physical, chemical or biological processes to control colour, odour, volatile organics and suspended solids. The treated effluent should be effectively settled prior to disposal. Settled solids should either be digested or immediately dewatered prior to disposal.

27. Effluent should be sufficiently treated to minimise the risk of excessive contaminant discharge to the environment that would limit the use of local water resources or harm aquatic ecosystems. The final discharge quality should be compatible with the intended water use criteria provided in the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000* (see Appendix A, Reference 1c).

Re-use or disposal of treated effluent

28. Where practical and suited to local environmental conditions, stabilised effluent should be stored for irrigation of vegetation such as vines, orchards, pasture or wood-lots during their growing season (consistent with conditions and exceptions noted below).

29. In drinking water catchment Priority 2 areas land application of treated winery effluent is incompatible with source protection objectives and will be opposed by this Department.

30. In drinking water catchment Priority 3 areas and near other sensitive water resources, onsite application of treated wastewater may be approved provided a detailed risk assessment demonstrates that the land application of stabilised effluent presents a low risk of contamination to water resources.

31. Where land application of treated winery effluent may be acceptable, an approved nutrient and irrigation management plan should be prepared. The nutrient and irrigation plan should be consistent with the *NWQMS Effluent Management Guidelines for Australian Wineries and Distilleries* and this Department's Water Quality Protection Notes *Irrigation of vegetated land*

with nutrient rich wastewater and *Nutrient and irrigation management plans* (see Appendix A, Reference 3b).

Disposal of treated effluent

32. If winery effluent is unsuited to on-site disposal, stabilised wastes may transported or pumped to an area where they can be disposed of safely, minimising the risk to the environment. Contact your local government office or nearest regional office of the Department of Environment and Conservation for further information.

33. Disposal methods should meet local government health and planning criteria. Direct discharge to waterways may cause environmental harm during equipment malfunctions.

34. If effluent is unsuited to on-site land application, the use of solar evaporation in effective containment ponds may be considered. Avoid land with a slope greater than one in ten, a watertable less than two metres below the surface and/or soils that have a permeability of less than ten centimetres per day.

35. Pond construction should be guided by the Department's Protection Notes *Ponds for stabilising organic matter, Liners for containing pollutants, using engineered soils* and *Liners for containing pollutants, using synthetic membranes* (see Appendix A, Reference 3b).

Management and use of dry stabilised solids

36. Composting and / or controlled land spreading of dry, stable, separated solids is preferable to direct irrigation of vegetation, such as vines, gardens or pasture, with waters containing high concentrations of unstable suspended solids. Solid and semi-solid by-products of the wine-making process should be temporarily stored or stabilised to minimise environmental impacts. This material can either be sold to reprocessing companies or spread onto land, to improve its fertility, at application rates consistent with plant needs and water quality objectives. Phone the Department of Agriculture and Food on 1300 136 016 for technical advice on crop growing.

37. Sludge removed from effluent sumps, tanks and treatment ponds should be considered a resource for reuse. The sludge should be dewatered using drying beds, filter-press or chemical coagulation and the resultant quality analysed. If compatible with water resource protection objectives, stable solids should be spread onto the land in quantities that improve soils. Analysing the dewatered sludge is essential to avoid land degradation or contamination with metals or salts. If the sludge must be disposed of as waste, it should be carted to an approved putrescible material land-fill. Phone your local government council for further information.

38. Concrete pads or hard-stands with perimeter bunds should be used to store stalks and marc.

Monitoring and reporting

39. The site operator should arrange for the preparation of an environmental monitoring program (consistent with the *Effluent Management Guidelines for Australian Wineries and Distilleries* and the *Australian Guidelines for Water Quality Monitoring and Reporting*) by a qualified and experienced environmental professional.

40. The monitoring program should be submitted to the regulatory authorities, ie Department of Environment and Conservation or Department of Water, for approval. Key quality parameters to be analysed may include (but are not limited to) pH, electrical conductivity (EC), suspended solids (NFR), biochemical oxygen demand (BOD) and nutrients (N as ammonia, N as nitrite or nitrate, and P as orthophosphate).

41. Acceptable effluent volume monitoring methods include hours-run meters linked to pump performance graphs, magnetic, ultra-sonic (Doppler), orifice plate, mechanical flow meters or weirs. Any of these methods are subject to errors, including those due to fouling, poor maintenance and equipment faults. Equipment should be regularly maintained and calibrated for accuracy.

42. South Australia's Environmental Protection Authority *Guidelines for Wineries and Distilleries* 2004 is a recommended reference for monitoring (see Appendix A, Reference 6).

43. The monitoring program should include the following details:

Monitoring site	Measured variables	Recommended frequency
Raw winery effluent	volume and key quality parameters	weekly
Pond performance measures	pH, EC, BOD, NFR	weekly
Treated effluent stored for irrigation	quantity and key quality parameters	monthly during the irrigation season
Irrigated land	location, area, vegetation type, timing and water application rate	monthly
Irrigated soil and vegetation condition	moisture, chemistry, nutrients, salinity, soil absorption ratio and structure	end of each irrigation season
Runoff from the property	key quality parameters	minimum quarterly during flow events
Groundwater (from water table where present)	Standing water level and key quality parameters	quarterly

44. Data records should be maintained on-site for at least two years after gathering the information for inspection or reporting to regulatory authorities.

Contingency measures

45. An environmental contingency plan should be developed, outlining management responses to various abnormal operating situations that may occur and could impact on water resources. Scenarios include disruption to power supplies, floods, accidental spillage of chemicals, and variable loading of the effluent treatment and disposal system. The contingency plan should be followed when an incident occurs. Plant operators should be trained and assigned roles in emergency management procedures and techniques. Refer to this Department's Water Quality Protection Note *Contaminant spills – emergency response* for further information (see Appendix A, Reference 3b).

46. Systems should be installed and maintained to record key water management and treatment parameters, detect any equipment malfunctions and spillage of material likely to harm water resources.

47. Should any incidents occur, a written record of each incident and management response taken should be maintained.

More information

We welcome your views on this note. Feedback provided on this topic is held on file No. **18649**.

This note will be updated periodically as new information is received or industry/activity standards change. Updates are placed on the Department's internet site www.water.wa.gov.au, select *Drinking water* > *Publications* > *Water Quality Protection Notes.*

To comment on this note or for more information, please contact the Water Source Protection Branch at our Atrium offices in Perth, phone (08) 6364 7600 (business hours), fax 6364 7601 or use *Contact us* at the Department's internet site, citing the note topic and version.

Where a conflict arises between the Department of Water's recommendations and any proposed activity that may affect a sensitive water resource, this note may be used to assist negotiations with stakeholders. The negotiated outcome should not result in a greater risk to water quality than if the Department's recommended protection measures were used.

Department of **Water**

www.water.wa.gov.au
Telephone: (08) 6364 7600
Facsimile: (08) 6364 7601
Level 4, The Atrium
168 St Georges Terrace Perth
Western Australia 6000

Appendices

Appendix A - References and further reading

1. Australian Government *National Water Quality Management Strategy:*
   a. *Effluent Management Guidelines for Australian Wineries and Distilleries* 1998;
      Printed copies are available from the Australian Water Association, refer to Internet page www.awa.asn.au or phone 1300 361 426.
   b. *Australian Drinking Water Guidelines 2004;*
      see web page www.nhmrc.gov.au/publications/synopses/eh19syn.htm
   c. *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* 2000;
      see web page www.deh.gov.au/water/quality/nwqms/introduction; and
   d. *Australian Guidelines for Water Quality Monitoring and Reporting*, 2000, Australia;
      see web page www.deh.gov.au/water/quality/nwqms/monitoring.html.

2. Engineers Australia

   Australian Rainfall and Runoff (current version);
   see web page www.engaust.com.au/bookshop/eabookspub.html.

3. Department of Water (WA)

   a. Guidelines
      - *Environmental guidelines for vineyards 2002.*

   b. Water Quality Protection Notes
      - *Chemical spills - emergency response;*
      - *Irrigation with nutrient-rich wastewater;*
      - *Land use compatibility in Public Drinking Water Source Areas;*
      - *Liners for containing pollutants, using engineered soils;*
      - *Liners for containing pollutants, using synthetic membranes;*
      - *Nutrient Irrigation Management Plans;*
      - *Orchards near sensitive water resources;*
      - *Ponds for stabilising organic matter;*
      - *Stormwater management at industrial sites;*
      - *Tanks for above ground chemical storage; and*
      - *Wash-down of mechanical equipment.*

      see web page http://drinkingwater.water.wa.gov.au; select *Publications* > *Water Quality Protection Notes.*

   c. Waterways policy and guidelines
      - *Foreshore Policy No1 Identifying the Foreshore Area*
      - *Water Note 23 -- Determining the Foreshore Reserve*
        see web page http://waterways.water.wa.gov.au , select *Foreshore Policy* or *Water Notes.*

   d. *Stormwater Management Manual for Western Australia 2004*;
      see web site www.water.wa.gov.au, select *Stormwater* > *Stormwater management manual.*

4. Department of Environment and Conservation (WA)

   a. Wetlands policy and guidelines
      - *Position statement: Wetlands*, WRC 2001;
        see web page www.dec.wa.gov.au, select *Environment* > *Water* > *Wetlands*> *Wetlands Position Statement.*

   b. Environmental Regulation
      - *A Guide to the Licensing Systems – Licenses and Registration*

      see web page www.dec.wa.gov.au, select *Environment* > *Licenses* > *Permits* > *Forms.*

5. Environmental Protection Authority, Western Australia

   Draft Guidance Statement No. 33 *Environmental Guidance for Planning and Development*, June 2005, see internet site www.epa.wa.gov.au, select *Guidance statements.*

6. Environmental Protection Authority, South Australia

EPA Guidelines for Wineries and Distilleries, 2004;
see web page www.environment.sa.gov.au/epa/pdfs/guide_wineries.pdf.

7. Chapman, J, 1996, *Cleaner Production for the Wine Industry, South Australian Wine and Brandy Association.*

8. Chapman J, Baker P, Wills S, 2001 *Winery Wastewater Handbook: Production, Impacts and Management,* Wine titles, Australia.

9. Environmental Protection Authority, Victoria

Winemakers Environmental Management Kit, see web page
www.epa.vic.gov.au/bus/EMS/WineEMS/welcome/index.shtml.

10. Hazell, P, *Monitoring and control of environmental impacts associated with winery effluent in South Australia.*

11. South Australian Wine and Brandy Association

Environmental Management Code of Practice for Wineries and Distilleries Consultation Draft 1998, and additional resources are available from internet site www.winesa.asn.au.

Appendix B - Statutory requirements and approvals include:

What is regulated	Comments	Statute	Regulatory office
Development approval	Must be consistent with the Town Planning Scheme and local by-laws.	*Planning and Development Act 2005*	WA Planning Commission; Local Government
Activities in locations subject to Environmental Protection Policies.	Contact the Department of Environment and Conservation's regional office for further advice.	*Environmental Protection Act 1986,Part III Environmental Protection Policies*	Environmental Protection Authority (EPA)
Impact on the values and ecology of the environment including waters.	An Environmental Impact Assessment may be required.	*Environmental Protection Act 1986, Part IV Environmental Impact Assessment*	Minister for the Environment on advice from the EPA
Works approval and/or licence for prescribed premises.	Premises producing more than 350 kilolitres of wine or alcoholic beverages per year are prescribed premises.	*Environmental Protection Regulations 1987*	Department of Environment and Conservation - regional office
Clearing of native vegetation	Constraints on land clearing	*Environmental Protection (clearing of native vegetation) Regulations 2004*	

What is regulated	Comments	Statute	Regulatory office
Development and operation in the Swan River Trust Management Area.	Development approval required from the Swan River Trust.	*Swan River Trust Act 1988*	Swan River Trust
Development in declared Waterways Management Areas	Development approval required	*Waterways Conservation Act 1976*	Department of Water – regional office (for specific waterways)
Licence to use surface water and groundwater from proclaimed areas or artesian sources.	Water drawn from proclaimed ground or surface water area; or water drawn from a confined aquifer.	*Rights in Water and Irrigation Act 1914*	Department of Water - regional office
Development and operations in drinking water catchments.	Wineries are not a compatible land use in Priority 1 areas and Well head or Reservoir Protection Zones. Departmental advice needed should sought in other areas	*Metropolitan Water Supply, Sewerage and Drainage Act 1909* *Country Areas Water Supply Act 1947*	
Disposal of materials that may affect human health.	Refer to local government environmental health officer	*Health Act 1911*	Department of Health; Local Government.
Discharge to sewer via an industrial waste permit.	Refer to the sewerage service provider	*Metropolitan Water Supply, Sewerage and Drainage Act, 1909* *Country Towns Sewerage Act, 1947*	Water Corporation; or other appropriate sewerage service provider.
Storage of fuels, solvent, explosive and dangerous goods.	Refer to the regulatory agency.	*Explosive and Dangerous Goods Act 1961.*	Department of Consumer and Employment Protection

Appendix C - Sensitive water resources

Clean water resources used for drinking, sustaining aquatic and terrestrial ecology, industry and aesthetic values, along with breathable air, rank as the most fundamental and important needs for viable communities. Water resources should remain within specific quality limits to retain their values, and therefore require stringent and conservative protection measures. Guidance on water quality parameters necessary to maintain water values are published in the Australian Government's *National Water Quality Management Strategy Guidelines* (see web page www.deh.gov.au/water/quality/nwqms/index.html).

The Department of Water strives to improve community awareness of catchment protection measures for both surface water and groundwater as part of a multi-barrier protection approach to maintain the quality of water resources.

To be considered sensitive, water resources must support one or more of the environmental values described below. Human activity and land uses pose a risk to water quality if contaminants could be washed or leached into sensitive water resources in discernible quantities. These water resources include shallow groundwater accessed by water supply wells, waterways, wetlands and estuaries. Community support for these values, setting of practical management objectives and implementation of sustainable protection strategies are seen as key elements in protecting and restoring the values of these water resources.

Sensitive water resource values include:

a. Public Drinking Water Source Areas (ie Water Reserves, Catchment Areas or Underground Water Pollution Control Areas) proclaimed or assigned under the *Metropolitan Water Supply, Sewerage and Drainage Act 1909*, the *Country Areas Water Supply Act 1947* or the *Health Act 1911.*

b. Private water supply sources, including the following uses:
   - human or stock consumption;
   - commercial or industrial water supplies (with specific qualities that support the activities eg aquaculture, cooling, food or mineral processing or crop irrigation); and
   - garden or municipal water supplies (which can affect people's health or wellbeing).

c. Groundwater aquifers that sustain important ecological functions eg cave ecology.

d. Waterways (excluding engineered drains or constructed features) with ecological and / or social values such as aesthetic appeal, boating, fishing, tourism, and swimming, including:
   - waterways of High Conservation Significance as described in the Environmental Protection Authority's Draft Guidance Statement 33 *Environmental Guidance for Planning and Development* (Section B5.2.2) see www.epa.wa.gov.au, select EIA > *Guidance statements*;
   - waterways managed under the *Waterways Conservation Act 1976*, ie the Avon, Peel-Harvey, Leschenault, Wilson Inlet and Albany Waterways Management Areas; and
   - waterways managed under the *Swan and Canning Rivers Management Act, 2006.*

   Note: many waterways in the State remain to be scientifically evaluated and their value classified. Any such waterways that are substantially undisturbed by human activity, should be considered to have high conservation value unless proven otherwise.

e. Wetlands possessing recognised or probable conservation values (generally excluding those highly disturbed, unless subject to active management to restore specified environmental values), and including:
   - RAMSAR wetlands (see internet site www.ramsar.org);
   - Wetlands of High Conservation Significance as described in the Environmental Protection Authority's Draft Guidance Statement 33 *Environmental Guidance for Planning and Development* (Section B4.2.2), see www.epa.wa.gov.au, select EIA > *Guidance statements*;
   - Wetlands described by Department of the Environment and Heritage (Australia) in *A Directory of important wetlands in Australia,* (see web page www.deh.gov.au/water/wetlands/databases.html, or the Department of Environment and Conservation web page www.naturebase.net/national_parks/wetlands/wa_wetlands.html);

- Conservation and Resource Enhancement category wetlands identified in the *Geomorphic Wetlands of the Swan Coastal Plain* dataset, all wetlands identified in the *South Coast Significant Wetlands* dataset and high value wetlands identified in the *Geomorphic Wetlands Augusta to Walpole* dataset.

Note: many wetlands in the State remain to be scientifically evaluated and classified. Any such wetlands that are generally undisturbed by human activity, should be considered to have high conservation value, unless proven otherwise. The Augusta to Walpole wetland dataset to date has not been subject to a detailed evaluation process.

The Department of Conservation and Environment is the custodian of wetland datasets and is responsible for maintaining and updating the information within them. The datasets ban be viewed or downloaded from the internet site www.dec.wa.gov.au, select *Department of Environment > Tools, systems and data > Geographic Data Atlas > Inland waters > Wetlands.* Guidance on viewing the wetlands is provided on the same website at *Water > Wetlands > Data > Wetland mapping > How to view wetland mapping* or phone the Department on 6364 6500.

Planning for Success.

September 12, 2012

Dr. John Dixon
Senior Ecologist
California Coastal Commission
710 E Street, Suite 200
Eureka, CA 95501

Re: Summary of Biological Concerns, Local Coastal Program Permit Application, A-2-Mar-10-022 (Magee Project), West Marin County, California

Dear Dr. Dixon:

Thank you for returning my call last week, it was good to have an opportunity to chat about the project with you, as it had been some time since we met during the field trip to the Magee property.

From our team's internal discussions on the appeal, we understand that the Magee project may be moving towards a hearing fairly soon. Recently, Mr. Simon invited us to submit to you and he any additional questions or items related to potential impacts caused by the project that we would like considered by Coastal Commission staff. Based on our conversation, I understand you are working on completing your biological staff report and that we will have an opportunity to review that report when it is released, prior to the hearing. In response to Mr. Simon's invitation, I've put together this brief list of additional questions/concerns, hoping it might be useful to you and Mr. Simon when considering the site's sensitive resources and the project's potential to impact them. Also I've included a CD containing: 1) the resources composite map I sent you previously; and 2) several site photos and a video that are representative of the site's hydrology in the area of the off-site swale prior to the diversion installation. The map depicts development setbacks from ESHA areas that we feel should be considered as the minimum standard to protect the site's various sensitive biological resources. We would appreciate your review and consideration of these questions and recommendations.

EMC PLANNING GROUP INC.
A LAND USE PLANNING & DESIGN FIRM
501 Lighthouse Avenue Suite C Monterey California 93940 Tel 831-649-1799 Fax 831-649-8399
www.emcplanning.com

- In light of your September 5, 2012 e-mail to Zander and Associates concerning specific details pertaining to the methodology and content of their submitted U.S. Army Corps of Engineer's wetland delineation report, we would request to receive copies of any memos, reports, maps, or updated delineation reports that Zander submits in response to your inquiry.

- Has the effect of the water diversion that was installed along the northerly property boundary been considered? As we previously noted, we believe that diversion potentially altered the composition of ESHA areas (e.g. freshwater seeps/non-breeding CRLF habitat; movement corridors for CRLF and WPT) (see attached photos of pre-diversion wet conditions on the property). As we've noted previously, the intentional diversion (removal) of seasonal run-off water coming onto the site along the northwestern boundary in this area by Magee may have led to a reduction in the size of these ESHA and wetland areas.

- Will your report evaluate the potential harmful impacts (e.g. polluted water discharge and the possible introduction of toxic by-products) associated with the proposed location of the brandy distillery less than 200 feet from highly sensitive habitats (i.e., on-site creek and Tomales Bay)? Will you be sending the information regarding this to the Commission's water quality staff for their review?

- Since the discovery of CRLF at the site, (the potential presence of which was initially somewhat discounted by Zander) have any further focused surveys been conducted at the site to establish the baseline use of upland freshwater seep habitats in the northwest part of the property by CRLF?

- We understand a 300' buffer around the pond has been proposed by the applicant for the protection of upland WPT refugia. We concur that this distance would be the minimum necessary to protect the on-site WPT population from development impacts. On a related note, we wanted to get your opinion about the dispersal corridor habitat for WPT and CRLF (see our attached figure) in the northwestern portion of the site. Based on the discovery of a WPT by a neighboring property to the north (please reference our 4-4-12 report regarding habitat connectivity) it would appear logical to us to also buffer the likely upland movement corridor located between these areas where WPT may disperse and nest.

- We are not clear on where the new leachfield and/or other septic system facilities will be located. Will your analysis evaluate how these planned facilities/systems might impact the sensitive resources in the northwestern portion of the site by affecting sub-surface hydrology, mineral content of the water or through other possible impacts?

- Will your report address the potential hydrologic effects on sensitive resources, especially the blue-line creek, from the water drawdown caused by the proposed on site well? Can those impacts be measured/determined before the well is located and tested?

- Will the potential vineyard operation impacts (i.e., water and air quality impacts from polluted run-off and pesticides) on nearby sensitive resources be evaluated?

- Lastly, with regard to the evaluation of alternative sites considered for development, we would appreciate an opportunity to review the resource data collected and analyzed on this subject. On balance, based on what we know about the site's sensitivity, it would appear that potentially adverse resource impacts would be reduced if the proposed development was placed on the southwestern portion of the property on the south side of the blue-line creek rather than on the northwestern portion.

Additionally, we are overnight mailing you (and Mr. Simon) a CD-ROM with two illustrative videos taken at the property in March 2012 that depict the surface hydrology associated with the seasonally-charged swale in the northwestern portion of the site. Thank you again for your consideration on these matters, John, I appreciate it.

Sincerely,

Bill Goggin
Senior Biologist
EMC Planning Group

cc: Mr. Larry Simon, Federal Consistency Coordinator, CA Coastal Commission

ATTACHMENTS:

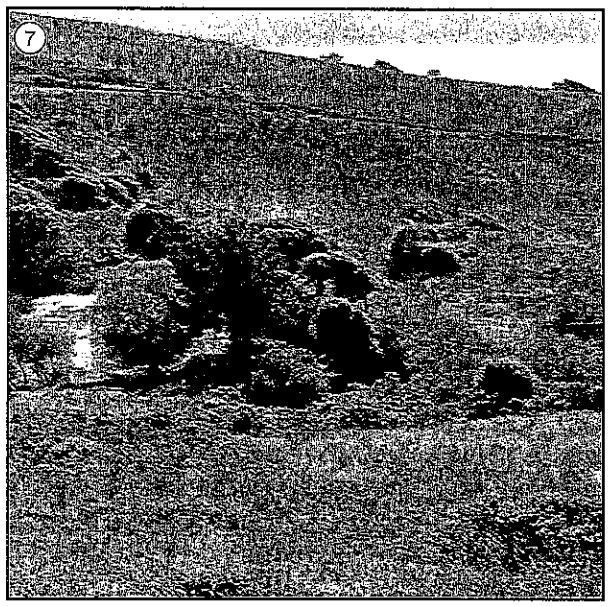
Figure 1 (2)	ESHA Map (Northwestern Portion Detail and Entire Site)
Figures 2 and 3	Representative Photographs
Figures 4	Site Photo Location Map

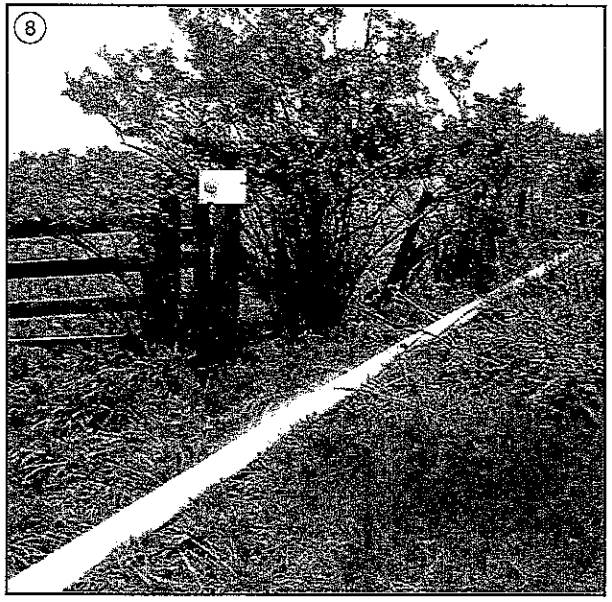
Source: EMC Planning Group 2011

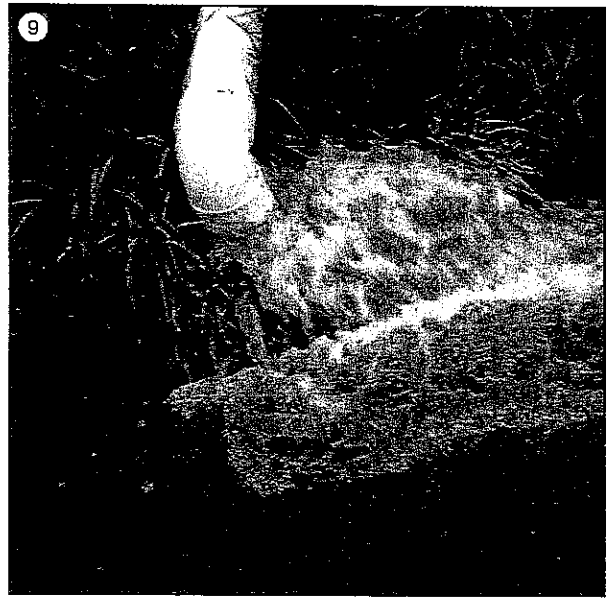
Figure 2

Representative Site Photographs: 1 of 2

17990 Shoreline Highway Coastal Development Permit Appeal Project







Source: EMC Planning Group 2011

Figure 3
Representative Site Photographs: 2 of 2
17990 Shoreline Highway Coastal Development Permit Appeal Project

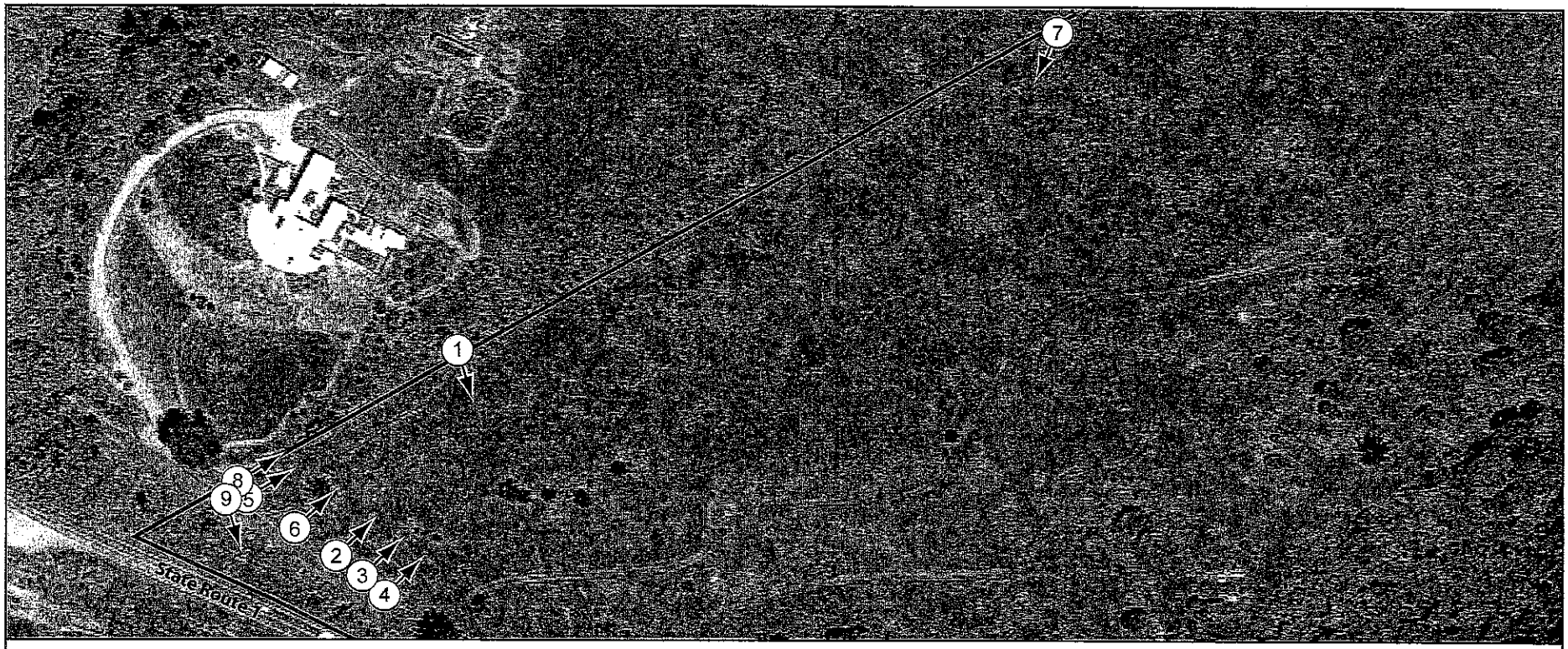


Photo Descriptions

1. View of seasonally-charged swale conducting winter sheetflow onto Magee property prior to pigpen enclosure or water diversion being installed (Winter 2010-2011).
2. View from driveway of seasonally-charged swale conducting winter sheetflow through northwest portion of Magee property (Winter 2010-2011).
3. View from driveway of seasonally-charged swale conducting winter sheetflow through northwest portion of Magee property (Winter 2010-2011).
4. View from driveway of seasonally-charged swale conducting winter sheetflow through northwest portion of Magee property (Winter 2010-2011).
5. View from driveway of seasonally-charged swale conducting winter sheetflow through northwest portion of Magee property (Winter 2010-2011).
6. View of ponded sheetflow within northwest portion of Magee property (Winter 2010-2011).
7. View of alternative project site.
8. View of white PVC unpermitted water diversion pipe.
9. View of water flowing from unpermitted wate diversion pipe.

0 150 feet

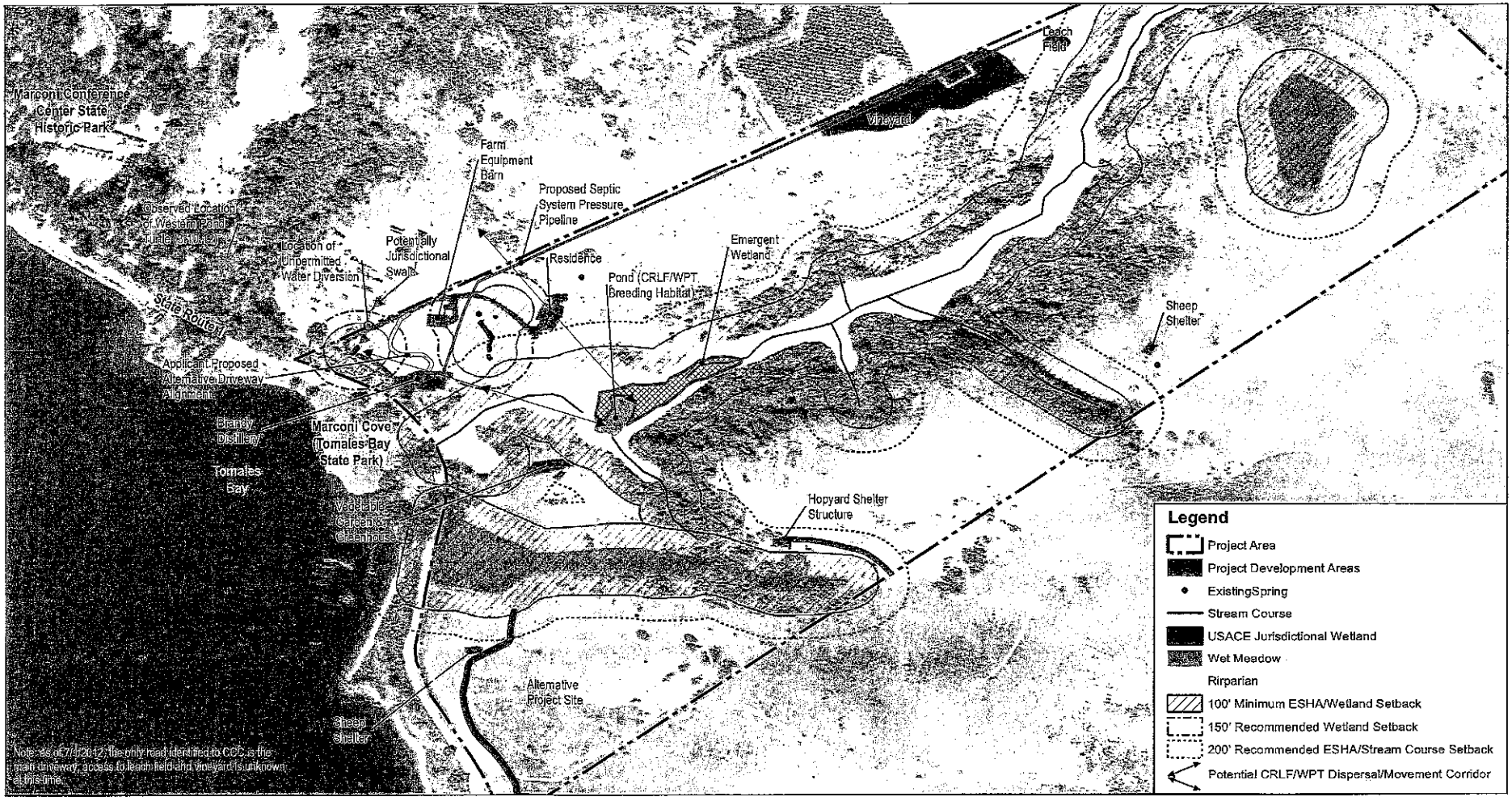
Study Area

Source: Google Earth 2012

Figure 4

Site Photographs Location Map

17990 Shoreline Highway Coastal Development Appeal Project



0 400 feet

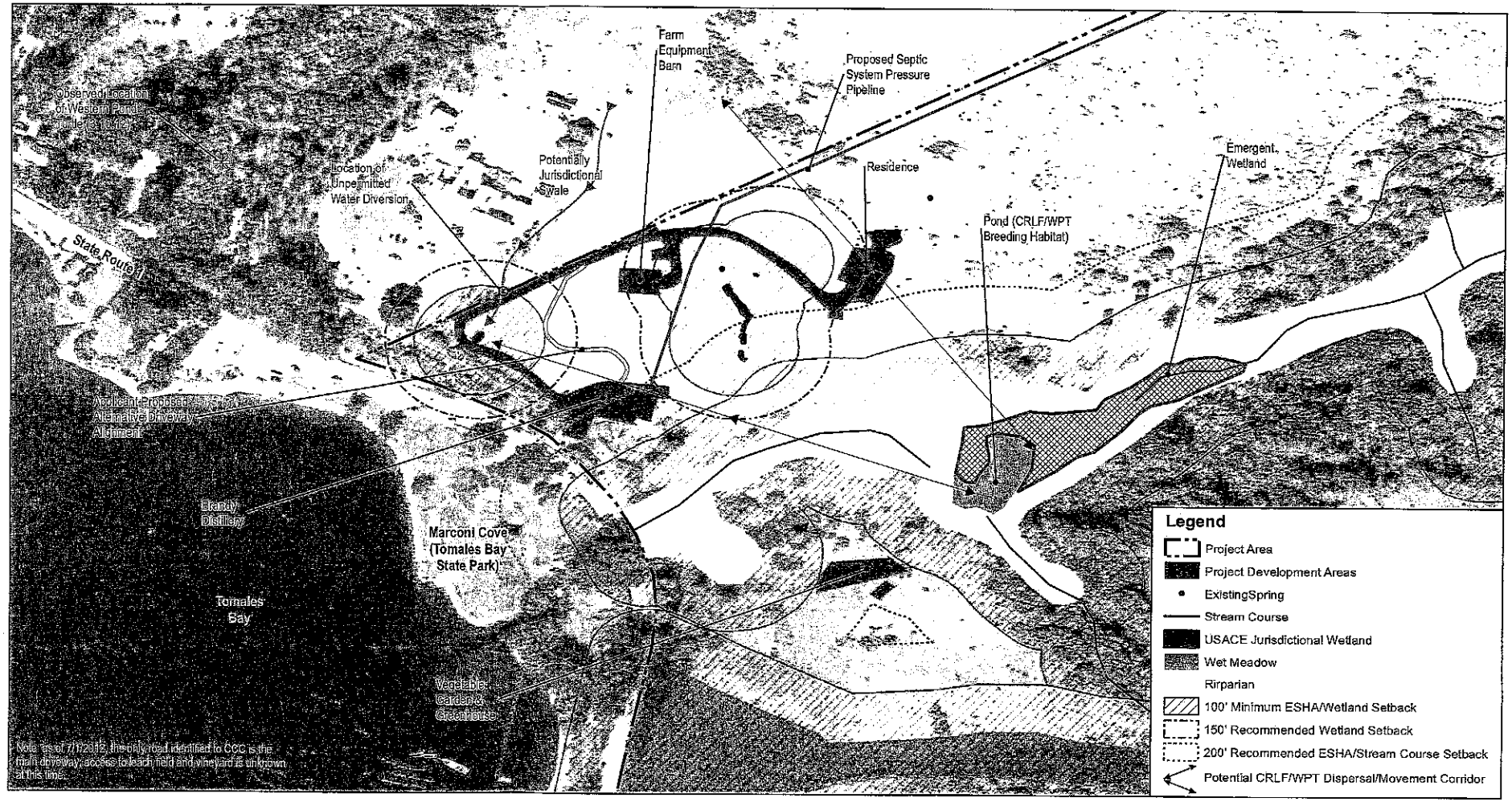
Source: Zander 2011, WRA 2011, Google Earth 2009, Rich Lincoln & Sons 2009
Note: WRA data is based on aerial photo interpretation
Disclaimer: the subject graphical representation is a composite image overlay not prepared to exact scale. It has been prepared for scoping purposes and is not suitable for project planning use.

Figure 1

Environmentally Sensitive Habitat Areas

17990 Shoreline Highway Coastal Development Permit Appeal Project

E M C



0 200 feet

Source: Zander 2011, WRA 2011, Google Earth 2009, Rich Lincoln & Sons 2009
Note: WRA data is based on aerial photo interpretation
Disclaimer: the subject graphical representation is a composite image overlay not prepared to exact scale. It has been prepared for scoping purposes and is not suitable for project planning use.

Figure 1

Environmentally Sensitive Habitat Areas

17990 Shoreline Highway Coastal Development Permit Appeal Project

FENTON & KELLER
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
2801 MONTEREY-SALINAS HIGHWAY
POST OFFICE BOX 791
MONTEREY, CALIFORNIA 93942-0791
TELEPHONE (831) 373-1241
FACSIMILE (831) 373-7219
www.FentonKeller.com

MARK A. CAMERON
JOHN S. BRIDGES
DENNIS G. MCCARTHY
CHRISTOPHER E. PANETTA
DAVID C. SWEIGERT
SARA B. BOYNS
BRIAN D. CALL
SHARILYN R. PAYNE
BRIAN B. TURLINGTON
CAROL S. HILBURN
TROY A. KINGSHAVEN
KATHERINE M. HOGAN
BIANCA KARIM
ELIZABETH R. LEITZINGER

LEWIS L. FENTON
1925-2005

OF COUNSEL
CHARLES R. KELLER
THOMAS H. JAMISON

September 20, 2012

JOHN S. BRIDGES

JBridges@FentonKeller.com
ext. 238

VIA CERTIFIED MAIL

RECEIVED
SEP 21 2012
CALIFORNIA
COASTAL COMMISSION

Nancy Cave
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Re: Coastal Act Violations at 17990 Shoreline Highway, Marshall, Marin County, CA (APN 106-220-20)
Our File: 33447.31025

Dear Nancy:

This letter is to follow up on our several conversations, emails, and letters with regard to Coastal Act violations that have occurred on the above referenced property. The last time we spoke you indicated these violation issues would be addressed in the context of the staff report being prepared by Mr. Simon with regard to the pending appeal of the proposed project on the property (appeal A-2-MAR-10-022). We understand staff is presently working on that report and we wanted to provide the enclosed materials to you for your analysis and consequent input to staff.

Since the original complaints were filed, as a result of studies ordered by Dr. Dixon the presence of California Red-Legged Frog and Western Pond Turtle have been documented on the site and formal wetland delineations have identified previously undisclosed wetlands immediately down slope from the illegal water diversion constructed along the northerly boundary of the property. This illegal development diverted a great deal of water from the wetland areas and we believe, based on input from our biological consultants, that the diversion likely had a significant adverse impact on the size and/or quality of the wetlands and seeps and other ESHA (e.g., upslope refugia and dispersal corridors of the California Red-Legged Frog and the Western Pond Turtle) on the site. The degree of impact the illegal diversion had on these ESHAs should be quantitatively and qualitatively defined so that the pre-violation extent of ESHA can be considered when establishing ESHA buffers. All this should take place before the project is allowed to proceed. Otherwise, project encroachment into pre-violation ESHA is

inevitable. In the alternative, at the very least buffers larger than the minimum 100 feet should be imposed as mitigation for the violation. Simply ordering the illegal water diversion system to be removed will not adequately remediate the impacts it has had on the down slope ESHAs. The property owner cannot be allowed to benefit from illegal manipulation/reduction of ESHA.

The enclosed materials show pre-diversion conditions, the nature and amount of the water diversion, and the convergence of biological resources (at least to the extent they survived the water diversion) in the vicinity. We hope you will take all of these factors into account when recommending to staff how the Coastal Act violations should be addressed in the context of the appeal. Please feel free to call me if you have any questions or need any further information.

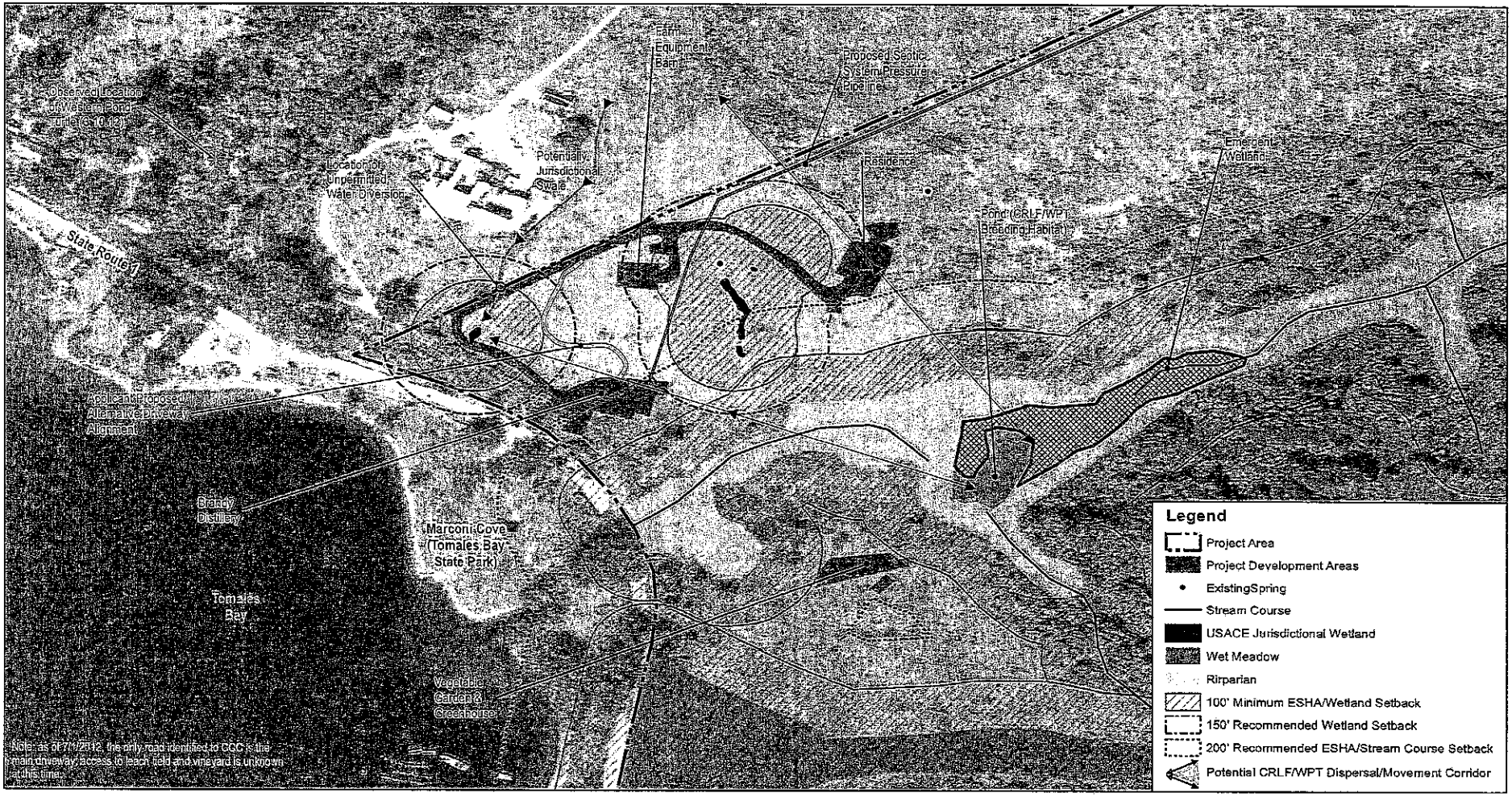
Very truly yours,

FENTON & KELLER
A Professional Corporation

John S. Bridges

JSB:kmc
Enclosures

cc: Larry Simon, CCC Federal Consistency Coordinator (w/encls.)
Jo Ginsberg, CCC Enforcement Officer (w/encls.)
Scott Kivel/Lia Lund (w/encls.)



0 200 feet

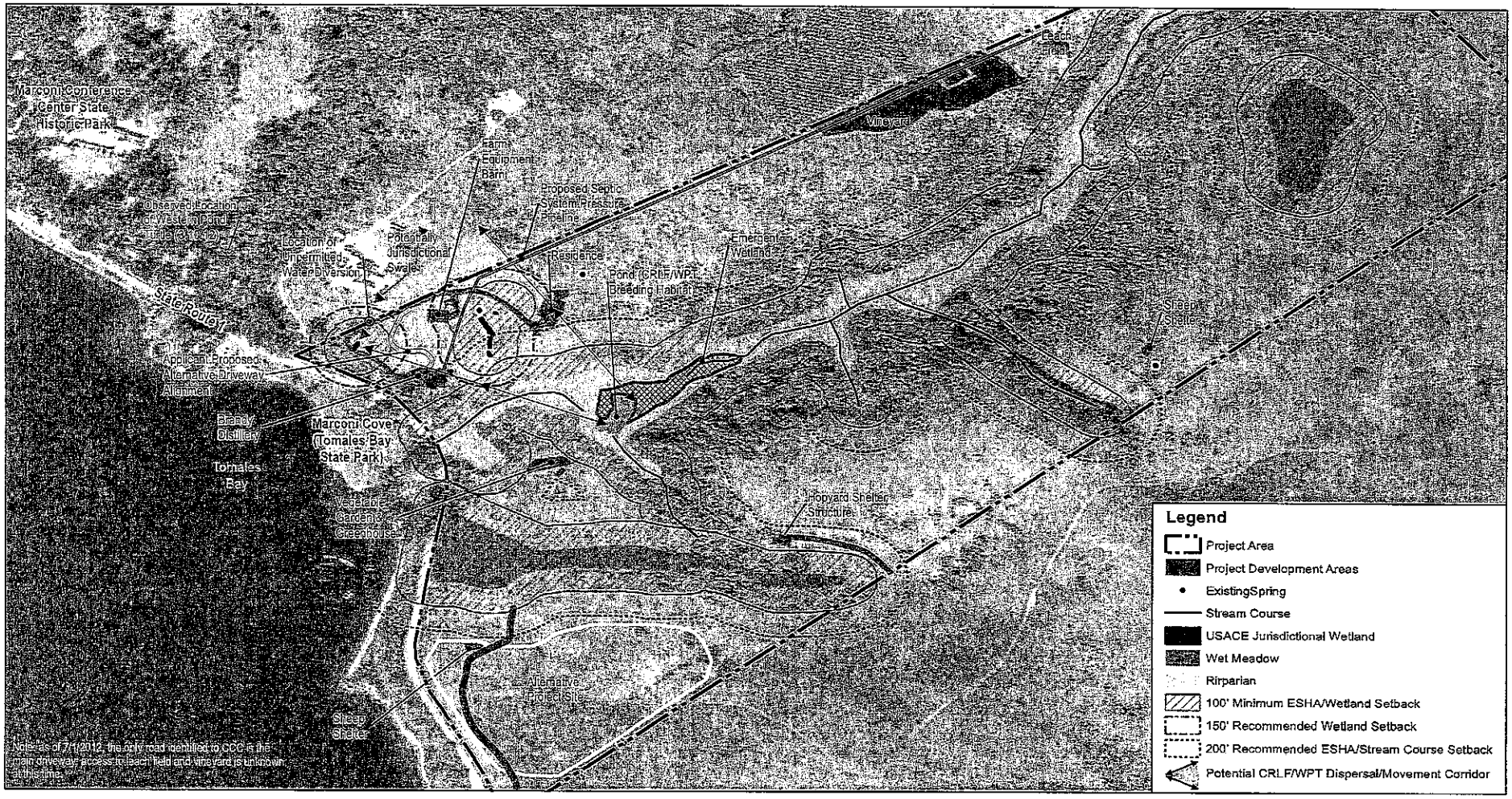
Source: Zander 2011, WRA 2011, Google Earth 2009, Rich Lincoln & Sons 2009
Note: WRA data is based on aerial photo interpretation
Disclaimer: the subject graphical representation is a composite image overlay not prepared to exact scale. It has been prepared for scoping purposes and is not suitable for project planning use.

Figure 1

Environmentally Sensitive Habitat Areas

17990 Shoreline Highway Coastal Development Permit Appeal Project

E M C



0 400 feet

Source: Zander 2011, WRA 2011, Google Earth 2009, Rich Lincoln & Sons 2009
Note: WRA data is based on aerial photo interpretation
Disclaimer: the subject graphical representation is a composite image overlay not prepared to exact scale. It has been prepared for scoping purposes and is not suitable for project planning use.

Figure 1

Environmentally Sensitive Habitat Areas

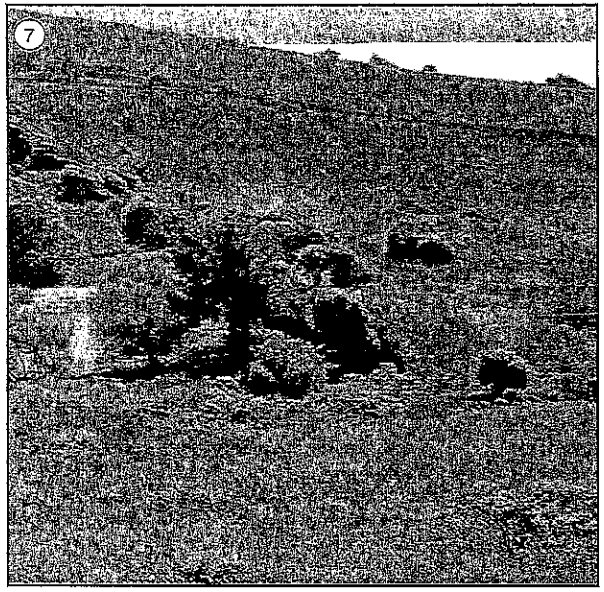
17990 Shoreline Highway Coastal Development Permit Appeal Project

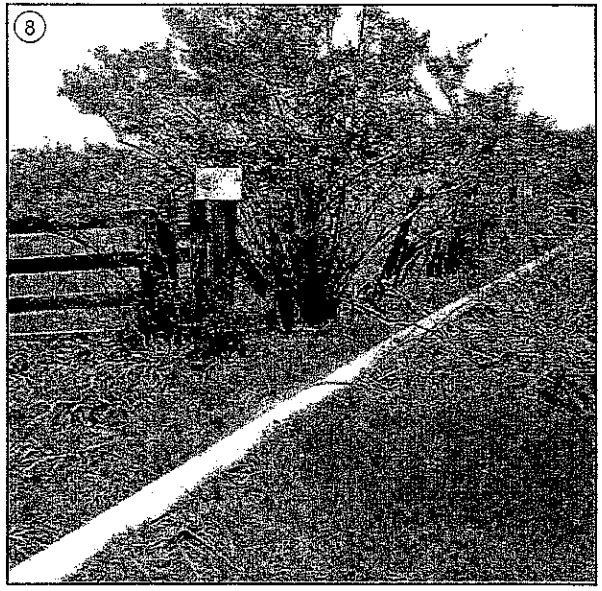
Source: EMC Planning Group 2011

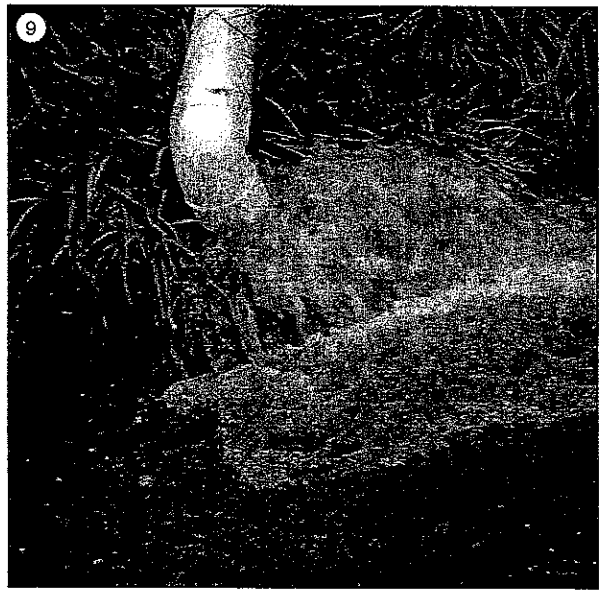
Figure 2

Representative Site Photographs: 1 of 2

17990 Shoreline Highway Coastal Development Permit Appeal Project







Source: EMC Planning Group 2011

Figure 3
Representative Site Photographs: 2 of 2
17990 Shoreline Highway Coastal Development Permit Appeal Project

Photo Descriptions

1. View of seasonally-charged swale conducting winter sheetflow onto Magee property prior to pigpen enclosure or water diversion being installed (Winter 2010-2011).
2. View from driveway of seasonally-charged swale conducting winter sheetflow through northwest portion of Magee property (Winter 2010-2011).
3. View from driveway of seasonally-charged swale conducting winter sheetflow through northwest portion of Magee property (Winter 2010-2011).
4. View from driveway of seasonally-charged swale conducting winter sheetflow through northwest portion of Magee property (Winter 2010-2011).
5. View from driveway of seasonally-charged swale conducting winter sheetflow through northwest portion of Magee property (Winter 2010-2011).
6. View of ponded sheetflow within northwest portion of Magee property (Winter 2010-2011).
7. View of alternative project site.
8. View of white PVC unpermitted water diversion pipe.
9. View of water flowing from unpermitted wate diversion pipe.

0 150 feet

Study Area

Source: Google Earth 2012

Figure 4

Site Photographs Location Map

17990 Shoreline Highway Coastal Development Appeal Project

November 12, 2012

Mr. Larry Simon
Federal Consistency Coordinator
California Coastal Commission
45 Fremont St., Ste. 2000
San Francisco, CA 94105

Re: Magee Development and Distillery Proposal
A-2-MAR-10-022

Dear Mr. Simon:

We would like to summarize our understanding of the current status of this project. Please advise if we are mistaken as to any item:

1. In 2010 Marin County's Planning Commission and Board of Supervisors deemed this 7-structure and commercial industrial brandy distillery project categorically exempt from CEQA, despite its location on a pristine site on Tomales Bay and immediately adjacent to the blue-line stream which traverses this 149-acre parcel.

2. When we filed our appeal to the CCC, it was initially assigned to Renee Ananda. Just weeks prior to the September 2010 Substantial Issue hearing the file was assigned to you.

3. The Commissioners voted 9-1 that the project raised numerous substantial issues and that a de novo review was warranted.

4. Marin County's failure to conduct any environmental review despite the proposed distillery and despite the extreme ESHA sensitivity of the proposed development area necessitated that you and Dr. Dixon focus time and effort in trying to assess the scope of the project and its potential environmental impacts for which the CCC has responsibility.

5. Studies ordered by Dr. Dixon have identified (1) wetlands that had never been acknowledged; (2) the presence of protected California red-legged frogs; and (3) the presence of protected Western Pond turtles. In addition, Dr. Dixon has requested plant surveys.

Recently you forwarded to us a string of pre-planning commission approval e-mails between Ms. Zander and the Marin County planner, Ms. Corella-Pearson. On March 24, 2010 the planner observed that the submitted site assessment indicated that the blue line stream was also suitable habitat for "California freshwater shrimp, Coho salmon, steelhead, and Tomales roach..." We have never seen any studies for these additional species. As the frogs, turtles and wetlands were discovered under Dr. Dixon's directive, we are confused as to why studies have not been required for these additional species which the applicant's own biological consultant has acknowledged may "inhabit the stream."

6. The de novo hearing was scheduled for this month; at our request it was postponed to December to allow greater opportunity for public participation. According to your November 1 e-mail, the hearing has been postponed again and has not yet been re-scheduled.

7. Your November 1 e-mail also stated that you had been informed "that additional biological field work on the property is needed" which you, Leslie Zander and Dr. Dixon will conduct this month. We don't know what additional work has been requested by Dr. Dixon and would appreciate knowing so our biologist can assess also.

8. Given the extreme environmental sensitivity and the documented presence of ESHA, and in consideration of frog dispersal corridors, we understand (and hope) Dr. Dixon might conclude that the development footprint should require a buffer wider than the "minimum" 100 feet.

9. We have asked that you and Dr. Dixon assess the impact on wetlands and ESHA which arises from the unpermitted water diversion installed by the applicant prior to Dr. Dixon's initial site evaluation in May 2011 and to also account for this in the setback distance decision. No pre-diversion wetland delineations were done.

10. We have requested information as to why the 12 acres of open land on the southern end of the property is not deemed suitable for a development. We have also expressed our view that a distillery in this rural, quiet corner of West Marin should not be allowed, even if this alternative site is viable (which was never analyzed or presented in the Marin County approval process).

11. As Marin County failed to conduct an EIR, it is now left to the CCC to conduct a functional-equivalent to CEQA. This is why we are confused that certain critical reports, which the applicant had been instructed to provide and/or committed to, were not timely produced for the December hearing, such as the hydrology report and some other items you listed on your October 4, 2012 e-mail to Kennings.

12. Although story poles were installed around October 29, there is no orange netting on any structure. This is surprising given the Commissioners' concern about the accuracy of the initial visual analysis presented at the Substantial Issue hearing, and your explicit directives to install orange netting per your October 4, 2012 and your December

12, 2011 e-mail to Kennings ("Install story poles and orange netting for proposed buildings and structures..."). Full building perimeter (including all water tanks) netting is essential to the public view shed analysis.

13. We have been aware since 2004 that the State Park Commission had adopted a general plan for Tomales Bay State Park. As the October 30, 2012 Bree Hardcastle communication to you acknowledges, the State Park at Marconi Cove (directly across from the Magee development and just some 75 feet from the distillery) will consist of low cost visitor facilities such as overnight camping, a boat launch, and day use. As the skeletal traffic study submitted to Marin County failed to even acknowledge or consider this intensive use, we wonder why the applicant has not been required to furnish data regarding the State Park plans in terms of traffic, as well as odor and other potential adverse environmental impacts from a distillery operation. Sight distance and safety on the downhill curve are important considerations.

14. With respect to the distillery, we have expressed our concern that approval of this use is both out of character for the east shore of Tomales Bay and that no scientific or technical evidence showing that there will be no environmental impact has been submitted. Although there are numerous simplistic responses from Mr. Kennings in your file describing a hypothetical distillery, there is no evidence that he has any experience or expertise regarding brandy distilleries, waste discharges, odors emanating from the operations, and storage and fire danger issues. Again, as Marin County failed to conduct any CEQA review, it is left to the CCC to evaluate all the potential impacts of placing a distillery on this site.

We see that the applicant's consultants have obtained tentative agreement from the SWRCB to defer that agency's analysis of a waste discharge application until after the CCC votes to approve the distillery. (September 13, 2012 e-mail to you.) This is disturbing in that the CCC is being asked to approve a potentially precedent-setting industrial operation where there has been no scientific or technical evidence to show it is environmentally neutral. Even Mr. Allen from SWRCB acknowledged in his September 13, 2012 e-mail to you that deferring SWRCB review until after the CCC approves the distillery is not without risk: "Granted this creates a bit of a chicken-or-egg situation between our two agencies and I do not have any elegant solution to offer to resolve that."

We hope that you and Dr. Dixon will insist on the applicant presenting full and accurate technical details on the distillery operations before recommending action by the Commissioners. In fact, the importance of assessing the distillery operations at this location (as opposed to within an urban municipal jurisdiction) deserves the hiring of experts by the CCC to provide an accurate base line of potential environmental impacts. Alternatively, it may be critical to have the SWRCB conduct its analysis (based on a worst case scenario) *prior* to the Coastal Commissioners being asked to approve the distillery. Deferring to the chicken or egg quandary is not appropriate in this circumstance.

15. Your September 19, 2012 e-mail to Kennings ("site plan questions") identifies a

number of outstanding issues for the applicant to respond to. It is disturbing that even at that late date, just weeks prior to the writing of your report for the then-scheduled December 2012 de novo hearing, the applicant had still not identified the scope of his development, such as how many water tanks currently exist, where the proposed water tanks will be installed (including the one some 100 feet from the distillery), which "farm tracks" will remain after initially asserting that all would be discontinued, or even how "farm tracks" may differ from "roads" in terms of their impact on the well-documented ESHA throughout this property, or where excess excavation will be disposed of. Your October 4, 2012 e-mail to Kennings identified yet more unanswered questions.

16. It is still unclear how the onsite leach field impacts ESHA, or how the thousands of feet of septic lines going uphill may affect ESHA given that a biological study of this area is lacking; a wetland assessment should be required within 500 feet of all development areas. A determination is also necessary as to whether a separate septic system/leach field might be needed for the commercial distillery and its high-strength waste stream.

We know you understand that an accurate project description is necessary for an intelligent, legally adequate evaluation of potential environmental impacts of a proposed project. An accurate, stable and finite project description is indispensable to an informative, legally adequate environmental impact assessment.

We do not understand how you can accurately analyze your functional equivalent CEQA review when the applicant's design is constantly shifting in his ongoing attempts to avoid, reduce and mitigate in response to the increasingly complex maze of biological issues in and around the development area envelope. Similarly, all the responsible agencies with which you must consult (e.g. USFWS, CDF&G, SWRCB, etc.) should be given the opportunity to review and comment on whatever the "final" project description/location might be.

This appeal review has been taking considerably more time than it should have. This is not your fault, we know you have been working diligently on this, but during this time environmental damage continues with effects that become increasingly more difficult to undo. We believe it is time for there to be a complete list of biological, hydrological, traffic and other pertinent studies necessary for complete review. In addition the applicant should be required to make available a definitive design that can be properly analyzed by yourself and Dr. Dixon, and allow us and other members of the public the opportunity to review it.

Sincerely,

Scott Kivel and Lia Lund

c: Dr. John Dixon, Charles Lester, Dan Carl, John Bridges

APPENDIX J

Comment Letters Supporting, Opposing, and Taking No Position on the Project, Submitted by Individuals other than the Appellants and their Consultants, after the September 15, 2010, Commission Finding of Substantial Issue and prior to Publication of the Commission's February 21, 2013, staff report

MARIN COUNTY FARM BUREAU

520 MESA ROAD, POINT REYES, CA 94956 · PHONE (415) 663-1231 · FAX (415) 663-1141

RECEIVED

FEB 17 2011

CALIFORNIA
COASTAL COMMISSION

February 1, 2011
California Coastal Commission
45 Fremont St. Suite 2000
San Francisco, Ca. 94105-2219

Re: De Novo hearing on the Brader Magee project

Dear Coastal Commissioners:

I am writing to you, the California Coastal Commission, to express Marin County Farm Bureau's support of the project as submitted by Tony Magee and Carissa Brader and approved unanimously by both the Marin County Planning Commission and Board of Supervisors.

This project, as approved by Marin County, genuinely embodies the intent and the spirit of the Marin County LCP.

The appeal that led to this permit hearing before the Commission was brought by the immediate neighbor. During the County process this proposal experienced no meaningful challenges by any of the numerous environmental groups, community groups, or governmental agencies that work intensively in the Tomales Bay region. The applicants have gone to extraordinary lengths to protect environmentally sensitive areas. They not only met all of the Counties conditions for approval, but went above and beyond by working with the Environmental Action Committee of West Marin to be certain that all environmental impacts were dealt with properly.

It is our belief that residential neighbor disputes regarding agriculturally-based projects, on C-APZ zoned land, consistent with the spirit and the intent of the LCP, in the presence of a strong county 'Right-to-Farm' statute, and in light of the applicants offer of an Affirmative Agricultural Easement, represent one of the most dangerous threats to agricultural production activity in West Marin. The appealers of this project bought agriculturally zoned land amidst agriculturally zoned land and are now complaining that the land next to theirs will be used for agriculture. We should be commending the Brader Magee project for following the LCP, working with environmental organizations, and bringing production agriculture back to agriculture lands.

The preservation of agricultural production in West Marin, as opposed to the residential development that threatened this area, was the foundation of the development and certification of the current LCP. This threat remains unless the County and this Commission fully support the guidance of the LCP.

This is the context within which we see this project's review occurring.

I urge the Commission to affirm the integrity of the certified LCP, by approving the proposed project as it was approved by the County, with its specific recognition of agricultural, biological, and scenic resource policies of the LCP.

In a very direct way, approval of this project represents an affirmation of the LCP's goals.

Thank you for your consideration of our organization's concerns.

Sincerely,

Dominic Grossi,
President,
Marin County Farm Bureau

-----Original Message-----
From: Drew Keeler [mailto:drewpy@pacbell.net]
Sent: Tuesday, August 23, 2011 6:54 PM
To: Charles Lester
Subject: Just got your letter

You need to stop trying to slow businesses from growing. I had no idea about any of this, but I will be at your meeting in favor of this distillery..

Drew Keeler

Sent from my iPhone

Larry Simon

From: Charles Lester
Sent: Thursday, August 25, 2011 10:44 PM
To: Larry Simon
Subject: FW: Marshall Brandy Distillery

Charles Lester
Senior Deputy Director
California Coastal Commission
725 Front Street, Suite 300
Santa Cruz, CA 95060
831-427-4863 Fax: 831-427-4877
clester@coastal.ca.gov
www.coastal.ca.gov

From: Shannan Hobbs [mailto:sh9nub@yahoo.com]
Sent: Thursday, August 25, 2011 6:01 PM
To: Charles Lester; Jeff Staben
Cc: tomalesbay@gmail.com
Subject: Marshall Brandy Distillery

Dear Coastal Commission,

I am writing to **support** the proposed brandy distillery in Marshall. I am a native born Marinite and have lived in West Marin for over 15 years. Our agricultural operations in the county have been able to survive and have benefitted the greater community by adding value to their products. Marin Sun Farms and Giacomini Blue Cheese are just such operations that operate responsibly in our area.
I do not agree that the reasons that those who oppose this distillery give are strong enough to outweigh the benefits to our area. The owner of Lagunitas Brewery is more than generous to our community whenever a benefit could use a donation of his products. He is also generously helping to keep Samuel P. Taylor park open.
Please do not thwart this homegrown industry in Marshall!

Sincerely,
Shannan Hobbs
Art teacher and parent of a Tomales Elementary School student

Larry Simon

From: Charles Lester
Sent: Friday, August 26, 2011 9:00 AM
To: Larry Simon
Subject: FW: Magee Project No.A-2-MAR-10-22

Charles Lester
Senior Deputy Director
California Coastal Commission
725 Front Street, Suite 300
Santa Cruz, CA 95060
831-427-4863 Fax: 831-427-4877
clester@coastal.ca.gov
www.coastal.ca.gov

From: aaron ely [mailto:aaronely2001@yahoo.com]
Sent: Friday, August 26, 2011 7:49 AM
To: Charles Lester; Jeff Staben
Cc: tomalesbay@gmail.com; lagunitas@lagunitas.com
Subject: Magee Project No.A-2-MAR-10-22

Hello,
I am a resident of Point Reyes Station, and I frequently hike and swim in Tomales Bay, and I fully support the distillery. The owner has shown himself to be a responsible, active member of the community who cares deeply about the local environment. From what I have seen, he has so far done everything within his power to work with the community and local groups to ensure the project is done correctly. He has also recently 'stepped up' and volunteered to keep open Samuel P. Taylor State Park, which is due to close soon.

I just received a letter from Lia Lund and Scott Kivel spouting reasons opposing the distillery, which included the words "bomb" and "fireball" as bullet point factoids. These are the vocal minority who will only be happy if there is zero development, which is not sustainable for a growing population. I won't argue the points of development, growth, sustainability, etc... You've heard them before from many experts. What it does come down to for me, is that here is someone who has a proven track record in this local area of running a successful environmentally responsible company (which has grown and continues to be a model of environmental responsibility), is continually involved in the community, with local non-profits, with the National Park Service, State Parks, and others. Please take that into account as you review this proposed project. This is exactly the type of developer you want. Nothing up his sleeves, and with a positive long term track record of right in this area.

Sincerely,

Aaron Ely
PO Box 452
Point Reyes Station, CA 94956
(831) 600-5497

-----Original Message-----
From: Michael Greenberg [mailto:michael@gstex.com]
Sent: Sat 8/27/2011 9:26 AM
To: Charles Lester; Jeff Staben
Cc:
Subject: distillery project

Dear Mr Lester,

I received a mailing recently asking me to write you about my views on the distillery project labeled Magee Project No A-2-Mar-10-22.

I want to voice a strong measure of support for this project. The environmental community of West Marin has long obstructed all commercial projects within West Marin, with little offer of compromise or regard for the reputations or well being of applicants.

The result is an economy that supports retirees, trust fund babies, and wealthy second home owners, with no hope of young people finding any employment in the area.

While I do not believe that unbridled development is a good alternative, I would expect the Coastal Commission to find workable solutions to objections WITHOUT stomping out the hopes of our community to build a meaningful foundation of employment for our residents.

I vote YES, YES, YES to this development, under the watchful eye of the Coastal Commission while it lends meaningful support to the project!

Sincerely

Michael Greenberg

Michael Greenberg
PO Box 1192
Inverness, California 94937
Office 415-669-1500
Fax 415-669-1501
Mobile 415-755-7776
Michael@Gstex.com

Larry Simon

From: Charles Lester
Sent: Friday, September 02, 2011 9:09 AM
To: Larry Simon
Subject: FW: Tony Magee Proposed distillery at Marshall Ca.

Charles Lester
Acting Executive Director/Senior Deputy Director
California Coastal Commission
725 Front Street, Suite 300
Santa Cruz, CA 95060
415-904-5202/831-427-4863
clester@coastal.ca.gov
www.coastal.ca.gov

From: Kristi Edwards [redacted]
Sent: Friday, September 02, 2011 9:07 AM
To: Charles Lester
Subject: Tony Magee Proposed distillery at Marshall Ca.

Dear Mr. Lester,

The current e-mail that has been distributed among the the neighbors of Marshall opposing Mr. Magee proposed distillery is disingenuous at best. I too am a resident of Marshall and consider myself a neighbor of the proposed development. It is quite obvious that the two immediate neighbors of Mr. Magee are misrepresenting the facts in an attempt to scare the residents of Marshall. Thus generating a letter writing campaign to you and your commission so that you do not interpret their opposition as a neighbor dispute. It is quite apparent to me that their primary concern is the clustering of home, barn and brandy house near their own personal developments, which they do not want. Though this is exactly what the development codes of the area require to preserve "view shed".

I am not a professional in any of these agricultural development issues, but trust in both my county offices and your commission to oversee and provide guidance to would be developments in areas such as ours. I strongly recommend that you do not allow behavior such as exhibited by Mr. Magee's two neighbors to influence any decision you make concerning his proposed development.

Respectfully Submitted,

Charles T. Edwards

Larry Simon

From: Jeff Staben
Sent: Monday, September 12, 2011 6:25 AM
To: Larry Simon
Subject: FW: Magee Project No. A-2-MAR-10-22 RECOMMEND APPROVAL

fyi

-----Original Message-----
From: Amanda Eichstaedt [mailto:info@bearvinn.com]
Sent: Sun 9/11/2011 8:48 PM
To: Charles Lester
Cc: Jeff Staben
Subject: Magee Project No. A-2-MAR-10-22 RECOMMEND APPROVAL
Hello,

I am contacting you to express my appreciation and thoughtfulness that the referenced project has for the agricultural community of West Marin. We need more such well-planned projects in our agricultural region. I hope that you recognize it from its importance in providing diversity to our farming area.

Thank you,

Ken Eichstaedt

88 Bear Valley Rd. Olema

Larry Simon

From: Charles Lester
Sent: Monday, September 26, 2011 6:27 AM
To: Larry Simon
Subject: FW: Marshall Industrial Distillery

Charles Lester
Executive Director
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105
415-904-5202
clester@coastal.ca.gov
www.coastal.ca.gov

From: jack williams [mailto:jack94956@hotmail.com]
Sent: Sunday, September 25, 2011 2:17 PM
To: Charles Lester
Subject: Marshall Industrial Distillery

I agree with the Marin Count Planning Commission and Board of Supervisors that the Distillery should be approved in Marshall. Development of 10,000 sf is minimal impact in 149 acres of land. Much better than subdivisions and more housing. The Distrillery will provide much needed employment for rural residents.
I hope the Coastal Commission will agree with the local government and us locals.
thanks,
Jack Williams
30 year resident Point Reyes Station

Ingrid Noyes
PO Box 840
Marshall, CA 94940

September 29, 2011

California Coastal Commissioners
c/o Charles Lester, Senior Deputy Director
45 Fremont Street #2000
San Francisco, CA 94105-2219

Dear Mr. Lester, and other Coastal Commissioners:

RE: the Magee Project in Marshall (No. A-2-MAR-10-22)

I am a lifelong resident of Marshall, and would like to voice my approval of Tony Magee's proposed project of a brandy distillery, vineyard, and sheep farm. Growing up in Marshall, I have watched farm after farm close down, unable to survive with the competition of big agribusiness. Too often, these farms are replaced by residences, occupied by wealthy individuals who do nothing agricultural with the land except on a token basis. Occasionally, someone gets creative about how to keep the land agriculturally productive and still economically viable. Mr. Magee's project is one such example. His neighbors, who fall into the wealthy non-agricultural group, would like to keep his land as open space for their own enjoyment and have launched a heavy campaign to discredit the project, often using false information and distortion of the facts. Please don't let them influence your decision. By all other accounts, this project is a well thought out example of how to keep West Marin agriculture a reality while being responsible about land stewardship. Thank you for your consideration.

Sincerely,

Ingrid Noyes

cc: Tony Magee

Larry Simon

From: Charles Lester
Sent: Monday, October 10, 2011 9:39 PM
To: Larry Simon
Subject: FW: Magee Project No. A-2-MAR-10-22

Charles Lester
Executive Director
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105
415-904-5202
clester@coastal.ca.gov
www.coastal.ca.gov

From: MAYLE SIVERT [redacted]
Sent: Monday, October 10, 2011 2:03 PM
To: Charles Lester; Jeff Staben
Subject: Magee Project No. A-2-MAR-10-22

Dear Charles Lester,
I am writing in support of the proposed brandy distillery in Marshall, Ca. I received the mass mailing that the Lund/Kivels distributed to all of West Marin against the distillary proposal. I do not agree with them and would like to encourage the approving of the distillery project. I believe the Lund/Kivel's are similar to other West Marin residents who have an entitled "we were here first and got ours" attitude. Their viewshed disturbance is really about them wanting to keep their view all to themselves, even though there is a property between them and the bay they do not own. Their letter to all of the West Marin residents makes a lot of assumptions about "possibilities" and I think it is really all about them not wanting neighbors.

West Marin is in dire need of more jobs and possibly this distillery will provide a few to local residents. The distillery plan has been thought out carefully and I look forward to it's addition in our community.

Thank you for reading this.

Be well,
Maile Sivert
Inverness, CA resident: I can see this property from my house on the other side of the bay and am not worried about it ruining my view!

Simon, Larry@Coastal

From: Charles Lester
Sent: Wednesday, November 09, 2011 6:40 AM
To: Larry Simon
Subject: FW: Magee Project No. A-2-MAR-10-22

Charles Lester
Executive Director
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105
415-904-5202
clester@coastal.ca.gov
www.coastal.ca.gov

From: Sonja Anderson [mailto:sonjajeananderson@gmail.com]
Sent: Tuesday, November 08, 2011 8:41 PM
To: Charles Lester
Cc: Jeff Staben; SonjaJeanAnderson@gmail.com
Subject: Re: Magee Project No. A-2-MAR-10-22

Commissioners:
I have found out more information regarding the McGee project. This project is not as large or dangerous as the neighbors of Tony McGee stated in their letter to many of us in West Marin. At this point I am in favor of the project and want that to be noted.

Thank you for your work in protecting our coast,
Sonja Anderson

Linda Emme

415.663.8633
lindaemme708@gmail.com

February 15, 2011

Via U.S. Mail and Email (clester@coastal.ca.gov; lsimon@coastal.ca.gov; rpap@coastal.ca.gov)

California Coastal Commissioners
45 Fremont Street Suite 2000
San Francisco, CA 94105

RE: Appeal No. A-2-MAR-10-022 (Magee, CP-09-39)
17990 Shoreline Highway, Marshall, Marin County

CC: Dr. Charles Lester, Deputy Director
Larry Simon
Ruby Pap

Local Standing: Linda Emme

Dear California Coastal Commissioners,

I have concerns about this project and I appreciate the opportunity to express them to you.

1. The Perennial Grasslands are Essential to the Water Quality of Tomales Bay

Mr. Magee's 149.5 acres are a steeply sloped drainage basin filtering the immense amount of water coming off the ridges into the bay. This blue-line stream becomes a river in the winter as it carries the runoff to the bay. Tomales Bay is federally protected under the National Marine Sanctuaries Act and is a nationally significant marine ecosystem.

Photo of blue-line stream coming out of Mr. Magee's property, taken from Shoreline Highway.

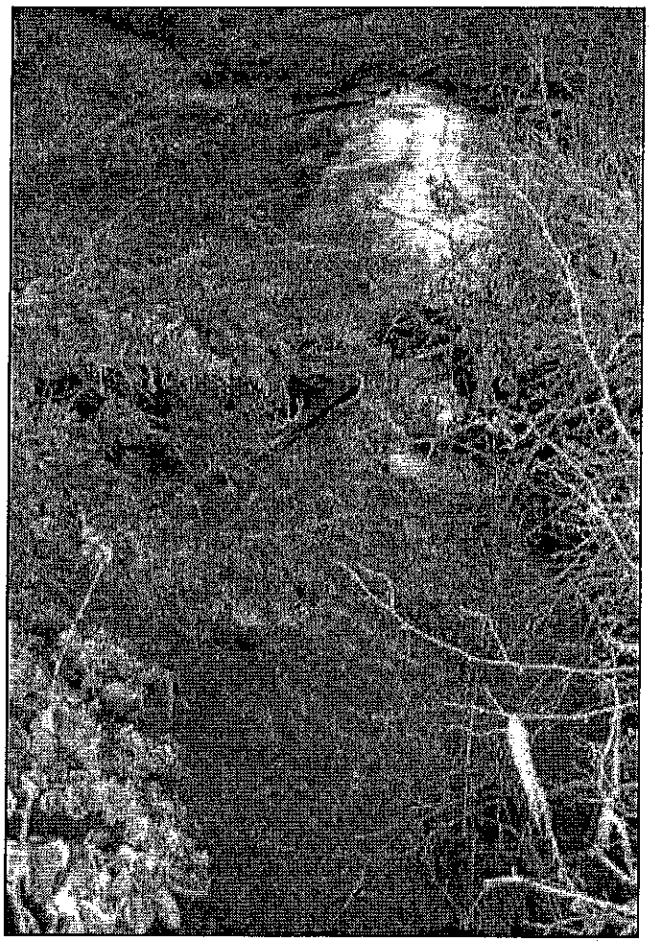


Photo of blue-line stream, taken from bay side of Shoreline Highway.

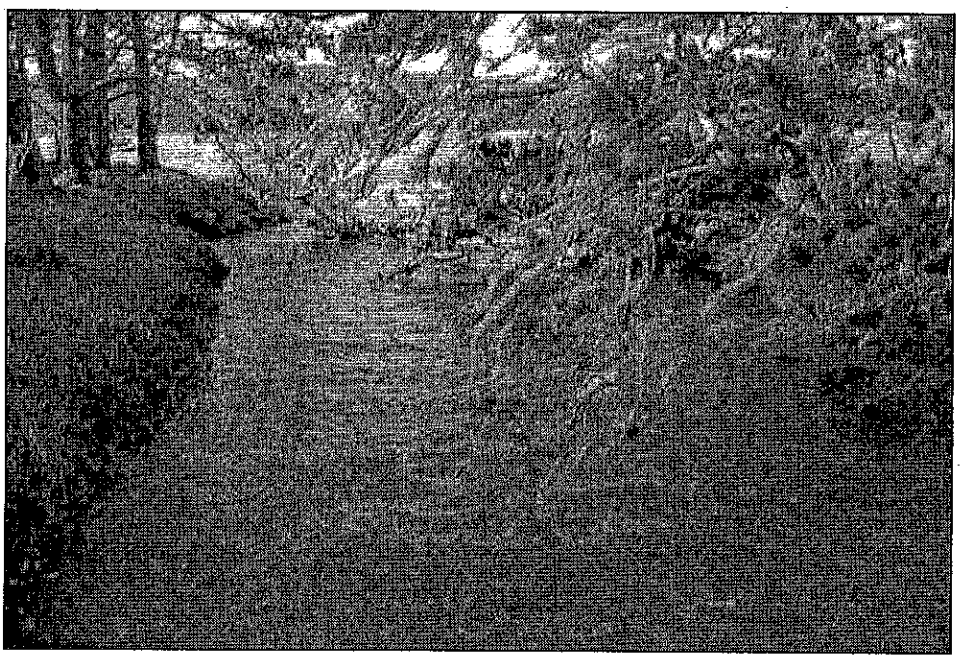


Photo of the blue-line stream as it enters Tomales Bay. The Cove Mussel Co.'s mussel and oyster beds are located directly off-shore from the stream.

At present, the grasslands are a mixture of perennial native grasses and annual grasses that stand nearly five feet high in summer. The roots likely go down to the bedrock. As Mr. Magee removes this grassland water filter to plant crops, the immense amount of water flowing down the slopes will cause erosion and slippage of the hillsides. Herbicides, pesticides and chemical fertilizers used will all find their way into the ground water and bay. In its present state, the exceptional filtering and erosion control capability of the perennial grassland ecosystem should not be overlooked or undervalued. This property is especially valuable in that it protects the water quality of Tomales Bay and its coastal estuary resources.

In addition, this perennial grassland will not produce crops of grapes, hops and vegetables on a commercial scale. They are all warm weather crops, while Marshall is a very cold environment with red clay soil, high winds, cold summer-long fog and salt air. Add in a healthy population of moles, voles, field mice, wood rats, bush rabbits, hares, raccoons, birds, spider mites and other insects, and you can imagine that growing commercial crops in Marshall is marginal at best. Generations of local ranchers here already know this, but Mr. Magee doesn't - yet. Having never uttered the word "organic" in a meeting or hearing, he will assuredly be using pesticides, herbicides and chemical fertilizers that will flow with the ground water into the blue-line stream and Tomales Bay.

The Coastal Act requires that the role of ESHA in protecting water quality be "especially valuable." The pristine perennial grasslands on this steeply sloped basin are essential and integral to the water quality of Tomales Bay. Mr. Magee has a history of degrading these grasslands through human activities and causing a degradation of water quality. During the winter of 2008 when the property was leased by Mr. Magee, there was a huge plumb of mud that flowed into Tomales Bay from erosion on the property. This winter, the careless farming practices of Mr. Magee, as you will see below in Item #2, caused untreated pig excrement to flow into the bay. The native perennial grassland, coastal sage, coyote scrub and freshwater marsh surrounding the blue-line stream qualify as ESHA and are delineated as such in the certified Marin LCP. In addition, a distillery and tasting room are not resource-dependent uses under our state's Coastal Act.

2. The Pigs and Questionable Farming Practices

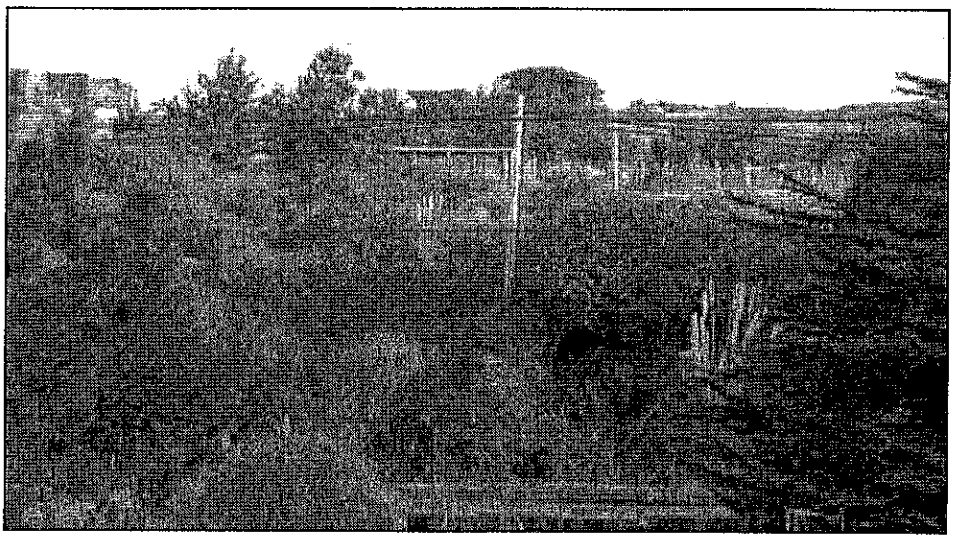
At the Sept. 15th CCC hearing, Mr. Magee said, "There aren't going to be any pigs there. They require a special permit. I may make it into a rooster rescue."

However, on Oct. 22, 2010, five pigs were installed in the pigpen without treatment facilities for their waste, and with a wintertime seep and stream running directly through their pen. The runoff carried the excrement into a catchment basin along our private driveway and directly into Tomales Bay about fifty feet north of mussel and oyster beds owned by the Cove Mussel Co.

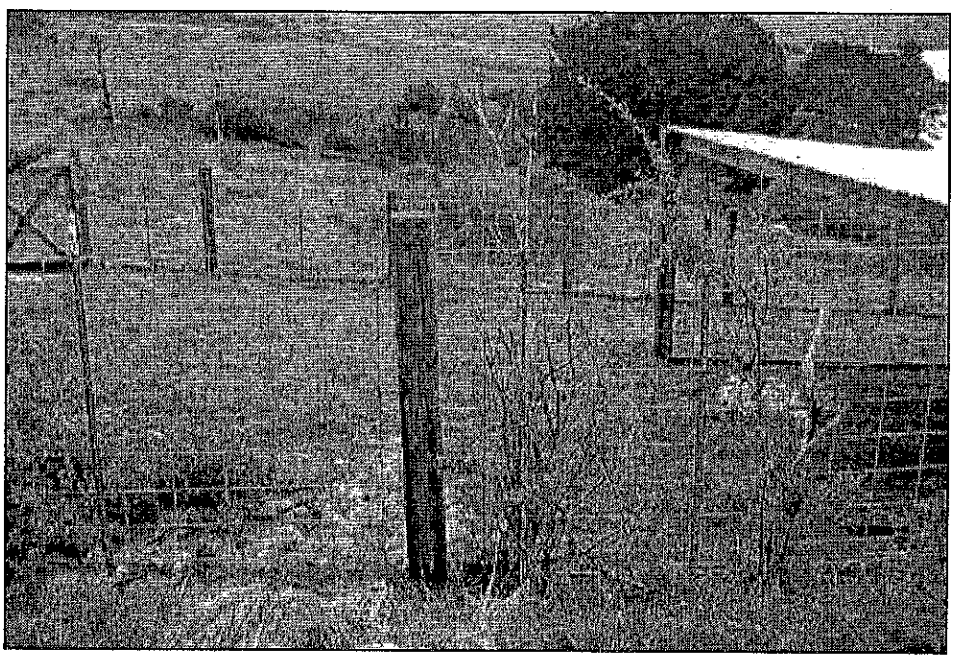
The 30' x 120' pen, still present on the property, is approximately 300 feet from the bay and about 100' in altitude above the bay. It was built in the middle of Magee's proposed driveway and contiguous with the Kivel-Lund property line. There is no mention of a pig operation in his plan that passed the Marin County Planning Department. While this project is before the CCC, nothing should have been built on the property. But, disregarding such constraints, Mr. Magee did as he liked. The pigs were reported to the State Water Resource Department and Marin County

Building Enforcement on Oct. 26. Mr. Magee removed the pigs on Oct. 27, but the pigpen still remains and the pig excrement that was left behind washed into Tomales Bay. Magee dug and framed in a structure that could have been intented as a sewage holding pond but it was not finished or connected before the pigs were installed.

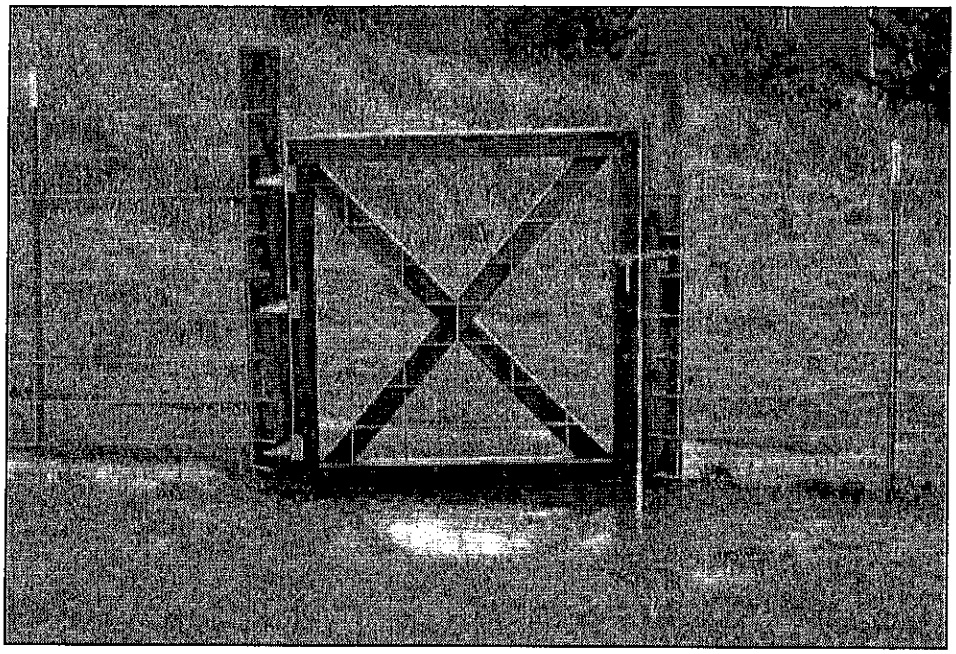
On Sunday, Jan 9, 2011, Magee and his workers dug a trench and laid drainage pipe inside the pigpen - without a permit – to move the water from inside the pigpen downhill, directly into the private driveway catchment basin, then directly into the bay.



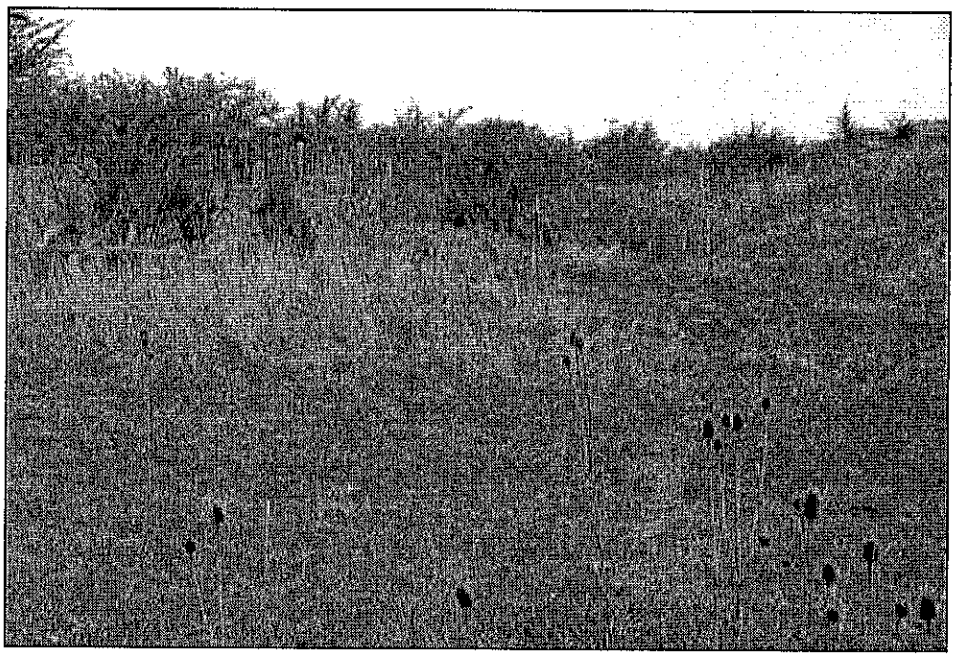
Pigpen as seen from state-owned Marconi Cove. The Kivel-Lund's house to left.



Pigpen as seen from the Kivel-Lund's joint property line with Magee. The pigpen is located where Magee's road is planned.



Entrance to the pigpen.



Water draining down from pigpen in upper left, directly into Tomales Bay.

3. Freshwater Marsh/Wetlands Illegally Filled In between Distillery and Blue Line Stream

The proposed distillery is to be located 100' from the blue-line stream, but only about 50' from what has historically been a freshwater marsh between the proposed distillery and the stream. Mr. Magee and his partner, Mr. Bloomfield of Dillon/Vision, filled in the marsh without a permit and have since planted a few cypress trees there. The photos, below, show how much water drains into this area - where there used to be a marsh with water loving plants which filtered the water before it reached the stream. The destruction of this freshwater marsh was reported to the county by the Kivel-Lund's, but nothing was done. Also, the records of this unpermitted wetlands destruction were not included in Mr. Magee's file by the county planning department.

Water draining into the illegally filled in Wetland. The blue-line stream is located beyond the thistles and laurels at the top of this photo. This freshwater marsh is about thirty feet from the stream. Before it was filled in, it was thick with wire grass and other water-loving plants. The water stood six to twelve inches deep in winter. Now there is some bare clay fill, some grass, and several cypress trees, recently planted by Mr. Magee.

"A buffer strip one hundred feet in width, minimum, as measured landward from the edge of the wetland, shall be established along the periphery of all wetlands. Development activities and uses in the wetlands buffer shall be limited to those allowed pursuant to Section 30233 of the Coastal Act of 1976."

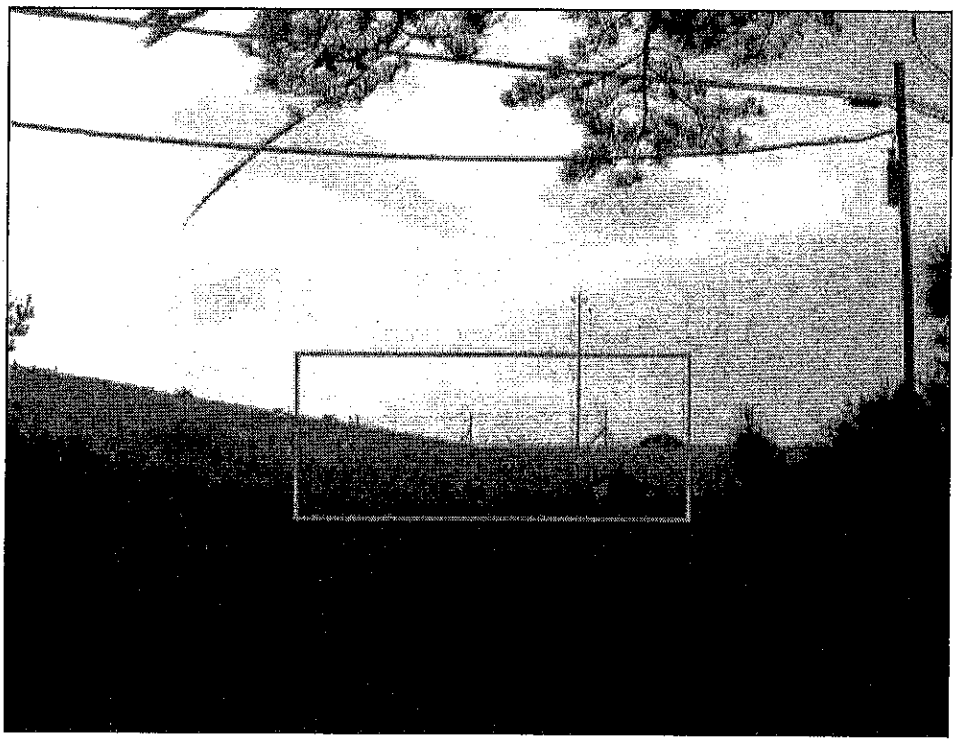
This photograph shows the illegally filled in freshwater marsh as it is at present.

The proposed distillery will be located on the other side of the dark green cedars growing in the top left corner of the photo, about 50' from this location. The shallow rooted cypress trees in the center left and to the right were planted by Magee after filling in the wetland.

Had this freshwater marsh not been illegally filled in, the present location of the brandy distillery and sales building would be well within the wetlands minimum 100' buffer strip.

4. Sheep Shelters Too Close to Tomales Bay and Structures Widely Scattered Across Property

Recently, as I stood by the shore of Tomales Bay, I was taken aback to see Mr. Magee's sheep shelter so close to Tomales Bay. In the photo below, taken from the shore of the bay, the sheep shelter is silhouetted against the sky. No other local ranchers confine their animals so close to the bay. Why is Mr. Magee?



This photograph shows the storey poles for the intended sheep shelter, too close to Tomales Bay. I shot this photo while standing on the shore of the bay, looking up toward Shoreline Highway. The telephone lines run along side Shoreline Highway, which is between the dark forground and the lighter hills of Mr. Magee's property.

In addition, the structures are widely scattered across the property, disrupting the viewshed. Clustering the development would certainly improve the viewshed as it is seen from the Point Reyes National Seashore, Tomales Bay State Park and from Tomales Bay itself. The barn would be much less visible if it were sited nearer to where the Brandyhouse is presently proposed or grouped with the residence. The road to the residence would be nearly hidden if it followed the present old ranch road instead of it's intended location where the pigpen is presently.

5. The Brandy Distillery

Why hasn't Mr. Magee planted a test plot of grapes to see if they actually will grow on a commercial scale in the salt winds and long, foggy summers that are Marshall's climate? He said in the Marin County hearing that he wasn't sure that grapes will grow and that he would have fruit two years after planting. Why wouldn't he want to find out before investing in his Brandyhouse and distillery? He has leased or owned the property for over three years. Isn't it a bad business plan to put the cart before the horse? Or, is his plan actually to truck in grapes or wine to make his 1,000 bottles of brandy? Trucking in grapes will increase traffic circulation adverse impacts for this rural area.

Mr. Magee is asking to build an industrial distillery on agricultural land on the basis of a crop that doesn't exist – one that has never been grown in Marshall. If he can't grow grapes on this property, then he will be trucking in grapes or wine to make brandy. His entrance is an s-curve when coming from the north. Can tanker trucks safely navigate that turn? If he has to truck in grapes or wine, then this becomes an industrial use of agricultural land.

Is a distillery consistent with protecting the water quality of the bay? Distillery waste products such as grape skin pumice and hot water from the still will have to be disposed of. Also, in the case of a fire (he will be producing ethanol, the equivalent of gasoline), he will have to use ATFF foam to contain it. It is a special fire suppressing foam for alcohol and gasoline fires not carried by either the Point Reyes Station or Tomales Fire Departments.

The ATFF foam is toxic to fish and other marine life. Firefighting foams can emulsify oil on waterfowl, causing the birds to lose their insulation and buoyancy in water, and may result in the death of the birds.[1] Since his proposed distillery is to be so close to wetlands areas and the blue-line stream, if there was a fire and ATFF foam was used, it would be impossible to keep it out of the ground water and bay.

It is this industrial aspect of fire suppression in a distillery that is why distilleries are located in industrial areas near sewage treatment plants and where large amounts of water are available – not on isolated ranch land within a 100' of Tomales Bay. The Coastal Act requires new development be located near existing services. Magee has tried to skirt this issue by calling his brandy distillery, "agricultural production" and a "tasting room". The word "distillery" was not used in his county planning department documents, yet that is the process by which he will produce the brandy for tasting. Why has he not been straightforward and open about his distillery?

The county set no Conditions on requiring the brandy to be processed only from grapes grown on Mr. Magee's property. They set no Conditions to prevent the trucking in of grapes, the distillery hours of operation or hours for sales. The Point Reyes Vineyard, located in a much warmer, more protected area, trucks in most of their grapes from the warmer growing areas of eastern Marin. Since it is likely that Mr. Magee would have to do the same, there needs to be appropriate Conditions to keep this operation agricultural, not industrial.

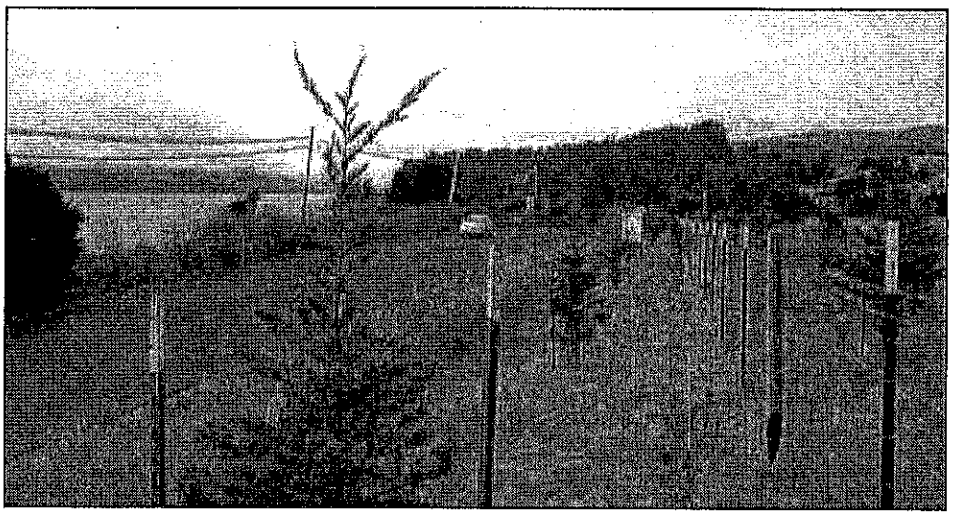
I believe that many of these questions would have been addressed if the county had required a Master Plan as is required in their certified LCP. An industrial brandy distillery, oriented toward attracting more tourist traffic to Marshall and an already over crowded Shoreline Highway, is in no way "minor and incidental."

[1] William H. Ruppert, IV, P.E., Dr. Daniel P. Verdonik, Mr. Christopher Hanauska, P.E. , Environmental Impacts of Firefighting Foams, Hughes Associates, Inc., pdf.

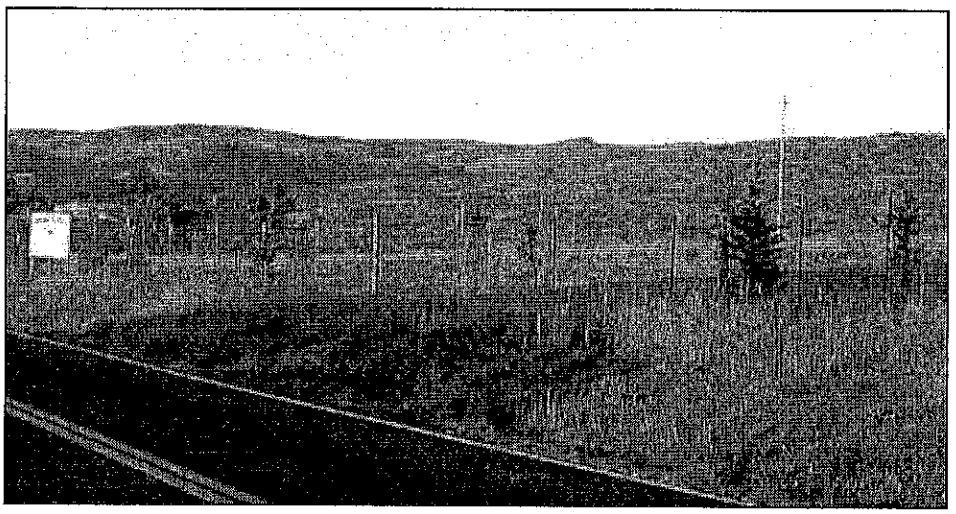
6. Cypress Trees Planted Along Shoreline Highway will Entirely Block Views of this Scenic Resource.

Mr. Magee has planted non-native cypress trees, three rows deep, along the entire length of his property fronting on Shoreline Highway, which will entirely block public views of this beautiful valley and grasslands from the highway. The Marin County LCP, Unit II, P. 194 states "The primary concern of the Coastal Act is to protect views to scenic resources from public roads" and "on the open rolling grasslands east of the Bay".

Also, the East Shore Planning Group noted that this line of trees was planted contrary to county approval in their letter of Feb. 2, 2010. "We notice plantings of trees along the Highway 1 boundary. We would like to ask that these trees are intermittently spaced, such that they do not form a wall blocking views of the ranch land. Objective A.9 in our East Shore Community Plan (p. 24) requests that the aesthetic qualities of the East Shore be preserved in order to retain its visual amenities." The county ignored the request.



Cypress trees planted by Mr. Magee, three rows deep. along Shoreline Highway - the entire length of his property without the breaks that are shown on his plans.



When grown, these cypress trees will form a solid, black-green wall which will *entirely* block the public's view of the grasslands.

In conclusion, it is my opinion that this land should only be used for light grazing of sheep or grass-fed beef, as is traditional in Marshall. I make that statement as a thirty-year resident of Marshall with thirty years of experience attempting to grow vegetables and successfully growing native plants. The thick mat of deep-rooted perennial grass is a valuable resource for filtering water run off, erosion control and keeping the bay waters clean. The grassland should not be destroyed to plant a marginal crop. While it is admirable that Mr. Magee has developed a plan for farming the land, it is a plan that might work well in another location, but not here in Marshall. The exceptional filtering and erosion control capability of the grassland ecosystem in this steeply sloped drainage basin should not be taken lightly. The loss of this relatively pristine perennial grassland for a crop that won't produce is senseless and harmful to Tomales Bay.

In the three years that Mr. Magee has leased or owned this property, he has not shown himself to be a good steward of this nearly pristine property that is so vital to the health of Tomales Bay. He has caused erosion, has illegally filled in a wetland marsh, was cavalier in installing pigs and allowing their excrement to flow into Tomales Bay, has been disingenuous to the community about his plans for a brandy distillery by cloaking it as agricultural production and has refused to cluster his buildings to improve the viewshed. He has shown bad faith in presenting a plan to the county and then doing whatever he wishes, to the detriment of the land and Tomales Bay. Therefore, I ask the CCC to impose stringent conditions for any approved development - and monitor him for compliance.

As a background note to this letter, Mr. Magee has personally intimidated me with threatening emails and continuous harassment at my home in retaliation for my daring to question the scope of his project. This harassment began in July 2010 and has continued until recently. Mr. Magee's attention has been unkind, insincere and unwanted.

Thank you for this opportunity to communicate my concerns.

Sincerely,

Linda Emme

Cc: Scott Kivel and Lia Lund
Fran Gibson
Catherine Caufield
Thomas G. Baty
Bree Hardcastle, State Parks Regional Office
Cicely Muldoon, Point Reyes National Seashore
Tim Reed, Gulf of the Farallones Marine Sanctuary
Department of Fish & Game, Marin County

RECEIVED
JUN 30 2011
CALIFORNIA
COASTAL COMMISSION

Thomas G Baty
Box 534
Inverness CA 94937

April 28, 2011

California Coastal Commission
45 Fremont Street
Suite 2000
San Francisco CA 94105

:
RE: Brader-Magee appeal

Dear Commissioners;

Attached is a copy of my letter to the Marin County Planning Commission expressing my concerns over the proposed development at 17990 State Route One in Marshall CA.

Much of the aggressive development of our rural areas in Marin County is now done by taking advantage of the county's loose and liberal agricultural policies. Throw-away agricultural features like ersatz vineyards now provide the zoning cincher for expansive domestic compounds and obligatory multiple "barns."

The Brader-Magee project takes this trick one step further and seeks approval of a perhaps-chic but nonetheless industrial distillery operation. Other than the applicants' clear intent to cash in on the visual beauty of Tomales Bay and the Seashore beyond, I can see absolutely nothing site-specific or beneficial in this project on this parcel of land. To the contrary, I take offense at the inherent fundamental phoniness of a brandy distillery and sniffery on this site. Sustainable local agriculture has to be rooted in the honest production of real farm products, not a basic marketing sham.

The Coastal Commission has previously considered and rejected other developments in this area, primarily out of concern for visual impacts to an ever dwindling California coastline. I would ask Commissioners to reject the Brader-Magee project as it too has no business being here.

Sincerely,

Thomas G Baty

THOMAS G. BATY
P.O. BOX 534, INVERNESS, CA 94937
415/669-1682

Marin County Planning Commission
Marin County Community Development Agency
3501 Civic Center Drive, Rm308
San Rafael CA 94903

April 5, 2010

RE: Brader-Magee

Dear Planning Commissioners;

I wanted to share my concerns over the proposed Brader-Magee development in Marshall.

I am concerned that the project may adversely affect the water quality of Tomales Bay. There is currently a substantial dam across the blue-line stream that runs through the property with a spillway that allows whatever remnant flow to continue to the bay. Is this water impoundment legally permitted by the State Water Board and is this the proposed water supply for this development? Has there been any quantitative analysis of stream flows on this creek and will the project affect the volume of water that currently reaches the bay? Incremental water diversions on the small streams around the bay continue to threaten the health of the bay, particularly in the dry months of the year when the south end of the bay tends towards hyper-salinity.

The development would also appear to pose risks to water quality as run-off from a vineyard and distillery could clearly harm the waters of the bay. The natural water course for the site carries water through a culvert under Highway 1 and flows across the State Parks' property at Marconi Cove before it empties into the bay at the Cove Mussel and Oyster Company aquaculture lease The North Coast Regional Water Quality Control Board is currently grappling with sediment, pesticide and herbicide issues downstream of vineyards in Napa and Sonoma Counties. Does the project describe the specific areas on the property for planting vines and does it include a management plan for the vineyards? Is there an adequate water catchment/treatment system for the distillery to ensure that no wastewater reaches the bay? While the State Parks' Marconi Cove unit of Tomales Bay State Park is currently undeveloped, the Parks' General Management Plan calls for a recreational access point and small campground that focus on the obvious water-related activities. The aquaculture lease is directly adjacent to the outfall from the project site. Have the California Department of Public Health and the Department of Fish and Game been solicited for input and comments on the potential impacts from this development?

I am also concerned about the visual impact of the proposed development. Sadly, wineries are not about gently blending into the landscapes. Rather, they are almost always about notoriety and name recognition---I believe "branding" is the current

P.O. BOX 534, INVERNESS, CA 94937
415/669-1682

description of this activity. I do not profess to know what is actually needed for a functional distillery, but I look up on those hills at a substantial handful of story-poles and know that this project would represent a big increase in the commercial "built" footprint of a decreasingly rural Marshall. From a boat in the bay, the proposed placement and size of the buildings seem excessive and oversized, adding to the southward creep of fully built-out parcels.

Finally, I would like to express my concern for the ever-increasing threat of commercial interests taking advantage of our less-restrictive zoning of "agricultural" uses and the cache of West Marin in general and West Marin foodstuffs in particular. I can very easily see the day when Highway 1 north of Point Reyes Station is a continuous strip of wine tasting rooms and produce stands---whether or not they are actually selling their own farm-raised or value-added products.

There was a profile on the applicant and project in one of our local newspapers. The applicant apparently makes a very good beer. The applicant also admitted that he has no idea of whether a suitable brandy grape can be grown on the site. Is this a sufficient premise to allow the development of a distillery on our diminishing coastline?

Ideally, we would have a demonstration that serviceable grapes can be safely grown here before the distillery is built. Otherwise we will have simply succeeded in locating another industrial activity on a scenic, once rural piece of the coast

I would ask the Planning Commission to consider the questions and comments raised here and work to minimize the visual impacts and water quality threats of this project

Sincerely,

Thomas G Baty

Larry Simon

From: dorisroe@charter.net
Sent: Tuesday, June 28, 2011 9:40 AM
To: Larry Simon

June 27, 2011

Mr.Larry Simon
Federal Consistency Coordinator
Coastal Commission

Dear Mr.Simon:

My family settled in the Bodega/Tomales area in 1851 (during the Gold Rush), established ranches, and had a few escape cabins at Dillon Beach. The first built in 1912 is still in the family.

As a youth, fascinated with the wildlife, I wandered the shores of Tomales Bay - once considered the most pristine bay south of Alaska.

I spent years in money and effort to create Point Reyes National Seashore, and in reestablishing its elk herd; expanding the Farallones and Cordell Marine Sanctuaries, and in defeating PG&E's effort to build a nuclear reactor on Bodega Head, etc.

I am abhorred by the developer, Tony Magee, trying to side-step regulations to build a 10,000 square complex, and especially a contaminating distillery, all on environmentally sensitive land. It is a travesty. One greedy man, for profit and personal satisfaction, seeks gain at the expense of the people; the lovers of Tomales Bay; and the rare beauty and ecological significance of a precious gem. The project must be stopped.

Sincerely,

Kenneth S. Roe
3325 Saint Moritz Court
Redding , CA 96002

BRIDGER M. MITCHELL

RECEIVED
JUN 30 2011
COASTAL COMMISSION
NORTH COAST DISTRICT

June 29, 2011

Commissioners, California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Re: Appeal No. A-2-MAR-10-022 (Tony Magee and Dillon Vision LLC, CP-09-39, Marshall, Marin County)

The Coastal Commission found that this appeal presented a *substantial issue* at its September 2010 meeting and will hear this application *de novo*. In doing so, the Commission should examine Marin County's processing of this application in light of the certified Local Coastal Plan's requirements that the applicant either submit a master plan comprising all of the planned and prospective developments, or file for a waiver of master plan. As noted by several persons who presented public comments to the county (Catherine Caufield; Scott Kivel and Lia Lund; Bridger Mitchell; and the Environmental Action Committee):

A. The project approval by the Marin County Board of Supervisors violates provisions of the county's Unit II Local Coastal Plan. The requirements for a waiver of filing a master plan were not satisfied in the county's processing of the application, and cannot be met.

1. The applicant did not file formal written application for waiver of master plan, which is required by the Development Code (22.44.040).
2. The Project Notice did not provide public notice of an application for waiver.
3. The staff report to the Planning Commission did not provide grounds for finding project the project to be "minor or incidental" (22.56.026(c)) and the Planning Commission added "minor and incidental" language to its resolution approving the project without any findings of fact to support that language.
4. When the Planning Commission's decision was appealed to the Board of Supervisors, the staff report incorrectly asserted that other findings for waiver are not required to be made.

   In fact, the Coastal Commission's staff analyzed the appeal of Marin County's approval for development of the parcel adjacent to the Magee parcel. Your staff's analysis in its detailed February 14, 2003 memorandum (Hansen-Brubaker project) of the requirement to waive a Master Plan is fully applicable to this project as well:

   > "according to Zoning Code Section 22.56.026, to qualify for a Master Plan waiver a development must meet the three criteria ... in A-C. Although the proposed development includes one single-family dwelling unit proposed for construction on a legal building site, it does not meet requirement A because it includes a guest house and barn ... Furthermore, the proposed development is not minor or incidental in nature or within the intent and objectives of the local coastal plan as mandated by requirement C. ... the proposed development is significant in nature and inconsistent with Unit II LCP provisions for the protection of visual and agricultural resources. Consequently the appropriate findings cannot be made under Zoning Code Section 22.56.026 to waive the Master Plan requirement." [p. 22]

5. Several factual findings required by the LCP in order to wave the filing a master plan cannot be made because:
   - The project includes developments in addition to one single-family dwelling unit.
   - The project consists of six separate structures whose total building area exceeds 10,000 square feet and thus cannot be deemed "minor".
   - The project includes agricultural processing (a commercial brandy distillery), which is a conditional use, and therefore cannot be deemed "incidental".

B. Approval of the project without a master plan risks the siting and construction of additional development without public review.

Although the county asserted that the other information received enabled it to conclude that the requirements of the LCP were satisfied, the lack of a master plan for this parcel leaves open the risk that future developments will occur without public hearing. In particular, the county's approval of the project without a master plan will apparently allow subsequent development of accessory agricultural structures and bed and breakfast operations (which are principal permitted uses that by 22.57.032I are subject to an approved master plan) and a second residential unit (which Marin County staff treats as effectively a principal permitted use) without subjecting these additional developments to either master plan review, design review or public hearing.

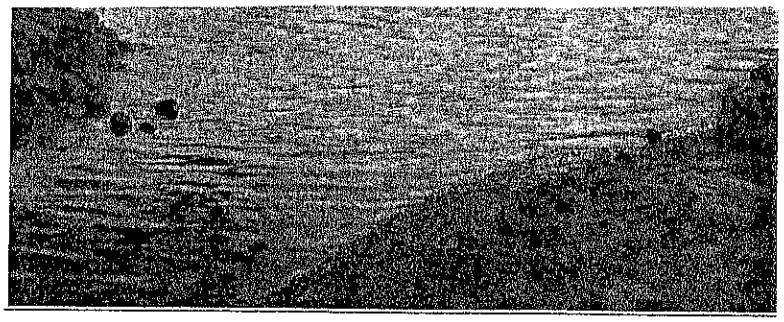
As the county record and public comments demonstrate, development on this site will create a host of environmental and visual impacts that require full review in order to satisfy the requirements of the LCP. It is essential that the Coastal Commission ensure that any additional housing on this parcel be subject to public scrutiny.

Thank you for the opportunity to comment on this appeal.

Sincerely yours,

Cc: Charles Lester, Deputy Director
Ruby Pap, District Supervisor
Larry Simon, Federal Consistency Coordinator

AUGUST 2011



The Blue-Line Stream entering Tomales Bay in Marconi Cove

An Industrial Distillery is *NOT* agriculture!

The Development

In 2010 Marin County approved a development, including an industrial brandy distillery disguised as a Tasting Room, only 100 feet from a blue line stream and 75 feet across Highway One from the State Park owned Marconi Cove on Tomales Bay. Located in Marshall, the developer intends to build seven new buildings that include a distillery, residence, two barns, two sheep shelters and greenhouse scattered across the property. The 149 acres are a valley with a blue-line stream bisecting the property, a stream that becomes a roaring river with three tributaries during the winter. The property is a pristine mix of perennial grasslands, riparian zones, a man-made pond, seeps, swales and wetlands filtering an immense amount of water off the ridge into Tomales Bay.

History

April 2010: Planning Commission approval
May 2010: Board of Supervisors Approval
September 2010: The County's decision was appealed to the California Coastal Commission that voted 9-1 that the development raised substantial environmental issues and it is currently conducting its own independent review.

Impact on the Environment and the Public

- The development: 10,000+ square feet of new buildings located within potential Environmentally Sensitive Habitat Areas.
- Marin County Planning called it "minor and incidental" and did not require an environmental review or a master plan that are required under the Local Coastal Plan.
- Six acres of grapes and six acres of hops will be planted, both of which require large amounts of fertilizer, pesticides and water and are questionable crops in Marshall's marine climate. If grape vineyards were viable on the East Shore hills of Tomales Bay, the ranchers would have planted them instead of grazing cattle.
- Twelve acres of pristine perennial grasslands and wetlands that filter the water coming into the bay will be destroyed to plant these marginal crops.
- The development impacts the viewshed of the area's parks and the Bay. It can be seen from the State Park's Marconi Conference Center, Marconi Cove and Shell Beach and is highly visible from the Bay, which is part of the Gulf of the Farallones National Marine Sanctuary.
- Tomales Bay is a Ramsar Convention Wetland of International Importance. It was chosen in 2002 because it is relatively pristine with no industry on the bay to pollute it.

- The developer states that he will produce 1,000 bottles of brandy from his own grapes. There are no conditions to prevent him from trucking in grapes to distill, from expanding his facility, or to prevent him from running the distillery 24/7. He could sell out to Seagrams and they could truck in grapes.

- An industrial distillery will have adverse environmental effects from hot water boilers, ethanol flammability, toxic wastes that include formaldehyde, toxic foams used to extinguish ethanol fires, and possible sewage spills.

- This industrial distillery is located only 100 feet from the blue-line stream, 50 feet from a filled-in wetland area, and 200 feet from Tomales Bay

- Brandy is 70-80% ethanol. Ethanol's flashpoint is 68 degrees (the lowest temperature at which it will ignite) and is a fire hazard in this isolated, rural location.

- Bill Owen, president of the American Distilling Institute, called a carboy (jug used in distilleries) a "bomb."

- Distilleries are now wisely located in industrial parks, close to fire departments where huge amounts of water and sewers are available for fire fighting. Marconi Cove is nine miles from the closest fire department in Point Reyes Station and response time is 15-20 minutes because of the narrow, winding Highway One. Instead of sewers, there is the blue-line stream and Tomales Bay.

- Since Brandy is aged, we can expect 3,000-20,000 bottles and casks to be present on the property.

- Whiskey Springs in Sausalito, the last distillery in Marin, exploded into a fireball in 1963.

We need to protect our [illegible] which will set a damaging precedent. 9410502254

Is an industrial distillery a reasonable and safe use of our coastal ranch land?

The Coastal Commission may schedule its hearing as early as October. NOW is the time to express your views to the CCC.

Write or email

RE: Magee Project No. A-2-MAR-10-22

California Coastal Commissioners
c/o Charles Lester, Senior Deputy Director
45 Fremont Street #2000
San Francisco, CA 94105-2219
FAX: 415 904-5400 or EMAIL: clester@coastal.ca.gov

For further information e-mail us at:

tomalesbay@gmail.com

Lia Lund or Scott Kivel, 18400 State Route One, Marshall, 94940.

Larry Simon

From: Charles Lester
Sent: Wednesday, August 24, 2011 5:01 PM
To: Larry Simon
Cc: Ruby Pap
Subject: FW: distillery in Marshall

Charles Lester

Senior Deputy Director

California Coastal Commission

725 Front Street, Suite 300

Santa Cruz, CA 95060

831-427-4863 Fax: 831-427-4877

clester@coastal.ca.gov

www.coastal.ca.gov

-----Original Message-----
From: inez storer [mailto:inezs@horizoncable.com]
Sent: Wednesday, August 24, 2011 4:55 PM
To: Charles Lester
Cc: Jeff Staben
Subject: distillery in Marshall

As very long term residents of residents of Inverness in West Marin, we would absolutely be opposed to having such an invasive and possibly dangerous and hugely inappropriate business, a distillery disguised as a tasting room (how disingenuous is that) which would be located very near Marconi's Cove. I also find it "odd" that the developer offered to pay to keep Samuel Taylor Park open. If this is true, what a transparent bribe. It doesn't take rocket science to understand how this business would have a deleterious effect on what is zoned agricultural land. The Indians tried to build a casino on or near the same area and fortunately they were not successful. Appropriateness is the operative word here. Sincerely, Inez Storer and Andrew Romanoff

Larry Simon

From: Charles Lester
Sent: Thursday, August 25, 2011 11:09 PM
To: Larry Simon
Subject: FW: Magee Projest No A-2-MAR-10-22

Charles Lester
Senior Deputy Director
California Coastal Commission
725 Front Street, Suite 300
Santa Cruz, CA 95060
831-427-4863 Fax: 831-427-4877
clester@coastal.ca.gov
www.coastal.ca.gov

From: eugene laur [mailto:eugenelaur@gmail.com]
Sent: Wednesday, August 24, 2011 6:17 PM
To: Charles Lester
Subject: Magee Projest No A-2-MAR-10-22

Dear Charles Lester.

I hope you, the Cal CC, can rein in this mad brandy distillery project in Marshall, CA. It borders on insanity and it boggles the mind thinking how Marin Cty Planning could approve a project like this.

Gene Laur

Larry Simon

From: Charles Lester
Sent: Thursday, August 25, 2011 11:09 PM
To: Larry Simon
Subject: FW: Charles Lester, Sr. Deputy Director Re- Magee Project No. A-2-MAR-10-22

Charles Lester

Senior Deputy Director

California Coastal Commission

725 Front Street, Suite 300

Santa Cruz, CA 95060

831-427-4863 Fax: 831-427-4877

clester@coastal.ca.gov

www.coastal.ca.gov

-----Original Message-----
From: Barry Linder [mailto:barrylinda@earthlink.net]
Sent: Wednesday, August 24, 2011 6:04 PM
To: Charles Lester; jstaber@coastal.ca.gov
Subject: Att: Charles Lester, Sr. Deputy Director Re- Magee Project No. A-2-MAR-10-22

I believe this development to be inappropriate to our area based on the environmental and social impact that it will have. My house survived the 45,000 acre fire on the Inverness ridge in1995. i will never forget the explosions of fire as I viewed the ridge from the east side of the bay. As I look out on the hills from my Inverness home, I can just imagine the hills in flames. Don't let this project through. We don't need the threat of a multinational corp. eventually moving here. Linda Linder.

Simon, Larry@Coastal

From: Jeff Staben
Sent: Friday, August 26, 2011 9:05 PM
To: Larry Simon
Subject: FW: proposed industrial brandy distillery -Marshall, Calif.

here's another email

-----Original Message-----
From: Joyce Goldfield [mailto:joycegoldfield@gmail.com]
Sent: Fri 8/26/2011 5:33 PM
To: Jeff Staben
Cc:
Subject: proposed industrial brandy distillery -Marshall, Calif.
California Coastal Commissioners
c/o Charles Lester, Senior Deputy Director
45 Freemont Street #2000
San Francisco, Çalif. 94105

Dear Sir:

I am writing to vehemently oppose the proposed industrial brandy distillery across from the State Park owned Marconi Cove property on
Tomales Bay, in Marshall, California. This industrial project,
disguised a a tasting room, will be located 100 feet from a blue line stream, which feeds directly into pristine Tomales Bay. Having lived in Inverness, Ca. for the past 35 years, while raising my family here, I am well aware of all the battles fought and won to preserve the quality of the water in Tomales Bay.....for the birds, wildlife, aquaculture, humans and flora depending on the quality of water in this Bay. The adverse environmental effects of toxic wastes (including formaldehyde, and toxic foams used to fight ethanol fires), fertilizer and pesticides used in the growing of grapes and the possibility of sewage spills, are all a direct threat to the 'Bay. The potential fire hazard of storing bottles and casks of aging brandy on this property is frightening. This type of industry belongs in an industrial park, close to fire fighting services. This land is historically ranch land with pristine grasslands, riparian zones, a man-made pond and wetlands, filtering an immense amount of water off the ridge into Tomales Bay. The blue-line stream bisecting the property channels immense amounts of water into the Bay year round, but especially during the rainy season. Once this land is sacrificed to industrial use, it cannot be repaired. Please use all the means at your disposal to discourage the use of this 149 acres of land by any industry. This would set a frightening precedence that would encourage further destruction of our coastline. Tomales Bay, a Ramsar Convention Wetland of International Importance, deserves your help in preserving the sanctity of its waters and environs.

Sincerely,

Joyce H. Goldfield

P.O.

Box 581

82 Drake's Summit Road

Inverness, California 94937

415

663-1787

Larry Simon

From: Jeff Staben
Sent: Friday, August 26, 2011 7:56 AM
To: Larry Simon
Subject: FW: Distillery in Tomales Bay

California Coastal Commissioners,

Living in Inverness, I am a concerned stakeholder in the review of environmentally hazardous development in this area. The proposed industrial distillery in Marshall is definitely not a reasonable use of coastal ranch land. I am particularly irritated by the disingenuous planting of grapes and hops. Obviously this will not be a viable source of booze materials in this climate and it is window dressing to make it look like these are old-fashioned farmers. If they want to agree not to truck in outside produce, then we can talk about how they will meet environmental standards as they distil what they grow and then store it off-site, but this scam is a non-starter.

Kevin Lawson

P.O. Box 1293

Point Reyes CA, 94956

Yes@svn.net

Home (415) 663-9210

Cell (530) 545-2730

Fax (415) 873-1949

Larry Simon

From: Charles Lester
Sent: Friday, August 26, 2011 9:00 AM
To: Larry Simon
Subject: FW: Magee Project No A-2-MAR-10-22

Charles Lester

Senior Deputy Director

California Coastal Commission

725 Front Street, Suite 300

Santa Cruz, CA 95060

831-427-4863 Fax: 831-427-4877

clester@coastal.ca.gov

www.coastal.ca.gov

-----Original Message-----
From: North Bay Myotherapy and Fitness [mailto:myotherapy@ix.netcom.com]
Sent: Friday, August 26, 2011 8:39 AM
To: Charles Lester
Cc: jstaber@coastal.ca.gov
Subject: Magee Project No A-2-MAR-10-22

I find it horrifying that the Magee Project has proceeded as far as it has. The potential for environmental damage is huge. An industrial distillery belongs in an industrial area, not on the pristine shore of Tomales Bay and its tributaries. Planting a few acres of grapes and running a few sheep is a transparent "cover" for a purely industrial operation.

I expect the Coastal Commission will act responsibly in prohibiting this project in agricultural West Marin.

Molly Hogan

a method for relaxing muscle spasm, improving circulation and alleviating pain. To defuse 'trigger points,' pressure is applied to the muscle for several seconds by means of fingers, knuckles and elbows. The success of this method depends on the use of specific corrective exercise for the freed muscles. The method was developed by Bonnie Prudden in 1976." - Taber's Cyclopedic Medical Dictionary

This email message may contain confidential and privileged information. This message is intended only for the use of the individual or entity to which it is disclosed under applicable federal or state law. If you are not the intended recipient, be aware that any disclosure, coping, distribution or use of this email message or any attachment is prohibited. If you have received this email message in error, please notify us immediately (415-260=3690) so that we can arrange for retrieval or direct you to the proper course of action.

Larry Simon

From: Charles Lester
Sent: Friday, August 26, 2011 9:01 AM
To: Larry Simon
Subject: FW: Distillery on Tomales Bay

Charles Lester
Senior Deputy Director
California Coastal Commission
725 Front Street, Suite 300
Santa Cruz, CA 95060
831-427-4863 Fax: 831-427-4877
clester@coastal.ca.gov
www.coastal.ca.gov

From: Susan Burns [mailto:thinkseals@yahoo.com]
Sent: Friday, August 26, 2011 7:00 AM
To: Charles Lester
Subject: Distillery on Tomales Bay

Dear Mr. Lester ~

I am a resident of Inverness Park, and yesterday I received a mailer from Lia Lund and Scott Kivel which listed quite a number of negative points about the proposed development of a distillery on the shores of our beautiful Tomales Bay. It is likely that you have also received a copy, so I will not duplicate the details here. I simply wish to say that I dearly hope the Coastal Commission will take into full consideration the wishes of the many residents who live on or near this gorgeous and healthy body of water. Many of us (myself included) are vehemently opposed to the construction of a potentially dangerous and polluting development such as the brandy distillery, and I write to you with the hope that its construction will not be permitted.

Best,
Susan Burns
146 Portola Avenue
Inverness Park 94956

PO Box 108
Tomales CA
94971
8-27-11

e Charles Lester:
am 94 years old and have
a resident in a rural area
dg Tomales since 1970.
know how hard citizens of
Marin have fought to
ve our beautiful pristine
ture from defeating the
elopment of a nuclear
er at Bodega Head to
ing us from a freeway
Highway 1. Our coast
em needs fighting for.
have 2 glaucoma and
lerted by nuclear-e abuse
lems and am averse
all these nuke-hasting
ues.
Bring back the apples
plums. No more
gards (climate change
ll probably do them in
way.)
Respectfully -

Larry Simon

From: Charles Lester
Sent: Saturday, August 27, 2011 8:52 PM
To: Larry Simon
Subject: FW: Magee Project No. A-2-MAR-10-22

Charles Lester
Senior Deputy Director
California Coastal Commission
725 Front Street, Suite 300
Santa Cruz, CA 95060
831-427-4863 Fax: 831-427-4877
clester@coastal.ca.gov
www.coastal.ca.gov

From: Paul Coopersmith [mailto:paul@coopersmiths.com]
Sent: Saturday, August 27, 2011 3:44 PM
To: Charles Lester
Subject: Magee Project No. A-2-MAR-10-22

Dear Mr Lester,

As someone one lives less than 100 yards from the western shore of Tomales Bay, I am vehemently opposed to the so-called "tasting room" being allowed to be built and operate 200 feet from that bay at Marconi Cove.

The reasons I object reasons to this project are too numerous to go into here. Suffice it to say that an industrial distillery is totally incompatible with the environment of Tomales Bay. It would open the door to all sorts of other inappropriate developments on the shores of this relatively pristine body of water that comprises part of the Farallones National Marine Sanctuary.

I urge you to vote to reject the Magee Project No. A-2-MAR-10-22.

Sincerely,

Paul Coopersmith
COOPERSMITH'S One-of-a-Kind Tours...since 1984
P. O. Box 900, Inverness, California 94937
Tel 415.669.1914 Fax 415.669.1942
Paul@Coopersmiths.com
http://www.Coopersmiths.com

Larry Simon

From: Charles Lester
Sent: Saturday, August 27, 2011 8:54 PM
To: Larry Simon
Subject: FW: No on Distillery Project on Tomales Bay

Charles Lester

Senior Deputy Director

California Coastal Commission

725 Front Street, Suite 300

Santa Cruz, CA 95060

831-427-4863 Fax: 831-427-4877

clester@coastal.ca.gov

www.coastal.ca.gov

-----Original Message-----
From: jeff felix [mailto:felix2468@horizoncable.com]
Sent: Friday, August 26, 2011 4:05 PM
To: Charles Lester
Subject: No on Distillery Project on Tomales Bay

FOR YOU CONSIDERATION:

All things considered we, my wife and I, believe that having a distillery on Tomales Bay is a bad idea. The negative impact of a distillery on this fragile environment is not worth the benefits it might bring such as jobs and money into the local economy.

It will, unfortunately, also open the proverbial flood gates for other related business' moving into this fragile environment.

We are,

Jeffrey & Bonnie Felix
PO Box 935
Point Reyes Station, CA 94956
415.663-1867

Larry Simon

From: Jeff Staben
Sent: Monday, August 29, 2011 12:15 PM
To: Larry Simon
Subject: FW: Magee Project No. A-2-MAR-10-22

FYI -

As a concerned property owner in Inverness I am writing to urge the Commission to reverse the Marin County Board of Supervisors' approval of the brandy distillery project on the shore of Tomales Bay in Marshall. Essentially, what is billed as a tasting room is really an industrial distillery and as such it has no place in the relatively pristine environment of Tomales Bay.

Not only is it inappropriate, likely to be a source of pollution, but potentially dangerous and certainly unsightly from the Bay, the beaches in Tomales Bay State Park, and Marconi Cove. Why site a distillery here, when it is highly unlikely that grapes can be successfully grown in the marine environment on the shores of the Bay?

Sincerely yours, Charles Gay and Pamela Ross, PO Box 5, Point Reyes Station, CA 94956

RECEIVED

AUG 30 2011

CALIFORNIA
COASTAL COMMISSION

RE: Magee Project No. A-2-Mar-10-22

Calif. Coastal Commissioners
c/o Charles Lester, Sr. Deputy Director
45 Fremont Street #2000
San Francisco CA 94905-2219

This is to let you know that I and my wife, residents of Tomales in Marin County, are decidedly against the building and developoment of an industrial brancy distillery on or near Marconi Cove on Tomales Bay. Such a development goes against the idea of keeping Tomales Bay clean and unpolluted and as an agricultural, not an industrial, area. It would also be unsightly to say the least. Again, I and the residents of the village of Tomales are decidedly negative on this issue.

Please prevent the development from happening.

Thank you,

Judith I La Moure
Spencer E. La Moure
Box 27
Tomales Ca 94971.

California Coastal Commissioners
c/o Charles Lester, Senior Deputy Director
45 Fremont Street #2000
San Francisco, CA 94105-2219

RECEIVED
AUG 30 2011
CALIFORNIA
COASTAL COMMISSION

Re: Magee Project No. A-2-MAR-10-22

Dear Coastal Commissioners,

We have lived in Marin for twenty plus years and have family here since the 1970s. We have seen the negative impact development has had on Marin and specifically the coastal areas.

We are writing to voice our opposition to the industrial distillery planned near Marconi Cove.

West Marin is no place for an industrial distillery. After succeeding in the initial development, there are no conditions that would prevent the owner from growing his business. This growth could include expanding his facility, additional ranch housing, trucking in grapes to distill and further changes his land to accommodate growth. It is the nature of business to grow and this growth would definitely have an increasingly detrimental impact on this pristine area.

In addition to this detrimental growth, there is the real and present danger of fire from the brandy, which is 70 - 80% ethanol. We have already had one wild fire here in West Marin which destroyed thousands of acres and many houses. This risk would increase with growth. Most distilleries are served by closer fire stations and wider and straighter roads.

There is also the real concern of toxic substances from the distillery process leaking into the ground water and into Tomales Bay.

We would hope you would do the right thing for West Marin and the future generations who will benefit more from the pristine area that is West Marin than they will benefit from yet another development and distillery.

Thank you ,

George & JC Anderson
P O Box 1300
Point Reyes Station, CA 94956

To the C.C.C.:

Re: Marconi Project No. A-2-MAR-10-22

I am writing to express my extreme
objection of the planned industrial
kitchen to be built in Marshall.

We don't need this source of pollution,
[illegible] [illegible], [illegible] [illegible],
[illegible] commercial [illegible], & all of the
[illegible] [illegible] [illegible]
[illegible] issues!

We [illegible] need to keep our wetlands,
[illegible], streams & bay pristine.
This [illegible] are [illegible] what we
[illegible] — all that we want for us
[illegible] guardians of this beautiful
[illegible] for all to enjoy.

Sincerely,

RECEIVED

SEP 01 2011

CALIFORNIA
COASTAL COMMISSION

Faun Sheridan
PO Box 968
Pt Reyes Sta, CA 94956

Larry Simon

From: Charles Lester
Sent: Monday, September 05, 2011 12:54 PM
To: Larry Simon
Subject: FW: Magee Project NO. A-2MAR-10-22

Charles Lester
Acting Executive Director/Senior Deputy Director
California Coastal Commission
725 Front Street, Suite 300
Santa Cruz, CA 95060
415-904-5202/831-427-4863
clester@coastal.ca.gov
www.coastal.ca.gov

From: J-S Van Der Wal [mailto:jvdwal@hughes.net]
Sent: Sunday, September 04, 2011 9:33 PM
To: Charles Lester
Subject: Magee Project NO. A-2MAR-10-22

California Coastal Commission
Charles Lester, Senior Deputy Director

This is to advise you that I am against the above project in any form. It would be an environmental disaster ,bring hordes of people out to the area to drink alcohol, drive and endanger the public on the roads. We don't need increased traffic on Hwy. 1. This abortion of a huge project would affect the view shed of Pt.Reyes Station, Inverness,Pt.Reyes NS, Tomales Bay SP to boot.

The owners of this development don't know where they are and could care less about the ramifications of such a "booze factory" and "barnyard" structures. We all saw what happened to Nick's Cove development so out of place for the area by a city boy and now he sold the property to someone else after he did all the environmental damage.

I am appalled that the Marin County - Planning Commission & Board of Supervisors approved of such an outrageous development in such sensitive environment out here on Hwy. 1 Marshall, West Marin. It clearly shows they are completely insensitive and out of touch with the environment in West Marin. An incompetent group to say the least. I won't be voting for any of these people again come next election.

I encourage the California Coastal Commission to stop this development.

Thank you.

susan van der wal
Inverness, CA

Ms. Julia Bartlett
39 Cypress
Pt Reyes Sta, CA 94956

POST CARD

The Krebs, Skaneateles, N. Y.
39 West Genesee Street Telephone 14
Successfully Operated Since 1899

RECEIVED
SEP 07 2011
CALIFORNIA COASTAL COMMISSION

I'm against a brewery/ distillery being built on seasonal wetlands - or anywhere! on Tomales Bay! Yours truly.

CCC
Chas Lester
45 Fremont # 200
SF 94105 - 2219

re: Magee project A-2-MAR-10-22

Larry Simon

From: Charles Lester
Sent: Thursday, September 08, 2011 12:50 PM
To: Larry Simon
Subject: FW: Magee Project No. A-2-MAR-10-22 proposed distillery on Tomales Bay

Charles Lester
Acting Executive Director/Senior Deputy Director
California Coastal Commission
725 Front Street, Suite 300
Santa Cruz, CA 95060
415-904-5202/831-427-4863
clester@coastal.ca.gov
www.coastal.ca.gov

From: Jane Curtis [mailto:jcurtis.jane@gmail.com]
Sent: Thursday, September 08, 2011 12:33 PM
To: Charles Lester
Cc: Jeff Staben; tomalesbay@gmail.com
Subject: RE:Magee Project No. A-2-MAR-10-22 proposed distillery on Tomales Bay

Thank goodness we have a Coastal Commission, since it seems that both Marin County Planning Commissioners and Board Supervisors are insensitive (unaware?) of the pristine beauty of Tomales Bay and its adjacent land. I am completely opposed to the building of a distillery and associated buildings near Marshall. I have lived in Inverness Park for nearly 30 years and have seen the wisdom of preserving the integrity of what West Marin has to offer an international community interested in wilderness. Please add my name to any list opposing the distillery. The informative flyer sent by Lia Lund and Scott Kivel was the impetus for my contacting you and expressing my views.
thank you
Jane Curtis
415 663-1537
jcurtis@horizoncable.com

Simon, Larry@Coastal

From: Charles Lester
Sent: Monday, September 12, 2011 10:52 AM
To: Larry Simon
Subject: FW: concerns about the Magee Project No. A-2-MAR-10-22

Charles Lester

Executive Director

California Coastal Commission

45 Fremont Street, Suite 2000

San Francisco, CA 94105

clester@coastal.ca.gov

www.coastal.ca.gov

-----Original Message-----
From: Miriam Landman [mailto:ml@mlandman.com]
Sent: Monday, September 12, 2011 10:33 AM
To: Charles Lester
Cc: Jeff Staben
Subject: concerns about the Magee Project No. A-2-MAR-10-22

Hello,

I am a resident of Tomales, in West Marin county.

I am concerned about the potential (and likely) negative environmental and community impacts, as well as the environmental and safety risks, related to the brandy distillery operation that has been proposed for development right next to the Tomales Bay.

I am glad that the Coastal Commission is reviewing this development.

This pristine and environmentally sensitive wetland area would not seem to be the appropriate location for this type of industrial devevelopment. The impacts from the land development itself, the pesticide applications, the likely manufacturing wastes, and the truck traffic to and from the distillery are all issues that need to be examined, as well as the lack of local firefighting services in close proximity to the location.

Thanks for considering these issues in your review.

Regards,

Miriam Landman

PO Box 375
Tomales, CA 94971

Larry Simon

From: Charles Lester
Sent: Wednesday, September 14, 2011 10:49 AM
To: Larry Simon
Subject: FW: Magee Project No. A-2-MAR-10-22

Charles Lester
Executive Director
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105
clester@coastal.ca.gov
www.coastal.ca.gov

From: Sonja Anderson [mailto:sonjajeananderson@gmail.com]
Sent: Wednesday, September 14, 2011 10:43 AM
To: Charles Lester
Cc: Jeff Staben; SonjaJeanAnderson@gmail.com
Subject: RE: Magee Project No. A-2-MAR-10-22

To: California Coastal Commissioners

Charles Lester, Senior Deputy Director,

I write to petition you to deny the Magee project on the coast of West Marin. This is an industrial distillery and would create truck traffic, waste materials, noise, danger of fire and unhealthy precedent. It is not an appropriate use of zoned agricultural land. The crops to be planted require large amounts of fertilizer, pesticides and water which will inevitable run into Tomales Bay.

This project was approved by Marin county and although I don't know what they were thinking, I trust that the Coastal Commission will be able to protect our coast from this destructive development.

Respectfully submitted,

Sonja Anderson
415-669-1699

Larry Simon

From: Charles Lester
Sent: Sunday, September 18, 2011 9:02 AM
To: Larry Simon
Subject: FW: brandy

Charles Lester

Executive Director

California Coastal Commission

45 Fremont Street, Suite 2000

San Francisco, CA 94105

415-904-5202

clester@coastal.ca.gov

www.coastal.ca.gov

-----Original Message-----
From: Brian Kirven [mailto:brinekonridge@gmail.com]
Sent: Sunday, September 18, 2011 5:04 AM
To: Charles Lester
Subject: brandy

Dear CCC,

Though I'm not diametrically opposed to agriculture, nor viñaculture products, this brandy plant does seem out of place. Anybody know that Vineyards located on slopes send their bi-products into the adjacent streams, and consequently, like you say, into the bay. It does make sense to say that we would have more vineyards if the climate were more apt for it.
This kind of global market mentality goes against what West Marin has fought so long and hard to protect against. Is it worth having a shi shi place for tourists and foodies to try "Tomales Bay Brandy," to damage the watershed and risk wildfire. Please send along my disapproval to whoever may hear it, and keep me posted.

sincerely,
Brian Kirven

Larry Simon

From: Charles Lester
Sent: Monday, September 26, 2011 9:31 PM
To: Larry Simon
Subject: FW: industrial distillery very close to Tomales Bay

Charles Lester

Executive Director

California Coastal Commission

45 Fremont Street, Suite 2000

San Francisco, CA 94105

415-904-5202

clester@coastal.ca.gov

www.coastal.ca.gov

-----Original Message-----
From: Howard Foote [mailto:westfoot@cwo.com]
Sent: Wednesday, August 24, 2011 1:22 PM
To: Charles Lester
Subject: industrial distillery very close to Tomales Bay

We are shocked that the Board of Supervisors approved the above development- please know that we are opposed to any development along or near the Bay coastline especially one that would require the use of the water and destroy the wetlands. Sincerely Howard & Rena Foote

Larry Simon

From: Charles Lester
Sent: Tuesday, September 27, 2011 7:21 PM
To: Larry Simon
Subject: FW: magee project No. A-MAR-10-22

Charles Lester
Executive Director
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105
415-904-5202
clester@coastal.ca.gov
www.coastal.ca.gov

From: pamela kroner [mailto:pamelamichellekroner@gmail.com]
Sent: Tuesday, September 27, 2011 6:29 PM
To: Charles Lester
Cc: Jeff Staben
Subject: magee project No. A-MAR-10-22

Dear Coastal Commissioners,
I live in Inverness just above Chicken Ranch Beach and have been here since 1975. I love the wildness of Tomales Bay and I am an avid swimmer. One of the most beautiful areas around here is the East shore of Tomales Bay. I would hate to see 7 buildings built in an environmentally sensitive area near a blue line stream. The water in Tomales Bay is amazingly clean only because of a lack of development in the area. The grasslands and wetlands are an important filter for the winter runoff from the hills and all this will be disturbed by the construction of 7 buildings and the planting of grapes and hops needing water and fertilizer until they become established.
Please do what you can to keep this Distillery from becoming a reality.
Thank you
Sincerely Pamela Kroner

90 Camino del Mar
Inverness, Ca. 94937
415-669-7293

Larry Simon

From: Charles Lester
Sent: Thursday, September 29, 2011 2:27 PM
To: Larry Simon
Subject: FW: Proposed industrial distillery

Charles Lester

Executive Director

California Coastal Commission

45 Fremont Street, Suite 2000

San Francisco, CA 94105

415-904-5202

clester@coastal.ca.gov

www.coastal.ca.gov

-----Original Message-----
From: lforester@sonic.net [mailto:lforester@sonic.net]
Sent: Thursday, September 29, 2011 2:26 PM
To: Charles Lester
Cc: Jeff Staben
Subject: Proposed industrial distillery

Please reject the industrial distillery, which will have adverse environmental effects from hot water boilers, ethanol flammability, toxic wastes that include formaldehyde, toxic foams used to extinguish ethanol fires, and possible sewage spills, not to mention fertilizer and pesticides used in grape production that will drain into the Bay.

Also please take into consideration the trucking in of grapes to distill when crops fail, and trucking in and out of thousands of bottles and casks.

The suitable location for an industrial distillery is an industrial park, not in a rural environmentally sensitive area adjoining State Park and recreational wilderness. The development would seriously impact both the environment and the public.

Approval of this development would set a precedent for further industrial projects disguised as agriculture.

Thank you,

Mr. and Mrs. Phil Forester

TOMALES, CA

Tom Yarish
23 Nelson Ave, Mill Valley, CA 94941
415.381.6970 v 5521 fax

California Coastal Commission

c/o Charles Lester, Executive Director

45 Fremont Street #2000

San Francisco, CA 94105-2219

clester@coastal.ca.gov

cc: jstaben@coastal.ca.gov

11 October 2011

re: Magee Project No. A-2-MAR-10-22

FORMAL REQUEST TO DENY PROJECT FOR CAUSE

Dear Mr. Lester,

This matter has recently come to my attention as a result of local initiatives by Marshall community members in response to serious lapses of planning protocols and due diligence by the lead agency, the County of Marin. It is clear to me that the waiver of full California Environmental Quality Act (CEQA) review via a full Environmental Impact Report (EIR) has left key environmental risks that have not been either identified or analyzed. Therefore, it is imperative that approval of this project and permit application be denied for the lack of a complete EIR. The detailed project description must be re-circulated with appropriate notices to the public for scoping.

This parcel has the potential to create serious degradation to Tomales Bay upland and water habitats through unconstrained agricultural, industrial and public access activities that are out of character with the Marshall community and relevant Tomales Bay watershed planning documents. Moreover, this operation is in the viewshed of the

Point Reyes National Seashore and the historic and scenic Highway One corridor.

I have participated in Tomales Bay watershed environmental groups and activities for forty years. I am a former long-time resident of Marshall and a co-founder of the East Shore Planning Group that created the community master plan for Marshall in the mid-1980s. I am also a co-founding member of the Tomales Bay Watershed Council (2000), and co-chair of Friends of the Esteros, a citizen's action group that successfully litigated a CEQA action against the City of Santa Rosa to prevent the discharge of municipal waste water into the two coastal estuaries just north of the mouth of Tomales Bay. I have worked with the Salmon Protection and Watershed Network (SPAWN) as a water quality advocate and as a volunteer water testing coordinator. I am also active with several Sonoma County environmental groups in fisheries protections and recovery actions.

Here is a partial list of specific concerns that need further analysis. I cannot say this is a complete list because apparently several site-specific plans have not been submitted or do not exist.

SILTATION, CONTAMINANTS, RUNOFF INTO TOMALES BAY

1. It appears that there is substantial risk of siltation and sedimentation into the creek and Tomales Bay from the creation of a vineyard upslope of the creek and from site alteration due to drainage and road construction. Moreover, one site plan shows a septic leach field in the actual vineyard. To my knowledge the suitability of this site for a leach field has not been analyzed, particularly in the context of meaningful technical data about the volume and constituents from the planned residence and distillery. The uptake and fate of distillery waste is potentially a complex and serious issue that can easily defeat the function of an inadequate waste disposal system. Coupling of a high-risk septic leach field with a vineyard operation seems highly problematical at best, and impossible without advanced engineering and soils fate and transport analysis. While it

is not clear to me that the applicant intends to produce distillery or agricultural products that qualify as "certified organic," industry standards do require strict limits on the use of pesticides, herbicides and conventional agricultural chemicals. Indeed, the context of agriculture in West Marin is a strong orientation toward "organic" food production and land stewardship.

A conversion of rangeland to crop agriculture must first be shown to be constrained by Best Management Practices (BMP) to protect from soil loss and environmental degradation of the creek and the bay. I have not seen or heard of any such BMP requirements to date. Moreover, the introduction of livestock onto steep slopes and into the riparian zones of the creek should have raised the issue of protections via permit conditions and requirements in conformance with the county's own creekside protection ordinances. The combination of soil erosion and animal waste nutrients (not to mention organic and non-organic wastes from the residence and distillery) pose very serious potential threats to the entire aquatic ecosystem of this parcel and the waters of Tomales Bay.

At a minimum the applicant should be held to strict BMPs and a well-defined habitat and water quality monitoring program with mandatory reporting and third-party supervision in the event this project is approved.

USE PATTERNS, PRODUCTION VOLUME, PUBLIC FACILITIES, HIGHWAY SAFETY

2. To the best of my knowledge a distillery is an industrial facility, and as such is out of character with the history and character of the Marshall community (Prohibition era bootlegging at the Marshall Tavern notwithstanding.) The level of traffic impact on Highway One associated with frequent truck and visitor traffic poses serious safety concerns for a blind high-speed curve that has access roads in close proximity to the project driveway. Moreover, the State of California Department of Parks and Recreation

has just announced the resurrection of the Marconi Cove Marina as a public campground. And just a short distance further north a private parcel has become a rough boat launch area that is unregulated and used by the public without supervision.

BONA FIDE VINEYARD OPERATION?

3. There is doubt that this coastal parcel is suited to the production of grapes due to climate conditions. The applicant needs to show that in fact the production volume claimed can be sustained from a viable local harvest. This is increasingly problematical due to the nature of climate change that is now a reality. Otherwise the community is at risk for unwittingly hosting a 24-hour production facility and traffic burdens related to the importation of potable water and grapes to augment local supplies. It is not clear that this distillery operation can be profitable based on limited on-site grape production. Is there a viable business plan that conforms with the applicants written claims?

COMPLETE ON-SITE AND OFF-SITE SPECIES RISK ANALYSIS

4. Appropriate biological surveys and studies need to be submitted, peer reviewed and presented in the context of a full EIR for public evaluation. Because the project poses definite risks of sedimentation, toxic discharges and nutrient loading to a tributary of a protected marine sanctuary the requirement for detailed site management and operations plan must preclude any approvals. As far as I know, these critical surveys and documents have not been done.

EFFECTIVE LONG-TERM PROTECTIONS NEEDED

5. If approved, the operation of the facility should be subject to strict constraints that would prohibit importation of off-site grapes, lest this become an even greater source of sedimentation, water pollution, traffic congestion, noise and light pollution and inevitably an industrial level fire and health hazard.

In fact, it is unclear that the project can be a bona fide agricultural operation of any sort, based on realistic capital, transportation and operational costs associated with a low-volume rural industrial/agricultural operation that produces limited food or fiber products. In fact, to my eye, the distillery project is completely spurious and serves no vital function in the public interest. It remains an open question as to what profitable activities might occur on this parcel that fall within the requirements of local, state and federal jurisdictions and statutes. Profitable agricultural ventures require careful management of capital and natural resources. Beyond the construction of a single private residence there may be no profitable return from a parcel such as this in today's marketplace.

Sincerely,

Tom Yarish

RECEIVED
OCT 18 2011
CALIFORNIA
COASTAL COMMISSION

SIERRA CLUB
FOUNDED 1892

Sierra Club
P.O Box 3058, San Rafael, CA 94912

October 15, 2011

California Coastal Commissioners
c/o Charles Lester, Executive Director
45 Fremont Street #2000
San Francisco, CA 94105-2219
FAX: (415) 904-5400
EMAIL: clester@coastal.ca.gov

RE: Magee & Dillon Vision L.L.C., Marshall, Marin County, CA (Appeal No. A-2-MAR-10-22)

Dear California Coastal Commissioners,

The Sierra Club wishes to correct the public record, as to our "stated" and/or "implied" support of the Magee & Dillon Vision LLC's Distillery proposed operation in Marshall, California. It has recently come to our attention that Mr. Tony Magee has incorrectly implied in his testimony before the Marin County Board of Supervisors (May 2010) and the California Coastal Commission (September 2010) that the Sierra Club Marin Group is in support of his project. At that time, the Sierra Club had not taken a position on this development proposal.

As of September 2011, the Sierra Club formally OPPOSES the Magee & Dillon Vision LLC's project for the Marshall property. We respectfully request that the California Coastal Commissioners deny the development project in its entirety.

PROJECT MERITS

With regard to the merits of the proposed project, the Sierra Club comments that follow are limited by the fact that, in our view, the applicant has failed to provide, and the County of Marin has failed to require, detailed descriptions of proposed development and use, and the County of Marin has failed to place detailed standards or conditions on development and use.

Due to the lack of complete information, and due to lack of adequate process by the County of Marin, the following merits comments are based on the project as best we can interpret it.

In general, Sierra Club finds that the Magee Distillery project, on the whole, has failed on merits in:

- Inappropriateness of the project for the Coastal Zone area
- Non-conformance of project with the Local Coastal Plan requirements
- Not providing adequate environmental assessment of project and downstream areas
- Failing to submit a complete application

More specifically, we find issues with the following aspects of the Magee project.

THE USE IS INDUSTRIAL, NOT AGRICULTURAL

The project of 10,000 plus square feet of development on 149 acres of undeveloped habitat, with the primary focus being a brandy distillery, is not an agricultural use, but an industrial use.

The project's five water storage tanks, three propane tanks, brandy storage buildings, a brandy factory, a "smelling" room facility, six acres of grapes (indicating that grape growth in incidental to the distillery, rather than the other way around), and six acres of hops all clearly indicate that the primary use is industrial.

The ancillary uses are proposed to be limited sheep grazing, a sheep shelter, greenhouse, vegetable garden, a new residence, fences, and new roads and access ways.

The Sierra Club strongly disputes Marin County's claim that these uses are "minor and incidental," and that the bases of that conclusion are sufficient to warrant waiving the Master Plan and associated studies, permits and public review of such documents.

INDUSTRIAL BRANDY PRODUCTION IN COASTAL ZONE

The Sierra Club regards industrial uses as inappropriate for the Coastal Zone in Marin County, which is principally comprised of high-value natural habitat and locally-owned agricultural businesses with very minimal processing facilities.

In addition, we have the following specific concerns.

The proposed industrial distillery is located in a sensitive habitat and extensive drainage area of the ridgeline, with a blue-line stream 100 feet away, 50 feet from a filled-in wetland area, and Tomales Bay is only 200 feet downstream. Any serious mishaps with production, storage or transport by the industrial facility could create serious, adverse impacts to the environment.

The developer claims that the distillery will remain small, producing only a thousand bottles per year. But brandy must be stored for several years to age, so the amount of alcohol on the property would be much more than the yearly production.

The potential of inflammable materials stored on the site would represent a substantial safety concern to neighbors, as would toxic releases into the environment, surface and groundwater. Ethanol ignites at the low temperature of 68°F. Emergency services are of reduced availability along the Coast, with response times of up to 15 to 20 minutes; depending on the source, water availability may limited.[1] Also, fire fighting foams, retardants, and other chemicals may be released into the environment if firefighting were necessary.

The proposal does not appear to carry any required limitations on increased use of the industrial distillery, such as restrictions on importation of additional supplies of grapes or hops. Out of area grapes might be trucked in to increase production volume and time of use of the brandy facility, without additional permitting or review. If the project is allowed, restrictions should be considered and added to assure control over the volume and production of the industrial brandy facility.

INADEQUACY OF ENVIRONMENTAL REVIEW

A valley bisects the property, with a blue-line stream running through the middle of the parcel, placing a significant amount of the land within the ESHA category. Additional ESHA boundaries are created by numerous wetlands, seeps, and swales; perennial grasslands also inhabit the property.

Reports comprising a limited environmental survey, included by the developer with the original application, proved inadequate. Reviews by the public and Coastal Commission staff (below) revealed inadequacies in the environmental documents, enough to render determination of ESHAs unreliable and incomplete.

Excerpt from email correspondence (January 21, 2011) between Mr. Larry Simon (Coastal Commission Federal Consistency Coordinator), Mr. Magee and Larry Kennings (Magee planning consultant); Mr. Simon identified comments and suggestions made by Dr. John Dixon, California Coastal Commission Ecologist, regarding additional information needed for Coastal Staff review of the project pursuant to a de novo hearing:[2]

1) Vegetation on the property should be assessed in more detail within the proposed development areas;
2) There have been no quantitative vegetation surveys of the property nor is there a map showing the location of the various vegetation types;
3) Apparently, a technical wetland delineation has not been conducted on the property which would be necessary in areas proposed for development (e.g. around the generally mapped existing springs);
4) There have been no focused surveys conducted for red-legged frogs, foothill yellow-legged frogs, or western pond turtles, (all Endangered or Threatened status species) which the

[1] Note: some areas are served by local water districts, who impound water from nearby creeks or wells. Onsite wells are required.
[2] EMC Planning Group, May 6, 2011

biological report states, based on availability of suitable habitat present, have a potential to occur on the property.

Given that environmental protection is a key part of the Coastal Act, we request that this project proposal receive comprehensive investigation and determination of environmental resources. The Sierra Club believes Marin County's approval of this application represents a major failure in the permitting process that needs to be corrected prior to any further action.

PLACEMENT OF DEVELOPMENT IN POTENTIAL ESHAS

It is our understanding that the applicant's proposal through the County of Marin permitting process is incomplete, with regard to ESHA documentation. Issues of concern cannot be accurately identified based on the current information presented by the applicant, nor can it be adequately demonstrated that the project is consistent with the LCP and the Coastal Act.

16 of 19 species of concern are believed to be on the project site, in a blue-line tributary, and more are probably present downstream and in Tomales Bay. A detailed environmental review would reveal where these ESHAs boundaries occur, and what specific species they contain.

As the proposed development is now placed on site, we believe it to be encroaching on ESHAs and, therefore, inconsistent with, and in potential violation of, the Coastal Act.

GROUNDWATER TABLE, DRAINAGES, SEEPS AND WETLANDS

The majority of this parcel appears to be ESHA; yet what has not been adequately determined is the underlying hydrologic profile, which interties closely with ESHAs.

Placement of septic systems, leachfields, stormwater drainage, and, most importantly, water wells, requires knowledge of the hydrology of the entire site to provide key information for placement of development. To our knowledge, no such survey or report has been provided for the site.

Hydrologic issues should be resolved prior to consideration of the project to prevent placing the ESHAs in jeopardy from potential infiltration of unwanted wastewater (septic and industrial) and inappropriate drawing down of the groundwater table that supports ESHAs.

The important environmental and public health concerns of potential commingling of wastewater and drinking water sources, and of contamination of downstream resources such as the Tomales Bay and commercial mariculture operations, remain unresolved.

WELLS & LEACHFIELDS

The specific areas where the leachfield and a water-well are sited may have been studied, but it appears, from information provided by the neighbors, that neither of these systems has been placed where the County of Marin approved them. Reportedly, one area that was approved for a well was drilled and came up completely dry, so the developer chose alternative sites. It is unclear whether the developer provided documentation on the additional wells to the Environmental Health Services of Marin County (EHS).[3]

The residential septic system has received preliminary approval from Marin Environmental Health Services, although the placement may be incompatible with ESHA boundaries (pending environmental studies) and now the current (unapproved) location of a water-well remains unaddressed. The matter of the proximity of the water well to the leachfield site is pending: to be determined by County EHS.

DISPOSAL OF INDUSTRIAL WASTEWATER

To our knowledge, only vague and general descriptions of the proposed method for disposing of industrial wastewater exist[4].

"In addition, a new septic field is approved for installation near the northern property line, and all sewage produced from the brandy facility, equipment barn, and residence will be pumped uphill to this location."[5]

It is highly unlikely that the residential sewage would be allowed to be commingled with industrial strength effluent, nor would they be disposed of in the same leachfield. In researching this topic, the Sierra Club contacted the Regional Water Quality Control Board in Oakland for the permit application and schematics required by law for industrial discharge. The only document they had was an incomplete application form, and no other reports or plans. RWQCB has not issued the necessary discharge permit for the operation of a commercial distillery.

VIEWSHED IMPACTS

The development impacts the viewshed of the area's local, State and National parks and Tomales Bay. It can be seen from the State Park's Marconi Conference Center, Marconi Cove, Shell Beach and Heart's Desire Beach. The East facing hills of the Point Reyes National Seashore would also be in the viewshed. The development is highly visible from Tomales Bay, itself, which is part of the Gulf of the Farallones National Marine Sanctuary.

---

[3] As of an August phone conversation with a Sierra Club representative, EHS did not know that additional well sites had been drilled, nor their location.

[4] County of Marin Approval of Permit letter

[5] *County of Marin, Board of Supervisors - Resolution No. 2010-36, Page 17*

It appears that these viewshed impacts have gone unaddressed or effectively ignored in the County's review of this project. Sierra Club recommends consideration of impacts on viewshed of public lands and parks, focusing on preserving the integrity of the nature experience.

COUNTY OF MARIN PROCESS

SIERRA CLUB OBJECTIONS TO COUNTY OF MARIN PROCESS

Evaluation of a project cannot be reasonably made without proper process and permitting procedures. Government agencies and the public can only accurately make determinations as to a project's appropriateness, environmental and health issues, and whether it fully complies with the law when required processes are followed.

In this matter, the Sierra Club opinions regarding many specific details of the proposed Project are limited by inadequate access to information about the Project. At this time, our request for denial of the project is based on our conclusions that the planning process has thus far been legally incorrect and that the proposal lacks accurate and complete information, in addition to the fact that the known particulars of the Project are incompatible with desirable uses in the Marin County Coastal Zone.

A summary of the Sierra Club's concerns about the process for the proposal are as follows:

- The County of Marin violated the Local Coastal Plan by categorically exempting the project from a Master Plan process; the County granted a Master Plan *waiver* in *exchange* for a conservation easement, while the LCP clearly states that a permanent conservation easement is a *required condition* of an approved Master Plan.

- The County of Marin violated the Local Coastal Plan by failing to require an Environmental Impact evaluation process, claiming the development was *"minor and incidental."*

- County of Marin staff made unfounded and widespread use of "categorical exemptions" from further environmental analysis for most elements of the project, willfully bypassing the LCP.

- The County of Marin has failed to protect Environmentally Sensitive Habitat Areas (ESHA) on the property, thereby failing to follow a prime directive of the Coastal Act; the County failed to identify technical wetland delineations and potential ESHA special-status species and habitat.

- The County of Marin's classification of the project's industrial spirits distillery as incidental to an onsite agricultural use has not been justified; 6 acres of potentially unviable grape production to serve the distillery constitute the ostensible agricultural use. No prohibition is in place to prevent trucked in grapes for increased distillery production.

- The County of Marin approved the project's industrial facility without plans for waste discharge from the applicant or the Regional Water Quality Control Board. To our knowledge, none of the required plans have been filed with the RWQCB for an industrial distillery waste discharge, nor has an application for a permit been completed. Neither the public, nor officials, know how or where, the highly concentrated industrial waste from the distillery production will be disposed of in the watershed.

- The County failed to address LCP requirements for viewshed protection in the project.

SIERRA CLUB'S CONCERNS REGARDING VIOLATIONS OF "STAY DURING APPEAL" BY THE PROPERTY OWNER ALLEGED BY PROPERTY NEIGHBORS

Neighbors on adjacent properties have documented construction activity on the Magee property after June 2010, when the Coastal Commission Regulations Regarding "Stay" During Appeal Period was in effect.

Activities reportedly included drilling of multiple wells, grading, new road work, planting of screen trees that impact the coastal viewshed, and impacts to ESHA and designated grassland areas.

Most notably, activities potentially affecting the environment occurred: drilling of water well/s at unpermitted location/s and during appeal "stay of work" period, with no hydrological assessment as to groundwater table, blue line stream and ESHA areas connectivity and well water usage; one recent unpermitted well location is potentially within the area where the septic leachfield for domestic waste water is to be discharged, which would violate Marin County Health regulations.

These activities are not only in violation of the stay of work, but also in violation of various LCP regulations as well. Although the County of Marin was alerted to these activities in a February 2011 letter by neighbors of the proposed project property; as of an August 2011 conversation with a Sierra Club representative, the Marin Environmental Health Department appeared unaware of the conditions, and had not visited the site.

There have also been allegations by neighbors of prior (2006) substantial grading and dirt fill without an Army Corps of Engineers (ACOE) permit, purportedly into a blue line stream and ESHA, which should be further investigated.

Substantial, detailed information regarding these allegations is located in two letters by the Appellants, Kivel/Lund, and are included by reference: the Appeal letter to the Coastal Commission from Ragghianti/Freitas LLP, dated June 1, 2010 and the letter regarding "Supplemental Information Regarding Additional Coastal Act and Marin County Local Coastal Program/Development Standard Violations," dated May 5, 2011.

CONTEXT AND PRECEDENT

In addition to its own, direct impacts, we believe that this project represents a dangerous precedent for coastal protection in the context of the current Marin County LCP update process and in the context of related regulatory trends in Marin in general.

THE MARIN COUNTY LCP UPDATE

The County of Marin has been attempting to update the certified Local Coastal Plan for the last two years. Our belief is that the "fast and loose handling" of this process is due to a desire by the County to ignore the differences between the LCP and Countywide Plan (CWP), and to adopt a Local Coastal Plan that is fundamentally inconsistent with the Coastal Commission requirements.

The Marin County Planning Department has stated that is it working to make the current LCP "match" the recently updated Marin Countywide Plan. The CWP is incompatible with LCP requirements, in format as well as content; the CWP clearly stands in violation of Coastal Commission guidelines when applied to the Coastal Zone.

After many requests from the Sierra Club and other environmental groups, Marin's planning staff reports that it is finally going to begin releasing "strike-through," side-by-side comparisons of changed or removed language in the draft LCP relative to the standing version. Up to this point, due to the extensive changes in format of the draft LCP, the public has had no way to track changes made to the certified LCP, only the County staff knew what exactly had been changed or eliminated, and where it was located. Therefore, prior to the release of "strike-through" versions of the draft LCP, environmental groups, and others interested in participating in this process, have been effectively hampered from fully participating.

During the Sierra Club's participation in the update of the Marin LCP, it has become evident that the County of Marin is making wholesale, substantive changes to the existing LCP in order to match the CWP. Furthermore, the County is failing to make findings to explain why it is removing or changing protective elements, despite vigorous protests by the environmental community. Coastal Commission staff have strongly, and repeatedly, advised the County of Marin against altering a certified LCP without making findings:

> "Where you proposed to alter or delete standards in the certified LCP it is important to provide data and analysis explaining the change so it can be evaluated for conformance with the Coastal Act. While there is no required format for such information, the County must still be able to comply with requirements of the California Code of Regulations sections 13552 and 13511 for adequacy of information to file an LCP amendment." (Staff letter dated April 24, 2009).

We feel that weakening the LCP downward to CWP standards is not justifiable.

We believe that the Magee & Dillon proposed project is being handled by Marin County as a test case to determine whether the Coastal Commission will allow Marin's recently-adopted, laissez faire policies within the Coastal Zone.

RELATED REGULATORY TRENDS IN MARIN

In Marin County, only unincorporated areas are directly under the jurisdiction of the Marin County Board of Supervisors. In addition, it is customary for Marin Supervisors to defer to the Supervisor of a particular district on matters within that district.

The vast majority of Marin's unincorporated areas are in the fourth supervisorial district. Therefore, the fourth district Supervisor typically works very closely with County planning staff on all matters affecting unincorporated areas. Since 1996, Marin's fourth supervisorial district Supervisor has been Steve Kinsey.

In our opinion, the regulatory trends in unincorporated areas of Marin, including those in the Coastal Zone, over the past 14 years have been characterized by a steady onslaught against environmental protections and meaningful public process related to environmental protections in Marin County.

One particular set of entitlements seems to be directly related to the project at hand. In 2003, Marin County, in a very quiet but profound rewriting of County zoning definitions, seriously weakened planning laws for development on "agricultural" parcels, including eliminating Master Plans and Use permits, and adding many uses as categorical exemptions that were once guided by permit and environmental review procedures. Claiming only to "clarify" zoning definitions for agricultural parcels, the County of Marin essentially eliminated many public and environmental review processes for significant developments on large properties. Some environmentalists called these 2003 CWP regulation changes, "factories on farms," and, "a gutting of the environmental protection laws." The project at hand may represent a very troubling precedent that would solidify the 2003 evisceration of environmental protections, the results of which are now firmly embedded in Marin's Countywide Plan.

We believe that the Magee & Dillon Vision LLC project is the County's attempt to extend use of the excessively lax 2003 agricultural regulations from the CWP, in place of the LCP and Coastal Act regulations.

The Sierra Club is astounded at the conscious and consistent manner in which the County of Marin has chosen to ignore and violate the LCP's prevailing regulations on this Project. We are deeply concerned that, if the Coastal Commission does not correct this flagrant misbehavior, disregarding the LCP will become standard operating procedure for all Marin County projects in the Coastal Zone, and in other areas of significant environmental value.

SUMMATION

We hope you will consider the conscious precedent it appears that the County of Marin is attempting to propagate in ignoring the LCP and substituting the less environmentally protective and more "generous" agricultural regulations of the CWP. Sierra Club remains firm in supporting the California Coastal Act as a set of regulatory instruments that must be upheld in their entirety, and not subordinated to a lesser standard by the County of Marin.

Again, we respectfully request that the Coastal Commission deny this project in its entirety.

Thank you.

Sincerely,

Louis Nuyens
Chair, Marin Group, Sierra Club

Simon, Larry@Coastal

From: Jeff Staben
Sent: Monday, October 24, 2011 7:29 AM
To: Larry Simon
Subject: FW: Magee Project No. A-2-MAR-10-22

I wish to express my opposition to the above project. The project will introduce heavy manufacturing and retail activity in the form of a brewery, retail activity and other facilities in the Marshall area. Traffic will be substantially increased on a residential driveway, including an increase in vehicles turning off and into Hwy 1 on a curve, resulting in increased accident potential. Furthermore, the project will open the door to similar activities along Hwy 1 from Olema to Tomales. I urge the Coastal Commission to disapprove this project.

Thank you.

Kenneth Ziedman, PhD
PO Box 1505
12088 Shoreline Hwy.
Point Reyes Station, CA 94956
415-663-9179 o
415-663-5442 f
415-250-7126 c

eac environmental action committee

RECEIVED
AUG 25 2011
COASTAL COMMISSION
NORTH CENTRAL COAST

August 24, 2011

California Coastal Commission
Mr. Charles Lester, Acting Director
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219

Re: Appeal No. A-2-MAR-10-022, Tony Magee and Dillon Vision LLC

Dear Charles,

I am writing to you and the Coastal Commission staff to clarify for the record the Environmental Action Committee of West Marin's (EAC's) position on the above-referenced appeal.

As you may be aware, in the summer of 2010 EAC entered into a settlement agreement with Mr. Magee regarding his proposal to construct an industrial brandy distillery on the east shore of Tomales Bay. Per the settlement agreement, EAC gave up its right to appeal Mr. Magee's proposal to the Coastal Commission in exchange for certain modifications to the proposal made after its approval by the Marin County Board of Supervisors.

It has come to EAC's attention that the Mr. Magee has suggested or implied to the Commission, its staff, and possibly others that EAC supports his project. This letter is to advise you that EAC does not support the proposed project.

In staying true to the letter and spirit of its settlement agreement with Mr. Magee, EAC will take no part in the appeal, and will not be submitting comments in the proceeding, except to ensure that the settlement provisions are honored. That is, in the event that the Coastal Commission proceeds with issuing Mr. Magee a permit, EAC will work to ensure that the settlement provisions are fully retained and enforced as part of any coastal permit.

I hope this letter clarifies for the record EAC's position. Please do not hesitate to contact me with any questions or concerns.

Sincerely yours,

Amy Trainer, Executive Director

Cc: Mr. Tony Magee
Mr. Scott Kivel
Mr. Bridger Mitchell
Mr. Tom Baty
Ms. Catherine Caufield

Simon, Larry@Coastal

From: George Clyde <gclyde11@gmail.com>
Sent: Thursday, February 14, 2013 9:28 AM
To: Simon, Larry@Coastal
Cc: 'Lori Kyle'; Kahn, Kevin@Coastal
Subject: RE: Magee farm project

Thanks, Larry.

I was requesting further information in my capacity as an officer and Director of the East Shore Planning Group, which has a membership of all the residents and businesses along the east shore of Tomales Bay (near Marshall, 94940). It is the principal organization involved with planning in the area.

The ESPG is very concerned about the increasing volume of retail sales activities along the east shore of Tomales Bay and the escalating traffic and associated problems with parking, noise, etc. that we are experiencing. This situation has the potential of significantly compromising the tranquility and coastal experience of this unique area for residents and visitors alike. We are also concerned about the possibility that agricultural lands along Highway One might be converted to retail sales facilities to take advantage of (and exacerbate) the growing tourist traffic through the area without adequate controls and conditions of use.

When the Brader/Magee project was working its way through the County, Tony Magee offered to the ESPG various conditions regarding his retail sales including days and hours of operations, numbers of patrons, etc. These satisfied our group's concerns, and we raised no objections to the proposed project with those use conditions. The conditions were included in the County use permit and hopefully will be carried through with any permits issued by the California Coastal Commission.

The next ESPG meeting is Thursday evening, February 21. If there are any materials regarding the Brader/Magee project and the proposed permit which that can be made available before issuance of the staff report, that would be appreciated. Otherwise, we'll look forward to reviewing the staff report when published on your website.

The ESPG is also actively involved in the development of revisions to the Marin County Local Coastal Program (LCP) respecting these and other matters. We are advocating that there continue to be a permit process regarding any new or expanded retail sales operations along the Tomales Bay east shore, so that we can be assured that the ESPG will have an opportunity to voice any concerns at a hearing, so that there can be binding conditions included in the applicable permits, and so that the ESPG can have appeal rights as to what is approved. The ESPG correspondence on this subject can be seen at http://www.co.marin.ca.us/depts/CD/main/lcp/Letters.html.

Thank you, and best regards,

George Clyde, Marshall
(415) 663-8632

CC: Kevin Kahn, CCC
Lori Kyle, President, ESPG

From: Simon, Larry@Coastal [mailto:Larry.Simon@coastal.ca.gov]
Sent: Wednesday, February 13, 2013 8:34 AM
To: 'gclyde11@gmail.com'
Subject: Magee farm project

Your name has been placed on the public notice list for the March Commission hearing for the Magee farm project, Marshall, Marin Co. The staff report and recommendation will be published on the Commission's web site no later than February 21, 2013.

Larry Simon

APPENDIX J

Comment Letters Supporting, Opposing, and Taking No Position on the Project, Submitted by Individuals other than the Appellants and their Consultants, after the September 15, 2010, Commission Finding of Substantial Issue and prior to Publication of the Commission's February 21, 2013, staff report

MARIN COUNTY FARM BUREAU

520 MESA ROAD, POINT REYES, CA 94956 · PHONE (415) 663-1231 · FAX (415) 663-1141

RECEIVED

FEB 17 2011

CALIFORNIA
COASTAL COMMISSION

February 1, 2011
California Coastal Commission
45 Fremont St. Suite 2000
San Francisco, Ca. 94105-2219

Re: De Novo hearing on the Brader Magee project

Dear Coastal Commissioners:

I am writing to you, the California Coastal Commission, to express Marin County Farm Bureau's support of the project as submitted by Tony Magee and Carissa Brader and approved unanimously by both the Marin County Planning Commission and Board of Supervisors.

This project, as approved by Marin County, genuinely embodies the intent and the spirit of the Marin County LCP.

The appeal that led to this permit hearing before the Commission was brought by the immediate neighbor. During the County process this proposal experienced no meaningful challenges by any of the numerous environmental groups, community groups, or governmental agencies that work intensively in the Tomales Bay region. The applicants have gone to extraordinary lengths to protect environmentally sensitive areas. They not only met all of the Counties conditions for approval, but went above and beyond by working with the Environmental Action Committee of West Marin to be certain that all environmental impacts were dealt with properly.

It is our belief that residential neighbor disputes regarding agriculturally-based projects, on C-APZ zoned land, consistent with the spirit and the intent of the LCP, in the presence of a strong county 'Right-to-Farm' statute, and in light of the applicants offer of an Affirmative Agricultural Easement, represent one of the most dangerous threats to agricultural production activity in West Marin. The appealers of this project bought agriculturally zoned land amidst agriculturally zoned land and are now complaining that the land next to theirs will be used for agriculture. We should be commending the Brader Magee project for following the LCP, working with environmental organizations, and bringing production agriculture back to agriculture lands.

The preservation of agricultural production in West Marin, as opposed to the residential development that threatened this area, was the foundation of the development and certification of the current LCP. This threat remains unless the County and this Commission fully support the guidance of the LCP.

This is the context within which we see this project's review occurring.

I urge the Commission to affirm the integrity of the certified LCP, by approving the proposed project as it was approved by the County, with its specific recognition of agricultural, biological, and scenic resource policies of the LCP.

In a very direct way, approval of this project represents an affirmation of the LCP's goals.

Thank you for your consideration of our organization's concerns.

Sincerely,

Dominic Grossi,
President,
Marin County Farm Bureau

-----Original Message-----
From: Drew Keeler [mailto:drewpy@pacbell.net]
Sent: Tuesday, August 23, 2011 6:54 PM
To: Charles Lester
Subject: Just got your letter

You need to stop trying to slow businesses from growing. I had no idea about any of this, but I will be at your meeting in favor of this distillery..

Drew Keeler

Sent from my iPhone

Larry Simon

From: Charles Lester
Sent: Thursday, August 25, 2011 10:44 PM
To: Larry Simon
Subject: FW: Marshall Brandy Distillery

Charles Lester
Senior Deputy Director
California Coastal Commission
725 Front Street, Suite 300
Santa Cruz, CA 95060
831-427-4863 Fax: 831-427-4877
clester@coastal.ca.gov
www.coastal.ca.gov

From: Shannan Hobbs [mailto:sh9nub@yahoo.com]
Sent: Thursday, August 25, 2011 6:01 PM
To: Charles Lester; Jeff Staben
Cc: tomalesbay@gmail.com
Subject: Marshall Brandy Distillery

Dear Coastal Commission,

I am writing to **support** the proposed brandy distillery in Marshall. I am a native born Marinite and have lived in West Marin for over 15 years. Our agricultural operations in the county have been able to survive and have benefitted the greater community by adding value to their products. Marin Sun Farms and Giacomini Blue Cheese are just such operations that operate responsibly in our area.
I do not agree that the reasons that those who oppose this distillery give are strong enough to outweigh the benefits to our area. The owner of Lagunitas Brewery is more than generous to our community whenever a benefit could use a donation of his products. He is also generously helping to keep Samuel P. Taylor park open.
Please do not thwart this homegrown industry in Marshall!

Sincerely,
Shannan Hobbs
Art teacher and parent of a Tomales Elementary School student

Larry Simon

From: Charles Lester
Sent: Friday, August 26, 2011 9:00 AM
To: Larry Simon
Subject: FW: Magee Project No.A-2-MAR-10-22

Charles Lester
Senior Deputy Director
California Coastal Commission
725 Front Street, Suite 300
Santa Cruz, CA 95060
831-427-4863 Fax: 831-427-4877
clester@coastal.ca.gov
www.coastal.ca.gov

From: aaron ely [mailto:aaronely2001@yahoo.com]
Sent: Friday, August 26, 2011 7:49 AM
To: Charles Lester; Jeff Staben
Cc: tomalesbay@gmail.com; lagunitas@lagunitas.com
Subject: Magee Project No.A-2-MAR-10-22

Hello,
I am a resident of Point Reyes Station, and I frequently hike and swim in Tomales Bay, and I fully support the distillery. The owner has shown himself to be a responsible, active member of the community who cares deeply about the local environment. From what I have seen, he has so far done everything within his power to work with the community and local groups to ensure the project is done correctly. He has also recently 'stepped up' and volunteered to keep open Samuel P. Taylor State Park, which is due to close soon.

I just received a letter from Lia Lund and Scott Kivel spouting reasons opposing the distillery, which included the words "bomb" and "fireball" as bullet point factoids. These are the vocal minority who will only be happy if there is zero development, which is not sustainable for a growing population. I won't argue the points of development, growth, sustainability, etc... You've heard them before from many experts. What it does come down to for me, is that here is someone who has a proven track record in this local area of running a successful environmentally responsible company (which has grown and continues to be a model of environmental responsibility), is continually involved in the community, with local non-profits, with the National Park Service, State Parks, and others. Please take that into account as you review this proposed project. This is exactly the type of developer you want. Nothing up his sleeves, and with a positive long term track record of right in this area.

Sincerely,

Aaron Ely
PO Box 452
Point Reyes Station, CA 94956
(831) 600-5497

-----Original Message-----
From: Michael Greenberg [mailto:michael@gstex.com]
Sent: Sat 8/27/2011 9:26 AM
To: Charles Lester; Jeff Staben
Cc:
Subject: distillery project

Dear Mr Lester,

I received a mailing recently asking me to write you about my views on the distillery project labeled Magee Project No A-2-Mar-10-22.

I want to voice a strong measure of support for this project. The environmental community of West Marin has long obstructed all commercial projects within West Marin, with little offer of compromise or regard for the reputations or well being of applicants.

The result is an economy that supports retirees, trust fund babies, and wealthy second home owners, with no hope of young people finding any employment in the area.

While I do not believe that unbridled development is a good alternative, I would expect the Coastal Commission to find workable solutions to objections WITHOUT stomping out the hopes of our community to build a meaningful foundation of employment for our residents.

I vote YES, YES, YES to this development, under the watchful eye of the Coastal Commission while it lends meaningful support to the project!

Sincerely

Michael Greenberg

Michael Greenberg
PO Box 1192
Inverness, California 94937
Office 415-669-1500
Fax 415-669-1501
Mobile 415-755-7776
Michael@Gstex.com

Larry Simon

From: Charles Lester
Sent: Friday, September 02, 2011 9:09 AM
To: Larry Simon
Subject: FW: Tony Magee Proposed distillery at Marshall Ca.

Charles Lester
Acting Executive Director/Senior Deputy Director
California Coastal Commission
725 Front Street, Suite 300
Santa Cruz, CA 95060
415-904-5202/831-427-4863
clester@coastal.ca.gov
www.coastal.ca.gov

From: Kristi Edwards [redacted]
Sent: Friday, September 02, 2011 9:07 AM
To: Charles Lester
Subject: Tony Magee Proposed distillery at Marshall Ca.

Dear Mr. Lester,

The current e-mail that has been distributed among the the neighbors of Marshall opposing Mr. Magee proposed distillery is disingenuous at best. I too am a resident of Marshall and consider myself a neighbor of the proposed development. It is quite obvious that the two immediate neighbors of Mr. Magee are misrepresenting the facts in an attempt to scare the residents of Marshall. Thus generating a letter writing campaign to you and your commission so that you do not interpret their opposition as a neighbor dispute. It is quite apparent to me that their primary concern is the clustering of home, barn and brandy house near their own personal developments, which they do not want. Though this is exactly what the development codes of the area require to preserve "view shed".

I am not a professional in any of these agricultural development issues, but trust in both my county offices and your commission to oversee and provide guidance to would be developments in areas such as ours. I strongly recommend that you do not allow behavior such as exhibited by Mr. Magee's two neighbors to influence any decision you make concerning his proposed development.

Respectfully Submitted,

Charles T. Edwards

Larry Simon

From: Jeff Staben
Sent: Monday, September 12, 2011 6:25 AM
To: Larry Simon
Subject: FW: Magee Project No. A-2-MAR-10-22 RECOMMEND APPROVAL

fyi

-----Original Message-----
From: Amanda Eichstaedt [mailto:info@bearvinn.com]
Sent: Sun 9/11/2011 8:48 PM
To: Charles Lester
Cc: Jeff Staben
Subject: Magee Project No. A-2-MAR-10-22 RECOMMEND APPROVAL
Hello,

I am contacting you to express my appreciation and thoughtfulness that the referenced project has for the agricultural community of West Marin. We need more such well-planned projects in our agricultural region. I hope that you recognize it from its importance in providing diversity to our farming area.

Thank you,

Ken Eichstaedt

88 Bear Valley Rd. Olema

Larry Simon

From: Charles Lester
Sent: Monday, September 26, 2011 6:27 AM
To: Larry Simon
Subject: FW: Marshall Industrial Distillery

Charles Lester
Executive Director
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105
415-904-5202
clester@coastal.ca.gov
www.coastal.ca.gov

From: jack williams [mailto:jack94956@hotmail.com]
Sent: Sunday, September 25, 2011 2:17 PM
To: Charles Lester
Subject: Marshall Industrial Distillery

I agree with the Marin Count Planning Commission and Board of Supervisors that the Distillery should be approved in Marshall. Development of 10,000 sf is minimal impact in 149 acres of land. Much better than subdivisions and more housing. The Distrillery will provide much needed employment for rural residents.
I hope the Coastal Commission will agree with the local government and us locals.
thanks,
Jack Williams
30 year resident Point Reyes Station

Ingrid Noyes
PO Box 840
Marshall, CA 94940

September 29, 2011

California Coastal Commissioners
c/o Charles Lester, Senior Deputy Director
45 Fremont Street #2000
San Francisco, CA 94105-2219

Dear Mr. Lester, and other Coastal Commissioners:

RE: the Magee Project in Marshall (No. A-2-MAR-10-22)

I am a lifelong resident of Marshall, and would like to voice my approval of Tony Magee's proposed project of a brandy distillery, vineyard, and sheep farm. Growing up in Marshall, I have watched farm after farm close down, unable to survive with the competition of big agribusiness. Too often, these farms are replaced by residences, occupied by wealthy individuals who do nothing agricultural with the land except on a token basis. Occasionally, someone gets creative about how to keep the land agriculturally productive and still economically viable. Mr. Magee's project is one such example. His neighbors, who fall into the wealthy non-agricultural group, would like to keep his land as open space for their own enjoyment and have launched a heavy campaign to discredit the project, often using false information and distortion of the facts. Please don't let them influence your decision. By all other accounts, this project is a well thought out example of how to keep West Marin agriculture a reality while being responsible about land stewardship. Thank you for your consideration.

Sincerely,

Ingrid Noyes

cc: Tony Magee

Larry Simon

From: Charles Lester
Sent: Monday, October 10, 2011 9:39 PM
To: Larry Simon
Subject: FW: Magee Project No. A-2-MAR-10-22

Charles Lester
Executive Director
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105
415-904-5202
clester@coastal.ca.gov
www.coastal.ca.gov

From: MAYLE SIVERT [redacted]
Sent: Monday, October 10, 2011 2:03 PM
To: Charles Lester; Jeff Staben
Subject: Magee Project No. A-2-MAR-10-22

Dear Charles Lester,
I am writing in support of the proposed brandy distillery in Marshall, Ca. I received the mass mailing that the Lund/Kivels distributed to all of West Marin against the distillary proposal. I do not agree with them and would like to encourage the approving of the distillery project. I believe the Lund/Kivel's are similar to other West Marin residents who have an entitled "we were here first and got ours" attitude. Their viewshed disturbance is really about them wanting to keep their view all to themselves, even though there is a property between them and the bay they do not own. Their letter to all of the West Marin residents makes a lot of assumptions about "possibilities" and I think it is really all about them not wanting neighbors.

West Marin is in dire need of more jobs and possibly this distillery will provide a few to local residents. The distillery plan has been thought out carefully and I look forward to it's addition in our community.

Thank you for reading this.

Be well,
Maile Sivert
Inverness, CA resident: I can see this property from my house on the other side of the bay and am not worried about it ruining my view!

Simon, Larry@Coastal

From: Charles Lester
Sent: Wednesday, November 09, 2011 6:40 AM
To: Larry Simon
Subject: FW: Magee Project No. A-2-MAR-10-22

Charles Lester
Executive Director
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105
415-904-5202
clester@coastal.ca.gov
www.coastal.ca.gov

From: Sonja Anderson [mailto:sonjajeananderson@gmail.com]
Sent: Tuesday, November 08, 2011 8:41 PM
To: Charles Lester
Cc: Jeff Staben; SonjaJeanAnderson@gmail.com
Subject: Re: Magee Project No. A-2-MAR-10-22

Commissioners:
I have found out more information regarding the McGee project. This project is not as large or dangerous as the neighbors of Tony McGee stated in their letter to many of us in West Marin. At this point I am in favor of the project and want that to be noted.

Thank you for your work in protecting our coast,
Sonja Anderson

Linda Emme

415.663.8633
lindaemme708@gmail.com

February 15, 2011

Via U.S. Mail and Email (clester@coastal.ca.gov; lsimon@coastal.ca.gov; rpap@coastal.ca.gov)

California Coastal Commissioners
45 Fremont Street Suite 2000
San Francisco, CA 94105

RE: Appeal No. A-2-MAR-10-022 (Magee, CP-09-39)
17990 Shoreline Highway, Marshall, Marin County

CC: Dr. Charles Lester, Deputy Director
Larry Simon
Ruby Pap

Local Standing: Linda Emme

Dear California Coastal Commissioners,

I have concerns about this project and I appreciate the opportunity to express them to you.

1. The Perennial Grasslands are Essential to the Water Quality of Tomales Bay

Mr. Magee's 149.5 acres are a steeply sloped drainage basin filtering the immense amount of water coming off the ridges into the bay. This blue-line stream becomes a river in the winter as it carries the runoff to the bay. Tomales Bay is federally protected under the National Marine Sanctuaries Act and is a nationally significant marine ecosystem.

Photo of blue-line stream coming out of Mr. Magee's property, taken from Shoreline Highway.

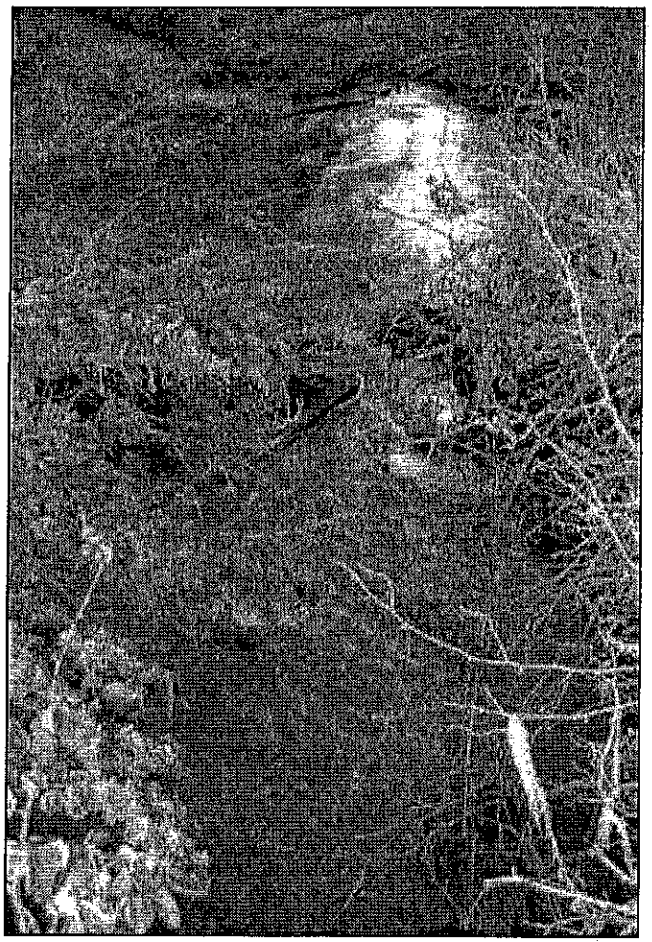


Photo of blue-line stream, taken from bay side of Shoreline Highway.

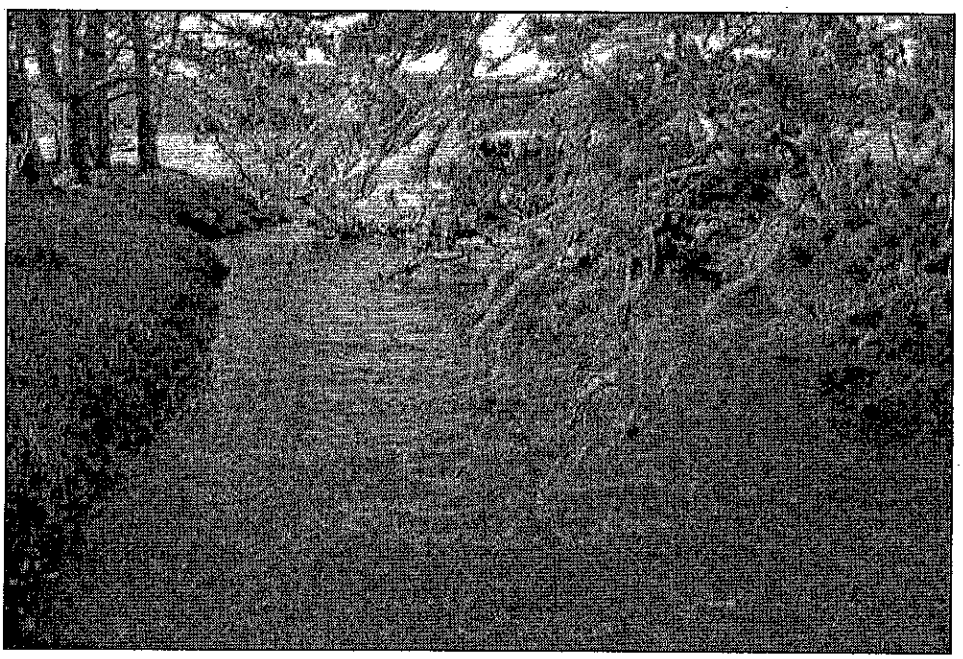


Photo of the blue-line stream as it enters Tomales Bay. The Cove Mussel Co.'s mussel and oyster beds are located directly off-shore from the stream.

At present, the grasslands are a mixture of perennial native grasses and annual grasses that stand nearly five feet high in summer. The roots likely go down to the bedrock. As Mr. Magee removes this grassland water filter to plant crops, the immense amount of water flowing down the slopes will cause erosion and slippage of the hillsides. Herbicides, pesticides and chemical fertilizers used will all find their way into the ground water and bay. In its present state, the exceptional filtering and erosion control capability of the perennial grassland ecosystem should not be overlooked or undervalued. This property is especially valuable in that it protects the water quality of Tomales Bay and its coastal estuary resources.

In addition, this perennial grassland will not produce crops of grapes, hops and vegetables on a commercial scale. They are all warm weather crops, while Marshall is a very cold environment with red clay soil, high winds, cold summer-long fog and salt air. Add in a healthy population of moles, voles, field mice, wood rats, bush rabbits, hares, raccoons, birds, spider mites and other insects, and you can imagine that growing commercial crops in Marshall is marginal at best. Generations of local ranchers here already know this, but Mr. Magee doesn't - yet. Having never uttered the word "organic" in a meeting or hearing, he will assuredly be using pesticides, herbicides and chemical fertilizers that will flow with the ground water into the blue-line stream and Tomales Bay.

The Coastal Act requires that the role of ESHA in protecting water quality be "especially valuable." The pristine perennial grasslands on this steeply sloped basin are essential and integral to the water quality of Tomales Bay. Mr. Magee has a history of degrading these grasslands through human activities and causing a degradation of water quality. During the winter of 2008 when the property was leased by Mr. Magee, there was a huge plumb of mud that flowed into Tomales Bay from erosion on the property. This winter, the careless farming practices of Mr. Magee, as you will see below in Item #2, caused untreated pig excrement to flow into the bay. The native perennial grassland, coastal sage, coyote scrub and freshwater marsh surrounding the blue-line stream qualify as ESHA and are delineated as such in the certified Marin LCP. In addition, a distillery and tasting room are not resource-dependent uses under our state's Coastal Act.

2. The Pigs and Questionable Farming Practices

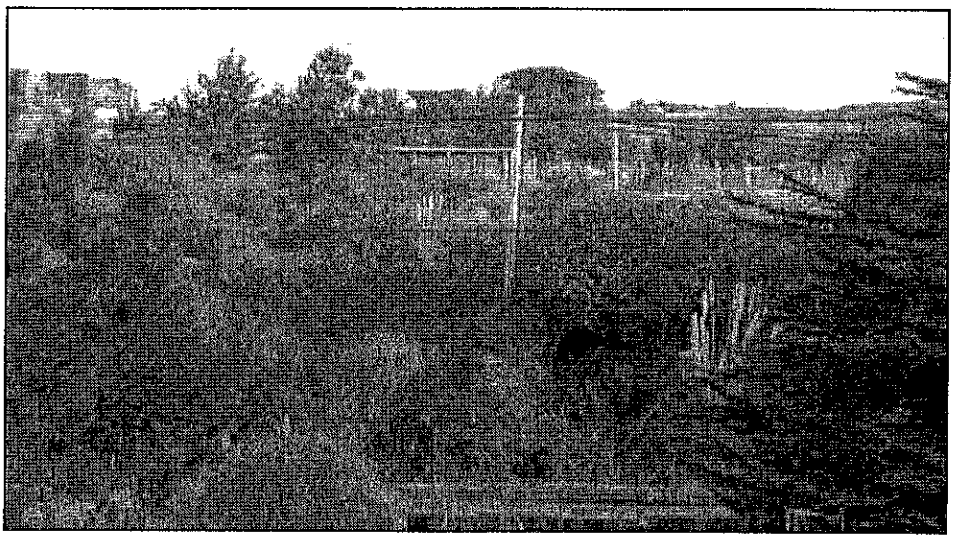
At the Sept. 15th CCC hearing, Mr. Magee said, "There aren't going to be any pigs there. They require a special permit. I may make it into a rooster rescue."

However, on Oct. 22, 2010, five pigs were installed in the pigpen without treatment facilities for their waste, and with a wintertime seep and stream running directly through their pen. The runoff carried the excrement into a catchment basin along our private driveway and directly into Tomales Bay about fifty feet north of mussel and oyster beds owned by the Cove Mussel Co.

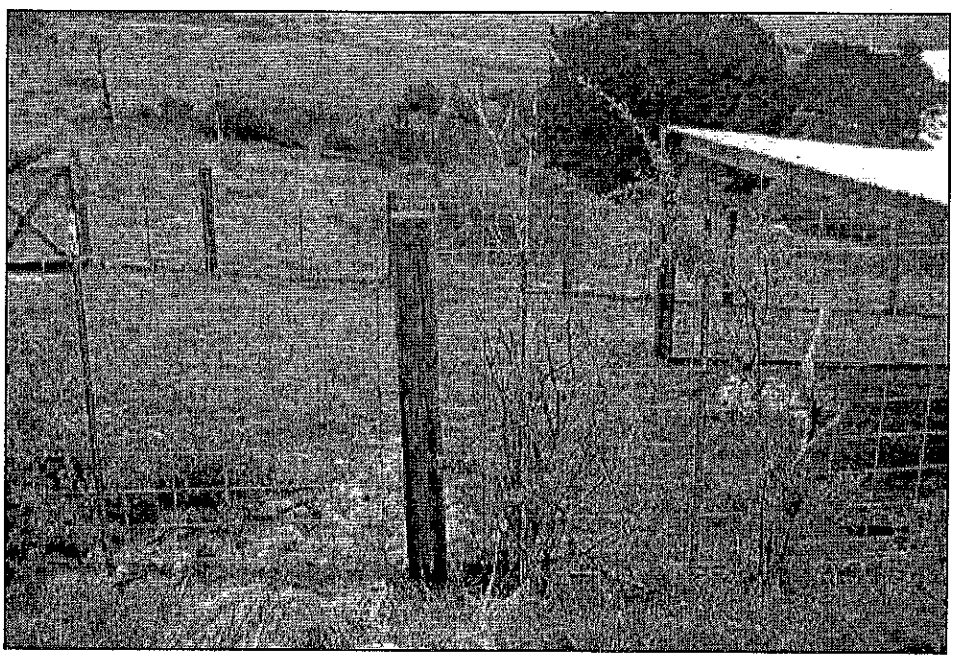
The 30' x 120' pen, still present on the property, is approximately 300 feet from the bay and about 100' in altitude above the bay. It was built in the middle of Magee's proposed driveway and contiguous with the Kivel-Lund property line. There is no mention of a pig operation in his plan that passed the Marin County Planning Department. While this project is before the CCC, nothing should have been built on the property. But, disregarding such constraints, Mr. Magee did as he liked. The pigs were reported to the State Water Resource Department and Marin County

Building Enforcement on Oct. 26. Mr. Magee removed the pigs on Oct. 27, but the pigpen still remains and the pig excrement that was left behind washed into Tomales Bay. Magee dug and framed in a structure that could have been intented as a sewage holding pond but it was not finished or connected before the pigs were installed.

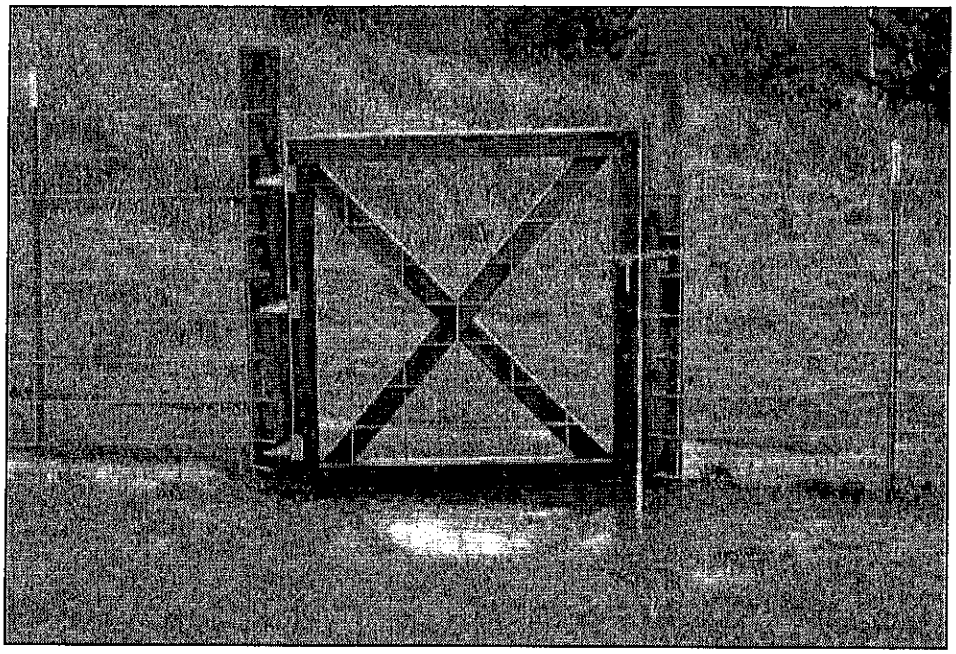
On Sunday, Jan 9, 2011, Magee and his workers dug a trench and laid drainage pipe inside the pigpen - without a permit – to move the water from inside the pigpen downhill, directly into the private driveway catchment basin, then directly into the bay.



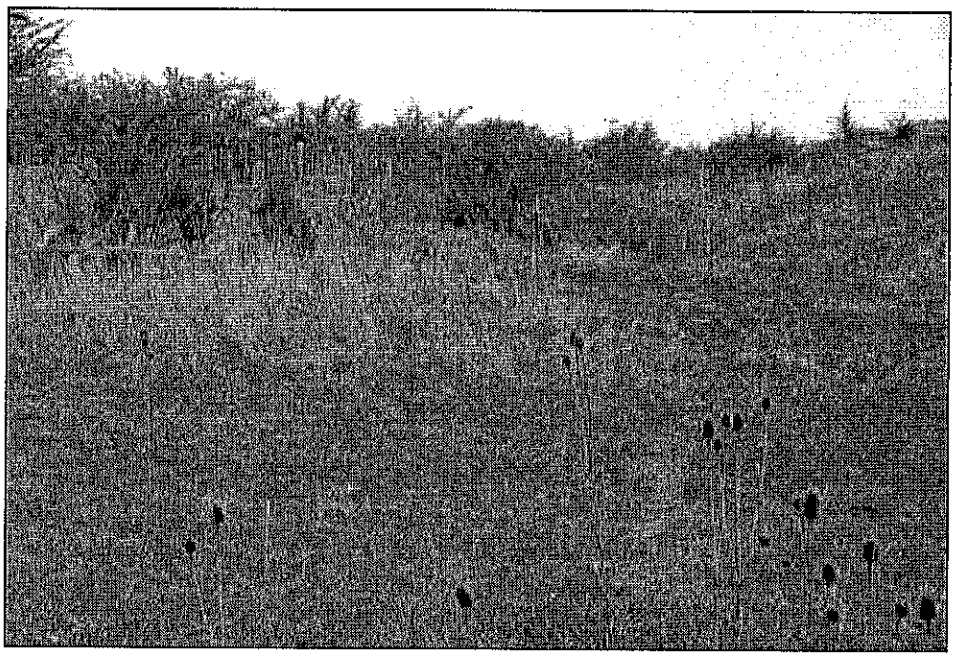
Pigpen as seen from state-owned Marconi Cove. The Kivel-Lund's house to left.



Pigpen as seen from the Kivel-Lund's joint property line with Magee. The pigpen is located where Magee's road is planned.



Entrance to the pigpen.



Water draining down from pigpen in upper left, directly into Tomales Bay.

3. Freshwater Marsh/Wetlands Illegally Filled In between Distillery and Blue Line Stream

The proposed distillery is to be located 100' from the blue-line stream, but only about 50' from what has historically been a freshwater marsh between the proposed distillery and the stream. Mr. Magee and his partner, Mr. Bloomfield of Dillon/Vision, filled in the marsh without a permit and have since planted a few cypress trees there. The photos, below, show how much water drains into this area - where there used to be a marsh with water loving plants which filtered the water before it reached the stream. The destruction of this freshwater marsh was reported to the county by the Kivel-Lund's, but nothing was done. Also, the records of this unpermitted wetlands destruction were not included in Mr. Magee's file by the county planning department.

Water draining into the illegally filled in Wetland. The blue-line stream is located beyond the thistles and laurels at the top of this photo. This freshwater marsh is about thirty feet from the stream. Before it was filled in, it was thick with wire grass and other water-loving plants. The water stood six to twelve inches deep in winter. Now there is some bare clay fill, some grass, and several cypress trees, recently planted by Mr. Magee.

"A buffer strip one hundred feet in width, minimum, as measured landward from the edge of the wetland, shall be established along the periphery of all wetlands. Development activities and uses in the wetlands buffer shall be limited to those allowed pursuant to Section 30233 of the Coastal Act of 1976."

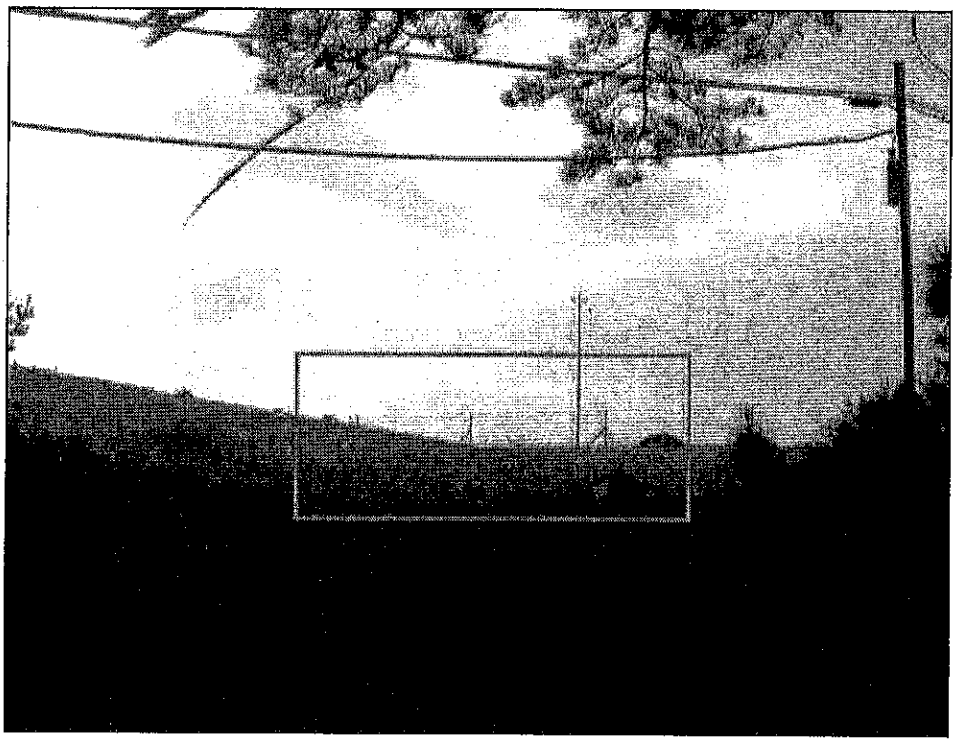
This photograph shows the illegally filled in freshwater marsh as it is at present.

The proposed distillery will be located on the other side of the dark green cedars growing in the top left corner of the photo, about 50' from this location. The shallow rooted cypress trees in the center left and to the right were planted by Magee after filling in the wetland.

Had this freshwater marsh not been illegally filled in, the present location of the brandy distillery and sales building would be well within the wetlands minimum 100' buffer strip.

4. Sheep Shelters Too Close to Tomales Bay and Structures Widely Scattered Across Property

Recently, as I stood by the shore of Tomales Bay, I was taken aback to see Mr. Magee's sheep shelter so close to Tomales Bay. In the photo below, taken from the shore of the bay, the sheep shelter is silhouetted against the sky. No other local ranchers confine their animals so close to the bay. Why is Mr. Magee?



This photograph shows the storey poles for the intended sheep shelter, too close to Tomales Bay. I shot this photo while standing on the shore of the bay, looking up toward Shoreline Highway. The telephone lines run along side Shoreline Highway, which is between the dark forground and the lighter hills of Mr. Magee's property.

In addition, the structures are widely scattered across the property, disrupting the viewshed. Clustering the development would certainly improve the viewshed as it is seen from the Point Reyes National Seashore, Tomales Bay State Park and from Tomales Bay itself. The barn would be much less visible if it were sited nearer to where the Brandyhouse is presently proposed or grouped with the residence. The road to the residence would be nearly hidden if it followed the present old ranch road instead of it's intended location where the pigpen is presently.

5. The Brandy Distillery

Why hasn't Mr. Magee planted a test plot of grapes to see if they actually will grow on a commercial scale in the salt winds and long, foggy summers that are Marshall's climate? He said in the Marin County hearing that he wasn't sure that grapes will grow and that he would have fruit two years after planting. Why wouldn't he want to find out before investing in his Brandyhouse and distillery? He has leased or owned the property for over three years. Isn't it a bad business plan to put the cart before the horse? Or, is his plan actually to truck in grapes or wine to make his 1,000 bottles of brandy? Trucking in grapes will increase traffic circulation adverse impacts for this rural area.

Mr. Magee is asking to build an industrial distillery on agricultural land on the basis of a crop that doesn't exist – one that has never been grown in Marshall. If he can't grow grapes on this property, then he will be trucking in grapes or wine to make brandy. His entrance is an s-curve when coming from the north. Can tanker trucks safely navigate that turn? If he has to truck in grapes or wine, then this becomes an industrial use of agricultural land.

Is a distillery consistent with protecting the water quality of the bay? Distillery waste products such as grape skin pumice and hot water from the still will have to be disposed of. Also, in the case of a fire (he will be producing ethanol, the equivalent of gasoline), he will have to use ATFF foam to contain it. It is a special fire suppressing foam for alcohol and gasoline fires not carried by either the Point Reyes Station or Tomales Fire Departments.

The ATFF foam is toxic to fish and other marine life. Firefighting foams can emulsify oil on waterfowl, causing the birds to lose their insulation and buoyancy in water, and may result in the death of the birds.[1] Since his proposed distillery is to be so close to wetlands areas and the blue-line stream, if there was a fire and ATFF foam was used, it would be impossible to keep it out of the ground water and bay.

It is this industrial aspect of fire suppression in a distillery that is why distilleries are located in industrial areas near sewage treatment plants and where large amounts of water are available – not on isolated ranch land within a 100' of Tomales Bay. The Coastal Act requires new development be located near existing services. Magee has tried to skirt this issue by calling his brandy distillery, "agricultural production" and a "tasting room". The word "distillery" was not used in his county planning department documents, yet that is the process by which he will produce the brandy for tasting. Why has he not been straightforward and open about his distillery?

The county set no Conditions on requiring the brandy to be processed only from grapes grown on Mr. Magee's property. They set no Conditions to prevent the trucking in of grapes, the distillery hours of operation or hours for sales. The Point Reyes Vineyard, located in a much warmer, more protected area, trucks in most of their grapes from the warmer growing areas of eastern Marin. Since it is likely that Mr. Magee would have to do the same, there needs to be appropriate Conditions to keep this operation agricultural, not industrial.

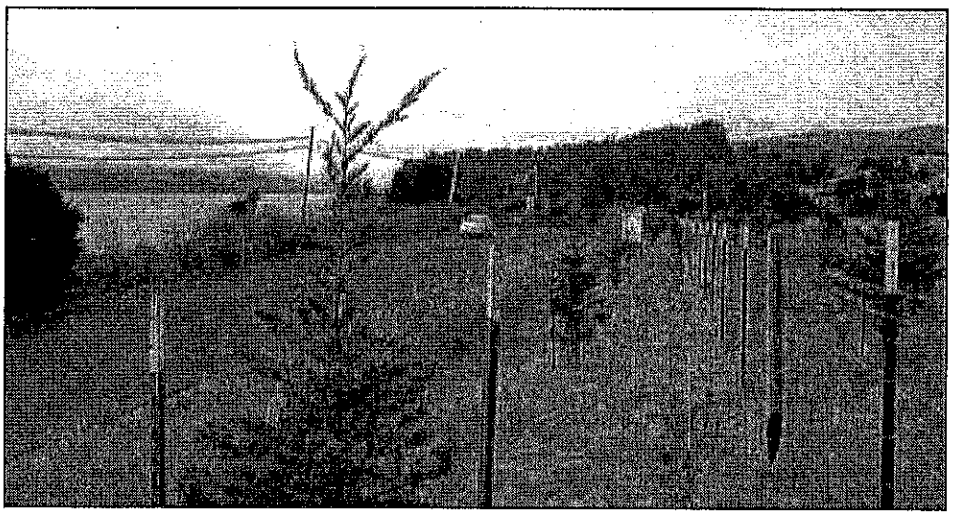
I believe that many of these questions would have been addressed if the county had required a Master Plan as is required in their certified LCP. An industrial brandy distillery, oriented toward attracting more tourist traffic to Marshall and an already over crowded Shoreline Highway, is in no way "minor and incidental."

[1] William H. Ruppert, IV, P.E., Dr. Daniel P. Verdonik, Mr. Christopher Hanauska, P.E. , Environmental Impacts of Firefighting Foams, Hughes Associates, Inc., pdf.

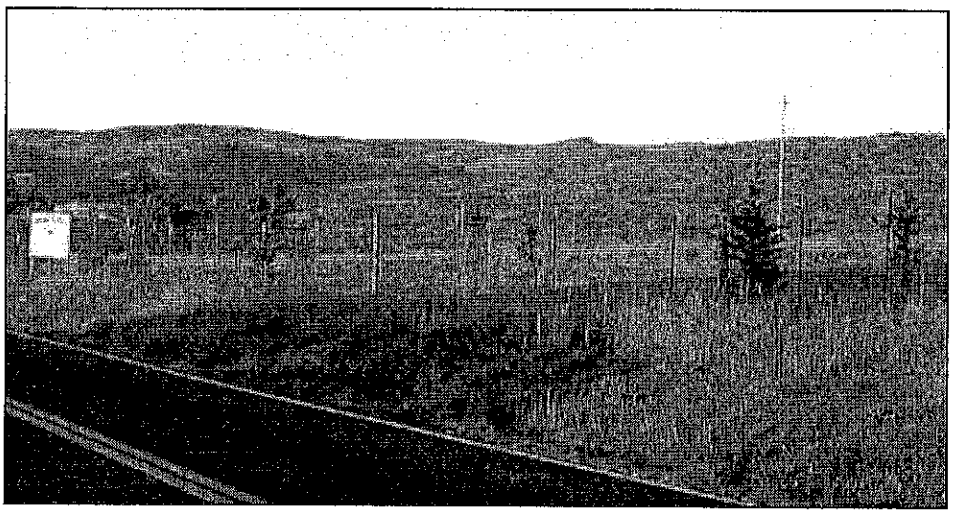
6. Cypress Trees Planted Along Shoreline Highway will Entirely Block Views of this Scenic Resource.

Mr. Magee has planted non-native cypress trees, three rows deep, along the entire length of his property fronting on Shoreline Highway, which will entirely block public views of this beautiful valley and grasslands from the highway. The Marin County LCP, Unit II, P. 194 states "The primary concern of the Coastal Act is to protect views to scenic resources from public roads" and "on the open rolling grasslands east of the Bay".

Also, the East Shore Planning Group noted that this line of trees was planted contrary to county approval in their letter of Feb. 2, 2010. "We notice plantings of trees along the Highway 1 boundary. We would like to ask that these trees are intermittently spaced, such that they do not form a wall blocking views of the ranch land. Objective A.9 in our East Shore Community Plan (p. 24) requests that the aesthetic qualities of the East Shore be preserved in order to retain its visual amenities." The county ignored the request.



Cypress trees planted by Mr. Magee, three rows deep. along Shoreline Highway - the entire length of his property without the breaks that are shown on his plans.



When grown, these cypress trees will form a solid, black-green wall which will *entirely* block the public's view of the grasslands.

In conclusion, it is my opinion that this land should only be used for light grazing of sheep or grass-fed beef, as is traditional in Marshall. I make that statement as a thirty-year resident of Marshall with thirty years of experience attempting to grow vegetables and successfully growing native plants. The thick mat of deep-rooted perennial grass is a valuable resource for filtering water run off, erosion control and keeping the bay waters clean. The grassland should not be destroyed to plant a marginal crop. While it is admirable that Mr. Magee has developed a plan for farming the land, it is a plan that might work well in another location, but not here in Marshall. The exceptional filtering and erosion control capability of the grassland ecosystem in this steeply sloped drainage basin should not be taken lightly. The loss of this relatively pristine perennial grassland for a crop that won't produce is senseless and harmful to Tomales Bay.

In the three years that Mr. Magee has leased or owned this property, he has not shown himself to be a good steward of this nearly pristine property that is so vital to the health of Tomales Bay. He has caused erosion, has illegally filled in a wetland marsh, was cavalier in installing pigs and allowing their excrement to flow into Tomales Bay, has been disingenuous to the community about his plans for a brandy distillery by cloaking it as agricultural production and has refused to cluster his buildings to improve the viewshed. He has shown bad faith in presenting a plan to the county and then doing whatever he wishes, to the detriment of the land and Tomales Bay. Therefore, I ask the CCC to impose stringent conditions for any approved development - and monitor him for compliance.

As a background note to this letter, Mr. Magee has personally intimidated me with threatening emails and continuous harassment at my home in retaliation for my daring to question the scope of his project. This harassment began in July 2010 and has continued until recently. Mr. Magee's attention has been unkind, insincere and unwanted.

Thank you for this opportunity to communicate my concerns.

Sincerely,

Linda Emme

Cc: Scott Kivel and Lia Lund
Fran Gibson
Catherine Caufield
Thomas G. Baty
Bree Hardcastle, State Parks Regional Office
Cicely Muldoon, Point Reyes National Seashore
Tim Reed, Gulf of the Farallones Marine Sanctuary
Department of Fish & Game, Marin County

RECEIVED
JUN 30 2011
CALIFORNIA
COASTAL COMMISSION

Thomas G Baty
Box 534
Inverness CA 94937

April 28, 2011

California Coastal Commission
45 Fremont Street
Suite 2000
San Francisco CA 94105

:
RE: Brader-Magee appeal

Dear Commissioners;

Attached is a copy of my letter to the Marin County Planning Commission expressing my concerns over the proposed development at 17990 State Route One in Marshall CA.

Much of the aggressive development of our rural areas in Marin County is now done by taking advantage of the county's loose and liberal agricultural policies. Throw-away agricultural features like ersatz vineyards now provide the zoning cincher for expansive domestic compounds and obligatory multiple "barns."

The Brader-Magee project takes this trick one step further and seeks approval of a perhaps-chic but nonetheless industrial distillery operation. Other than the applicants' clear intent to cash in on the visual beauty of Tomales Bay and the Seashore beyond, I can see absolutely nothing site-specific or beneficial in this project on this parcel of land. To the contrary, I take offense at the inherent fundamental phoniness of a brandy distillery and sniffery on this site. Sustainable local agriculture has to be rooted in the honest production of real farm products, not a basic marketing sham.

The Coastal Commission has previously considered and rejected other developments in this area, primarily out of concern for visual impacts to an ever dwindling California coastline. I would ask Commissioners to reject the Brader-Magee project as it too has no business being here.

Sincerely,

Thomas G Baty

THOMAS G. BATY
P.O. BOX 534, INVERNESS, CA 94937
415/669-1682

Marin County Planning Commission
Marin County Community Development Agency
3501 Civic Center Drive, Rm308
San Rafael CA 94903

April 5, 2010

RE: Brader-Magee

Dear Planning Commissioners;

I wanted to share my concerns over the proposed Brader-Magee development in Marshall.

I am concerned that the project may adversely affect the water quality of Tomales Bay. There is currently a substantial dam across the blue-line stream that runs through the property with a spillway that allows whatever remnant flow to continue to the bay. Is this water impoundment legally permitted by the State Water Board and is this the proposed water supply for this development? Has there been any quantitative analysis of stream flows on this creek and will the project affect the volume of water that currently reaches the bay? Incremental water diversions on the small streams around the bay continue to threaten the health of the bay, particularly in the dry months of the year when the south end of the bay tends towards hyper-salinity.

The development would also appear to pose risks to water quality as run-off from a vineyard and distillery could clearly harm the waters of the bay. The natural water course for the site carries water through a culvert under Highway 1 and flows across the State Parks' property at Marconi Cove before it empties into the bay at the Cove Mussel and Oyster Company aquaculture lease The North Coast Regional Water Quality Control Board is currently grappling with sediment, pesticide and herbicide issues downstream of vineyards in Napa and Sonoma Counties. Does the project describe the specific areas on the property for planting vines and does it include a management plan for the vineyards? Is there an adequate water catchment/treatment system for the distillery to ensure that no wastewater reaches the bay? While the State Parks' Marconi Cove unit of Tomales Bay State Park is currently undeveloped, the Parks' General Management Plan calls for a recreational access point and small campground that focus on the obvious water-related activities. The aquaculture lease is directly adjacent to the outfall from the project site. Have the California Department of Public Health and the Department of Fish and Game been solicited for input and comments on the potential impacts from this development?

I am also concerned about the visual impact of the proposed development. Sadly, wineries are not about gently blending into the landscapes. Rather, they are almost always about notoriety and name recognition---I believe "branding" is the current

P.O. BOX 534, INVERNESS, CA 94937
415/669-1682

description of this activity. I do not profess to know what is actually needed for a functional distillery, but I look up on those hills at a substantial handful of story-poles and know that this project would represent a big increase in the commercial "built" footprint of a decreasingly rural Marshall. From a boat in the bay, the proposed placement and size of the buildings seem excessive and oversized, adding to the southward creep of fully built-out parcels.

Finally, I would like to express my concern for the ever-increasing threat of commercial interests taking advantage of our less-restrictive zoning of "agricultural" uses and the cache of West Marin in general and West Marin foodstuffs in particular. I can very easily see the day when Highway 1 north of Point Reyes Station is a continuous strip of wine tasting rooms and produce stands---whether or not they are actually selling their own farm-raised or value-added products.

There was a profile on the applicant and project in one of our local newspapers. The applicant apparently makes a very good beer. The applicant also admitted that he has no idea of whether a suitable brandy grape can be grown on the site. Is this a sufficient premise to allow the development of a distillery on our diminishing coastline?

Ideally, we would have a demonstration that serviceable grapes can be safely grown here before the distillery is built. Otherwise we will have simply succeeded in locating another industrial activity on a scenic, once rural piece of the coast

I would ask the Planning Commission to consider the questions and comments raised here and work to minimize the visual impacts and water quality threats of this project

Sincerely,

Thomas G Baty

Larry Simon

From: dorisroe@charter.net
Sent: Tuesday, June 28, 2011 9:40 AM
To: Larry Simon

June 27, 2011

Mr.Larry Simon
Federal Consistency Coordinator
Coastal Commission

Dear Mr.Simon:

My family settled in the Bodega/Tomales area in 1851 (during the Gold Rush), established ranches, and had a few escape cabins at Dillon Beach. The first built in 1912 is still in the family.

As a youth, fascinated with the wildlife, I wandered the shores of Tomales Bay - once considered the most pristine bay south of Alaska.

I spent years in money and effort to create Point Reyes National Seashore, and in reestablishing its elk herd; expanding the Farallones and Cordell Marine Sanctuaries, and in defeating PG&E's effort to build a nuclear reactor on Bodega Head, etc.

I am abhorred by the developer, Tony Magee, trying to side-step regulations to build a 10,000 square complex, and especially a contaminating distillery, all on environmentally sensitive land. It is a travesty. One greedy man, for profit and personal satisfaction, seeks gain at the expense of the people; the lovers of Tomales Bay; and the rare beauty and ecological significance of a precious gem. The project must be stopped.

Sincerely,

Kenneth S. Roe
3325 Saint Moritz Court
Redding , CA 96002

BRIDGER M. MITCHELL

RECEIVED
JUN 30 2011
COASTAL COMMISSION
NORTH COAST DISTRICT

June 29, 2011

Commissioners, California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Re: Appeal No. A-2-MAR-10-022 (Tony Magee and Dillon Vision LLC, CP-09-39, Marshall, Marin County)

The Coastal Commission found that this appeal presented a *substantial issue* at its September 2010 meeting and will hear this application *de novo*. In doing so, the Commission should examine Marin County's processing of this application in light of the certified Local Coastal Plan's requirements that the applicant either submit a master plan comprising all of the planned and prospective developments, or file for a waiver of master plan. As noted by several persons who presented public comments to the county (Catherine Caufield; Scott Kivel and Lia Lund; Bridger Mitchell; and the Environmental Action Committee):

A. The project approval by the Marin County Board of Supervisors violates provisions of the county's Unit II Local Coastal Plan. The requirements for a waiver of filing a master plan were not satisfied in the county's processing of the application, and cannot be met.

1. The applicant did not file formal written application for waiver of master plan, which is required by the Development Code (22.44.040).
2. The Project Notice did not provide public notice of an application for waiver.
3. The staff report to the Planning Commission did not provide grounds for finding project the project to be "minor or incidental" (22.56.026(c)) and the Planning Commission added "minor and incidental" language to its resolution approving the project without any findings of fact to support that language.
4. When the Planning Commission's decision was appealed to the Board of Supervisors, the staff report incorrectly asserted that other findings for waiver are not required to be made.

   In fact, the Coastal Commission's staff analyzed the appeal of Marin County's approval for development of the parcel adjacent to the Magee parcel. Your staff's analysis in its detailed February 14, 2003 memorandum (Hansen-Brubaker project) of the requirement to waive a Master Plan is fully applicable to this project as well:

   > "according to Zoning Code Section 22.56.026, to qualify for a Master Plan waiver a development must meet the three criteria ... in A-C. Although the proposed development includes one single-family dwelling unit proposed for construction on a legal building site, it does not meet requirement A because it includes a guest house and barn ... Furthermore, the proposed development is not minor or incidental in nature or within the intent and objectives of the local coastal plan as mandated by requirement C. ... the proposed development is significant in nature and inconsistent with Unit II LCP provisions for the protection of visual and agricultural resources. Consequently the appropriate findings cannot be made under Zoning Code Section 22.56.026 to waive the Master Plan requirement." [p. 22]

5. Several factual findings required by the LCP in order to wave the filing a master plan cannot be made because:
   - The project includes developments in addition to one single-family dwelling unit.
   - The project consists of six separate structures whose total building area exceeds 10,000 square feet and thus cannot be deemed "minor".
   - The project includes agricultural processing (a commercial brandy distillery), which is a conditional use, and therefore cannot be deemed "incidental".

B. Approval of the project without a master plan risks the siting and construction of additional development without public review.

Although the county asserted that the other information received enabled it to conclude that the requirements of the LCP were satisfied, the lack of a master plan for this parcel leaves open the risk that future developments will occur without public hearing. In particular, the county's approval of the project without a master plan will apparently allow subsequent development of accessory agricultural structures and bed and breakfast operations (which are principal permitted uses that by 22.57.032I are subject to an approved master plan) and a second residential unit (which Marin County staff treats as effectively a principal permitted use) without subjecting these additional developments to either master plan review, design review or public hearing.

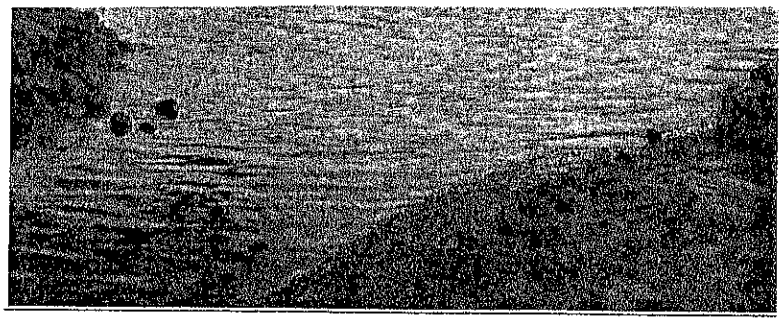
As the county record and public comments demonstrate, development on this site will create a host of environmental and visual impacts that require full review in order to satisfy the requirements of the LCP. It is essential that the Coastal Commission ensure that any additional housing on this parcel be subject to public scrutiny.

Thank you for the opportunity to comment on this appeal.

Sincerely yours,

Cc: Charles Lester, Deputy Director
Ruby Pap, District Supervisor
Larry Simon, Federal Consistency Coordinator

AUGUST 2011



The Blue-Line Stream entering Tomales Bay in Marconi Cove

An Industrial Distillery is *NOT* agriculture!

The Development

In 2010 Marin County approved a development, including an industrial brandy distillery disguised as a Tasting Room, only 100 feet from a blue line stream and 75 feet across Highway One from the State Park owned Marconi Cove on Tomales Bay. Located in Marshall, the developer intends to build seven new buildings that include a distillery, residence, two barns, two sheep shelters and greenhouse scattered across the property. The 149 acres are a valley with a blue-line stream bisecting the property, a stream that becomes a roaring river with three tributaries during the winter. The property is a pristine mix of perennial grasslands, riparian zones, a man-made pond, seeps, swales and wetlands filtering an immense amount of water off the ridge into Tomales Bay.

History

April 2010: Planning Commission approval
May 2010: Board of Supervisors Approval
September 2010: The County's decision was appealed to the California Coastal Commission that voted 9-1 that the development raised substantial environmental issues and it is currently conducting its own independent review.

Impact on the Environment and the Public

- The development: 10,000+ square feet of new buildings located within potential Environmentally Sensitive Habitat Areas.
- Marin County Planning called it "minor and incidental" and did not require an environmental review or a master plan that are required under the Local Coastal Plan.
- Six acres of grapes and six acres of hops will be planted, both of which require large amounts of fertilizer, pesticides and water and are questionable crops in Marshall's marine climate. If grape vineyards were viable on the East Shore hills of Tomales Bay, the ranchers would have planted them instead of grazing cattle.
- Twelve acres of pristine perennial grasslands and wetlands that filter the water coming into the bay will be destroyed to plant these marginal crops.
- The development impacts the viewshed of the area's parks and the Bay. It can be seen from the State Park's Marconi Conference Center, Marconi Cove and Shell Beach and is highly visible from the Bay, which is part of the Gulf of the Farallones National Marine Sanctuary.
- Tomales Bay is a Ramsar Convention Wetland of International Importance. It was chosen in 2002 because it is relatively pristine with no industry on the bay to pollute it.

- The developer states that he will produce 1,000 bottles of brandy from his own grapes. There are no conditions to prevent him from trucking in grapes to distill, from expanding his facility, or to prevent him from running the distillery 24/7. He could sell out to Seagrams and they could truck in grapes.

- An industrial distillery will have adverse environmental effects from hot water boilers, ethanol flammability, toxic wastes that include formaldehyde, toxic foams used to extinguish ethanol fires, and possible sewage spills.

- This industrial distillery is located only 100 feet from the blue-line stream, 50 feet from a filled-in wetland area, and 200 feet from Tomales Bay

- Brandy is 70-80% ethanol. Ethanol's flashpoint is 68 degrees (the lowest temperature at which it will ignite) and is a fire hazard in this isolated, rural location.

- Bill Owen, president of the American Distilling Institute, called a carboy (jug used in distilleries) a "bomb."

- Distilleries are now wisely located in industrial parks, close to fire departments where huge amounts of water and sewers are available for fire fighting. Marconi Cove is nine miles from the closest fire department in Point Reyes Station and response time is 15-20 minutes because of the narrow, winding Highway One. Instead of sewers, there is the blue-line stream and Tomales Bay.

- Since Brandy is aged, we can expect 3,000-20,000 bottles and casks to be present on the property.

- Whiskey Springs in Sausalito, the last distillery in Marin, exploded into a fireball in 1963.

We need to protect our [illegible] which will set a damaging precedent. 9410502254

Is an industrial distillery a reasonable and safe use of our coastal ranch land?

The Coastal Commission may schedule its hearing as early as October. NOW is the time to express your views to the CCC.

Write or email

RE: Magee Project No. A-2-MAR-10-22

California Coastal Commissioners
c/o Charles Lester, Senior Deputy Director
45 Fremont Street #2000
San Francisco, CA 94105-2219
FAX: 415 904-5400 or EMAIL: clester@coastal.ca.gov

For further information e-mail us at:

tomalesbay@gmail.com

Lia Lund or Scott Kivel, 18400 State Route One, Marshall, 94940.

Larry Simon

From: Charles Lester
Sent: Wednesday, August 24, 2011 5:01 PM
To: Larry Simon
Cc: Ruby Pap
Subject: FW: distillery in Marshall

Charles Lester

Senior Deputy Director

California Coastal Commission

725 Front Street, Suite 300

Santa Cruz, CA 95060

831-427-4863 Fax: 831-427-4877

clester@coastal.ca.gov

www.coastal.ca.gov

-----Original Message-----
From: inez storer [mailto:inezs@horizoncable.com]
Sent: Wednesday, August 24, 2011 4:55 PM
To: Charles Lester
Cc: Jeff Staben
Subject: distillery in Marshall

As very long term residents of residents of Inverness in West Marin, we would absolutely be opposed to having such an invasive and possibly dangerous and hugely inappropriate business, a distillery disguised as a tasting room (how disingenuous is that) which would be located very near Marconi's Cove. I also find it "odd" that the developer offered to pay to keep Samuel Taylor Park open. If this is true, what a transparent bribe. It doesn't take rocket science to understand how this business would have a deleterious effect on what is zoned agricultural land. The Indians tried to build a casino on or near the same area and fortunately they were not successful. Appropriateness is the operative word here. Sincerely, Inez Storer and Andrew Romanoff

Larry Simon

From: Charles Lester
Sent: Thursday, August 25, 2011 11:09 PM
To: Larry Simon
Subject: FW: Magee Projest No A-2-MAR-10-22

Charles Lester
Senior Deputy Director
California Coastal Commission
725 Front Street, Suite 300
Santa Cruz, CA 95060
831-427-4863 Fax: 831-427-4877
clester@coastal.ca.gov
www.coastal.ca.gov

From: eugene laur [mailto:eugenelaur@gmail.com]
Sent: Wednesday, August 24, 2011 6:17 PM
To: Charles Lester
Subject: Magee Projest No A-2-MAR-10-22

Dear Charles Lester.

I hope you, the Cal CC, can rein in this mad brandy distillery project in Marshall, CA. It borders on insanity and it boggles the mind thinking how Marin Cty Planning could approve a project like this.

Gene Laur

Larry Simon

From: Charles Lester
Sent: Thursday, August 25, 2011 11:09 PM
To: Larry Simon
Subject: FW: Charles Lester, Sr. Deputy Director Re- Magee Project No. A-2-MAR-10-22

Charles Lester

Senior Deputy Director

California Coastal Commission

725 Front Street, Suite 300

Santa Cruz, CA 95060

831-427-4863 Fax: 831-427-4877

clester@coastal.ca.gov

www.coastal.ca.gov

-----Original Message-----
From: Barry Linder [mailto:barrylinda@earthlink.net]
Sent: Wednesday, August 24, 2011 6:04 PM
To: Charles Lester; jstaber@coastal.ca.gov
Subject: Att: Charles Lester, Sr. Deputy Director Re- Magee Project No. A-2-MAR-10-22

I believe this development to be inappropriate to our area based on the environmental and social impact that it will have. My house survived the 45,000 acre fire on the Inverness ridge in1995. i will never forget the explosions of fire as I viewed the ridge from the east side of the bay. As I look out on the hills from my Inverness home, I can just imagine the hills in flames. Don't let this project through. We don't need the threat of a multinational corp. eventually moving here. Linda Linder.

Simon, Larry@Coastal

From: Jeff Staben
Sent: Friday, August 26, 2011 9:05 PM
To: Larry Simon
Subject: FW: proposed industrial brandy distillery -Marshall, Calif.

here's another email

-----Original Message-----
From: Joyce Goldfield [mailto:joycegoldfield@gmail.com]
Sent: Fri 8/26/2011 5:33 PM
To: Jeff Staben
Cc:
Subject: proposed industrial brandy distillery -Marshall, Calif.
California Coastal Commissioners
c/o Charles Lester, Senior Deputy Director
45 Freemont Street #2000
San Francisco, Çalif. 94105

Dear Sir:

I am writing to vehemently oppose the proposed industrial brandy distillery across from the State Park owned Marconi Cove property on
Tomales Bay, in Marshall, California. This industrial project,
disguised a a tasting room, will be located 100 feet from a blue line stream, which feeds directly into pristine Tomales Bay. Having lived in Inverness, Ca. for the past 35 years, while raising my family here, I am well aware of all the battles fought and won to preserve the quality of the water in Tomales Bay.....for the birds, wildlife, aquaculture, humans and flora depending on the quality of water in this Bay. The adverse environmental effects of toxic wastes (including formaldehyde, and toxic foams used to fight ethanol fires), fertilizer and pesticides used in the growing of grapes and the possibility of sewage spills, are all a direct threat to the 'Bay. The potential fire hazard of storing bottles and casks of aging brandy on this property is frightening. This type of industry belongs in an industrial park, close to fire fighting services. This land is historically ranch land with pristine grasslands, riparian zones, a man-made pond and wetlands, filtering an immense amount of water off the ridge into Tomales Bay. The blue-line stream bisecting the property channels immense amounts of water into the Bay year round, but especially during the rainy season. Once this land is sacrificed to industrial use, it cannot be repaired. Please use all the means at your disposal to discourage the use of this 149 acres of land by any industry. This would set a frightening precedence that would encourage further destruction of our coastline. Tomales Bay, a Ramsar Convention Wetland of International Importance, deserves your help in preserving the sanctity of its waters and environs.

Sincerely,

Joyce H. Goldfield

P.O.

Box 581

82 Drake's Summit Road

Inverness, California 94937

415

663-1787

Larry Simon

From: Jeff Staben
Sent: Friday, August 26, 2011 7:56 AM
To: Larry Simon
Subject: FW: Distillery in Tomales Bay

California Coastal Commissioners,

Living in Inverness, I am a concerned stakeholder in the review of environmentally hazardous development in this area. The proposed industrial distillery in Marshall is definitely not a reasonable use of coastal ranch land. I am particularly irritated by the disingenuous planting of grapes and hops. Obviously this will not be a viable source of booze materials in this climate and it is window dressing to make it look like these are old-fashioned farmers. If they want to agree not to truck in outside produce, then we can talk about how they will meet environmental standards as they distil what they grow and then store it off-site, but this scam is a non-starter.

Kevin Lawson

P.O. Box 1293

Point Reyes CA, 94956

Yes@svn.net

Home (415) 663-9210

Cell (530) 545-2730

Fax (415) 873-1949

Larry Simon

From: Charles Lester
Sent: Friday, August 26, 2011 9:00 AM
To: Larry Simon
Subject: FW: Magee Project No A-2-MAR-10-22

Charles Lester

Senior Deputy Director

California Coastal Commission

725 Front Street, Suite 300

Santa Cruz, CA 95060

831-427-4863 Fax: 831-427-4877

clester@coastal.ca.gov

www.coastal.ca.gov

-----Original Message-----
From: North Bay Myotherapy and Fitness [mailto:myotherapy@ix.netcom.com]
Sent: Friday, August 26, 2011 8:39 AM
To: Charles Lester
Cc: jstaber@coastal.ca.gov
Subject: Magee Project No A-2-MAR-10-22

I find it horrifying that the Magee Project has proceeded as far as it has. The potential for environmental damage is huge. An industrial distillery belongs in an industrial area, not on the pristine shore of Tomales Bay and its tributaries. Planting a few acres of grapes and running a few sheep is a transparent "cover" for a purely industrial operation.

I expect the Coastal Commission will act responsibly in prohibiting this project in agricultural West Marin.

Molly Hogan

a method for relaxing muscle spasm, improving circulation and alleviating pain. To defuse 'trigger points,' pressure is applied to the muscle for several seconds by means of fingers, knuckles and elbows. The success of this method depends on the use of specific corrective exercise for the freed muscles. The method was developed by Bonnie Prudden in 1976." - Taber's Cyclopedic Medical Dictionary

This email message may contain confidential and privileged information. This message is intended only for the use of the individual or entity to which it is disclosed under applicable federal or state law. If you are not the intended recipient, be aware that any disclosure, coping, distribution or use of this email message or any attachment is prohibited. If you have received this email message in error, please notify us immediately (415-260=3690) so that we can arrange for retrieval or direct you to the proper course of action.

Larry Simon

From: Charles Lester
Sent: Friday, August 26, 2011 9:01 AM
To: Larry Simon
Subject: FW: Distillery on Tomales Bay

Charles Lester
Senior Deputy Director
California Coastal Commission
725 Front Street, Suite 300
Santa Cruz, CA 95060
831-427-4863 Fax: 831-427-4877
clester@coastal.ca.gov
www.coastal.ca.gov

From: Susan Burns [mailto:thinkseals@yahoo.com]
Sent: Friday, August 26, 2011 7:00 AM
To: Charles Lester
Subject: Distillery on Tomales Bay

Dear Mr. Lester ~

I am a resident of Inverness Park, and yesterday I received a mailer from Lia Lund and Scott Kivel which listed quite a number of negative points about the proposed development of a distillery on the shores of our beautiful Tomales Bay. It is likely that you have also received a copy, so I will not duplicate the details here. I simply wish to say that I dearly hope the Coastal Commission will take into full consideration the wishes of the many residents who live on or near this gorgeous and healthy body of water. Many of us (myself included) are vehemently opposed to the construction of a potentially dangerous and polluting development such as the brandy distillery, and I write to you with the hope that its construction will not be permitted.

Best,
Susan Burns
146 Portola Avenue
Inverness Park 94956

PO Box 108
Tomales CA
94971
8-27-11

e Charles Lester:
am 94 years old and have
a resident in a rural area
dg Tomales since 1970.
know how hard citizens of
Marin have fought to
ve our beautiful pristine
ture from defeating the
elopment of a nuclear
er at Bodega Head to
ing us from a freeway
Highway 1. Our coast
em needs fighting for.
have 2 glaucoma and
lerted by nuclear-e abuse
lems and am averse
all these nuke-hasting
ues.
Bring back the apples
plums. No more
gards (climate change
ll probably do them in
way.)
Respectfully -

Larry Simon

From: Charles Lester
Sent: Saturday, August 27, 2011 8:52 PM
To: Larry Simon
Subject: FW: Magee Project No. A-2-MAR-10-22

Charles Lester
Senior Deputy Director
California Coastal Commission
725 Front Street, Suite 300
Santa Cruz, CA 95060
831-427-4863 Fax: 831-427-4877
clester@coastal.ca.gov
www.coastal.ca.gov

From: Paul Coopersmith [mailto:paul@coopersmiths.com]
Sent: Saturday, August 27, 2011 3:44 PM
To: Charles Lester
Subject: Magee Project No. A-2-MAR-10-22

Dear Mr Lester,

As someone one lives less than 100 yards from the western shore of Tomales Bay, I am vehemently opposed to the so-called "tasting room" being allowed to be built and operate 200 feet from that bay at Marconi Cove.

The reasons I object reasons to this project are too numerous to go into here. Suffice it to say that an industrial distillery is totally incompatible with the environment of Tomales Bay. It would open the door to all sorts of other inappropriate developments on the shores of this relatively pristine body of water that comprises part of the Farallones National Marine Sanctuary.

I urge you to vote to reject the Magee Project No. A-2-MAR-10-22.

Sincerely,

Paul Coopersmith
COOPERSMITH'S One-of-a-Kind Tours...since 1984
P. O. Box 900, Inverness, California 94937
Tel 415.669.1914 Fax 415.669.1942
Paul@Coopersmiths.com
http://www.Coopersmiths.com

Larry Simon

From: Charles Lester
Sent: Saturday, August 27, 2011 8:54 PM
To: Larry Simon
Subject: FW: No on Distillery Project on Tomales Bay

Charles Lester

Senior Deputy Director

California Coastal Commission

725 Front Street, Suite 300

Santa Cruz, CA 95060

831-427-4863 Fax: 831-427-4877

clester@coastal.ca.gov

www.coastal.ca.gov

-----Original Message-----
From: jeff felix [mailto:felix2468@horizoncable.com]
Sent: Friday, August 26, 2011 4:05 PM
To: Charles Lester
Subject: No on Distillery Project on Tomales Bay

FOR YOU CONSIDERATION:

All things considered we, my wife and I, believe that having a distillery on Tomales Bay is a bad idea. The negative impact of a distillery on this fragile environment is not worth the benefits it might bring such as jobs and money into the local economy.

It will, unfortunately, also open the proverbial flood gates for other related business' moving into this fragile environment.

We are,

Jeffrey & Bonnie Felix
PO Box 935
Point Reyes Station, CA 94956
415.663-1867

Larry Simon

From: Jeff Staben
Sent: Monday, August 29, 2011 12:15 PM
To: Larry Simon
Subject: FW: Magee Project No. A-2-MAR-10-22

FYI -

As a concerned property owner in Inverness I am writing to urge the Commission to reverse the Marin County Board of Supervisors' approval of the brandy distillery project on the shore of Tomales Bay in Marshall. Essentially, what is billed as a tasting room is really an industrial distillery and as such it has no place in the relatively pristine environment of Tomales Bay.

Not only is it inappropriate, likely to be a source of pollution, but potentially dangerous and certainly unsightly from the Bay, the beaches in Tomales Bay State Park, and Marconi Cove. Why site a distillery here, when it is highly unlikely that grapes can be successfully grown in the marine environment on the shores of the Bay?

Sincerely yours, Charles Gay and Pamela Ross, PO Box 5, Point Reyes Station, CA 94956

RECEIVED

AUG 30 2011

CALIFORNIA
COASTAL COMMISSION

RE: Magee Project No. A-2-Mar-10-22

Calif. Coastal Commissioners
c/o Charles Lester, Sr. Deputy Director
45 Fremont Street #2000
San Francisco CA 94905-2219

This is to let you know that I and my wife, residents of Tomales in Marin County, are decidedly against the building and developoment of an industrial brancy distillery on or near Marconi Cove on Tomales Bay. Such a development goes against the idea of keeping Tomales Bay clean and unpolluted and as an agricultural, not an industrial, area. It would also be unsightly to say the least. Again, I and the residents of the village of Tomales are decidedly negative on this issue.

Please prevent the development from happening.

Thank you,

Judith I La Moure
Spencer E. La Moure
Box 27
Tomales Ca 94971.

California Coastal Commissioners
c/o Charles Lester, Senior Deputy Director
45 Fremont Street #2000
San Francisco, CA 94105-2219

RECEIVED
AUG 30 2011
CALIFORNIA
COASTAL COMMISSION

Re: Magee Project No. A-2-MAR-10-22

Dear Coastal Commissioners,

We have lived in Marin for twenty plus years and have family here since the 1970s. We have seen the negative impact development has had on Marin and specifically the coastal areas.

We are writing to voice our opposition to the industrial distillery planned near Marconi Cove.

West Marin is no place for an industrial distillery. After succeeding in the initial development, there are no conditions that would prevent the owner from growing his business. This growth could include expanding his facility, additional ranch housing, trucking in grapes to distill and further changes his land to accommodate growth. It is the nature of business to grow and this growth would definitely have an increasingly detrimental impact on this pristine area.

In addition to this detrimental growth, there is the real and present danger of fire from the brandy, which is 70 - 80% ethanol. We have already had one wild fire here in West Marin which destroyed thousands of acres and many houses. This risk would increase with growth. Most distilleries are served by closer fire stations and wider and straighter roads.

There is also the real concern of toxic substances from the distillery process leaking into the ground water and into Tomales Bay.

We would hope you would do the right thing for West Marin and the future generations who will benefit more from the pristine area that is West Marin than they will benefit from yet another development and distillery.

Thank you ,

George & JC Anderson
P O Box 1300
Point Reyes Station, CA 94956

To the C.C.C.:

Re: [illegible] Project No. A-2-MAR-10-22

I am writing to express my extreme objection to the planned industrial [illegible] to be built in Marshall.

We don't need this source of [illegible], [illegible] increased commercial [illegible], & all of the [illegible] installation would insure!

We [illegible] need to keep our wetlands, marshlands, streams & bay pristine. This [illegible] what we [illegible] as [illegible] — all that we want for us as [illegible] guardians of this beautiful [illegible] for all to enjoy.

Sincerely,

RECEIVED

SEP 01 2011

CALIFORNIA
COASTAL COMMISSION

Faun Sheridan
PO Box 968
Pt Reyes Sta, CA 94956

Larry Simon

From: Charles Lester
Sent: Monday, September 05, 2011 12:54 PM
To: Larry Simon
Subject: FW: Magee Project NO. A-2MAR-10-22

Charles Lester
Acting Executive Director/Senior Deputy Director
California Coastal Commission
725 Front Street, Suite 300
Santa Cruz, CA 95060
415-904-5202/831-427-4863
clester@coastal.ca.gov
www.coastal.ca.gov

From: J-S Van Der Wal [mailto:jvdwal@hughes.net]
Sent: Sunday, September 04, 2011 9:33 PM
To: Charles Lester
Subject: Magee Project NO. A-2MAR-10-22

California Coastal Commission
Charles Lester, Senior Deputy Director

This is to advise you that I am against the above project in any form. It would be an environmental disaster ,bring hordes of people out to the area to drink alcohol, drive and endanger the public on the roads. We don't need increased traffic on Hwy. 1. This abortion of a huge project would affect the view shed of Pt.Reyes Station, Inverness,Pt.Reyes NS, Tomales Bay SP to boot.

The owners of this development don't know where they are and could care less about the ramifications of such a "booze factory" and "barnyard" structures. We all saw what happened to Nick's Cove development so out of place for the area by a city boy and now he sold the property to someone else after he did all the environmental damage.

I am appalled that the Marin County - Planning Commission & Board of Supervisors approved of such an outrageous development in such sensitive environment out here on Hwy. 1 Marshall, West Marin. It clearly shows they are completely insensitive and out of touch with the environment in West Marin. An incompetent group to say the least. I won't be voting for any of these people again come next election.

I encourage the California Coastal Commission to stop this development.

Thank you.

susan van der wal
Inverness, CA

Ms. Julia Bartlett
39 Cypress
Pt Reyes Sta, CA 94956

POST CARD

The Krebs, Skaneateles, N. Y.
39 West Genesee Street Telephone 14
Successfully Operated Since 1899

RECEIVED
SEP 07 2011
CALIFORNIA COASTAL COMMISSION

I'm against a brewery/ distillery being built on seasonal wetlands - or anywhere! on Tomales Bay! Yours truly.

CCC
Chas Lester
45 Fremont # 200
SF 94105 - 2219

re: Magee project A-2-MAR-10-22

Larry Simon

From: Charles Lester
Sent: Thursday, September 08, 2011 12:50 PM
To: Larry Simon
Subject: FW: Magee Project No. A-2-MAR-10-22 proposed distillery on Tomales Bay

Charles Lester
Acting Executive Director/Senior Deputy Director
California Coastal Commission
725 Front Street, Suite 300
Santa Cruz, CA 95060
415-904-5202/831-427-4863
clester@coastal.ca.gov
www.coastal.ca.gov

From: Jane Curtis [mailto:jcurtis.jane@gmail.com]
Sent: Thursday, September 08, 2011 12:33 PM
To: Charles Lester
Cc: Jeff Staben; tomalesbay@gmail.com
Subject: RE:Magee Project No. A-2-MAR-10-22 proposed distillery on Tomales Bay

Thank goodness we have a Coastal Commission, since it seems that both Marin County Planning Commissioners and Board Supervisors are insensitive (unaware?) of the pristine beauty of Tomales Bay and its adjacent land. I am completely opposed to the building of a distillery and associated buildings near Marshall. I have lived in Inverness Park for nearly 30 years and have seen the wisdom of preserving the integrity of what West Marin has to offer an international community interested in wilderness. Please add my name to any list opposing the distillery. The informative flyer sent by Lia Lund and Scott Kivel was the impetus for my contacting you and expressing my views.
thank you
Jane Curtis
415 663-1537
jcurtis@horizoncable.com

Simon, Larry@Coastal

From: Charles Lester
Sent: Monday, September 12, 2011 10:52 AM
To: Larry Simon
Subject: FW: concerns about the Magee Project No. A-2-MAR-10-22

Charles Lester

Executive Director

California Coastal Commission

45 Fremont Street, Suite 2000

San Francisco, CA 94105

clester@coastal.ca.gov

www.coastal.ca.gov

-----Original Message-----
From: Miriam Landman [mailto:ml@mlandman.com]
Sent: Monday, September 12, 2011 10:33 AM
To: Charles Lester
Cc: Jeff Staben
Subject: concerns about the Magee Project No. A-2-MAR-10-22

Hello,

I am a resident of Tomales, in West Marin county.

I am concerned about the potential (and likely) negative environmental and community impacts, as well as the environmental and safety risks, related to the brandy distillery operation that has been proposed for development right next to the Tomales Bay.

I am glad that the Coastal Commission is reviewing this development.

This pristine and environmentally sensitive wetland area would not seem to be the appropriate location for this type of industrial devevelopment. The impacts from the land development itself, the pesticide applications, the likely manufacturing wastes, and the truck traffic to and from the distillery are all issues that need to be examined, as well as the lack of local firefighting services in close proximity to the location.

Thanks for considering these issues in your review.

Regards,

Miriam Landman

PO Box 375
Tomales, CA 94971

Larry Simon

From: Charles Lester
Sent: Wednesday, September 14, 2011 10:49 AM
To: Larry Simon
Subject: FW: Magee Project No. A-2-MAR-10-22

Charles Lester
Executive Director
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105
clester@coastal.ca.gov
www.coastal.ca.gov

From: Sonja Anderson [mailto:sonjajeananderson@gmail.com]
Sent: Wednesday, September 14, 2011 10:43 AM
To: Charles Lester
Cc: Jeff Staben; SonjaJeanAnderson@gmail.com
Subject: RE: Magee Project No. A-2-MAR-10-22

To: California Coastal Commissioners

Charles Lester, Senior Deputy Director,

I write to petition you to deny the Magee project on the coast of West Marin. This is an industrial distillery and would create truck traffic, waste materials, noise, danger of fire and unhealthy precedent. It is not an appropriate use of zoned agricultural land. The crops to be planted require large amounts of fertilizer, pesticides and water which will inevitable run into Tomales Bay.

This project was approved by Marin county and although I don't know what they were thinking, I trust that the Coastal Commission will be able to protect our coast from this destructive development.

Respectfully submitted,

Sonja Anderson
415-669-1699

Larry Simon

From: Charles Lester
Sent: Sunday, September 18, 2011 9:02 AM
To: Larry Simon
Subject: FW: brandy

Charles Lester

Executive Director

California Coastal Commission

45 Fremont Street, Suite 2000

San Francisco, CA 94105

415-904-5202

clester@coastal.ca.gov

www.coastal.ca.gov

-----Original Message-----
From: Brian Kirven [mailto:brinekonridge@gmail.com]
Sent: Sunday, September 18, 2011 5:04 AM
To: Charles Lester
Subject: brandy

Dear CCC,

Though I'm not diametrically opposed to agriculture, nor viñaculture products, this brandy plant does seem out of place. Anybody know that Vineyards located on slopes send their bi-products into the adjacent streams, and consequently, like you say, into the bay. It does make sense to say that we would have more vineyards if the climate were more apt for it.
This kind of global market mentality goes against what West Marin has fought so long and hard to protect against. Is it worth having a shi shi place for tourists and foodies to try "Tomales Bay Brandy," to damage the watershed and risk wildfire. Please send along my disapproval to whoever may hear it, and keep me posted.

sincerely,
Brian Kirven

Larry Simon

From: Charles Lester
Sent: Monday, September 26, 2011 9:31 PM
To: Larry Simon
Subject: FW: industrial distillery very close to Tomales Bay

Charles Lester

Executive Director

California Coastal Commission

45 Fremont Street, Suite 2000

San Francisco, CA 94105

415-904-5202

clester@coastal.ca.gov

www.coastal.ca.gov

-----Original Message-----
From: Howard Foote [mailto:westfoot@cwo.com]
Sent: Wednesday, August 24, 2011 1:22 PM
To: Charles Lester
Subject: industrial distillery very close to Tomales Bay

We are shocked that the Board of Supervisors approved the above development- please know that we are opposed to any development along or near the Bay coastline especially one that would require the use of the water and destroy the wetlands. Sincerely Howard & Rena Foote

Larry Simon

From: Charles Lester
Sent: Tuesday, September 27, 2011 7:21 PM
To: Larry Simon
Subject: FW: magee project No. A-MAR-10-22

Charles Lester
Executive Director
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105
415-904-5202
clester@coastal.ca.gov
www.coastal.ca.gov

From: pamela kroner [mailto:pamelamichellekroner@gmail.com]
Sent: Tuesday, September 27, 2011 6:29 PM
To: Charles Lester
Cc: Jeff Staben
Subject: magee project No. A-MAR-10-22

Dear Coastal Commissioners,
I live in Inverness just above Chicken Ranch Beach and have been here since 1975. I love the wildness of Tomales Bay and I am an avid swimmer. One of the most beautiful areas around here is the East shore of Tomales Bay. I would hate to see 7 buildings built in an environmentally sensitive area near a blue line stream. The water in Tomales Bay is amazingly clean only because of a lack of development in the area. The grasslands and wetlands are an important filter for the winter runoff from the hills and all this will be disturbed by the construction of 7 buildings and the planting of grapes and hops needing water and fertilizer until they become established.
Please do what you can to keep this Distillery from becoming a reality.
Thank you
Sincerely Pamela Kroner

90 Camino del Mar
Inverness, Ca. 94937
415-669-7293

Larry Simon

From: Charles Lester
Sent: Thursday, September 29, 2011 2:27 PM
To: Larry Simon
Subject: FW: Proposed industrial distillery

Charles Lester

Executive Director

California Coastal Commission

45 Fremont Street, Suite 2000

San Francisco, CA 94105

415-904-5202

clester@coastal.ca.gov

www.coastal.ca.gov

-----Original Message-----
From: lforester@sonic.net [mailto:lforester@sonic.net]
Sent: Thursday, September 29, 2011 2:26 PM
To: Charles Lester
Cc: Jeff Staben
Subject: Proposed industrial distillery

Please reject the industrial distillery, which will have adverse environmental effects from hot water boilers, ethanol flammability, toxic wastes that include formaldehyde, toxic foams used to extinguish ethanol fires, and possible sewage spills, not to mention fertilizer and pesticides used in grape production that will drain into the Bay.

Also please take into consideration the trucking in of grapes to distill when crops fail, and trucking in and out of thousands of bottles and casks.

The suitable location for an industrial distillery is an industrial park, not in a rural environmentally sensitive area adjoining State Park and recreational wilderness. The development would seriously impact both the environment and the public.

Approval of this development would set a precedent for further industrial projects disguised as agriculture.

Thank you,

Mr. and Mrs. Phil Forester

TOMALES, CA

Tom Yarish
23 Nelson Ave, Mill Valley, CA 94941
415.381.6970 v 5521 fax

California Coastal Commission

c/o Charles Lester, Executive Director

45 Fremont Street #2000

San Francisco, CA 94105-2219

clester@coastal.ca.gov

cc: jstaben@coastal.ca.gov

11 October 2011

re: Magee Project No. A-2-MAR-10-22

FORMAL REQUEST TO DENY PROJECT FOR CAUSE

Dear Mr. Lester,

This matter has recently come to my attention as a result of local initiatives by Marshall community members in response to serious lapses of planning protocols and due diligence by the lead agency, the County of Marin. It is clear to me that the waiver of full California Environmental Quality Act (CEQA) review via a full Environmental Impact Report (EIR) has left key environmental risks that have not been either identified or analyzed. Therefore, it is imperative that approval of this project and permit application be denied for the lack of a complete EIR. The detailed project description must be re-circulated with appropriate notices to the public for scoping.

This parcel has the potential to create serious degradation to Tomales Bay upland and water habitats through unconstrained agricultural, industrial and public access activities that are out of character with the Marshall community and relevant Tomales Bay watershed planning documents. Moreover, this operation is in the viewshed of the

Point Reyes National Seashore and the historic and scenic Highway One corridor.

I have participated in Tomales Bay watershed environmental groups and activities for forty years. I am a former long-time resident of Marshall and a co-founder of the East Shore Planning Group that created the community master plan for Marshall in the mid-1980s. I am also a co-founding member of the Tomales Bay Watershed Council (2000), and co-chair of Friends of the Esteros, a citizen's action group that successfully litigated a CEQA action against the City of Santa Rosa to prevent the discharge of municipal waste water into the two coastal estuaries just north of the mouth of Tomales Bay. I have worked with the Salmon Protection and Watershed Network (SPAWN) as a water quality advocate and as a volunteer water testing coordinator. I am also active with several Sonoma County environmental groups in fisheries protections and recovery actions.

Here is a partial list of specific concerns that need further analysis. I cannot say this is a complete list because apparently several site-specific plans have not been submitted or do not exist.

SILTATION, CONTAMINANTS, RUNOFF INTO TOMALES BAY

1. It appears that there is substantial risk of siltation and sedimentation into the creek and Tomales Bay from the creation of a vineyard upslope of the creek and from site alteration due to drainage and road construction. Moreover, one site plan shows a septic leach field in the actual vineyard. To my knowledge the suitability of this site for a leach field has not been analyzed, particularly in the context of meaningful technical data about the volume and constituents from the planned residence and distillery. The uptake and fate of distillery waste is potentially a complex and serious issue that can easily defeat the function of an inadequate waste disposal system. Coupling of a high-risk septic leach field with a vineyard operation seems highly problematical at best, and impossible without advanced engineering and soils fate and transport analysis. While it

is not clear to me that the applicant intends to produce distillery or agricultural products that qualify as "certified organic," industry standards do require strict limits on the use of pesticides, herbicides and conventional agricultural chemicals. Indeed, the context of agriculture in West Marin is a strong orientation toward "organic" food production and land stewardship.

A conversion of rangeland to crop agriculture must first be shown to be constrained by Best Management Practices (BMP) to protect from soil loss and environmental degradation of the creek and the bay. I have not seen or heard of any such BMP requirements to date. Moreover, the introduction of livestock onto steep slopes and into the riparian zones of the creek should have raised the issue of protections via permit conditions and requirements in conformance with the county's own creekside protection ordinances. The combination of soil erosion and animal waste nutrients (not to mention organic and non-organic wastes from the residence and distillery) pose very serious potential threats to the entire aquatic ecosystem of this parcel and the waters of Tomales Bay.

At a minimum the applicant should be held to strict BMPs and a well-defined habitat and water quality monitoring program with mandatory reporting and third-party supervision in the event this project is approved.

USE PATTERNS, PRODUCTION VOLUME, PUBLIC FACILITIES, HIGHWAY SAFETY

2. To the best of my knowledge a distillery is an industrial facility, and as such is out of character with the history and character of the Marshall community (Prohibition era bootlegging at the Marshall Tavern notwithstanding.) The level of traffic impact on Highway One associated with frequent truck and visitor traffic poses serious safety concerns for a blind high-speed curve that has access roads in close proximity to the project driveway. Moreover, the State of California Department of Parks and Recreation

has just announced the resurrection of the Marconi Cove Marina as a public campground. And just a short distance further north a private parcel has become a rough boat launch area that is unregulated and used by the public without supervision.

BONA FIDE VINEYARD OPERATION?

3. There is doubt that this coastal parcel is suited to the production of grapes due to climate conditions. The applicant needs to show that in fact the production volume claimed can be sustained from a viable local harvest. This is increasingly problematical due to the nature of climate change that is now a reality. Otherwise the community is at risk for unwittingly hosting a 24-hour production facility and traffic burdens related to the importation of potable water and grapes to augment local supplies. It is not clear that this distillery operation can be profitable based on limited on-site grape production. Is there a viable business plan that conforms with the applicants written claims?

COMPLETE ON-SITE AND OFF-SITE SPECIES RISK ANALYSIS

4. Appropriate biological surveys and studies need to be submitted, peer reviewed and presented in the context of a full EIR for public evaluation. Because the project poses definite risks of sedimentation, toxic discharges and nutrient loading to a tributary of a protected marine sanctuary the requirement for detailed site management and operations plan must preclude any approvals. As far as I know, these critical surveys and documents have not been done.

EFFECTIVE LONG-TERM PROTECTIONS NEEDED

5. If approved, the operation of the facility should be subject to strict constraints that would prohibit importation of off-site grapes, lest this become an even greater source of sedimentation, water pollution, traffic congestion, noise and light pollution and inevitably an industrial level fire and health hazard.

In fact, it is unclear that the project can be a bona fide agricultural operation of any sort, based on realistic capital, transportation and operational costs associated with a low-volume rural industrial/agricultural operation that produces limited food or fiber products. In fact, to my eye, the distillery project is completely spurious and serves no vital function in the public interest. It remains an open question as to what profitable activities might occur on this parcel that fall within the requirements of local, state and federal jurisdictions and statutes. Profitable agricultural ventures require careful management of capital and natural resources. Beyond the construction of a single private residence there may be no profitable return from a parcel such as this in today's marketplace.

Sincerely,

Tom Yarish

RECEIVED
OCT 18 2011
CALIFORNIA
COASTAL COMMISSION

SIERRA CLUB
FOUNDED 1892

Sierra Club
P.O Box 3058, San Rafael, CA 94912

October 15, 2011

California Coastal Commissioners
c/o Charles Lester, Executive Director
45 Fremont Street #2000
San Francisco, CA 94105-2219
FAX: (415) 904-5400
EMAIL: clester@coastal.ca.gov

RE: Magee & Dillon Vision L.L.C., Marshall, Marin County, CA (Appeal No. A-2-MAR-10-22)

Dear California Coastal Commissioners,

The Sierra Club wishes to correct the public record, as to our "stated" and/or "implied" support of the Magee & Dillon Vision LLC's Distillery proposed operation in Marshall, California. It has recently come to our attention that Mr. Tony Magee has incorrectly implied in his testimony before the Marin County Board of Supervisors (May 2010) and the California Coastal Commission (September 2010) that the Sierra Club Marin Group is in support of his project. At that time, the Sierra Club had not taken a position on this development proposal.

As of September 2011, the Sierra Club formally OPPOSES the Magee & Dillon Vision LLC's project for the Marshall property. We respectfully request that the California Coastal Commissioners deny the development project in its entirety.

PROJECT MERITS

With regard to the merits of the proposed project, the Sierra Club comments that follow are limited by the fact that, in our view, the applicant has failed to provide, and the County of Marin has failed to require, detailed descriptions of proposed development and use, and the County of Marin has failed to place detailed standards or conditions on development and use.

Due to the lack of complete information, and due to lack of adequate process by the County of Marin, the following merits comments are based on the project as best we can interpret it.

In general, Sierra Club finds that the Magee Distillery project, on the whole, has failed on merits in:

- Inappropriateness of the project for the Coastal Zone area
- Non-conformance of project with the Local Coastal Plan requirements
- Not providing adequate environmental assessment of project and downstream areas
- Failing to submit a complete application

More specifically, we find issues with the following aspects of the Magee project.

THE USE IS INDUSTRIAL, NOT AGRICULTURAL

The project of 10,000 plus square feet of development on 149 acres of undeveloped habitat, with the primary focus being a brandy distillery, is not an agricultural use, but an industrial use.

The project's five water storage tanks, three propane tanks, brandy storage buildings, a brandy factory, a "smelling" room facility, six acres of grapes (indicating that grape growth in incidental to the distillery, rather than the other way around), and six acres of hops all clearly indicate that the primary use is industrial.

The ancillary uses are proposed to be limited sheep grazing, a sheep shelter, greenhouse, vegetable garden, a new residence, fences, and new roads and access ways.

The Sierra Club strongly disputes Marin County's claim that these uses are "minor and incidental," and that the bases of that conclusion are sufficient to warrant waiving the Master Plan and associated studies, permits and public review of such documents.

INDUSTRIAL BRANDY PRODUCTION IN COASTAL ZONE

The Sierra Club regards industrial uses as inappropriate for the Coastal Zone in Marin County, which is principally comprised of high-value natural habitat and locally-owned agricultural businesses with very minimal processing facilities.

In addition, we have the following specific concerns.

The proposed industrial distillery is located in a sensitive habitat and extensive drainage area of the ridgeline, with a blue-line stream 100 feet away, 50 feet from a filled-in wetland area, and Tomales Bay is only 200 feet downstream. Any serious mishaps with production, storage or transport by the industrial facility could create serious, adverse impacts to the environment.

The developer claims that the distillery will remain small, producing only a thousand bottles per year. But brandy must be stored for several years to age, so the amount of alcohol on the property would be much more than the yearly production.

The potential of inflammable materials stored on the site would represent a substantial safety concern to neighbors, as would toxic releases into the environment, surface and groundwater. Ethanol ignites at the low temperature of 68°F. Emergency services are of reduced availability along the Coast, with response times of up to 15 to 20 minutes; depending on the source, water availability may limited.[1] Also, fire fighting foams, retardants, and other chemicals may be released into the environment if firefighting were necessary.

The proposal does not appear to carry any required limitations on increased use of the industrial distillery, such as restrictions on importation of additional supplies of grapes or hops. Out of area grapes might be trucked in to increase production volume and time of use of the brandy facility, without additional permitting or review. If the project is allowed, restrictions should be considered and added to assure control over the volume and production of the industrial brandy facility.

INADEQUACY OF ENVIRONMENTAL REVIEW

A valley bisects the property, with a blue-line stream running through the middle of the parcel, placing a significant amount of the land within the ESHA category. Additional ESHA boundaries are created by numerous wetlands, seeps, and swales; perennial grasslands also inhabit the property.

Reports comprising a limited environmental survey, included by the developer with the original application, proved inadequate. Reviews by the public and Coastal Commission staff (below) revealed inadequacies in the environmental documents, enough to render determination of ESHAs unreliable and incomplete.

Excerpt from email correspondence (January 21, 2011) between Mr. Larry Simon (Coastal Commission Federal Consistency Coordinator), Mr. Magee and Larry Kennings (Magee planning consultant); Mr. Simon identified comments and suggestions made by Dr. John Dixon, California Coastal Commission Ecologist, regarding additional information needed for Coastal Staff review of the project pursuant to a de novo hearing:[2]

1) Vegetation on the property should be assessed in more detail within the proposed development areas;
2) There have been no quantitative vegetation surveys of the property nor is there a map showing the location of the various vegetation types;
3) Apparently, a technical wetland delineation has not been conducted on the property which would be necessary in areas proposed for development (e.g. around the generally mapped existing springs);
4) There have been no focused surveys conducted for red-legged frogs, foothill yellow-legged frogs, or western pond turtles, (all Endangered or Threatened status species) which the

[1] Note: some areas are served by local water districts, who impound water from nearby creeks or wells. Onsite wells are required.
[2] EMC Planning Group, May 6, 2011

biological report states, based on availability of suitable habitat present, have a potential to occur on the property.

Given that environmental protection is a key part of the Coastal Act, we request that this project proposal receive comprehensive investigation and determination of environmental resources. The Sierra Club believes Marin County's approval of this application represents a major failure in the permitting process that needs to be corrected prior to any further action.

PLACEMENT OF DEVELOPMENT IN POTENTIAL ESHAS

It is our understanding that the applicant's proposal through the County of Marin permitting process is incomplete, with regard to ESHA documentation. Issues of concern cannot be accurately identified based on the current information presented by the applicant, nor can it be adequately demonstrated that the project is consistent with the LCP and the Coastal Act.

16 of 19 species of concern are believed to be on the project site, in a blue-line tributary, and more are probably present downstream and in Tomales Bay. A detailed environmental review would reveal where these ESHAs boundaries occur, and what specific species they contain.

As the proposed development is now placed on site, we believe it to be encroaching on ESHAs and, therefore, inconsistent with, and in potential violation of, the Coastal Act.

GROUNDWATER TABLE, DRAINAGES, SEEPS AND WETLANDS

The majority of this parcel appears to be ESHA; yet what has not been adequately determined is the underlying hydrologic profile, which interties closely with ESHAs.

Placement of septic systems, leachfields, stormwater drainage, and, most importantly, water wells, requires knowledge of the hydrology of the entire site to provide key information for placement of development. To our knowledge, no such survey or report has been provided for the site.

Hydrologic issues should be resolved prior to consideration of the project to prevent placing the ESHAs in jeopardy from potential infiltration of unwanted wastewater (septic and industrial) and inappropriate drawing down of the groundwater table that supports ESHAs.

The important environmental and public health concerns of potential commingling of wastewater and drinking water sources, and of contamination of downstream resources such as the Tomales Bay and commercial mariculture operations, remain unresolved.

WELLS & LEACHFIELDS

The specific areas where the leachfield and a water-well are sited may have been studied, but it appears, from information provided by the neighbors, that neither of these systems has been placed where the County of Marin approved them. Reportedly, one area that was approved for a well was drilled and came up completely dry, so the developer chose alternative sites. It is unclear whether the developer provided documentation on the additional wells to the Environmental Health Services of Marin County (EHS).[3]

The residential septic system has received preliminary approval from Marin Environmental Health Services, although the placement may be incompatible with ESHA boundaries (pending environmental studies) and now the current (unapproved) location of a water-well remains unaddressed. The matter of the proximity of the water well to the leachfield site is pending: to be determined by County EHS.

DISPOSAL OF INDUSTRIAL WASTEWATER

To our knowledge, only vague and general descriptions of the proposed method for disposing of industrial wastewater exist[4].

"In addition, a new septic field is approved for installation near the northern property line, and all sewage produced from the brandy facility, equipment barn, and residence will be pumped uphill to this location."[5]

It is highly unlikely that the residential sewage would be allowed to be commingled with industrial strength effluent, nor would they be disposed of in the same leachfield. In researching this topic, the Sierra Club contacted the Regional Water Quality Control Board in Oakland for the permit application and schematics required by law for industrial discharge. The only document they had was an incomplete application form, and no other reports or plans. RWQCB has not issued the necessary discharge permit for the operation of a commercial distillery.

VIEWSHED IMPACTS

The development impacts the viewshed of the area's local, State and National parks and Tomales Bay. It can be seen from the State Park's Marconi Conference Center, Marconi Cove, Shell Beach and Heart's Desire Beach. The East facing hills of the Point Reyes National Seashore would also be in the viewshed. The development is highly visible from Tomales Bay, itself, which is part of the Gulf of the Farallones National Marine Sanctuary.

---

[3] As of an August phone conversation with a Sierra Club representative, EHS did not know that additional well sites had been drilled, nor their location.

[4] County of Marin Approval of Permit letter

[5] *County of Marin, Board of Supervisors - Resolution No. 2010-36, Page 17*

It appears that these viewshed impacts have gone unaddressed or effectively ignored in the County's review of this project. Sierra Club recommends consideration of impacts on viewshed of public lands and parks, focusing on preserving the integrity of the nature experience.

COUNTY OF MARIN PROCESS

SIERRA CLUB OBJECTIONS TO COUNTY OF MARIN PROCESS

Evaluation of a project cannot be reasonably made without proper process and permitting procedures. Government agencies and the public can only accurately make determinations as to a project's appropriateness, environmental and health issues, and whether it fully complies with the law when required processes are followed.

In this matter, the Sierra Club opinions regarding many specific details of the proposed Project are limited by inadequate access to information about the Project. At this time, our request for denial of the project is based on our conclusions that the planning process has thus far been legally incorrect and that the proposal lacks accurate and complete information, in addition to the fact that the known particulars of the Project are incompatible with desirable uses in the Marin County Coastal Zone.

A summary of the Sierra Club's concerns about the process for the proposal are as follows:

- The County of Marin violated the Local Coastal Plan by categorically exempting the project from a Master Plan process; the County granted a Master Plan *waiver* in *exchange* for a conservation easement, while the LCP clearly states that a permanent conservation easement is a *required condition* of an approved Master Plan.

- The County of Marin violated the Local Coastal Plan by failing to require an Environmental Impact evaluation process, claiming the development was *"minor and incidental."*

- County of Marin staff made unfounded and widespread use of "categorical exemptions" from further environmental analysis for most elements of the project, willfully bypassing the LCP.

- The County of Marin has failed to protect Environmentally Sensitive Habitat Areas (ESHA) on the property, thereby failing to follow a prime directive of the Coastal Act; the County failed to identify technical wetland delineations and potential ESHA special-status species and habitat.

- The County of Marin's classification of the project's industrial spirits distillery as incidental to an onsite agricultural use has not been justified; 6 acres of potentially unviable grape production to serve the distillery constitute the ostensible agricultural use. No prohibition is in place to prevent trucked in grapes for increased distillery production.

- The County of Marin approved the project's industrial facility without plans for waste discharge from the applicant or the Regional Water Quality Control Board. To our knowledge, none of the required plans have been filed with the RWQCB for an industrial distillery waste discharge, nor has an application for a permit been completed. Neither the public, nor officials, know how or where, the highly concentrated industrial waste from the distillery production will be disposed of in the watershed.

- The County failed to address LCP requirements for viewshed protection in the project.

SIERRA CLUB'S CONCERNS REGARDING VIOLATIONS OF "STAY DURING APPEAL" BY THE PROPERTY OWNER ALLEGED BY PROPERTY NEIGHBORS

Neighbors on adjacent properties have documented construction activity on the Magee property after June 2010, when the Coastal Commission Regulations Regarding "Stay" During Appeal Period was in effect.

Activities reportedly included drilling of multiple wells, grading, new road work, planting of screen trees that impact the coastal viewshed, and impacts to ESHA and designated grassland areas.

Most notably, activities potentially affecting the environment occurred: drilling of water well/s at unpermitted location/s and during appeal "stay of work" period, with no hydrological assessment as to groundwater table, blue line stream and ESHA areas connectivity and well water usage; one recent unpermitted well location is potentially within the area where the septic leachfield for domestic waste water is to be discharged, which would violate Marin County Health regulations.

These activities are not only in violation of the stay of work, but also in violation of various LCP regulations as well. Although the County of Marin was alerted to these activities in a February 2011 letter by neighbors of the proposed project property; as of an August 2011 conversation with a Sierra Club representative, the Marin Environmental Health Department appeared unaware of the conditions, and had not visited the site.

There have also been allegations by neighbors of prior (2006) substantial grading and dirt fill without an Army Corps of Engineers (ACOE) permit, purportedly into a blue line stream and ESHA, which should be further investigated.

Substantial, detailed information regarding these allegations is located in two letters by the Appellants, Kivel/Lund, and are included by reference: the Appeal letter to the Coastal Commission from Ragghianti/Freitas LLP, dated June 1, 2010 and the letter regarding "Supplemental Information Regarding Additional Coastal Act and Marin County Local Coastal Program/Development Standard Violations," dated May 5, 2011.

CONTEXT AND PRECEDENT

In addition to its own, direct impacts, we believe that this project represents a dangerous precedent for coastal protection in the context of the current Marin County LCP update process and in the context of related regulatory trends in Marin in general.

THE MARIN COUNTY LCP UPDATE

The County of Marin has been attempting to update the certified Local Coastal Plan for the last two years. Our belief is that the "fast and loose handling" of this process is due to a desire by the County to ignore the differences between the LCP and Countywide Plan (CWP), and to adopt a Local Coastal Plan that is fundamentally inconsistent with the Coastal Commission requirements.

The Marin County Planning Department has stated that is it working to make the current LCP "match" the recently updated Marin Countywide Plan. The CWP is incompatible with LCP requirements, in format as well as content; the CWP clearly stands in violation of Coastal Commission guidelines when applied to the Coastal Zone.

After many requests from the Sierra Club and other environmental groups, Marin's planning staff reports that it is finally going to begin releasing "strike-through," side-by-side comparisons of changed or removed language in the draft LCP relative to the standing version. Up to this point, due to the extensive changes in format of the draft LCP, the public has had no way to track changes made to the certified LCP, only the County staff knew what exactly had been changed or eliminated, and where it was located. Therefore, prior to the release of "strike-through" versions of the draft LCP, environmental groups, and others interested in participating in this process, have been effectively hampered from fully participating.

During the Sierra Club's participation in the update of the Marin LCP, it has become evident that the County of Marin is making wholesale, substantive changes to the existing LCP in order to match the CWP. Furthermore, the County is failing to make findings to explain why it is removing or changing protective elements, despite vigorous protests by the environmental community. Coastal Commission staff have strongly, and repeatedly, advised the County of Marin against altering a certified LCP without making findings:

> "Where you proposed to alter or delete standards in the certified LCP it is important to provide data and analysis explaining the change so it can be evaluated for conformance with the Coastal Act. While there is no required format for such information, the County must still be able to comply with requirements of the California Code of Regulations sections 13552 and 13511 for adequacy of information to file an LCP amendment." (Staff letter dated April 24, 2009).

We feel that weakening the LCP downward to CWP standards is not justifiable.

We believe that the Magee & Dillon proposed project is being handled by Marin County as a test case to determine whether the Coastal Commission will allow Marin's recently-adopted, laissez faire policies within the Coastal Zone.

RELATED REGULATORY TRENDS IN MARIN

In Marin County, only unincorporated areas are directly under the jurisdiction of the Marin County Board of Supervisors. In addition, it is customary for Marin Supervisors to defer to the Supervisor of a particular district on matters within that district.

The vast majority of Marin's unincorporated areas are in the fourth supervisorial district. Therefore, the fourth district Supervisor typically works very closely with County planning staff on all matters affecting unincorporated areas. Since 1996, Marin's fourth supervisorial district Supervisor has been Steve Kinsey.

In our opinion, the regulatory trends in unincorporated areas of Marin, including those in the Coastal Zone, over the past 14 years have been characterized by a steady onslaught against environmental protections and meaningful public process related to environmental protections in Marin County.

One particular set of entitlements seems to be directly related to the project at hand. In 2003, Marin County, in a very quiet but profound rewriting of County zoning definitions, seriously weakened planning laws for development on "agricultural" parcels, including eliminating Master Plans and Use permits, and adding many uses as categorical exemptions that were once guided by permit and environmental review procedures. Claiming only to "clarify" zoning definitions for agricultural parcels, the County of Marin essentially eliminated many public and environmental review processes for significant developments on large properties. Some environmentalists called these 2003 CWP regulation changes, "factories on farms," and, "a gutting of the environmental protection laws." The project at hand may represent a very troubling precedent that would solidify the 2003 evisceration of environmental protections, the results of which are now firmly embedded in Marin's Countywide Plan.

We believe that the Magee & Dillon Vision LLC project is the County's attempt to extend use of the excessively lax 2003 agricultural regulations from the CWP, in place of the LCP and Coastal Act regulations.

The Sierra Club is astounded at the conscious and consistent manner in which the County of Marin has chosen to ignore and violate the LCP's prevailing regulations on this Project. We are deeply concerned that, if the Coastal Commission does not correct this flagrant misbehavior, disregarding the LCP will become standard operating procedure for all Marin County projects in the Coastal Zone, and in other areas of significant environmental value.

SUMMATION

We hope you will consider the conscious precedent it appears that the County of Marin is attempting to propagate in ignoring the LCP and substituting the less environmentally protective and more "generous" agricultural regulations of the CWP. Sierra Club remains firm in supporting the California Coastal Act as a set of regulatory instruments that must be upheld in their entirety, and not subordinated to a lesser standard by the County of Marin.

Again, we respectfully request that the Coastal Commission deny this project in its entirety.

Thank you.

Sincerely,

Louis Nuyens
Chair, Marin Group, Sierra Club

Simon, Larry@Coastal

From: Jeff Staben
Sent: Monday, October 24, 2011 7:29 AM
To: Larry Simon
Subject: FW: Magee Project No. A-2-MAR-10-22

I wish to express my opposition to the above project. The project will introduce heavy manufacturing and retail activity in the form of a brewery, retail activity and other facilities in the Marshall area. Traffic will be substantially increased on a residential driveway, including an increase in vehicles turning off and into Hwy 1 on a curve, resulting in increased accident potential. Furthermore, the project will open the door to similar activities along Hwy 1 from Olema to Tomales. I urge the Coastal Commission to disapprove this project.

Thank you.

Kenneth Ziedman, PhD
PO Box 1505
12088 Shoreline Hwy.
Point Reyes Station, CA 94956
415-663-9179 o
415-663-5442 f
415-250-7126 c

eac environmental action committee

RECEIVED
AUG 25 2011
COASTAL COMMISSION
NORTH CENTRAL COAST

August 24, 2011

California Coastal Commission
Mr. Charles Lester, Acting Director
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219

Re: Appeal No. A-2-MAR-10-022, Tony Magee and Dillon Vision LLC

Dear Charles,

I am writing to you and the Coastal Commission staff to clarify for the record the Environmental Action Committee of West Marin's (EAC's) position on the above-referenced appeal.

As you may be aware, in the summer of 2010 EAC entered into a settlement agreement with Mr. Magee regarding his proposal to construct an industrial brandy distillery on the east shore of Tomales Bay. Per the settlement agreement, EAC gave up its right to appeal Mr. Magee's proposal to the Coastal Commission in exchange for certain modifications to the proposal made after its approval by the Marin County Board of Supervisors.

It has come to EAC's attention that the Mr. Magee has suggested or implied to the Commission, its staff, and possibly others that EAC supports his project. This letter is to advise you that EAC does not support the proposed project.

In staying true to the letter and spirit of its settlement agreement with Mr. Magee, EAC will take no part in the appeal, and will not be submitting comments in the proceeding, except to ensure that the settlement provisions are honored. That is, in the event that the Coastal Commission proceeds with issuing Mr. Magee a permit, EAC will work to ensure that the settlement provisions are fully retained and enforced as part of any coastal permit.

I hope this letter clarifies for the record EAC's position. Please do not hesitate to contact me with any questions or concerns.

Sincerely yours,

Amy Trainer, Executive Director

Cc: Mr. Tony Magee
Mr. Scott Kivel
Mr. Bridger Mitchell
Mr. Tom Baty
Ms. Catherine Caufield

Simon, Larry@Coastal

From: George Clyde <gclyde11@gmail.com>
Sent: Thursday, February 14, 2013 9:28 AM
To: Simon, Larry@Coastal
Cc: 'Lori Kyle'; Kahn, Kevin@Coastal
Subject: RE: Magee farm project

Thanks, Larry.

I was requesting further information in my capacity as an officer and Director of the East Shore Planning Group, which has a membership of all the residents and businesses along the east shore of Tomales Bay (near Marshall, 94940). It is the principal organization involved with planning in the area.

The ESPG is very concerned about the increasing volume of retail sales activities along the east shore of Tomales Bay and the escalating traffic and associated problems with parking, noise, etc. that we are experiencing. This situation has the potential of significantly compromising the tranquility and coastal experience of this unique area for residents and visitors alike. We are also concerned about the possibility that agricultural lands along Highway One might be converted to retail sales facilities to take advantage of (and exacerbate) the growing tourist traffic through the area without adequate controls and conditions of use.

When the Brader/Magee project was working its way through the County, Tony Magee offered to the ESPG various conditions regarding his retail sales including days and hours of operations, numbers of patrons, etc. These satisfied our group's concerns, and we raised no objections to the proposed project with those use conditions. The conditions were included in the County use permit and hopefully will be carried through with any permits issued by the California Coastal Commission.

The next ESPG meeting is Thursday evening, February 21. If there are any materials regarding the Brader/Magee project and the proposed permit which that can be made available before issuance of the staff report, that would be appreciated. Otherwise, we'll look forward to reviewing the staff report when published on your website.

The ESPG is also actively involved in the development of revisions to the Marin County Local Coastal Program (LCP) respecting these and other matters. We are advocating that there continue to be a permit process regarding any new or expanded retail sales operations along the Tomales Bay east shore, so that we can be assured that the ESPG will have an opportunity to voice any concerns at a hearing, so that there can be binding conditions included in the applicable permits, and so that the ESPG can have appeal rights as to what is approved. The ESPG correspondence on this subject can be seen at http://www.co.marin.ca.us/depts/CD/main/lcp/Letters.html.

Thank you, and best regards,

George Clyde, Marshall
(415) 663-8632

CC: Kevin Kahn, CCC
Lori Kyle, President, ESPG

From: Simon, Larry@Coastal [mailto:Larry.Simon@coastal.ca.gov]
Sent: Wednesday, February 13, 2013 8:34 AM
To: 'gclyde11@gmail.com'
Subject: Magee farm project

Your name has been placed on the public notice list for the March Commission hearing for the Magee farm project, Marshall, Marin Co. The staff report and recommendation will be published on the Commission's web site no later than February 21, 2013.

Larry Simon

APPENDIX K

Comment Letters Submitted after Publication of the Commission's February 21, 2013, staff report

Simon, Larry@Coastal

From:	scottkivel@kivellaw.com
Sent:	Saturday, February 23, 2013 6:41 PM
To:	hope.smeltzer@coastal.ca.gov; Lester, Charles@Coastal; Carl, Dan@Coastal; Simon, Larry@Coastal
Cc:	jbridges@fentonkeller.com; Lia
Subject:	Magee Distillery Project A-2-MAR-10-022
Attachments:	untitled-[2]
Importance:	High

Dear Executive Director Lester; Chief Counsel Smeltzer, and Mr. Simon:

By this letter we are requesting that the March 6 hearing be continued until the May 2013 Coastal Commission agenda, based upon procedural due process and the failure to comply with our continuing Public Records Act requests.

As appellants, Lia Lund and I formally object to the Coastal Commission's failure to make the critical appendices, or ANY exhibit, available in the February 22 posting of the staff report. This omission has prejudiced our ability to prepare a meaningful response within the circumscribed time frame, and moreover has prevented the public at large to timely receive this significant information. PRC section 21080.5 requires a reasonable time for public review.

Agenda item 8a, for example, appears to include exhibits, contrary to the Magee distillery project to which your staff has devoted considerable time and energy conducting its de novo review over a two-year period. Frankly, we have wanted a timely hearing and would not be asking for this continuance, were it not for the fact the omission of significant information makes it impossible for us to fully analyze the current project.

How is it possible for us, or the public, including the Sierra Club and others concerned about the precedent-setting nature of this project, to understand the various conditions mentioned in the 83-page staff report without having access to the appendices, particularly Dr. Dixon's critical report, and to the multitude of exhibits necessary to understand the conditions? For example, on p. 6, condition 1 D refers to Exhibit 6 and Figure 2 of Appendix E, but there is no Appendix E attached to the posted staff report, nor is Exhibit 6 available on the staff report.

Further, I have periodically reviewed the files at your San Francisco offices. My most recent file review of the Magee matter was at 10:00 a.m. on January 11, 2013. At that time Mr. Simon showed me a few documents and indicated that he would disseminate them, which he subsequently did the following week. Yet there have been no further disclosures since that date. We have experienced other significant delayed disclosures throughout this review.

In reading the lengthy staff report, it is is clear that there were additional documents submitted after January 11, which were not disseminated to us. By just one example, the January disclosure included a November 2012 "revised" septic design by Mr. Lincoln which stated in part that "[t]he owner proposes to store high strength waste (lees, etc.) in 50 gallon covered containers and haul off site to an approved disposal site."

Yet the staff report on p. 54 describes the distillery waste water and septic system as including "Septic Tank A" and "Septic Tank B" and that the "Applicant proposes to use the Advantex commercial wastewater system produced by Orenco, Inc. as pretreatment prior to discharging the waste water to the leach field." Where did this information come from? Is it documented in some submission by the applicant which should have been timely

disclosed in response to our continuing Public Records Act request? Why do we first learn about these significant issues in the staff report 10-days before the hearing? This information is not in Mr. Lincoln's septic design reports. Nor do I recall disclosure of any document identifying the applicant's "wastewater treatment consultant" referenced on p. 55.

Fundamental fairness argues in favor of allowing us, and the public, sufficient time to review the documents upon which the staff report is based; that was the purpose of our continuing Public Records Act request.

Granting of a continuance for two months would also allow greater public participation given that the May meeting will be held in Marin County. This is the second time a Magee-Brader hearing has been held at the far ends of the State for a Marin County matter. The appeal was held in September 2010 in Humboldt County and only two Marshall residents could attend. Distance prohibits community members and advocates from participating in the de novo hearing on Magee-Brader. Both the Coastal Act and CEQA protect, and encourage, full participation in matters before the Commission that impact local communities and their coastal and marine resources. Given the fact that this has now been two and one-half years since the appeal was granted, there cannot be any justification for insisting on a hearing so remote from the public that is affected by this development. We therefore ask that this matter be rescheduled for May when the Commission meets in Marin County.

As a matter of courtesy, I would ask that you inform us by close of business Monday February 25 as to whether you are willing to grant our request for a two-month continuance based upon the above facts.

Thank you for your attention.

Scott Kivel and Lia Lund

****

Scott N. Kivel
Law Offices of Scott N. Kivel
1000 Fourth Street, Suite 650
San Rafael, CA 94901
(415) 455-9062 (telephone)
(415) 455-9762 (facsimile)

CONFIDENTIALITY NOTICE: This communication is intended only for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential or otherwise exempt from disclosure under applicable law. If you are not the intended recipient, or the employee or agent responsible for delivering this communication to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please immediately notify the sender by telephone at (415) 455-9062 (collect), and delete the e-mail.

Simon, Larry@Coastal

From: scottkivel@kivellaw.com
Sent: Tuesday, February 26, 2013 9:31 AM
To: Simon, Larry@Coastal
Cc: mkshallenberger@gmail.com; Lia
Subject: Request for Organized Opposition Time Allotment; A-2-MAR-10-022 March 6, 2013
Attachments: untitled-[2]

Importance: High

Dear Mr. Simon:

First of all, I would like to thank you and Dr. Dixon for producing a strongly conditioned staff report. Also, as you suggested, I was able to find Septic Tanks A & B on the November 29, 2012 plans. However, we have some remaining concerns which we would like to present to the Commissioners.

I met with Chairperson Shallenberger in Sacramento yesterday. As you know, she is in surgery today and she asked that I work with you on any scheduling issues.

I would like at this time to request of the Chair, through you, a time allotment for an "Organized Opposition" presentation by Lia Lund and me representing community concerns. My understanding from Chair Shallenberger is that she may permit us an "Organized Opposition" which grants us a longer period of time to address our remaining concerns.

I therefore request the same amount of time as given the applicants, less their rebuttal time.

I look forward to hearing from you at your earliest convenience so that we can continue preparing our presentation.

Thank you.

Scott Kivel

****

Scott N. Kivel
Law Offices of Scott N. Kivel
1000 Fourth Street, Suite 650
San Rafael, CA 94901
(415) 455-9062 (telephone)
(415) 455-9762 (facsimile)

CONFIDENTIALITY NOTICE: This communication is intended only for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential or otherwise exempt from disclosure under applicable law. If you are not the intended recipient, or the employee or agent responsible for delivering this communication to the intended recipient, you are hereby notified that any dissemination,

Agenda Item No. 9a (Magee/Brader, Marin County)
Appellant: Kivel/Lund

FENTON & KELLER
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
2801 MONTEREY-SALINAS HIGHWAY
POST OFFICE BOX 791
MONTEREY, CALIFORNIA 93942-0791
TELEPHONE (831) 373-1241
FACSIMILE (831) 373-7219
www.FentonKeller.com

MARK A. CAMERON
JOHN S. BRIDGES
DENNIS G. MCCARTHY
CHRISTOPHER E. PANETTA
DAVID C. SWEIGERT
SARA B. BOYNS
BRIAN D. CALL
TROY A. KINGSHAVEN
SHARILYN R. PAYNE
BRIAN E. TURLINGTON
CAROL S. HILBURN
KATHERINE M. HOGAN
ELIZABETH R. LEITZINGER
JOHN E. KESECKER
CHRISTINA J. LENON

LEWIS L. FENTON
1925-2005

OF COUNSEL
CHARLES R. KELLER
THOMAS H. JAMISON

February 27, 2013

JOHN S. BRIDGES

JBridges@FentonKeller.com
ext. 238

VIA EMAIL

Charles Lester, Executive Director
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Hope Schmeltzer, Chief Counsel
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105

California Coastal Commission
c/o Jeff Staben
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Re: Magee Project (A-2-MAR-10-022; West Marin County)
Our File: 33447.31025

Dear Ms. Hope Schmeltzer and Messrs. Charles Lester and Jeff Staben:

This letter is submitted on behalf of Scott Kivel and Lia Lund, appellants in the above referenced matter. We request this letter be distributed to all Commissioners immediately as part of the administrative record.

Over the course of more than two years, since the Coastal Commission's 9-1 vote to find Substantial Issue with regard to the above referenced appeal, my clients have consistently and in good faith endeavored to communicate with Coastal Commission staff to provide data and information relevant to issues raised by the Commission's directive that the project be reviewed de novo. During this time we submitted numerous and extensive technical reports, studies, and expert opinions relative to all issues raised by the Commission including, without limitation, ESHA, biological, hydrogeological, wastewater, viewshed, traffic, LCP consistency, and CEQA. Hundreds, if not thousands, of pages of communications and technical data, including information regarding brandy processing from scientific journals and the Australia EPA, have been submitted to the staff for review and response in the staff report. A small

sampling of those technical reports and studies is referenced below.[1] We believe it a disservice to the Commission that staff has failed to include these and other critically important documents in the staff report. Indeed, the only document from the appellants that is included in the staff report (characterized by staff as "representative" of all the issues and correspondence that has been submitted), is a single four page letter from Mr. Kivel dated November 12, 2012. While the staff report summarily mentions several of the issues raised in the technical data submitted we do not believe the staff report treatment constitutes legally adequate written response to all significant environmental points raised during the evaluation process.

In addition, the appellants have made numerous and ongoing Public Records Act requests in an effort to stay abreast of the project as it has continually evolved and as new information and data was continually being discovered. While staff eventually responded to most of these requests, at times they did so partially, slowly, and irregularly, necessitating repeated follow up requests and personal visits to staff offices to review and copy file materials. In fact, just yesterday (February 26), at 11:20 a.m., we received, via email, approximately 80 pages of additional correspondence, complex maps, detailed plans, and legal documents in response to our continuing Public Records Act request. Eighty pages of important material, some dated over a month ago, finally relayed after the staff report is final and only two days before substantive comments to the Commission are due. Again, this is not reasonable.

Numerous requests for information, schedules, answers to questions, confirmations, notices, and opportunities to review information were made by phone, letter, and email with many being answered with terse non-substantive responses merely acknowledging receipt. Staff consistently assured the appellants that all their concerns would be thoroughly addressed in the staff report. We do not feel that commitment has been met.

We also lodged numerous complaints and requests for investigation, enforcement, and remediation of Coastal Act violations. These complaints were acknowledged but no substantive action was taken and no code enforcement file was opened. Again, we were told these violations would be thoroughly addressed in the staff report. We do not believe that commitment has been met.

Finally, we made several formal requests for opportunity to review the staff report (which we were repeatedly assured would thoroughly address all of these issues) at least 30 days prior to the hearing because there had been no prior opportunity to review any environmental analysis under CEQA (because Marin County determined the project categorically exempt). We understand that strict application of CEQA timelines do not apply to the Coastal Commission but the law does require a reasonable time be

---

[1] May 6, 2011, EMC letter regarding Preliminary Biological Issues
September 7, 2011, EMC comprehensive CEQA document: Initial Study/Policy Consistency Analysis
October 21, 2011, EMC letter commenting on Zander biological resources report
February 13, 2012, EMC memo regarding Outstanding Unresolved Biological Resource Issues
April 4, 2012, EMC memo regarding Western Pond Turtle and Habitat Connectivity Issues
May 16, 2012, EMC letter responding to Zander biological letter

afforded the public for review and comment on a CEQA functional equivalent staff report. In this case, given the lack of any prior environmental review opportunity, our 30 day request was reasonable. Staff refused to grant this request and said that they would post the staff report online for review on February 21. Nothing was posted that day. On February 22 a portion of the staff report was posted online but it did not include many (27 of 31 missing) vitally important appendices and exhibits that were necessary to undertake substantive analysis of the staff discussion and recommendations. Not until mid-morning on February 25 was the full staff report finally made available online.[2] Timing directives on the Coastal Commission's website for comments responding to a staff report suggest they be submitted no later than three working days prior to the hearing (so the Commissioners might actually have an opportunity to read them). In this case that means March 1st. The effective result is that the public is being given a mere three and a half days to review and comment on a staff report (portions of which are illegible) that is supposed to be the functional equivalent of an EIR. In our opinion, this highly compressed timeframe does not comply with the statutory requirement of a reasonable time. When the appellants requested a continuance based on this circumstance their request was rejected.

We believe the above problems will render any decision made on the project at the March meeting legally vulnerable from a procedural prospective. In the interest of fairness and fundamental due process, we again request the matter be continued to a later date (preferably to May when the hearing will be in Marin County) in order to afford the public reasonable opportunity to review and comment on the staff report. We also ask that the staff report be augmented to include all pertinent environmental data that has been submitted by the applicant so that both the public and the Commission can have an opportunity to review it directly.

We respectfully request a written response to this letter by 2:00 p.m. February 28.

Very truly yours,

FENTON & KELLER
A Professional Corporation

John S. Bridges

JSB:kmc

cc: Dan Carl
Larry Simon
Scott Kivel/Lia Lund

[2] The Kivels also received a hard copy of the staff report on Monday, February 25, however, in both the online version and the hard copy many exhibits are illegible black and white photocopies.

RECEIVED
MAR 05 2013
CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA

March 2, 2013

California Coastal Commission
North Central Coast District Office
725 Front Street, Suite 300
Santa Cruz, CA 95060-4508

Re: A-2-MAR-10-022 Hearing (a proposed agriculture operation on Tomales Bay)

TO WHOM IT MAY CONCERN

Briefly, my ancestors settled in West Marin in 1851, after an unsuccessful effort to succeed in Mother Lode gold mining. My ranching family established summer cabins at Dillon Beach, commencing in 1912. All my life, I have explored and loved the Tomales Bay region. I contribute monthly to Malt and EAC and have written many articles about the area.

My concern about the proposed development in that beautiful and sensitive area is its extensive and remaining openness is subject to section by section encroachment. The operation in contention seems gigantic, with potential for erosion and agricultural run-off, that would pollute what was once the most pristine bay south of Alaska.

My family and I ask to go on record opposing this appeal, the size unnecessary.

Sincerely,

Kenneth S. Roe

Kenneth S. Roe
3325 Saint Moritz Court
Redding, CA 96002

Simon, Larry@Coastal

From:	scottkivel@kivellaw.com
Sent:	Tuesday, March 05, 2013 4:20 PM
To:	Simon, Larry@Coastal; Schmeltzer, Hope@Coastal
Cc:	theanderson9@gjaginc.com; jbridges@fentonkeller.com; Lester, Charles@Coastal; mkshallenberger@gmail.com
Subject:	Fwd: Undelivered Mail Returned to Sender; A-2-MAR-10-022
Attachments:	untitled-[2]

Dear Mr. Simon, Ms. Schmeltzer and Mr. Lester:

We write for two purposes:

1. Ms. Anderson has attempted to submit her comments to Mr. Simon and Mr. Staben opposing the Magee distillery project and her email was twice rejected, using initial caps and lower case. Is there some explanation as to why her public comments are rejected? If so, is there an alternative method for the Coastal Commissioners to receive public comments on this precedent setting project? Please advise.

2. The staff report which was taken off calendar misrepresented the public comments which are in the Commission record. The overwhelming number of written submissions oppose the Magee project, including well-reasoned letters from Mr. Baty and Mr. Mitchell and Ms. Caufield and others showing how the Magee project is inconsistent with the LCP, as well as several letters by Ms. Emme showing the potential fire danger of the brandy distillery in a rural location over 20 minutes from the nearest fire station. These and other letters were not included in the staff report. One would expect that the Commissioners would want to encourage public participation and would have great interest in the myriad comments submitted by the public, and therefore should want access to them as part of your staff report.

Very truly yours,

Scott Kivel and Lia Lund

---------- Original Message ----------
Subject: Fwd: Undelivered Mail Returned to Sender
From: "lia lund"

BRIDGER M. MITCHELL

PO Box 31
Inverness, CA 94937

Mary Shallenberger, Chair

Callfornia Coastal Commission

Via email: jeff.staben@coastal.ca.gov, cc: lsimon@coastal.ca.gov

March 10, 2013

re: Brader/Magee appeal A-2-MAR-10-022

Dear Chair Shallenberger:

I have participated in Marin County's processing of this application (4/6/10 letter to county planner; 4/12/10 testimony to Planning Commission) and by letter to this Commission (6/29/11). I note that my letter was not included in Appendix H of the March 6, 2013 version of the staff report (A-2-MAR-10-022).

The County determined in May 2010 that a waiver of the Master Plan requirement was consistent with LCP Implementation Plan zoning regulations (MCC 22.56.026.A, C) for the C-APZ zoning district. (staff report, p. 27) However, in September 2010 the Commission found that the County's waiver of the agricultural master plan requirement raised a substantial issue (staff report, p. 25).

I have two recommendations to ensure that the requirements of the County's LCP are maintained and carrier forward:

1. The Commission should make a finding that the LCP requirements for a waiver of filing a master plan were not satisfied in the County's issuance of a coastal development permit. In particular:

a. The applicant did not file formal written application for waiver of master plan, which is required by the Development Code (22.44.040).

b. The Project Notice did not provide the public with the required notice of an application for waiver.

c. The County staff report to the Planning Commission did not provide grounds for finding project the project to be "minor or incidental" (22.56.026(C)); the Planning Commission added "minor and incidental" language to its resolution approving the project without any findings of fact to support that language.[1]

---

[1] In *Dore v. County of Ventura* (1994) 23 Cal.App.4th 320, 327-28, the court set forth the applicable standard governing agency decision-making and "expressly disapproved 'the practice of setting forth findings solely in the language of the applicable legislation.'" the administrative body ... 'nevertheless must expose the board's mode of analysis to an extent sufficient to serve the purposes stated therein...."

d. Several factual findings required by the LCP in order to wave the filing a master plan cannot be made because:

- The project includes developments in addition to one single-family dwelling unit and a total of six separate structures whose combined building area exceeds 10,000 square feet and thus cannot be deemed "minor".
- The project includes agricultural processing (a commercial brandy distillery), which is a conditional use, and therefore cannot be deemed "incidental".

The Commission in its *de novo* processing of this appeal has quite correctly not waived the requirement to file a master plan. Instead, the staff report reviews the "Brader-Magee Farm Master Plan" submitted by the applicant, and the significant changes to that plan submitted subsequently, for conformance with LCP policies for protection of ESHAs, water quality, and visual resources (staff report, p. 27).

2. The Commission should modify the coastal development permit conditions recommended by staff to expressly prohibit any developments not included in the submitted master plan. Any additional developments, including but not limited to:

- farm worker housing,
- additional accessory agricultural structures,
- bed and breakfast operations (which are principal permitted uses that by MCC 22.57.032 are subject to an approved master plan),
- a second residential unit (which Marin County effectively treats as a principal permitted use in the C-APZ district)

must require submission to the Commission of an amended master plan and a public hearing on an amendment to any coastal development permit that is ultimately issued.

Sincerely yours,

RECEIVED
MAR 14 2013
CALIFORNIA
COASTAL COMMISSION

Magee Distillery Project A-2-MAR-10-022

Dear California Coastal Commission,

Please do not allow the development of the Magee 7 Development on Highway One across from Marconi Cove next to Tamales Bay.

This is an environmentally sensitive area and this Industrial Brandy Distillery will be very detrimental to the entire ecosystem of Tomales Bay and the surrounding area.

Highway One cannot accommodate the extra heavy trucks and traffic this development will bring.

The San Andreas Fault runs through Tomales Bay and earthquake danger adds another element that should be considered. There is also rising bay water due to global warming. An industrial plant of this magnitude should be located nearer to Highway 101 where fire and other disaster services are more readily available.

This is a very rural area and to subject this fragile ecosystem to an industrial distillery such as this can only bring a declining environment for the entire area and a real and present danger to the people who live there.

PLEASE veto this project.

Thank you,

JC Anderson
P O Box 1300
Point Reyes Station, CA 94956