

CALIFORNIA COASTAL COMMISSION

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Filed: May 17, 2002
49th Day: July 5, 2002
180th Day: November 13, 2002
Staff: SLB-SF
Staff Report: May 23, 2002
Hearing Date: June 13, 2002

STAFF REPORT: REGULAR CALENDAR

APPLICATION FILE NO.: 2-01-021

APPLICANT: Robert McClure

PROJECT DESCRIPTION: Construct two free stall barns (combined total of approximately 75,000 square feet), barn pad (117, 500 square feet), 13,000-square-foot access ramp, 1.9-acre manure storage pond, and habitat enhancement and restoration.

PROJECT LOCATION: 4101 Pierce Point Road, Inverness, Marin County.
APN: 109-060-01 and 109-060-02
(Exhibit 1, Regional Map)

SUBSTANTIVE FILE DOCUMENTS: See Appendix A.

1.0 EXECUTIVE SUMMARY

The applicant proposes to construct two, side-by-side, freestall barns with a combined total of approximately 75,000 square feet, a 117, 500-square-foot barn pad, a 13,000-square-foot access ramp, a manure pond with 18 acre feet of storage capacity and 1.9-acre surface area, and enhancement and restoration of upland and wetland areas on the McClure Dairy Ranch in the Point Reyes National Seashore. The purpose of the proposed development is to (1) reduce water quality impacts to Abbotts Lagoon (freshwater/saltwater lagoon in Point Reyes National Seashore) by containing animal waste; (2) enhance and restore upland and wetland areas that are degraded by cows; and (3) improve the dairy cow health and dairy profitability by housing cows throughout the year.

Commission staff recommends approval of the permit application with conditions to avoid significant adverse impacts to environmentally sensitive habitat areas and to control erosion and polluted runoff.

2.0 STAFF RECOMMENDATION

The staff recommends that the Commission approve Coastal Development Permit No. 2-01-021 subject to the conditions in Sections 2.1 and 2.2 below.

Motion:

I move that the Commission approve Coastal Development Permit No. 2-01-021 pursuant to the staff recommendation.

Staff Recommendation of Approval:

Staff recommends a YES vote. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution to Approve the Permit:

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

2.1 Standard Conditions

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. Interpretation. Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.
4. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
5. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

2.2 Special Conditions

1. Construction Period Erosion Control.

A. *Prior to the issuance of the coastal development permit*, the applicant shall submit, for the review and approval of the Executive Director, an erosion control plan to prevent the transport of sediment from the project site into Abbotts Lagoon or any of the identified wetlands on or adjacent to the site as generally depicted on Exhibit 16. The plan shall be designed to minimize the potential sources of sediment, control the amount of runoff, and retain sediment on-site during construction. The plan shall also limit application, generation, and migration of toxic substances, ensure the proper storage and disposal of toxic materials, and ensure the application of nutrients at rates necessary to establish and maintain vegetation without causing significant nutrient runoff to surface waters and Abbotts Lagoon. The Erosion Control Plan shall include, at a minimum, the Best Management Practices specified below:

1. Erosion & Sediment Source Control

- a. If land-disturbing activities occur outside the wet season (October 15 – April 15), the basic sediment control BMP such as silt fences should still be installed to prevent sediment input to adjacent surface waters.
- b. Land-disturbing activities during the wet season (October 15 – April 15) shall implement the following BMPs for erosion and sediment control:
 - i. Sequence construction to install sediment-capturing devices first, followed by runoff control measures and runoff conveyances. Land clearing activities should only commence after the minimization and capture elements are in place.
 - ii. Phase grading to minimize the area of bare soil exposed at one time.
 - iii. Clear only areas essential for construction.
 - iv. Bare soils should be stabilized with nonvegetative BMPs as soon as possible or within five days of clearing or inactivity in construction. If seeding or another vegetative erosion control method is used, it should become established within two weeks.
 - v. Properly grade construction entrances to prevent runoff from construction site. The entrances should be stabilized immediately after grading and frequently maintained to prevent erosion and control dust.
 - vi. Intercept runoff above disturbed slopes and convey it to a permanent channel or stormdrain by using earth dikes, perimeter dikes or swales, or diversions. Use check dams where appropriate.
 - vii. Lay biodegradable fiber rolls, along the natural contour, on the face of exposed and erodible slopes to shorten slope length.
 - viii. Provide protection for runoff conveyance outlets by reducing flow velocity and dissipating flow energy.
 - ix. Install sediment traps/basins at outlets of diversions, channels, slope drains, or other runoff conveyances that discharge sediment-laden water. Sediment traps are usually used for drainage areas no greater than 5 acres, while the basins are appropriate for larger areas. Sediment traps/basins should be cleaned out when 50% full (by volume).

- x. Use silt fence to trap sediment contained in sheet flow. The maximum drainage area to the fence should be 0.5 acre or less per 100 feet of fence. Silt fences should not be used on slopes or in streams or channels where flow is concentrated. They should be inspected regularly and sediment removed when it reaches 1/3 the fence height.

2. Chemical Control

- a. Store, handle, apply, and dispose of pesticides, petroleum products, and other construction materials properly.
- b. Establish fuel and vehicle maintenance staging areas located away from all drainage courses, and design these areas to control runoff. Proper maintenance of equipment and installation of proper stream crossings will further reduce pollution of water by these sources.
- c. Develop and implement spill prevention and control measures.
- d. Provide sanitary facilities for construction workers.
- e. Maintain and wash equipment and machinery in confined areas specifically designed to control runoff. Thinners or solvents should not be discharged into sanitary or storm sewer systems. Washout from concrete trucks should be disposed of at a location not subject to runoff and more than 50 feet away from a stormdrain, open ditch or surface water. When possible, recycle washout by pumping backing into mixers for reuse. If not feasible, let water percolate through soil and dispose of settled, hardened concrete with trash.
- f. Provide adequate disposal facilities for solid waste, including excess asphalt, produced during construction.

B. The permittee shall be fully responsible for advising construction personnel of the requirements of the final Erosion Control Plan.

C. The applicant shall undertake development in accordance with the approved Final Erosion Control Plan. No proposed changes to the approved Final Erosion Control Plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

2. Post-Construction Polluted Runoff Control.

A. *Prior to issuance of the coastal development permit*, the applicant shall submit, for the review and approval of the Executive Director, a Post-Construction Pollution Prevention Plan showing final drainage and runoff control measures. The plan shall be prepared by a licensed engineer and shall incorporate structural and non-structural Best Management Practices (BMPs) designed to control the volume, velocity and pollutant load of storm water leaving the developed site after completion of construction. The Post-Construction Polluted Runoff Prevention Plan shall, include at minimum, the BMPs specified below:

- 1. Diverting clean water from contact with feedlots, holding pens or barns, and any animal access roads and/or ramps where manure may accumulate. Clean water can

include rain falling on the roofs of facilities, runoff from adjacent land, or other sources.

2. Construction and maintenance of building, collection systems, conveyance systems and permanent and temporary storage facilities should prevent leakage of organic matter, nutrients, and pathogens to ground or surface water. Where there is hydrologic connection to surface water through ground water, liner should be used.
3. All discharges to containment structures should be composed entirely of wastewater from the proper operation and maintenance of the dairy facility and the precipitation runoff from the facility areas. No other materials should be discharged into containment structures.
4. Confinement areas, alleys, barns, loafing areas, and others where waste solids may gather should be scraped periodically.
5. Land application of manure and wastewater should occur in compliance with a nutrient management plan. The plan should:
 - a. Prevent the application of nutrients at rates that will exceed the capacity of the soil and the planned crops to assimilate nutrients and prevent pollution.
 - b. Identify application and timing methods for nutrients in order to achieve realistic crop results, reduce losses to the environment, and avoid application during periods of leaching or runoff. Manure and wastewater application equipment should be calibrated to ensure that the quantity of material being applied is what is planned.
 - c. Where the potential for environmentally sound land application is limited, alternative uses of manure, such as the sale of manure to other farmers, centralized treatment, composting and sale of compost to other users, and using manure for power generation may also be appropriate.
6. Ensure that manured runoff from the access ramp between the newly constructed barn and the milking facilities will collect in the milk barn manure pits.

B. The permittee shall undertake development in accordance with the approved final plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

3. California Red-Legged Frog

Prior to commencement of construction of any other development authorized by CDP 2-01-021, the permittee shall construct a four-foot high plywood exclusion fence around the outer limit of the construction area at the freestall barns, manure ponds and access ramp construction sites to prevent California red-legged frogs from entering the construction area.

Two days prior to construction of the exclusion fence, the applicant shall survey the construction area at these locations for California red-legged frogs. The surveys shall be conducted by a qualified biologist in accordance with USFWS protocol (USFWS 1997).

A qualified biological monitor experienced with the California red-legged frog shall be present at these locations during all grading activities. The biological monitor shall have the authority to halt all construction activities as necessary to protect habitat and individual animals. Construction within these locations is prohibited at any time that a California red-

legged frog is present in the construction area. If a California red-legged frog is found within the construction area at these locations, no work shall occur until the frog has moved outside of the construction area. If the California red-legged frog will not move outside the construction area at these locations on its own, the biological monitor shall consult U.S. Fish and Wildlife Services for further instructions.

3.0 FINDINGS AND DECLARATIONS

The Commission hereby finds and declares as follows:

3.1 Other Agency Approvals

3.1.1 U.S. National Park Service

Because the proposed project is located on federal parklands leased by the applicant, written approval for construction of the project is required from the U.S. National Park Service. On July 17, 2001, the Commission staff requested from OCRM authority to review this activity under the provisions of the federal Coastal Zone Management Act (CZMA) (15 CFR Part 930). On August 20, 2001, the Office of Ocean and Coastal Resource Management (OCRM) granted the Commission staff's request to review the activity. Thus, the U.S. National Park Service written approval is subject to the consistency review requirements of Section 307(c)(3)(A) of the federal Coastal Zone Management Act (CZMA) and implementing regulations. Under the California Coastal Management Program (CCMP), a Commission-issued coastal development permit is deemed to satisfy any applicable federal consistency requirements. Therefore, approval of this coastal development permit application, is the equivalent of concurrence with a consistency certification for the activity, and no further federal consistency review is needed.

3.2 Site Description

The proposed development site is located at 4101 Pierce Point Road in Inverness, Marin County on the McClure Dairy Ranch (Exhibit 1, Regional map & Exhibit 2, Vicinity map). The ranch sits within the boundaries of the Point Reyes National Seashore on gently sloping grass and brush land approximately three quarters of a mile from the Pacific Ocean. From Inverness Ridge, the land slopes into a wide valley that drains into Abbotts Lagoon.

The ranch complex sits on the eastern slope of a protective ridge and is bisected by Pierce Point Road. The property has been used as a dairy ranch since the 1850s and is developed with the applicant's and employee residences and a complex of ranch facilities down slope of the proposed barn location. These facilities include milking and hay barns, silage storage areas, water and fuel tanks, waste ponds, a water recycling pond, garages, and ranch housing (Exhibit 3, Existing dairy complex). The nearly 62 acres of the property are now used as year-round outdoor feeding and exercise areas for dairy cows. Of this total, approximately 20 acres are intensely used within the core of the dairy facilities, and much of this is bare soil and degraded. Forty-two acres have pockets of heavy use. The remainder of the property is used for grazing or silage production. The area surrounding the dairy facilities is grazed grassland and cultivated hayfields.

Geologically, the land at the McClure Dairy is Monterey Shale. The topography generally slopes toward the southeast. Soils on the project site are Sirdak with Pablo-Bayview soils on knolls.

Sirdak is very deep, somewhat excessively drained in rolling dune-like areas. This soil has rapid permeability with medium runoff and moderate erosion hazard. The Pablo-Bayview soils are shallow and well drained with moderate permeability, rapid runoff, and high erosion hazard (NPS 2001a).

3.3 Project Background

Located on the Point Reyes Peninsula, the McClure Dairy has been in existence under various owners since the 1860s and operated by the McClure family since the 1930s. The McClure family has an agricultural lease/permit from the Point Reyes National Seashore (PRNS) to operate the dairy on 1,320 acres. The use permit has a renewal clause and is reviewed by the National Park Service every five years.

Water quality testing within the watershed of the McClure Dairy has shown high counts of fecal coliform and other contaminants (Kratzer 1999, NPS 2001b). The applicant has been working with National Park Service staff for the past two and a half years to design a project to improve water quality and reduce risks of water quality impairments to Abbotts Lagoon.

The proposed project would bring the McClure Dairy up to industry standards. Ninety-five percent of the North Bay dairies, including three dairies within PRNS, utilize freestall barns. These barns allow for 100% containment of water during the months that cows are housed (approximately 9-12 months for the McClure Dairy).

3.4 Project Description

There are three main objective of the proposed project. First, to improve dairy cow health and dairy profitability by constructing freestall barns to house cows during the winter and at other times throughout the year. The proposed freestall barns would create a more protective refuge for the cows during the rainy season, other storm events, and periods of flooding. In addition to sheltering the cows from the rain, the barn would provide a place for the cows to bed in a dry place during the rainy season when the pasturelands are saturated. The raised floor of the barns would provide a high and dry place for the cows during floods. The dry environment of the freestall barns would reduce the chances of cows contracting diseases. The well being of the cows has a direct relationship to milk production levels, with healthier cows generally producing more milk than cows that are sick or under stress.

The second major objective of the proposed project is to reduce risk of water quality impairments (sediment and nutrients from animal waste) in Abbotts Lagoon and wetland areas adjacent to Pierce Point Road by containing more than 90% of animal waste. Water quality monitoring within the Abbotts Lagoon watershed has demonstrated that water quality degradation is occurring down slope of the McClure Dairy (NPS 2001b). As discussed more fully in Section 3.5, animal waste confinement facilities and waste ponds such as the freestall barn and manure pond proposed by the applicant are recognized by state and federal agencies as an appropriate best management practice (BMP) for controlling animal waste discharges from dairy ranches.

The third objective of the proposed project is to enhance and restore upland and wetland areas that have been degraded by cow access throughout the ranch.

To achieve the project objectives, the applicant is proposing to construct two freestall barns each 104 feet wide, 360 feet long, and 25 feet high, and which amount to a combined total of 76,320 square feet (1.69 acre). Each freestall barn would consist of a structure with a low ceiling and open sidewalls built over a concrete floor. The structure would require 19,500 cubic yards of balanced cut and fill. In addition to the barns, the applicant proposes to create a manure pond, which would have an 18-acre-foot holding capacity and a 1.9-acre surface area and would require 25,000 cubic yards of balanced cut and fill. The proposed development also includes a pressure delivery line to pump the manure from the freestall barn to the manure storage pond and a 40-foot wide, 600-foot long access ramp from the freestall barns to the milking parlor to be used both by the milking cows and vehicles (Exhibit 4, Site plans and barn elevations).

In addition, the applicant proposes extensive restoration activities, which would focus on areas directly impacted by current year-round feeding and exercising of cows. The restoration activities include the following: (1) permanent exclusion of cattle from 26.1 acres of wetlands and 6.6 acres of grasslands by installing livestock control fencing; (2) converting 59.2 acres of year-round feeding and exercise areas to seasonal pasture uses by installing livestock control fencing, recontouring, and seeding protected areas; and (3) converting 10.3 acres of year-round feeding areas to seasonal exercise lots (Exhibit 5, Restoration activities). Seasonal grazing would occur in early summer such as May through June when forage value is high.

In Areas 5 and 6, the applicant proposes more extensive restoration activities with the goal of establishing a 9.2-acre healthy wetland, riparian, and grassland (Exhibit 6, Restoration activities in Areas 5 & 6). In these areas current land uses include year-round feeding and/or exercise lots. After completion of the new barns, land use in Areas 5 and 6 would be able to shift to permanent exclusion areas. The restoration plan would consist of: (1) gully stabilization measures including a rock and gravel wet crossing between the seasonal pasture in Areas 4 and 7, loose rock headcut repairs, willow brush layering headcut repairs, and a rock weir grade control structure interplanted with willows; (2) revegetation of slopes with willows and annual rye grass in accordance with National Park Service policy; (3) fencing and grazing exclusions; and (4) short-term erosion control such as silt fencing, blown straw and or erosion control mats/blankets/fabrics as needed during restoration activities.

3.5 Visual Resources

Coastal Act Section 30251 states:

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, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.

PRNS, serving over 2.5 million visitors annually in 2001, is a highly scenic area and an important coastal visual resource (NPS 2002). PRNS comprises over 100 square miles,

including 32,000 acres of coastal wilderness area. Rolling grassy hills, estuaries, windswept beaches, coastal scrub grasslands, salt and freshwater marshes, coniferous forests and dramatic coastal bluffs and historic agricultural development consisting primarily of dairy and cattle ranches make up the park's varied landscape.

The McClure Dairy, located on the historic I Ranch, east of Pierce Point Road, is one of the six dairies that still exist within the boundaries of PRNS. The ranches (for both dairy and beef) within the park, numbering 26 at one time, have been part of the landscape of this area even before the official establishment of the national park for over 70 years. The I Ranch was settled in the 1860s and the McClure family has operated the dairy there since the 1930s. While little or none of the original ranch complex remains, the ranch has retained its historic layout of the corrals and pastures with few alterations. As visitors travel through the park north along Pierce Point Road, the McClure Dairy (a cluster of barns, residential structures, sheds, silos and cows) is visible to the west. Two small hills lie immediately west of the ranch and provide a backdrop to the existing dairy facilities.

Due to the highly scenic nature of PRNS, it is important that the proposed development does not impact the visual integrity of the park. Section 30251 of the Coastal Act protects the scenic and visual qualities of coastal areas as a resource of public importance by requiring that permitted development: (1) be sited and designed to protect views to and along the ocean and scenic coastal areas; (2) minimize the alteration of natural land forms; (3) be visually compatible with the character of surrounding areas; and (4) where feasible, restore and enhance visual quality in visually degraded areas. Although the topography in the area prevents a direct view of the ocean from Pierce Point Road at the McClure Ranch, it is important that the proposed development does not cause significant adverse visual impacts inconsistent with Section 30251.

The proposed barns would be sited immediately upslope of the existing dairy complex, behind the most northern hill. This location utilizes the hill to hide the bulk of the structures from a north looking position on Pierce Point Road. Exhibits 8 through 10 are visual simulations, which represent views from three points along Pierce Point Road (Exhibit 7, visual simulation locations). Vantage Point One represents views from the southeast when traveling north on Pierce Point Road (Exhibit 8, Visual Simulation 1). At this location the rooflines of both barns would be visible as well as a small portion of the southeastern end of northern most barn; however, the majority of the bulk of the structures would be hidden by the hillside. The second simulation represents the view approximately one quarter of a mile north of Vantage Point One on Pierce Point Road (Exhibit 9, Visual Simulation 2). From this point, the rooflines would also be visible, and more of the southeastern end of the northern most barn. Simulation 3 illustrates the view of the barns from Pierce Point Road just north of the entrance of the dairy entrance and almost immediately east of the barns (Exhibit 10, Visual Simulation 3). Although the entire length of the northern most barn would be visible from this point, the barn would not be significantly obtrusive to the landscape. The freestall barns would not include siding, which gives the structures an open appearance that would allow them to blend more easily with the landscape. In addition, the structures would be low-lying at a height of 25 feet. Due to the low-lying nature, the structures would be subordinate to the character of the PRNS setting. Although the proposed structures would be large, they would be visually compatible with the character of the surrounding area because as proposed they would be low-lying, open, and simple structures

that would be steel, which would weather and look similar to existing metal barns and blend with the exteriors of the existing ranch facilities.

Within the park, three dairies already utilize freestall barns (NPS 2001a). The barns range in size from 10,000 square feet to 36,000 square feet. Exhibit 11 is an example of a freestall barn in the Point Reyes area that is 104 feet wide, 220 feet long and 22,880 square feet. The proposed barns would be similar in site and appearance to these existing barns within the park. As such, the proposed development would be compatible with the character of the surrounding development and landscape.

The proposed development would restore and enhance the visual quality of the area by restoring and enhancing the degraded areas above Abbotts Lagoon and the bare exercise lots along Pierce Point Road. At present, the cows are held in the feeding and exercise lots adjacent to the milking parlor just down slope of the two hills. As a result of constant habitation by cows, this area is void of all vegetation. As shown in Exhibit 12 the area appears to be a patch of brown hillside. The proposed freestall barns would remove the cows from this heavily degraded area on the ranch and allow the hillside to revegetate, thus restoring the visual qualities of this area of the ranch.

Since the proposed development would be sited and designed to protect views to and along the ocean and scenic coastal areas, minimize the alteration of natural land forms, be visually compatible with the character of surrounding area, and restore and enhance the visual quality of visually degraded areas on the ranch, the Commission finds that the proposed project is consistent with Section 30251 of the Coastal Act.

3.6 Water Quality and Erosion and Polluted Runoff

Coastal Act Section 30231 states:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section 30412(b) of the Coastal Act states:

(b) The State Water Resources Control Board and the California regional water quality control boards are the state agencies with primary responsibility for the coordination and control of water quality. The State Water Resources Control Board has primary responsibility for the administration of water rights pursuant to applicable law. The commission shall assure that proposed development and local coastal programs shall not frustrate this section. The commission shall not, except as provided in subdivision (c), modify, adopt conditions, or take any action in conflict with any determination by the State Water Resources Control Board or any California regional water quality control board in matters relating to water quality or the administration of water rights.

Except as provided in this section, nothing herein shall be interpreted in any way either as prohibiting or limiting the commission, local government, or port governing body from exercising the regulatory controls over development pursuant to this division in a manner necessary to carry out this division.

PRNS possesses extremely diverse, valuable, and sensitive water-related resources that are dependent upon the water quality in the park's streams, lakes, bays, lagoons, estuaries, and wetlands. McClure Dairy surface runoff drains into two unnamed tributaries, which drain a 188-acre area into Abbotts Lagoon (representing 6.1% of the Abbotts Lagoon watershed). The Abbotts Lagoon watershed drains across gently sloping terrain and into the lagoon environment. The lagoon itself has three chambers sometimes connected at the surface. A man-made pond, and dual chambered lagoon separated by a bedrock sill provide an unusual combination of brackish and freshwater environments in a system that often has the same surface water elevations. The lagoon does not breach regularly and in recent years has remained closed for years at a time (NPS 2001b). Abbotts Lagoon supports a vast array of wildlife including California red-legged frogs. Protecting the water quality and biological productivity of Abbotts Lagoon is essential to preserving the lagoon and the coastal resources it supports.

Waste from the dairy is a significant source of pollution to Abbotts Lagoon. The manure contaminates directly pollute surface waters near the areas where manure is initially deposited. Stormwater runoff carries contaminants into the lagoon and other water resources. Manure is the source of a variety of contaminants, including e coli bacteria, ammonia, nutrients and parasitic diseases. These contaminants foul receiving waters and make them unsafe for human contact and are deleterious to fish and other wildlife. For example, ammonia is toxic to fish and other forms of aquatic life. Nutrients cause an overabundance of algae to develop in receiving waters, resulting in turn in reductions of dissolved oxygen levels.

The McClure herd (consisting of milking and dry cows, heifers, calves, and bulls) generates approximately 15-acre-feet (about 5,000,000, gallons equivalent volume) of manure annually, based upon standard production rates. Manure is generated by a milk cow weighing an average of 1,400 pounds at a more or less constant rate of 2 cubic feet per animal per day. The rate of manure production from calves, heifers, and dry cows is substantially lower than for milking cows (14.8 gallons/1,000 pounds of animal for milking cows versus 7 gallons/1,000 pounds of animal for heifers above 900 pounds). An additional 32 cubic yards of liquid waste is generated on a daily basis as a result of washing the cows prior to milking.

At present the animals are in pasture (young animals), feeding and loafing yards, and holding pens except for the time it takes for washing and milking (approximately two hours per cow per day). Calves requiring hand-raising or other attention are maintained in a calf area with individual covered stalls. Only young animals are rotated into pastures and dry and milking cows are maintained in fenced yards for exercising and in feedlots where they are fed silage and grain. The period of time that any group of young animals spend in any pasture area depends on several factors, including the number of animals in the group; the time since the pasture was last grazed/occupied; the preexisting condition of the pasture soils and forage; and the season (pasture areas are used for shorter periods during the wet season).

Of the total amount of manure generated by the herd, approximately 30 percent of manure is stockpiled, stored, and spread on silage fields in the summer time (usually June). The 30 percent figure derives from a relatively constant volume generated while the cows are in the holding pens and milking barns, plus a variable amount recovered from feedlots and exercise yards. The volume of manure collected depends on the amount of time the exercise yards and feedlots are dry enough to operate equipment in the yards and stockpile the manure. The amount of manure recovered varies primarily with conditions in feedlots and exercise yards and when conditions are suitable for scraping and stockpiling, the manure is captured. When yards are muddy, manure cannot be collected. The 30 percent manure-stockpiling figure includes a portion of calves (those that are housed) but excludes animals that are in pasture (currently less than 100 heifers). The estimate derives primarily from estimates of the volume of manure that is spread during the summer. The volume is approximately 30 percent of the expected total volume based on herd size and manure production rates.

The remaining 70 percent of the manure that is currently deposited by cows in the fields and yards cannot be collected except as discussed above. Currently the dairy operator does not have the ability to control the fate of the manure. During the dry season, approximately 50 percent of the nutrient value (that which is not lost to evaporation and decomposition) is returned to the soil through trampling by the cows. During the wet season, the nutrient value may be higher owing to lower rates of evaporation and decomposition, but nutrients on the surface are incorporated into runoff, which collects in stream channels and eventually flows into Abbotts Lagoon and coastal ocean waters. Nutrients incorporated into the soil in exercise yards and feedlots are generally not taken up by plants (plants are unable to establish and grow in areas subject to constant trampling), resulting in very high levels of nitrogen and phosphorus in the soils.

Water quality data specific to surface water in and around the McClure Ranch is available because water quality monitoring of Abbotts Lagoon and its tributaries was conducted by the U.S. Geological Survey in 1999 and has been carried out by the Parks Service since 1999.

The impact area to the southwest of the McClure facility drains to Abbotts Lagoon. Two of the swales draining from the dairy were sampled as part of the Abbotts Lagoon USGS water quality investigation (T2 and T3). T2 is a perennial drainage and T3 is an intermittent tributary, heavily impacted by cattle use. Nutrient loading information was developed for the watershed (Kratzer 1999). Table 1 identifies the percent loading of specific nutrient parameters from the entire watershed. The 188-acre area draining to T2 and T3 is equivalent to 6.1 percent of the Abbotts Lagoon Watershed. Referring to Table 1, this area is the primary source of all monitored nutrient parameters delivered to the lagoon (NPS 2001b).

Table 1: Watershed loading to Abbotts Lagoon (Kratzer 1999)

Source Area (sample sites)	% load Ammonia (NH ₄)	% load Nitrate (NO ₃)	% load Total Nitrogen (TN)	% load Ortho- phosphorus	% load Total Phosphorus
Abbotts Perennial (T1)	5	10	25	8	20
McClure Impact Area	85	50	40	85	65

(T2 and T3)					
Evans Beef Grazing Area (T4, T5, and T6)	5	30	20	5	5
Lunny Dunes (T7)	5	10	15	2	10

The surface water quality monitoring being carried out by the PRNS includes the collection of samples at 23 stream locations and three recreational ponds within the seashore. Monitoring results from May 1999 through May 2001 were published in the *Point Ryes National Seashore, Water Quality Monitoring Report: May 1999-May 2001*. One of the drainage samples in the monitoring report, ABB2, was the same tested by USGS (T2-I ranch perennial drainage). National Parks Service staff did not sample T3 (Parks staff renamed this point ABB3), the second point sampled by USGS, based on the assumption that it was severely degraded because it is directly downslope of the McClure year-round exercise and feeding areas. Monitored water quality parameters include nitrate, nitrite, ammonia, orthophosphate, fecal/total coliform, total suspended sediment, temperature, conductivity, dissolved oxygen, and pH. Based upon the monitoring parameter characteristics, the study identified fecal coliform and toxic ammonia as primary indicators of water quality degradation. Though no standard is established for the fecal coliform level the study used 10,000 MPN/100ml for a spatial comparison of water quality conditions and considered sites with 10,000 MPD/100ml averages severely degraded and in need of water quality management and protection. The mean fecal coliform for ABB2 was 20,000 MPN/100ml (NPS 2001b).

Since the 2001 report, National Parks Service has continued to update the water quality report, which includes sampling at ABB3 and continued sampling at ABB2. On January 23, 2002, park staff took a water quality sample at ABB3 and found that the fecal coliform levels were at 160,000 MPD/100ml. This sample event occurred after approximately three weeks of dry weather. The parks staff took another sample on February 19, 2002, after a small rainstorm and found that the fecal coliform levels were at 1,600,000 MPD/100ml (Exhibit 13, McClure water quality sampling locations & Exhibit 14, Water quality monitoring results at ABB2 and ABB3).

The proposed development would enhance the water quality of Abbots Lagoon and surrounding waterways by providing for the containment and treatment of approximately 90 percent of the manure generated by the milking herd and dry cows. The benefits of the proposed water quality improvements at the McClure Ranch would be substantial. In her March 27, 2000, letter to Robert McClure, Deanne Meyer, Ph.D., Livestock Waste Management Specialist of the University of California, discusses the water quality benefits of freestall facilities. She concludes:

Freestall facilities are accepted through the United States as an environmental benefit....The environmental benefits are numerous. Roof runoff is clean and acceptable for discharge to surface waters. This reduces the amount of rainfall coming in contact with manure thereby reducing the need for liquid manure storage. Additionally, animals managed indoors during the rainy season will minimize adverse impacts of mud and manure generated in corrals. Reduction in mud and manure is

critical to minimize the amount of nutrient and sediment runoff during rain events. Management of corrals associated with accompanying freestalls typically focuses on removal of manure nutrients before rains begin. Freestalls are accepted as win-win situations for both environmental and the cows.

Considering the current population, all but about 50 animals could be housed in the proposed barns during wet weather. A fraction of those 50 animals would be housed in the calf years, and the remainder would be in pasture regardless of weather conditions. With the construction of the freestall barns, the applicant conservatively estimates that over 90 percent of manure generated by the milking herd and dry cows would be collected, stored, and spread in silage fields during the summer. The only manure that would not be collected is that which would be generated during the dry season when cows would be released into exercise and seasonal pasture areas. A smaller, variable fraction of manure generated by young stock would be the daily production rate per animal multiplied by the number of young animals housed. The applicant conservatively estimates that young stock would contribute less than 0.5 acre-feet of manure annually to the manure management system. In addition, the amount of liquid waste generated would be reduced (approximately 7,000 gallons or 32 cubic yards per day) because the cows would no longer need to be washed prior to milking.

The barns would be sloped three percent for drainage with a minimum eight-inch curb for manure retention at the bottom. Manure would be scraped to the southeast end, pumped into the manure storage pond, and spread over the silage and pasture fields during the summer months. The eight-inch curbs for manure retention would extend down the access ramp, and manure would be scraped to the bottom and combined with the milking center manure. The minimum acreage of silage fields and pastures needed for manure spreading would be 332-acres for the entire herd. The applicant currently has over 550 acres in cultivation for crops and silage that are available for manure spreading and over 500 acres in pasturelands that could receive manure. Therefore, there is sufficient land available for manure spreading.

Thus, by housing the cows in the freestall barns, substantially less untreated cow waste would be carried by storm water runoff into adjacent drainages and Abbotts Lagoon. The resulting reductions in water pollution would improve the water quality for the California red-legged frog, as well as other endangered or threatened species that utilize Abbotts Lagoon. Furthermore, the improvements to water quality would enhance other beneficial uses of these waters such as public recreation.

Although the proposed project would provide for significant water quality improvements over the current situation, the freestall barns would create over 120,000 square feet of new impervious surfaces, including the barn roofs and the concrete access ramp. Sediments or polluted runoff caused by the development during construction and increased runoff from new impervious surfaces could adversely impact the biological productivity and quality of Abbotts Lagoon and other surface waterways in conflict with Section 30231 of the Coastal Act.

To control runoff from the barn and access ramp the applicant proposes to install downspouts, rock armoring, vegetated swales and vee ditches. There would be no direct discharge of storm water runoff into the swales that drain into Abbotts Lagoon; instead water collected by the downspouts would percolate into the pervious surfaces on the property.

To further ensure that the proposed development does not adversely affect the biological productivity and quality of coastal waters, the Commission imposes **Special Conditions 1 and 2** to require the applicant to employ best management practices to prevent the runoff of sediments and other pollutants into surface waters and Abbotts Lagoon. **Special Condition 1** requires the applicant to submit a final erosion control plan, incorporating best management practices, to minimize the potential sources of sediment, control the amount of runoff, and retain sediment on-site during construction. The plan must also limit the application, generation, and migration of toxic substances and ensure the proper storage and disposal of toxic materials without causing significant nutrient runoff to surface waters and Abbotts Lagoon. **Special Condition 2** requires the applicant to submit a water quality protection plan to control the volume, velocity, and pollutant load of storm water on the developed site after project construction. Therefore, as conditioned, the proposed development will not result in significant impacts to coastal water quality during or after construction.

Section 30412(b) of the Coastal Act prohibits the Commission from adopting conditions, which would conflict with any determination by the State Water Resources Control Board, or any regional water quality control board. The San Francisco Regional Water Quality Control Board has not issued determination for the proposed project. Thus, the Commission finds that **Special Conditions 1 and 2** do not conflict with Section 30412(b) because they do not modify, adopt conditions, or take any action in conflict with any determination by the State Water Resources Control Board or any California regional water quality control board in matters relating to water quality or the administration of water rights.

As the proposed project as conditioned will restore and protect the biological productivity and the quality of coastal water and wetlands to maintain populations of marine organisms and protect human health of recreational users of these waters by minimizing the adverse effects of waste water discharges and controlling runoff from the applicant's dairy as well as preventing significant impacts to coastal water quality from erosion and runoff during and after construction, the Commission finds that the proposed project is consistent with Section 30231 of the Coastal Act.

3.7 Biological Resources

Coastal Act Section 30240 states:

(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.

Coastal Act Section 30107.5 states:

"Environmentally sensitive area" means 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 and which could be easily disturbed or degraded by human activities and developments.

PRNS falls in the northern-most historical range of the California red-legged frog (CRLF)(50 CFR Part 17, March 13, 2001). CRLF thrive in watersheds with a mosaic of appropriate habitats, no fragmentation of habitats by major roads and little or no urban development. PRNS has all of these components. In fact the CRLF critical habitat designation states that the Point Reyes Unit contains one of the largest known populations of California red-legged frogs. The McClure Dairy is located within a watershed with little development and only one paved road (Pierce Point Road). The habitat in the vicinity of the project site consists of coastal prairie, rangeland, and wetland. The area immediately surrounding the dairy facilities, including the proposed location of the new barn, is grazed grassland and silage fields. Some of the area immediately around the existing structures is bare ground with essentially no habitat features for CRLF.

CRLF have been extirpated or nearly extirpated from over 70 percent of their former range and are federally listed as threatened. Habitat loss, competition with and direct predation by exotic species, such as bullfrogs, and fragmentation of habitat due to encroachment of development are the primary causes for the decline of this species throughout its range. The remaining populations are primarily in central coastal California and are found in aquatic areas that support substantial riparian and aquatic vegetation and lack non-native predators. Habitat for CRLF is typically deep-water pools with fringes of dense, emergent vegetation or dense shrubby vegetation, such as cattails and willows. Frogs hibernate in small mammal burrows, leaf litter, or other moist sites in or near (within a few hundred feet of) riparian areas (USFWS 1994, USFWS 1996). The CRLF critical habitat designation provides guidance on the physical and biological features that are considered essential to the conservation of the species, as cited below:

In summary, the primary constituent elements consist of three components. At a minimum, this will include two (or more) suitable breeding locations, a permanent water source, associated uplands surrounding these water bodies up to 90 m (300 ft) from the water's edge, all within 2 km (1.25) miles of one another and connected by barrier-free dispersal habitat that is at least 90 m (300 ft) in width. When these elements are all present, all other suitable aquatic habitat within 2 km (1.25 mi.), and free of dispersal barriers, is also considered critical habitat.

At least five known location of breeding CRLF populations exist on or near the McClure Dairy. They include: (1) Abbotts Lagoon; (2) stock ponds with adjacent wetlands in Areas 6, 12, 15; and (3) natural wetlands in Area 17. These breeding areas vary in terms of overall habitat quality; however, all provide minimum conditions to support breeding CRLF populations (Exhibit 15, California red-legged frog habitat).

Section 30107.5 of the Coastal Act defines environmentally sensitive habitat areas (ESHA) as those 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 and which could be easily disturbed or degraded by human activities and developments. According to Section 30107.5, the ponds and 300-foot associated uplands that support CRLF populations on the McClure Dairy are defined as ESHA because they support CRLF, a federally listed species, and they could be

easily disturbed or degraded by human activity and development. As proposed, there is no development within the breeding ponds or associated upland habitat, or that would cause dispersal barriers for the CRLF. According to the U.S. Fish and Wildlife Service Critical Habitat Designation for the CRLF, dispersal barriers include heavily traveled roads (an average of 30 cars per hour from 10:00pm to 4:00am) that possess no bridge or culverts; moderately high-density urban or industrial development; and large reservoirs over 50 acres in size. The milking cow and vehicle access ramp from the barns to the milking parlors would cross through the dispersal corridor between ponds in Areas 6 and 17 (Exhibit 15, California red-legged frog habitat). This ramp would provide access for the milking cows to the milking parlor and for vehicles to the freestall barn during the day. Vehicle trips generated would not exceed an average of 30 cars per hour and would not take place between the hours of 10:00pm and 4:00am. Thus, pursuant to the federal rule, the ramp would not represent a dispersal barrier for the frogs. In addition, as proposed the project includes: (1) the permanent exclusion of cows from 28.2-acres of red-legged frog breeding habits in Areas 6 and 17; (2) the restriction of cows from CRLF breeding habitat in Area 15 (26.5 acres) by changing the management from year-round access to seasonal grazing, (3) the stabilization of an eroding site in Area 15 to eliminate a sediment source draining into wetland breeding habitat; and (4) the stabilization and revegetation of an eroding gully in Area 5 to eliminate a sediment source that flows into Abbotts Lagoon. As such, the proposed project does not raise an issue of conformity with Coastal Act Section 30240(a) concerning direct impacts to ESHA.

In accordance with Coastal Act Section 30240(b), the proposed development must be sited and designed to avoid significant impacts to the adjacent ESHA. CRLF are very mobile and are known to disperse and change locations. Although the proposed project would be constructed during the dry season when frogs do not normally disperse between breeding ponds, if a frog happened to enter the project site, construction activities may cause frog mortality. Thus, to prevent red-legged frogs from entering the project site, **Special Condition 3** requires that: (1) prior to the commencement of construction of any other development at the project site, the permittee shall construct a four-foot high plywood exclusion fence around the outer limit of the construction area at the proposed manure pond, freestall barns, and access ramp to prevent CRLF from entering the construction area; (2) two days prior to construction of the exclusion fence, the applicant shall survey the construction area at these locations for CRLF (the surveys shall be conducted by a qualified biologist in accordance with USFWS protocol (USFWS 1997)); (3) a qualified biological monitor experienced with the CRLF shall be present at the project site during all construction activities; (4) the biological monitor shall have the authority to halt all construction activities as necessary to protect habitat and individual animals; (5) construction within these locations is prohibited at any time that a CRLF is present in the construction area; (6) if a CRLF is found within the construction area at these locations, no work shall occur until the frog has moved outside of the construction area; and (7) if the CRLF will not move outside the construction area at these locations on its own, the biological monitor shall consult U.S. Fish and Wildlife Services for further instructions. Thus, as conditioned to protect any CRLF that enter the project site, the Commission finds that the development conforms with Section 30240(b) of the Coastal Act.

3.8 Protection of Wetlands

Coastal Act Section 30233 states in relevant part:

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.

(2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.

(3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland. The size of the wetland area used for boating facilities, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, shall not exceed 25 percent of the degraded wetland.

(4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.

(5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

(6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.

(7) Restoration purposes.

(8) Nature study, aquaculture, or similar resource dependent activities.

The two hillsides upslope of the existing dairy facility form a swale. Contained within the upper portion of the swale is an approximately .33-acre wetland. Section 30121 of the Coastal Act defines "wetland" 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, and fens.

Commission Regulation Section 13577(b) further defines wetland as follows:

... land 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 and drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salts or other substances 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 deep-water habitats.

Various state and federal agencies are charged with regulating the use of wetlands within the Coastal Zone, including the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, the California Department of Fish and Game, the California Coastal Commission, and local jurisdictions with a certified LCP, among others. While each of these agencies regulates wetlands under a different statutory authority, they all define "wetland" based on three basic parameters: hydrology, soil type, and vegetation. The differences in how these agencies determine whether a particular area qualifies as a wetland lie in the way that these three parameters are treated. Generally speaking, the Corps uses the narrowest definition, requiring evidence of each of the three-wetland parameters. USFWS, CDFG, the Commission and local governments with a certified LCP generally accept evidence of positive field indicators of less than three parameters to demonstrate that an area is a wetland, i.e. areas wet long enough to bring about the formation of hydric soils or to support the growth of wetland plants.

The upper portion of the swale includes a discrete patch of wetland vegetation on the order of 0.33-acres according to the applicant's consultants. Species included *Juncus patens* (FAC), *J. effusus* (FACW), *Conium maculatum* (FAC), *Lolium sp.*, *Carex sp.*, *Rumex crispus* (FACW-), *Holcus lanatus* (FAC), and *Stachys ajugoides* (OBL). On February 21, 2002, staff biologist, Dr. John Dixon, visited the project site and observed that there was standing water in the middle of the patch of wetland. There is also bedrock near the surface, which probably forms an impermeable layer. Based on the consultant's description, the soil is a sandy clay loam and water appears to be detained on the site as it percolates to the bedrock and then moves laterally down hill where it forms a seep at the point the bedrock daylights and the slope abruptly increases. Non-native grassland plants such as velvet grass and annual rye grass dominate the lower portion of the swales. It is the professional opinion of Dr. Dixon that this patch of vegetation is a wetland under the definitions contained in the Coastal Act and Section 13577 of the Commission's regulations.

Section 30233 prohibits wetland fill, unless it is for one of the eight enumerated purposes listed above. As originally proposed, the barns would have been located within this wetland resulting in 0.33 acres of wetland fill, in conflict with Section 30233. However, the applicant subsequently revised the project description to relocate the proposed freestall barns upslope and northwest of the 0.33-acre wetland. The proposed manure pond would be south west of the 0.33-acre wetland. As revised, the barns are approximately 130 feet from the outer edge of the wetland and the manure pond is 150 feet from the wetland. Thus, no fill of wetland would result from the project as currently proposed.

Therefore, without resulting in any wetland fill, the Commission finds that the proposed development is consistent with Section 30233.

4.0 CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Section 13096 of the California Code of Regulations requires Commission approval of Coastal Development Permit applications to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available, which would substantially lessen any significant adverse effects, which the activity may have on the environment.

The Commission incorporates its findings on Coastal Act consistency at this point as if set forth in full. The proposed project has been conditioned to be found consistent with the policies of the Coastal Act and to minimize all adverse environmental effects. Mitigation measures have been imposed to prevent disruption of significant habitats during construction activity to prevent impacts to California red-legged frogs, and prevent the introduction of runoff and sediment from grading into surface waters and Abbotts Lagoon. As conditioned, there are no feasible alternatives or feasible mitigation measures available, beyond those required, which would substantially lessen any significant adverse impacts, which the development may have on the environment. Therefore, the Commission finds that the proposed project can be found consistent with Coastal Act requirements to conform to CEQA.

EXHIBITS:

1. Regional map
2. Vicinity map
3. Existing dairy complex
4. Site plans and barn elevations
5. Restoration activities
6. Restoration activities in Areas 5 & 6
7. Visual simulation locations
8. Visual simulation 1
9. Visual simulation 2
10. Visual simulation 3
11. Freestall barn example
12. Photographs of feeding and exercise lots
13. McClure water quality sampling locations
14. Water quality monitoring results at ABB2 and ABB3
15. California red-legged frog habitat
16. Resource Map

APPENDICES:

A - Substantive File Documents

APPENDIX A: SUBSTANTIVE FILE DOCUMENTS

References

Kratzer, C. 1999. Water Quality and Biological Resource Assessment, Abbots Lagoon, Point Reyes National Seashore. Presented to USGS WRD District Office, May 1999.

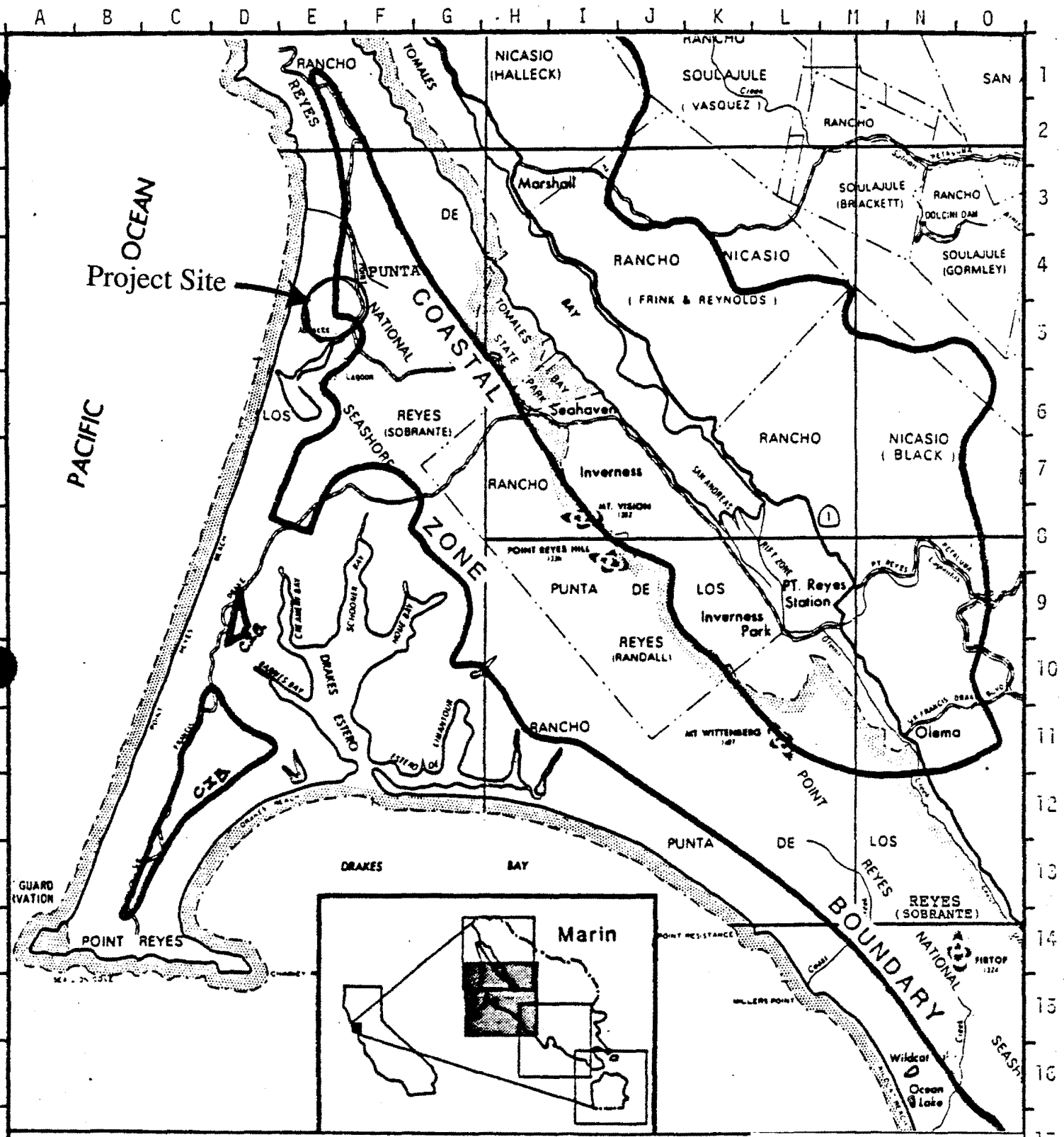
National Park Service (NPS) 2001a. Environmental Assessment- McClure Dairy Barn and Resource Enhancement Project, Point Reyes National Seashore, Marin County, California. Prunuske Chatham, Inc. March 20, 2001.


National Park Service (NPS) 2001b. Point Reyes National Seashore- Water Quality Monitoring Report: May 1999-May 2001. Brannon Ketcham, Hydrologist, Point Reyes National Seashore. November 2001.

National Park Service (NPS) 2002. Point Reyes National Seashore 2001 Year in Review. January 2002.

US Fish and Wildlife Service (USFWS) 1997. Guidance on Site Assessment and Field Surveys for California Red-legged Frogs (*Rana aurora draytonii*). February 18, 1997.

Exhibits

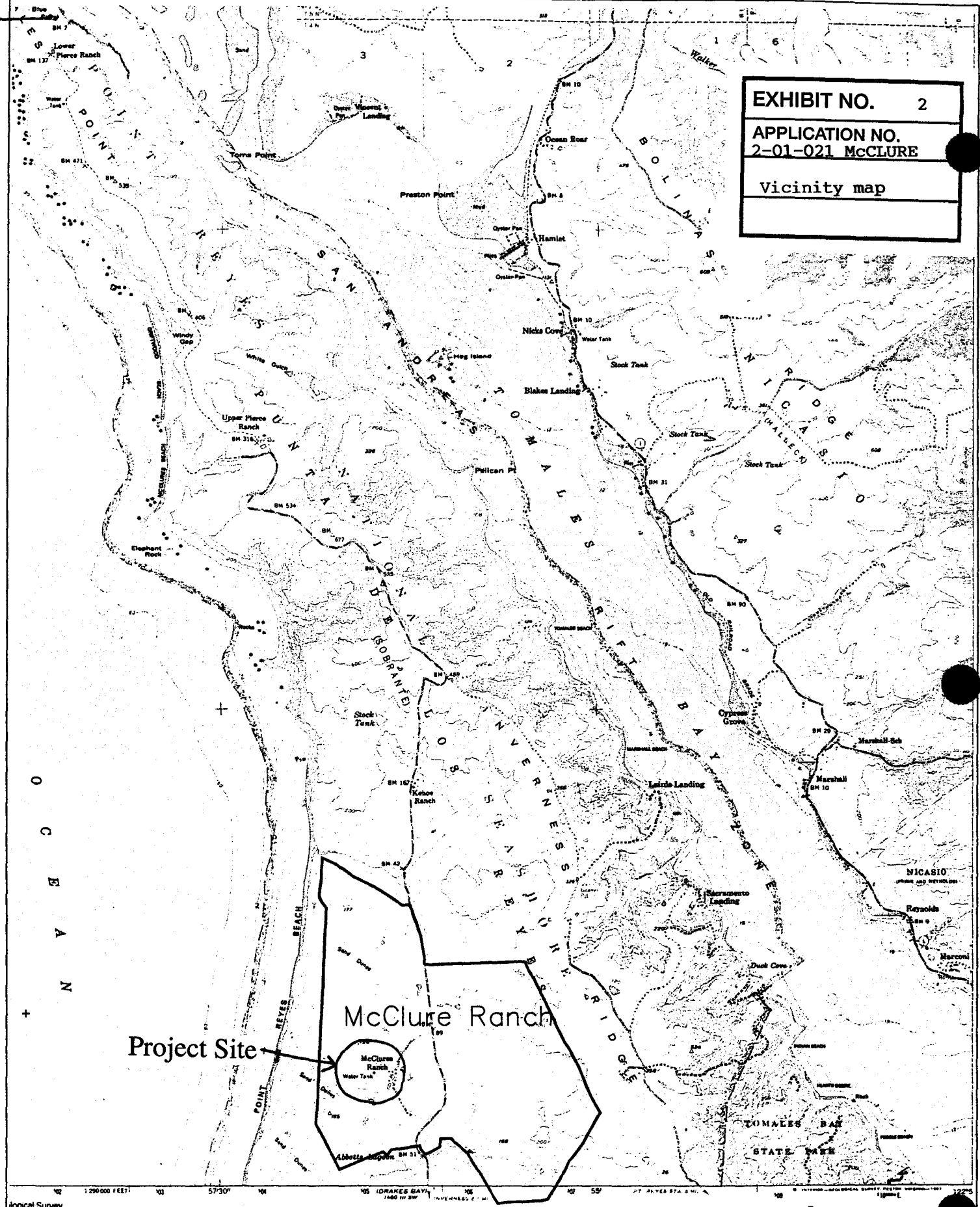


 California Coastal Commission

LOCATION MAP

County of Marin

EXHIBIT NO. 1
APPLICATION NO. 2-01-021 McCLURE
Regional map



PRUNUSKE CHATHAM, INC.
P.O. BOX 828
OCCIDENTAL, CA 95465
(707) 874-0100

DATE: January, 2001
SCALE: 1" = 4000'
CHECKED BY: MN
DRAFTED BY: EA

McClure Dairy - I Ranch
Point Reyes National Seashore
Project Location Map
on USGS Topo "Tomales"

Figure 1

BUILDINGS AND OTHER STRUCTURES

The Premises, which are located within the Point Reyes National Seashore, are set forth on the attached site plan.

LIST OF BUILDINGS AND OTHER STRUCTURES

Inventory of structures

Square Feet

A.	Storage shed, 16'x 16'	256
B.*	Residence, 24'x 60'	1440
	Garage, 25'x 14'	350
C.	Residence, 12'x 60'	720
	Garage, 16'x 24'	384
D.	Residence, 45'x 24'	1080
E.	Residence, 36'x 32'	1152
	Garage, 12'x 21'	252
F.*	Residence, 13'x 29'	377
G.	Residence, 51'x 40'	2040
H.	Garage, 25'x 37'	925
I.	Residence, 36'x 69'	2484
J.	Garage, 20'x 51'	1020
M.	Garage, 25'x 60'	1500
N.*	Garage, 41'x 61'	2501
O.	Milking Barn, 79' x 31' & 54' x 55'	5689
P.	Garage, 25' x 48'	1200
Q.	Hay Barn, 48' x 176'	8448
R.	Garage, 16' x 26'	416
S.	Silo	
T.*	Barn	6000
U.	Shed	60
V.	Water tank	
W.	Silo	
X.	Silo	
Y.	Fuel tank	

EXHIBIT NO.	3
APPLICATION NO.	2-01-021 McCLURE
Existing Dairy	
Complex (Pg. 1 of 2)	

EXHIBIT C

STRUCTURES MAP

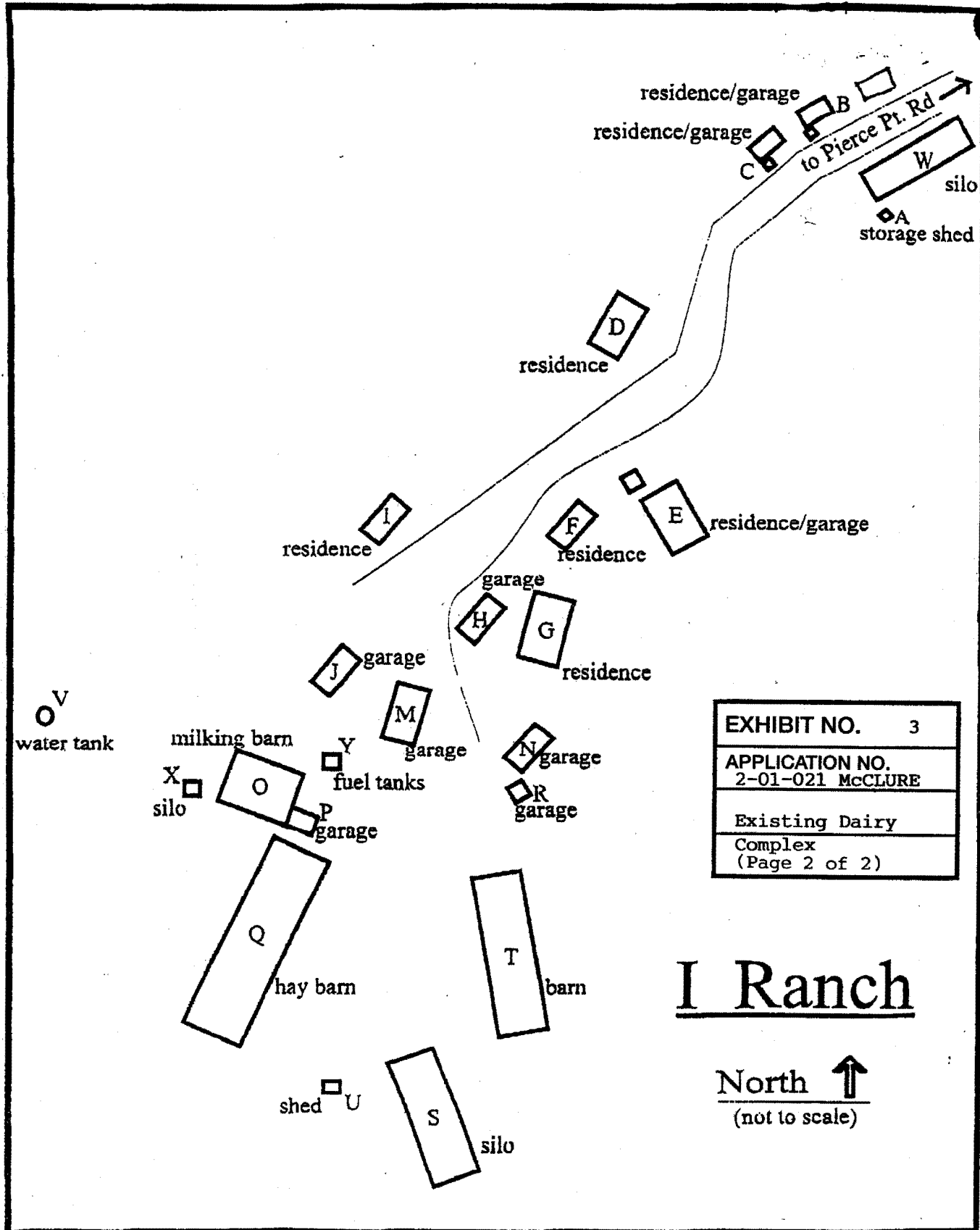
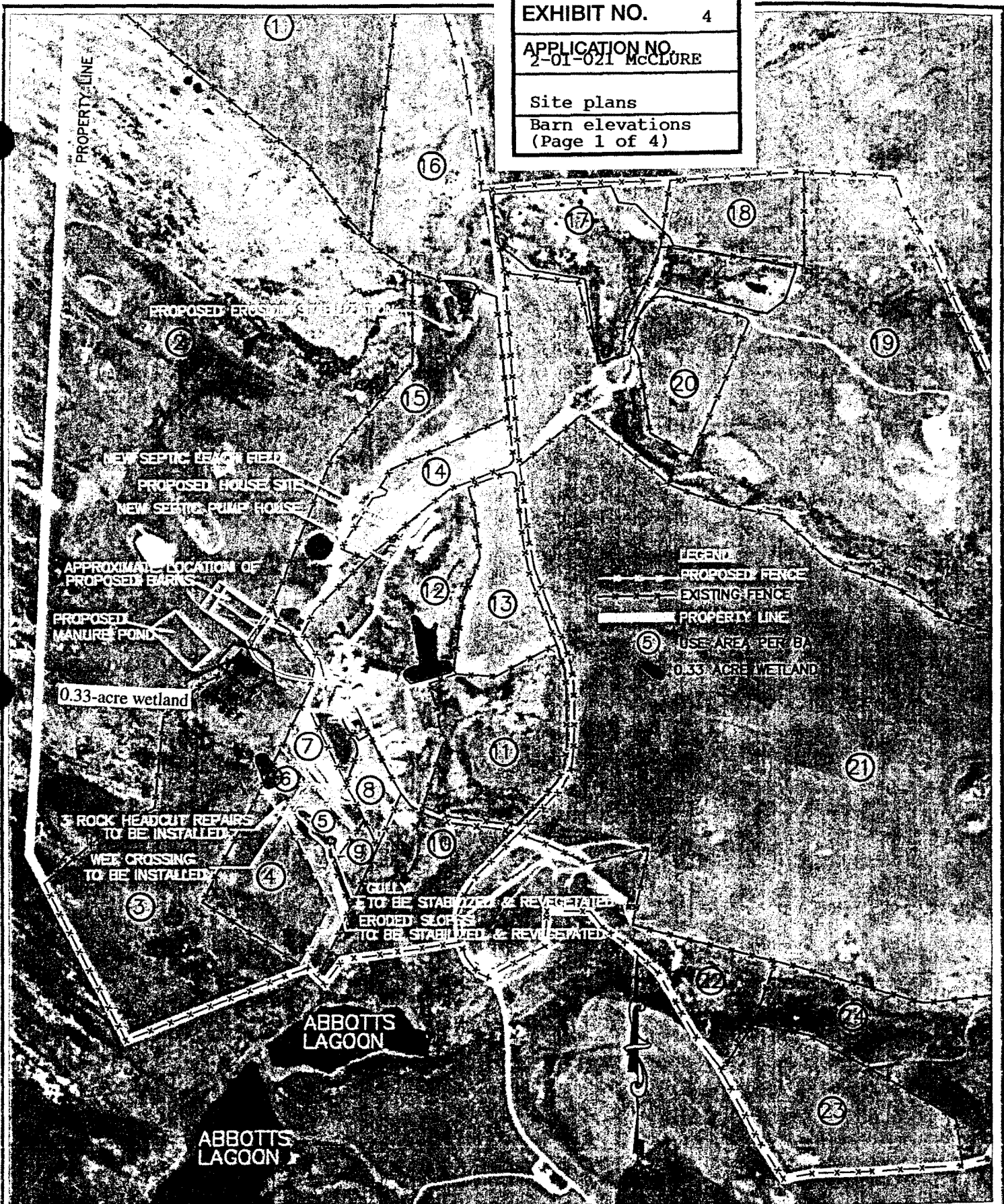


EXHIBIT NO.

4

APPLICATION NO.
2-01-021 MCCLURE

Site plans

Barn elevations
(Page 1 of 4)

PRUNUSKE CHATHAM, INC.

P.O. BOX 828
OCCIDENTAL, CA 95465
(707) 874-0100DATE: 05/14/02
SCALE: 1" = 1,000'
CHECKED BY: KL
DRAFTED BY: MJMcClure Dairy - I Ranch
Location of Proposed Barns,
Manure Pond & Restoration Activities
on aerial photo dated 1/31/00

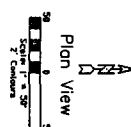
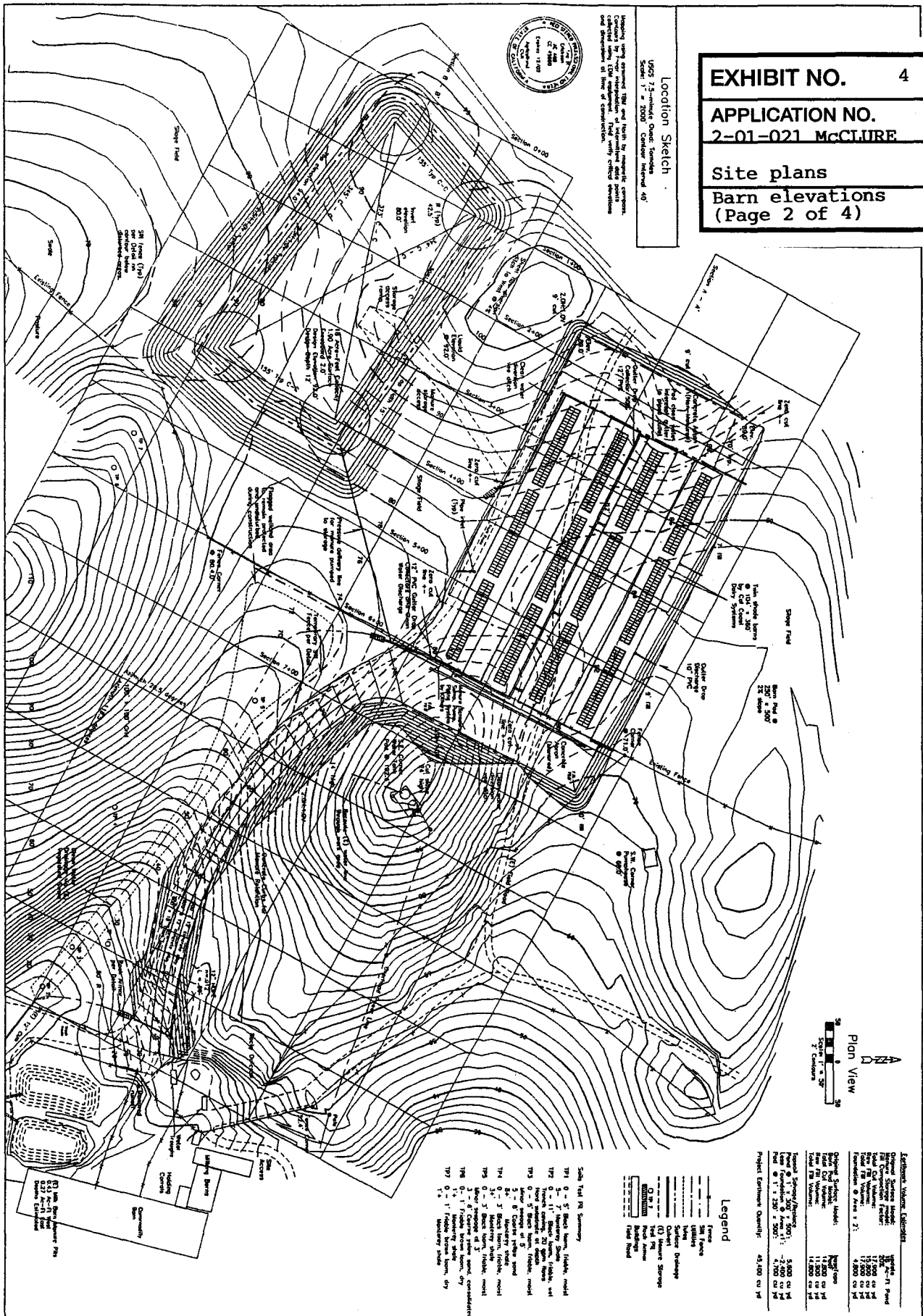
Exhibit

1

EXHIBIT NO.	4
APPLICATION NO.	2-01-021 McClure
Site plans	
Barn elevations	(Page 2 of 4)

Location Sketch

USGS 7.5-minute Quad: Toms River
 Scale: 1" = 2000' Contour Interval: 40'



Legend

- 12" Water Main
- 6" Water Main
- 4" Water Main
- 2" Water Main
- 12" Sewer Main
- 6" Sewer Main
- 4" Sewer Main
- 2" Sewer Main
- 12" Storm Sewer
- 6" Storm Sewer
- 4" Storm Sewer
- 2" Storm Sewer
- 12" Gas Main
- 6" Gas Main
- 4" Gas Main
- 2" Gas Main
- 12" Electric Main
- 6" Electric Main
- 4" Electric Main
- 2" Electric Main
- 12" Telephone Main
- 6" Telephone Main
- 4" Telephone Main
- 2" Telephone Main
- 12" Cable Main
- 6" Cable Main
- 4" Cable Main
- 2" Cable Main
- 12" Fire Main
- 6" Fire Main
- 4" Fire Main
- 2" Fire Main
- 12" Irrigation Main
- 6" Irrigation Main
- 4" Irrigation Main
- 2" Irrigation Main
- 12" Drainage Main
- 6" Drainage Main
- 4" Drainage Main
- 2" Drainage Main
- 12" Storm Sewer
- 6" Storm Sewer
- 4" Storm Sewer
- 2" Storm Sewer
- 12" Gas Main
- 6" Gas Main
- 4" Gas Main
- 2" Gas Main
- 12" Electric Main
- 6" Electric Main
- 4" Electric Main
- 2" Electric Main
- 12" Telephone Main
- 6" Telephone Main
- 4" Telephone Main
- 2" Telephone Main
- 12" Cable Main
- 6" Cable Main
- 4" Cable Main
- 2" Cable Main
- 12" Fire Main
- 6" Fire Main
- 4" Fire Main
- 2" Fire Main
- 12" Irrigation Main
- 6" Irrigation Main
- 4" Irrigation Main
- 2" Irrigation Main
- 12" Drainage Main
- 6" Drainage Main
- 4" Drainage Main
- 2" Drainage Main

Scale: 1" = 2000'

1. 12" Water Main

2. 6" Water Main

3. 4" Water Main

4. 2" Water Main

5. 12" Sewer Main

6. 6" Sewer Main

7. 4" Sewer Main

8. 2" Sewer Main

9. 12" Storm Sewer

10. 6" Storm Sewer

11. 4" Storm Sewer

12. 2" Storm Sewer

13. 12" Gas Main

14. 6" Gas Main

15. 4" Gas Main

16. 2" Gas Main

17. 12" Electric Main

18. 6" Electric Main

19. 4" Electric Main

20. 2" Electric Main

21. 12" Telephone Main

22. 6" Telephone Main

23. 4" Telephone Main

24. 2" Telephone Main

25. 12" Cable Main

26. 6" Cable Main

27. 4" Cable Main

28. 2" Cable Main

29. 12" Fire Main

30. 6" Fire Main

31. 4" Fire Main

32. 2" Fire Main

33. 12" Irrigation Main

34. 6" Irrigation Main

35. 4" Irrigation Main

36. 2" Irrigation Main

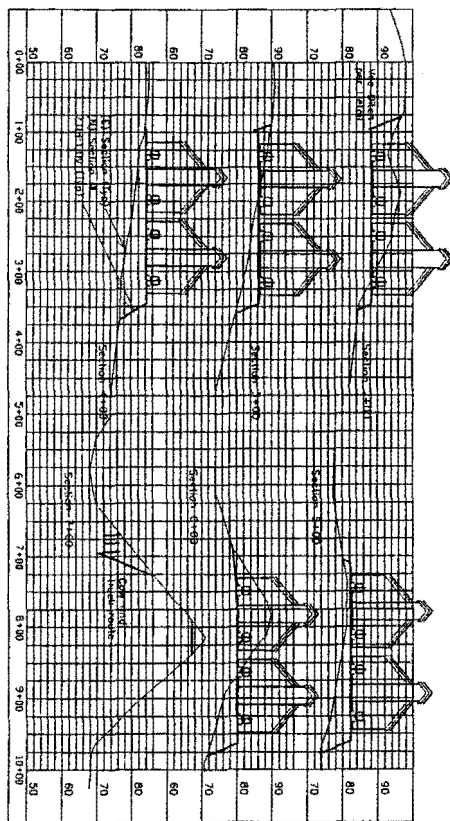
37. 12" Drainage Main

38. 6" Drainage Main

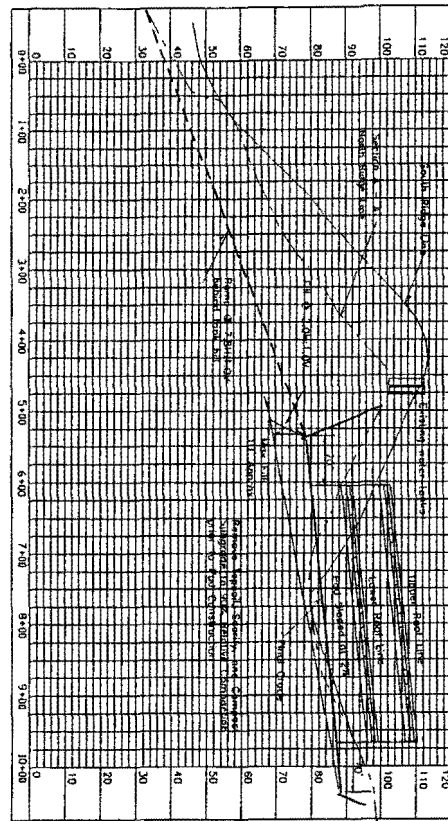
39. 4" Drainage Main

40. 2" Drainage Main

Quantity	Unit	Value
1. 12" Water Main	ft	100
2. 6" Water Main	ft	200
3. 4" Water Main	ft	300
4. 2" Water Main	ft	400
5. 12" Sewer Main	ft	100
6. 6" Sewer Main	ft	200
7. 4" Sewer Main	ft	300
8. 2" Sewer Main	ft	400
9. 12" Storm Sewer	ft	100
10. 6" Storm Sewer	ft	200
11. 4" Storm Sewer	ft	300
12. 2" Storm Sewer	ft	400
13. 12" Gas Main	ft	100
14. 6" Gas Main	ft	200
15. 4" Gas Main	ft	300
16. 2" Gas Main	ft	400
17. 12" Electric Main	ft	100
18. 6" Electric Main	ft	200
19. 4" Electric Main	ft	300
20. 2" Electric Main	ft	400
21. 12" Telephone Main	ft	100
22. 6" Telephone Main	ft	200
23. 4" Telephone Main	ft	300
24. 2" Telephone Main	ft	400
25. 12" Cable Main	ft	100
26. 6" Cable Main	ft	200
27. 4" Cable Main	ft	300
28. 2" Cable Main	ft	400
29. 12" Fire Main	ft	100
30. 6" Fire Main	ft	200
31. 4" Fire Main	ft	300
32. 2" Fire Main	ft	400
33. 12" Irrigation Main	ft	100
34. 6" Irrigation Main	ft	200
35. 4" Irrigation Main	ft	300
36. 2" Irrigation Main	ft	400
37. 12" Drainage Main	ft	100
38. 6" Drainage Main	ft	200
39. 4" Drainage Main	ft	300
40. 2" Drainage Main	ft	400



Profiles on Pad Axis
Scale: 1" = 80' Horizontal 1" = 25' Vertical



Manure Storage Sections

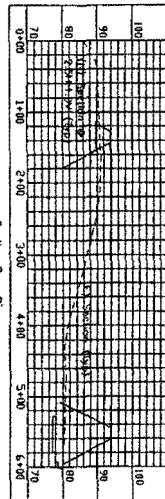
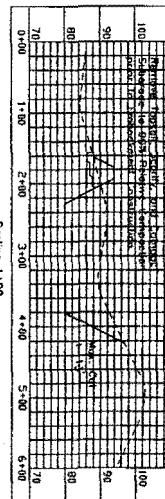
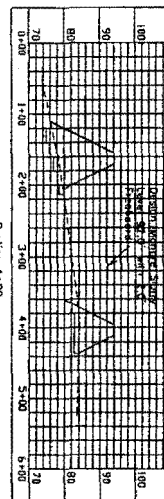


EXHIBIT NO.	4
APPLICATION NO.	2-01-021 McCLURE
Site plans	
Barn elevations	
(Page 3 of 4)	

McClure Dairy - I Ranch
4101 Pierce Point Road
Inverness CA 94937

Dual 332-Cow Stall/Feed Barn
18 Acre-Foot Manure Storage
Profile Views. APN 109-060-001

Erickson Engineering Inc.
Valley Ford CA 94972-0446
707/795-2498 Voice/Fax

Scale: As Shown
Date: March 12, 2002
By: URE
Revised:
Sheet: 2 of 4

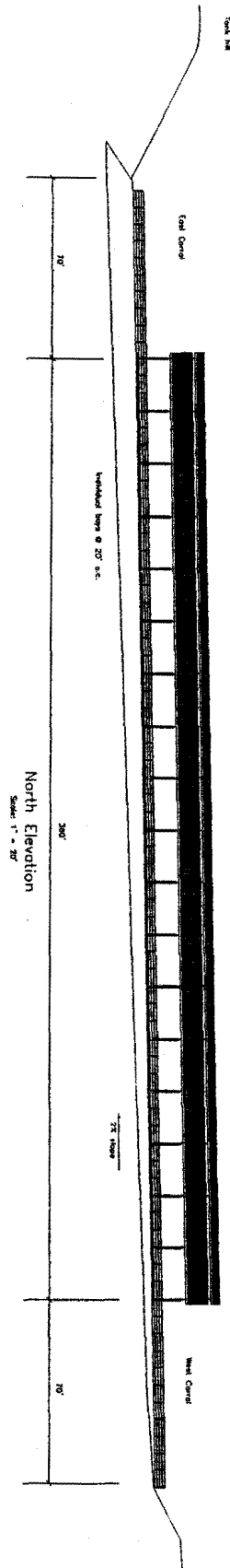


EXHIBIT NO.	4
APPLICATION NO.	2-01-021 MCCLURE
Site plans	
Barn elevations	
(Page 4 of 4)	

McClure Dairy - I Ranch
4101 Pierce Point Road
Inverness CA 94937

Dual 332-Cow Stall/Feed Barns
Elevation Views
APN 109-060-001

Erickson Engineering Inc.
Valley Ford CA 94972-0446
707/795-2498 Voice/Fax

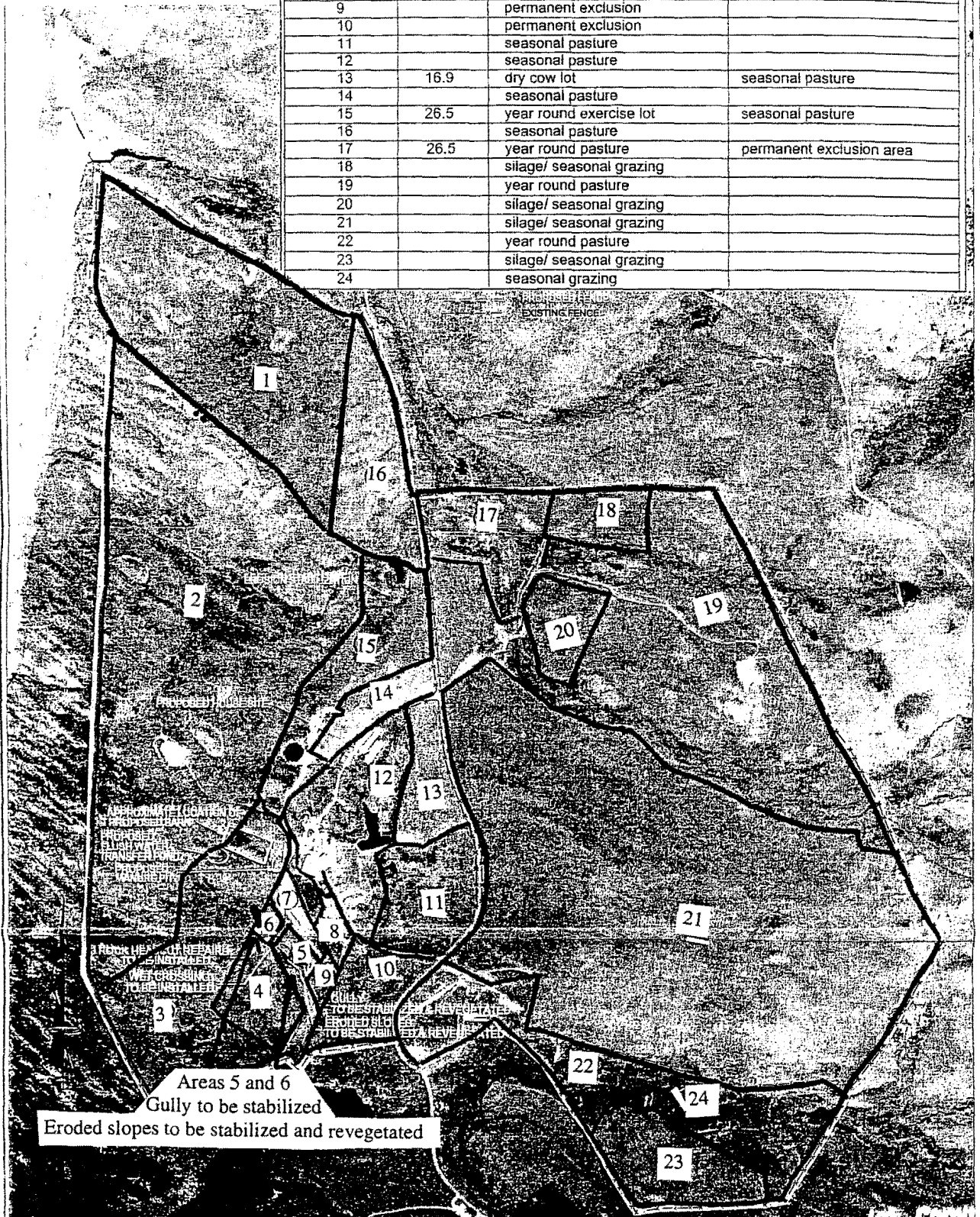
Scale: Noted
Date: March 12, 2002
By: LRE
Revised:
Sheet: 3 of 4

EXHIBIT NO. 5

APPLICATION NO.
2-01-021 McCLURERestoration
activities

LEGEND

AREA NUMBER	ACREAGE	EXISTING USE	PROPOSED NEW MANAGEMENT
1		silage/ seasonal grazing	
2		seasonal pasture	
3		seasonal pasture	
4	15.8	year round exercise lot	seasonal pasture
5	7.5	year round feedlot/ exercise lot	permanent exclusion area
6	1.7	year round feedlot/ exercise lot	permanent exclusion area
7	6	year round feedlot	seasonal exercise lot
8	4.3	year round lot	seasonal exercise lot
9		permanent exclusion	
10		permanent exclusion	
11		seasonal pasture	
12		seasonal pasture	
13	16.9	dry cow lot	seasonal pasture
14		seasonal pasture	
15	26.5	year round exercise lot	seasonal pasture
16		seasonal pasture	
17	26.5	year round pasture	permanent exclusion area
18		silage/ seasonal grazing	
19		year round pasture	
20		silage/ seasonal grazing	
21		silage/ seasonal grazing	
22		year round pasture	
23		silage/ seasonal grazing	
24		seasonal grazing	

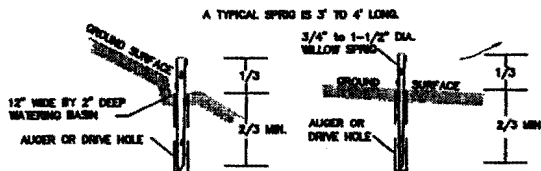
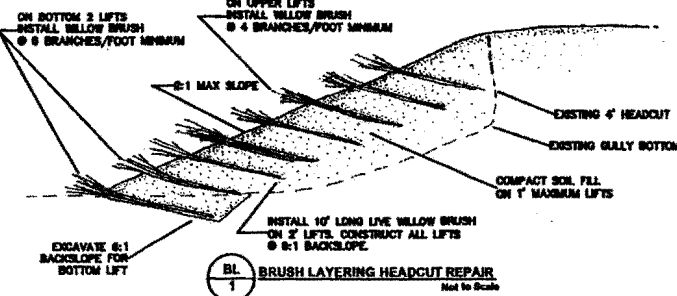
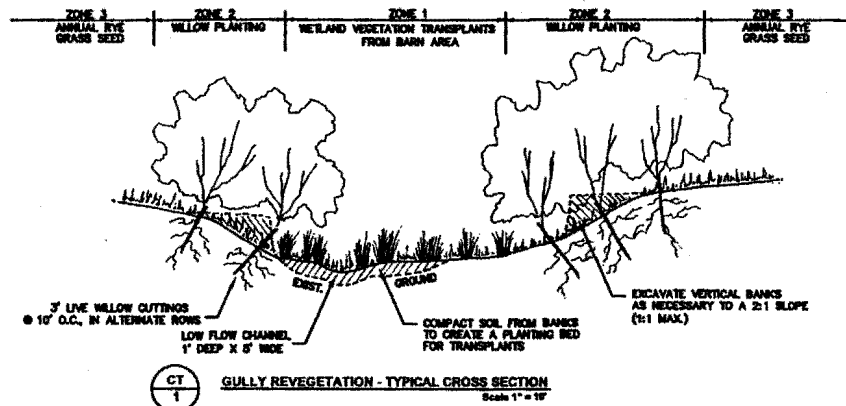
PRUNUSKE CHATHAM, INC.
P.O. BOX 828
OCCIDENTAL, CA 95465
(707) 974-0100DATE: 3/15/01
SCALE: 1" = 1,000'
CHECKED BY: MN
DRAFTED BY: FA

REVISIONS	DATE	BY

McClure Dairy - I Ranch
Barn and Resource Enhancement Project
Point Reyes National Seashore
on aerial photo dated 1/31/00

FIGURE

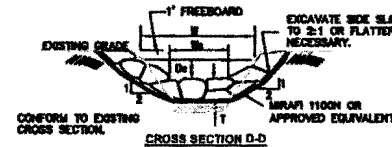
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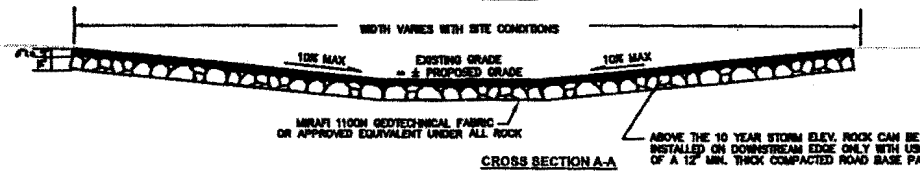
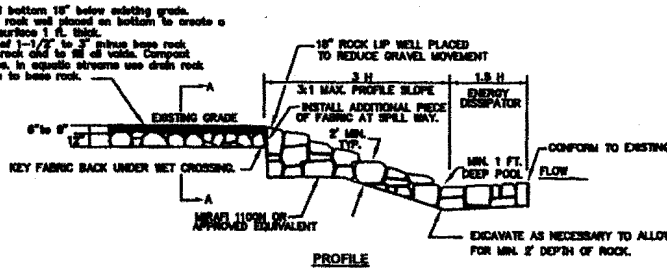
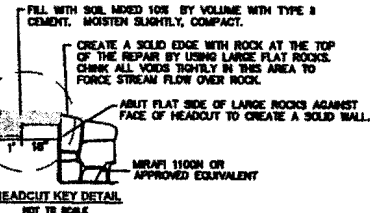
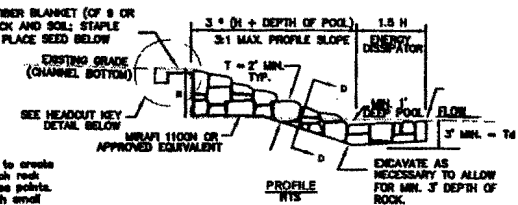
1. CUT AND INSTALL WILLOW SPRIGS AFTER WILLOWS HAVE GONE DORMANT, GENERALLY DECEMBER TO FEBRUARY.
2. SPRIGS SHOULD BE CUT AND INSTALLED ON THE SAME DAY. KEEP THE SPRIGS COVERED AND MOIST CONTINUALLY DURING TRANSPORT. IF STORED OVERNIGHT, SPRIGS MUST BE IMMERSUED IN WATER.
3. SPRIGS SHOULD BE 5/8" TO 1-1/2" DIAMETER AND THREE FEET LONG MINIMUM.
4. A LEAD HOLE SHOULD BE AUGERED OR DRIVEN EQUIVALENT TO 2/3 THE DEPTH OF THE SPRIG.
5. CUT THE TOP OF EACH SPRIG SQUARE AND THE BOTTOM PLANTED TO INSURE THE PROPER END IS PLACED DOWN. BLDS MUST BE PORTED UP.
6. TRIM ALL BRANCHES OFF OF SPRIG WITH LOPPERS OR HAND PRUNERS BEFORE PLANTING.
7. IF AUGER IS USED TO DRILL HOLES, COMPACT FILL IN 6" LIFTS.
8. LOCATION OF WILLOW SPRIGS TO BE STAKED AND PIN PLACED IN FIELD BY REVEGETATION SPECIALIST BEFORE PLACEMENT OF ANY WILLOWS.
9. WILLOW SPRIGS MUST BE ALIVE AT TIME OF INSTALLATION.

LS 1 LIVE STAKING (WILLOW SPRIG PLANTING) DETAILS
Not to Scale

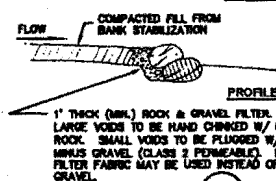
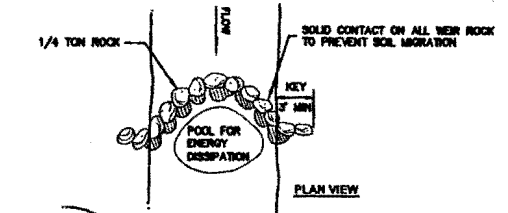
- NOTES:**
1. The objective in placing rock is to create an interlocking matrix, with each rock supported at a minimum of three points. Fill voids between large rock with gravel rock and soil. Rock shall have a specific gravity of 2.8 minimum. Rock gradation shall be well graded 6" to 18" rock.
 2. Fabric should be installed in one piece. Install loosely to allow it to move into voids as rock is placed. Place rock fill slowly and carefully, hand shift as needed, do not tear the filter fabric during placement.
 3. The rock channel sides shall be placed at 2:1 or flatter.
 4. Definitions:
H = The original height of headcut.
D = The original width of headcut.
Dc = The designed min. depth of rock channel.
S = The designed min. bottom width of rock channel.
T = The thickness of rock.
Td = The depth of rock toe.
 5. Apply seed and mulch to all disturbed areas.



PLACE WELL GRADED 6" TO 18" ROCK. FILL ROCK VOIDS WITH SOIL AND COMPACT AS CONSTRUCTION PROGRESSES.



WX 1 ROCK AND GRAVEL WET-CROSSING WITH ROCK HEADCUT REPAIR
STANDARD SPECIFICATION
Not to Scale



RW 1 ROCK WEIR GRADE CONTROL
Not to Scale

PRUNUSKE CHATHAM, INC.

P.O. BOX 828
OCCIDENTAL, CA 95465
(707) 874-0100

DATE: 3/4/02
SCALE: as shown
CHECKED BY: TL
DRAFTED BY: MJ

McClure Dairy - Pt. Reyes National Seashore
/ PLANTING PLAN
DETAILS

Figure
2

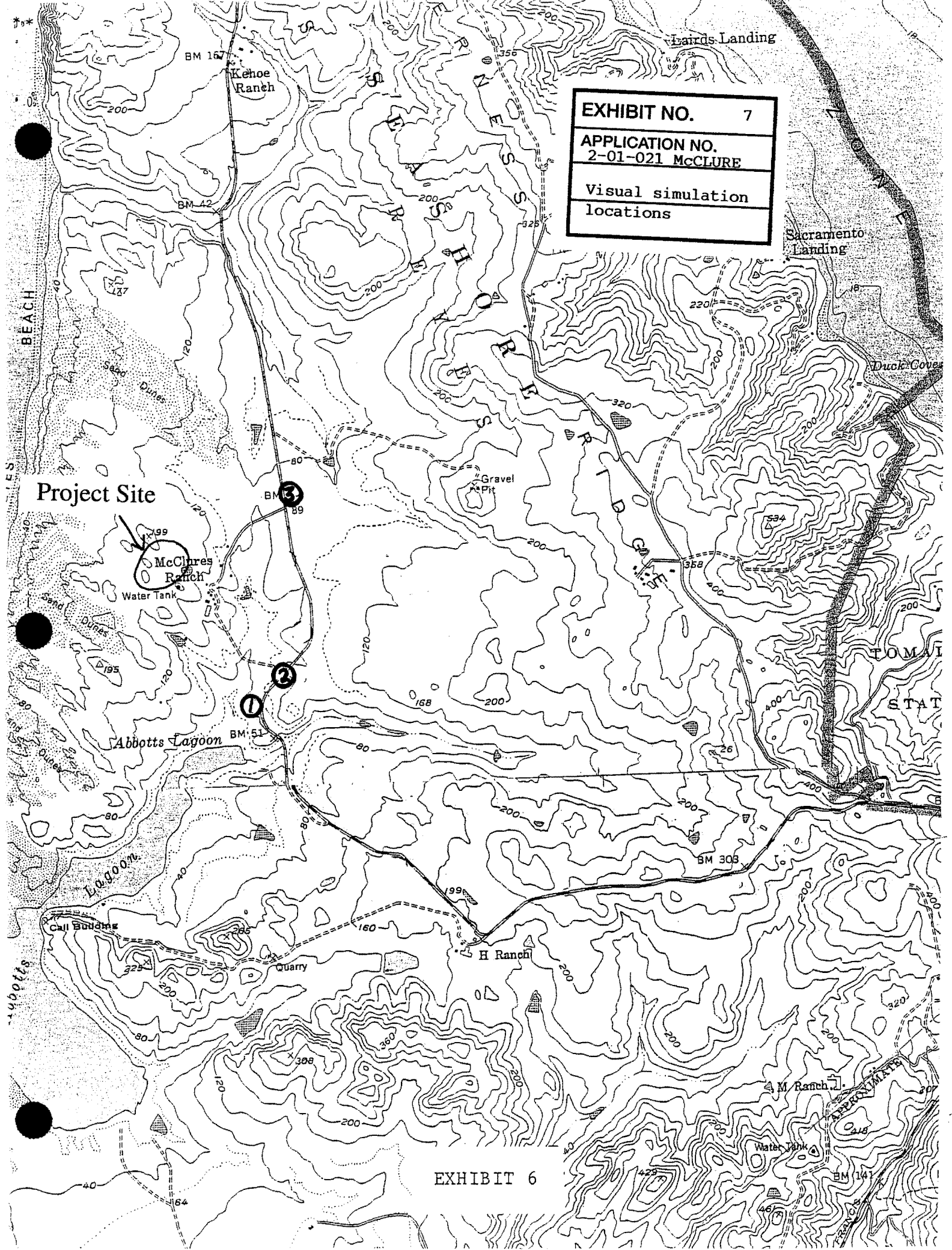


EXHIBIT NO. 7

APPLICATION NO.
2-01-021 McCLURE

Visual simulation
locations

EXHIBIT 6

Proposed Freestall Barns

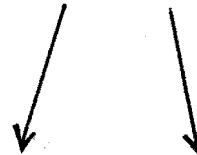


EXHIBIT NO.	8
APPLICATION NO.	2-01-021 McCLURE
Visual simulation 1	

Proposed Freestall Barns



EXHIBIT NO. 9

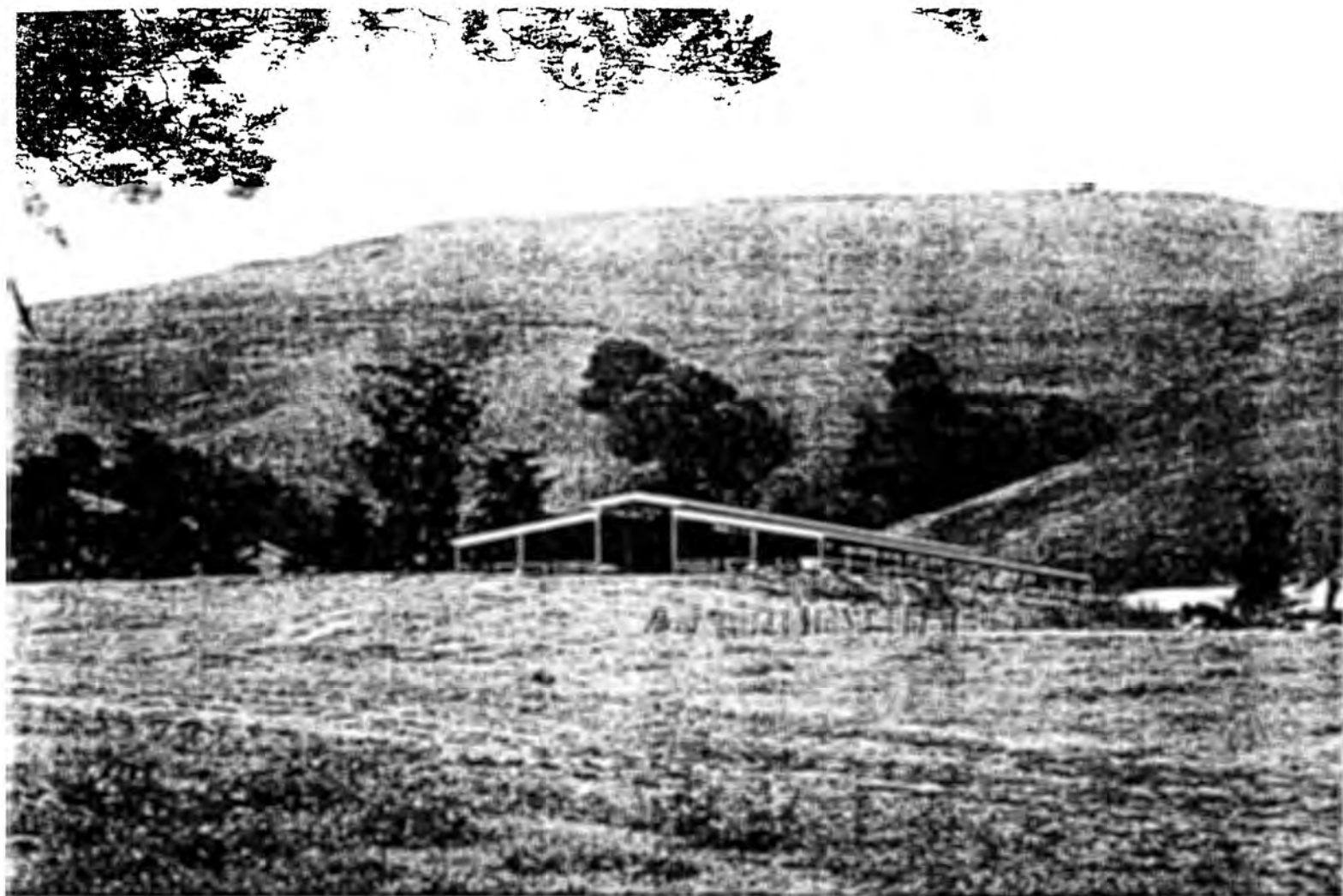
APPLICATION NO.
2-01-021 McCLURE

Visual simulation 2

Proposed Freestall Barn



EXHIBIT NO.	10
APPLICATION NO.	
2-01-021 McCLURE	
Visual simulation 3	



22,880-square-foot freestall barn in Point Reyes area
(104 feet wide & 220 feet long)

EXHIBIT NO. 11
APPLICATION NO. 2-01-021 McCLURE
Freestall Barn elevations



EXHIBIT NO. 12

APPLICATION NO.
2-01-021 McCLURE

Photographs of
feeding exercise
lots

McClure Dairy Water Quality Sample Locations

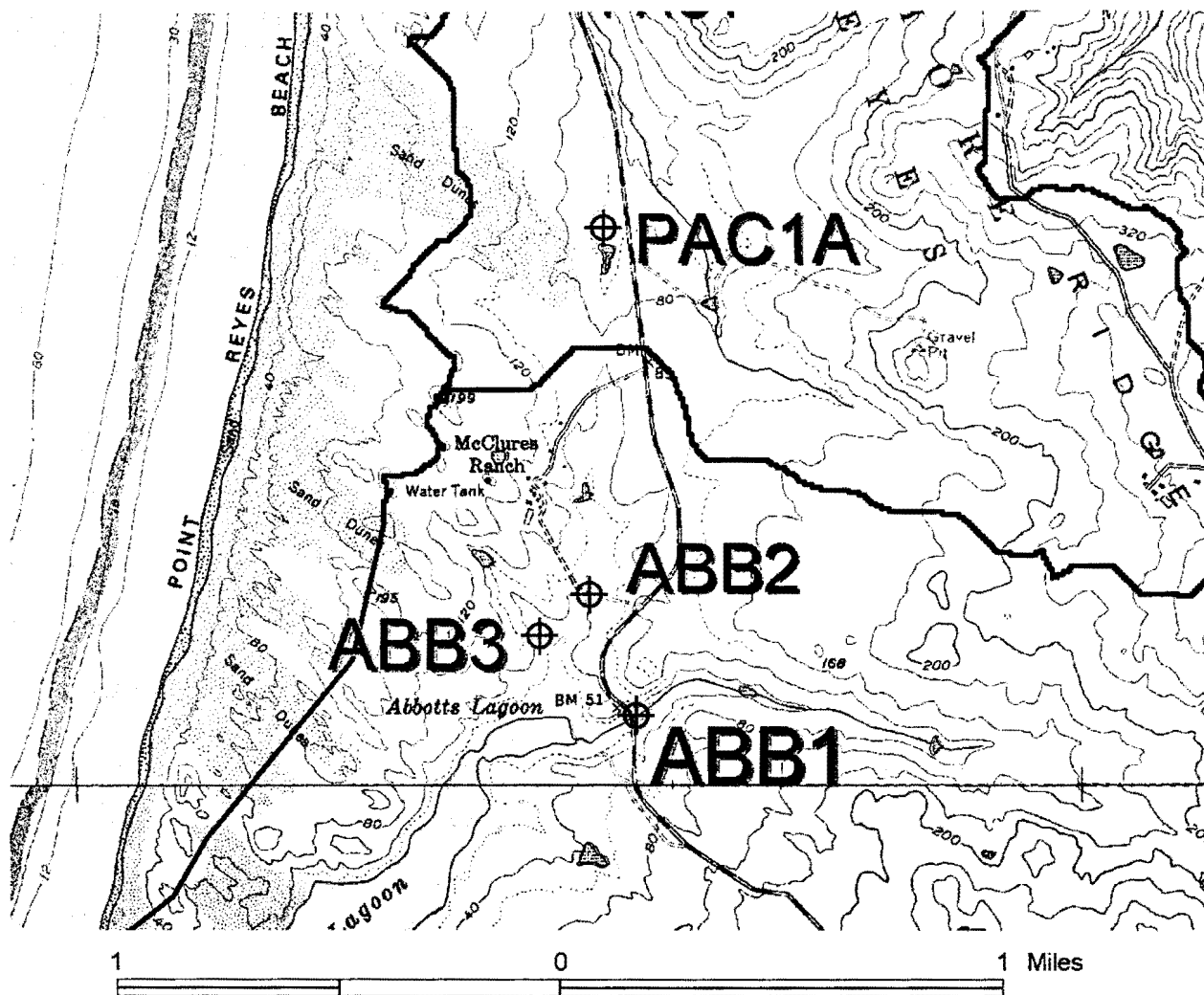


EXHIBIT NO. 13

APPLICATION NO.
2-01-021 McCLURE

Map of McClure
Dairy Water

Quality Sample
Locations



Point Reyes National Seashore

Ambient Water Quality Site Report for McClures Dairy Swale

Station	Location	Date	Water Temp. C	Specific Conductance	Salinity	pH	DO	Nitrate (mg/L)	Orthophosphorous (mg/L)	Ammonia (mg/L)	Total Suspended Solids (mg/L)	Total Coliform (MPN)/100ml	Fecal Coliform
ABB3	McClures Dairy Swale												
		1/23/2002	14.3	429.1	0.2	6.8	8.0	11		5.2		160,000	160,000
		2/19/2002	11.2	400.0	0.2	7.1	8.0	4.2		10	Toxic	>= 1,600,000	>=1,600,000
Average		2	12.8	415	0.2	6.9	8.0	7.60		7.6		880,000	880,000
Maximum			14.3	429	0.2	7.1	8.0	11.00		10.0		1,600,000	1,600,000
Minimum			11.2	400	0.2	6.8	8.0	4.20		5.2		160,000	160,000

EXHIBIT NO. 14
APPLICATION NO. 2-01-021 MCCLURE
Water Quality monitoring results at ABB2 & ABB3 (Page 1 of 2)



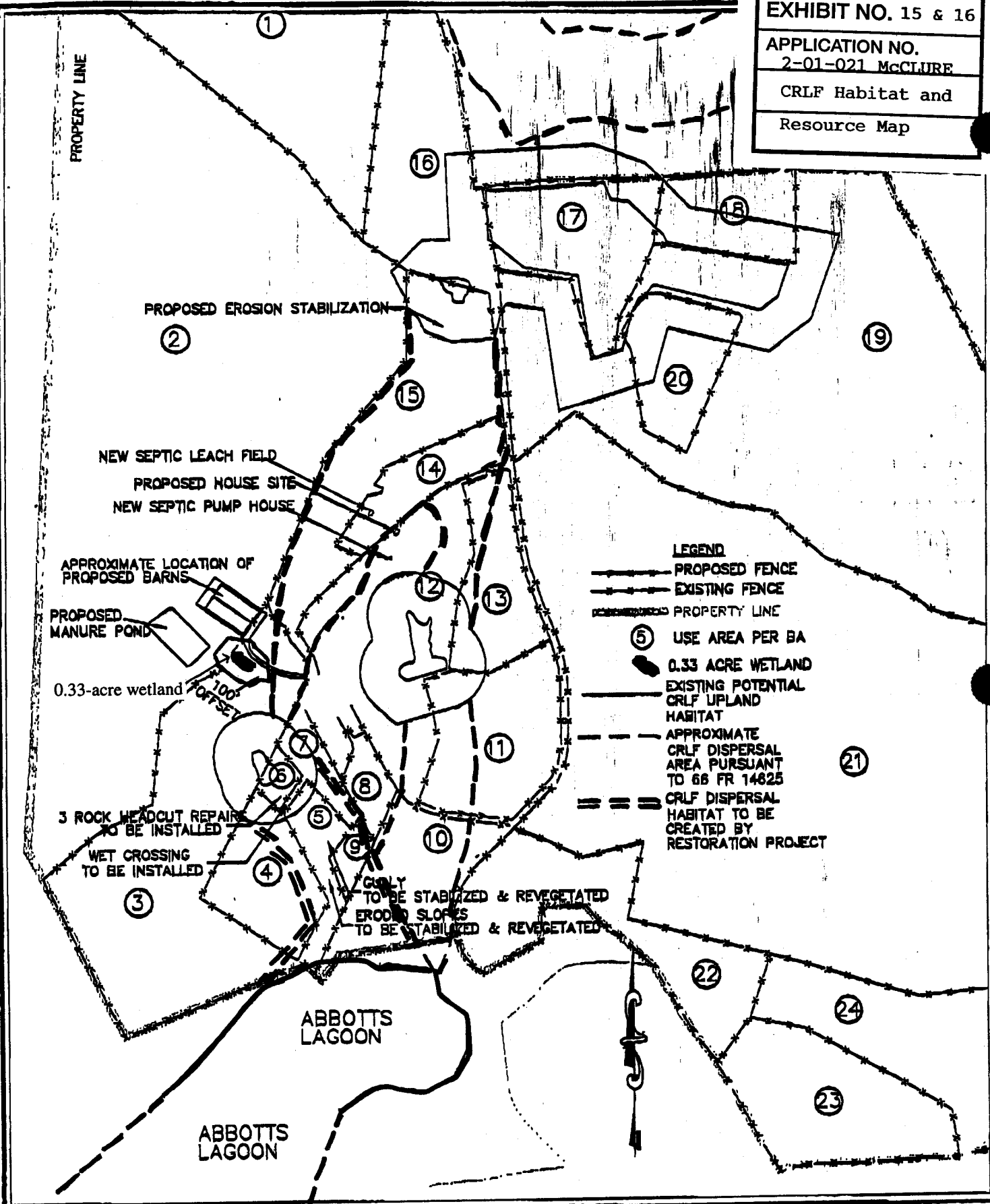
Point Reyes National Seashore

Ambient Water Quality Site Report for McClures Ranch

Station	Location	Date	Water Temp. C	Specific Conductance	Salinity	pH	DO	Nitrate (mg/L)	Orthophosphorous (mg/L)	Ammonia (mg/L)	Total Suspended Solids (mg/L)	Total Coliform (MPN)/100ml	Fecal Coliform
ABB2	McClures Ranch												
		3/6/2001	11.3	384.2	0.2	7.3	7.2	3.9	1.8		20	50,000	16,000
		4/24/2001	12.5	299.0	0.1	7.2	7.6	3		0.2	18	24,000	24,000
		7/25/2001	14.2	239.5	0.1	7.5	6.0	4.2		< 0.2	14	24,000	7,900
		10/10/2001	12.6	235.0	0.1	7.9	8.1	4.6		0.3	49	3,000	3,000
		1/23/2002	9.5	315.6	0.2	6.6	8.7	5.9		< 0.2		≥ 16,000	≥ 16,000
		2/19/2002	11.1	349.0	0.2	6.8	8.9	3.9		0.9		≥ 1,600	≥ 1,600
Average		6	11.9	304	0.1	7.2	7.8	4.25	1.8	0.4	25.3	19,767	11,417
Maximum			14.2	384	0.2	7.9	8.9	5.90	1.8	0.9	49.0	50,000	24,000
Minimum			9.5	235	0.1	6.6	6.0	3.00	1.8	0.2	14.0	1,600	1,600

EXHIBIT NO. 14
APPLICATION NO.
2-01-021 MCCLURE
Water Quality
monitoring results
at ABB2 & ABB3
(Page 2 of 2)

EXHIBIT NO. 15 & 16
 APPLICATION NO.
 2-01-021 McClure
 CRLF Habitat and
 Resource Map



PRUNUSKE CHATHAM, INC.
 P.O. BOX 828
 OCCIDENTAL, CA 95465
 (707) 874-0100

DATE: 05/22/02
 SCALE: 1" = 1,000'
 CHECKED BY: KL
 DRAFTED BY: MJ

McClure Dairy - I Ranch
 Potential Existing and Proposed
 CRLF Habitat Areas
 on aerial photo dated 1/31/00

Exhibit
 2

Correspondence

Golden Gate National Recreation Area and Point Reyes National Seashore

C I T I Z E N S '
A D V I S O R Y C O M M I S S I O N

Building 201, Fort Mason, San Francisco, CA 94123

November 20, 2001

Peter Douglas
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Re: Point Reyes National Seashore

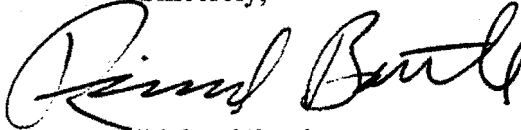
Dear Mr. Douglas:

During our May meeting, the Point Reyes and Golden Gate Citizens' Advisory Commission voted unanimously to support the construction of a loafing barn at the historic I Ranch (McClure Ranch) within Point Reyes National Seashore. This vote was taken after several public meetings on the project and a thorough review of the I Ranch Barn Environmental Assessment.

This Commission believes the project will greatly enhance water quality in adjacent riparian areas and Abbotts Lagoon. In turn, it provides a way to ensure the economic viability of historic ranching in the park.

We want to encourage the Coastal Commission to support the project and expedite the processing of the permit. We appreciate and applaud your efforts to protect our precious coastal heritage. We realize your Commission has an incredible challenge to protect coastal resources and to ensure future public access to those resources. If you have any questions, please do not hesitate to contact me.

Sincerely,



Richard Bartke
Chairman

RHB/lr
GGNRA\Letters\Douglas_01

Richard Bartke, *Chair* · Amy Meyer, *Vice Chair* · Michael Alexander · Susan Giacomini Allan · Gordon Bennett
Anna-Marie Booth · Betsey Cutler · Redmond Kernan · Fred Rodriguez · Yvonne Lee
Doug Nadeau · Trent Orr · Lennie Roberts · Dennis Rodoni · Doug Siden · John J. Spring · Edgar Wayburn, M.D.