CALIFORNIA COASTAL COMMISSION
45 FREMONT STREET, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE AND TDD (415) 904-5200

F5a

STAFF REPORT ADDENDUM

Prepared July 10, 2008 (for July 11, 2008 hearing)

To: Coastal Commissioners and Interested Persons

From: Christina Cairns, Analyst, Energy, Ocean Resources and Federal Consistency Division

Subject: STAFF REPORT ADDENDUM for Item F5a

Coastal Development Permit E-07-011 (Whole Energy Fuels Corp., San Mateo County, Biodiesel Production Facility at Calera Creek Wastewater Recycling Plant site)

Staff is correcting information in the original staff report mailed for this agenda item. Proposed new language is shown in underline text; language to be deleted is shown in ~~strikeout~~ text. Language suggested by persons other than staff is italicized.

Additional information from the applicant, as well as Commissioner ex parte communications, public comment letters and letters received from two law firms representing the City of Pacifica and the Quarry owner (to be included in staff report as Exhibit H), since the publication of the staff report are also included in the Addendum packet.

Based on this new information, staff is recommending the following revisions to the staff report:

Summary Project Description, page 1, middle of page:

"A~~n 800~~ 350 HP boiler and a 35 kW co-generator (to be fueled with biodiesel product) will be located ~~adjacent to the new building~~ within the new building."

Executive Summary, page 2, end of first paragraph:

"A boiler and a co-generator to provide heat energy for the processing will be located ~~adjacent to the new building~~ within the new building in a separate area from the biodiesel processing equipment, based on planning with fire and structural engineers. The boiler will be 350 HP, or 900,000 Btu."

Executive Summary, page 4, middle of first paragraph:

"Based on this analysis, it appears the BPF will produce approximately 352 metric tons per year of CO_2 and near negligible amounts of other greenhouse gases; ~~however, 99%~~ a certain amount of these emissions will be removed through the CCWRP soil scrubber process, depending on the amount of carbon consumed by the microorganisms in the soil scrubbers."

Special Conditions, page 8:
Add the following additional special condition:

17. **"Disposal of Glycerin**. By December 31st of each year, the applicant shall provide for Executive Director review and approval an annual report on the percentage of glycerin by-product that is sold and disposed of and the location of the disposal, if any. If glycerin is disposed of within the coastal zone, the applicant shall apply for an amendment to this permit for the existing disposal and for any future disposal that may occur."

Project Description, page 9:

"The facility includes twelve tanks in the 2,000 to 12,000 gallon range containing materials required for or produced by the biodiesel production process, including: used cooking (vegetable) oil, wash water, glycerin, methanol, and sodium and/or potassium methylate~~, and sulfuric acid~~. "
……
"Exhaust gas from these units will be piped into the BPF where it will be connected to the base of the used vegetable oil (feedstock) tank to allow emissions to bubble up through the waste oil to remove particulates and Volatile Organic Compounds (VOCs). Whole Energy estimates that up to 99% of particulate matter and VOCs will be absorbed through this oil scrubbing process. From the top of the oil tank, the remaining gases will mix with the ventilation air in a manifold before being drawn by a blower through an underground exhaust duct that is linked to the biological soil scrubbers located on the roof of the CCWRP. ~~Whole Energy estimates that the use of the scrubber devices will reduce BPF emissions of carbon dioxide and other GHGs, as well as methanol vapors, particulate matter and odors by up to 99%."~~

Project Description, page 12, top of page:

"Whole Energy, which has built several other biodiesel ~~wastewater treatment plants~~ in Washington state, states that wastewater facilities are suitable candidates for co-location as they readily provide water for biodiesel processing and treatment equipment for wastewater as well as air emissions, in this case, with biological scrubber systems."

Biological Resources (ESHA), page 13:

"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.

……The lower reaches of Calera Creek and its associated wetlands were restored under the permit for the CCWRP (1-95-040), which included significant re-alignment and re-grading activities to re-establish the creek and its functionality~~; the original creek bed had been filled as a result of grading activities conducted by the previous quarry owner (see 1-95-040)~~.

……The Commission considers Calera Creek and the upland areas within 300 feet, including the settlement ponds, to be environmentally sensitive habitat area (ESHA, see Exhibit D) per the definition found under Coastal Act Section 30107.5 due to the presence of a federally threatened species, the California red-legged frog (CRLF)."

Biological Resources (ESHA), page 14, paragraph 4:

"Operational noises at the BPF would consist of sounds from the loading and unloading of materials from delivery trucks in the loading area and from the operation of the 50 HP (35 kW) generator and ~~800~~ 350 HP boiler. The ~~200 HP of noise-producing~~ noise from equipment in the BPF will likely be non-detectable from outside the insulated building~~; the generator and boiler would be separately housed within an insulated container to minimize noise impacts~~. Whole Energy is seeking to eventually upgrade the generator to 800 HP, pending approval by the BAAQMD, which would result in a noise level of approximately 70-75 dBA, or the equivalent of an idling truck engine inside the insulated shed. The ~~800~~ 350 HP boiler is essentially a water heater and would not generate considerable noise. "

Biological Resources (ESHA), page 14, footnote 8 at end of first paragraph:

"[8] The Commission received a comment letter on July 8, 2008, from Shute, Mihaly & Weinberger LLP, representing the City of Pacifica, which recommends two clarifications of the staff report (see Exhibit H for letter). The Commission concurs with and has made the first recommended change to remove mention of who filled the original Calera Creek bed. The Commission declines to adopt the second suggested change to the staff report recommended by Shute, Mihaly & Weinberger LLP consisting of omitting staff's recommended ESHA designation for Calera Creek and the adjacent wetlands because the Commission did not include this area as ESHA under the previous permit for the CCWRP (1-95-040). With regard to designating the riparian areas adjacent to the CCWRP as ESHA, staff points to data in the January 2007 Swaim report that clearly demonstrates these areas currently support California red-legged frogs; therefore, these habitats qualify as environmentally sensitive habitat areas (ESHA) as defined under Section 30107.5. This designation applies for the proposed project regardless of the previous status of the area when the CCWRP was permitted in 1995. The letter from Shute, Mihaly & Weinberger LLP also recommends that the Commission delay its ESHA determination of the subject area until such time as a development is proposed in the vicinity of Calera Creek and its associated wetlands that may pose adverse impacts. As stated elsewhere in the biological resources section and the hazardous material spills section, staff believes that the proposed biodiesel facility may pose potential adverse impacts to Calera Creek and the wetlands adjacent to the CCWRP due to the threat of hazardous spills. The Commission therefore believes that it is appropriate to consider the ESHA when evaluating a permit application for this proposed development.

A separate letter from Luce, Forward, Hamilton & Scripps LLP (representatives of the Peebles Pacific Development Company, owners of the Pacifica Quarry) received on July 8, 2008, posits similar concerns with the staff report findings (see Exhibit H for letter). Luce Forward states they believe that the staff findings regarding the restoration of Calera Creek and its wetlands are misleading. The Commission disagrees with the need to revise the staff report findings regarding the restoration of Calera Creek as recommended by Luce Forward, but has deleted reference to the filling in of the original Calera Creek bed originally included on page 13. Calera Creek was realigned under the permit for the CCWRP (1-95-040) following previous grading in the area; as a result, the functionality of the creek and associated wetlands was re-established and habitat restored, as intended under the CCWRP permit. Luce Forward also contests the inclusion of the ESHA designation in the staff report findings for biological resources and recommends instead referencing the open space deed restriction over an approximate 8 acre, upland hillside habitat area located west of the CCWRP required under 1-95-040. The Commission declines to adopt the second suggested change to the staff report recommended by Luce Forward and believes the open space deed restriction required under the permit for the CCWRP does not address the issue of potential impacts to ESHA from the proposed biodiesel project, which must be evaluated separately from the potential impacts of the CCWRP."

Hazardous Material Spills, page 16:

"The BPF will also use an existing, permitted 5,000 gallon tank inside the CCWRP to store 500 gallons of sulfuric acid."

……

"Methoxides, such as potassium methylate, are also highly corrosive and can react explosively with water. The applicant proposes using a 30% methoxide-methanol blend to reduce the chemical's reactivity with water and risk of explosion."

Water Quality, page 20:

"The CCWRP is designed so that all treated water drains into ~~the settlement ponds~~ Calera Creek and the adjacent wetlands for tertiary treatment (see Figure 2 below) and then ~~into and~~ eventually ~~Calera Creek and~~ the Pacific Ocean; this system provides a continuous source of treated freshwater to Calera Creek and the wetlands that had previously been graded over (see original EIR for water quality impacts created and mitigated by the CCWRP, including increased nutrient levels and decreased oxygen levels due to the discharge of treated sewage effluent into Calera Creek and near-shore marine environments). Wastewater from the BPF will be reclaimed and treated at the wastewater plant before flowing out with the rest of the treated water to ~~the settlement ponds~~ Calera Creek and the adjacent wetlands."

CALIFORNIA COASTAL COMMISSION
45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105- 2219
VOICE AND TDD (415) 904- 5200
FAX (415) 904- 5400

F5a

Date Filed:	6/11/08
49th Day:	7/30/08
180th Day:	12/08/08
Staff:	C. Cairns-SF
Staff Report:	6/19/08
Hearing Date:	7/11/08

STAFF REPORT: REGULAR CALENDAR

CDP Application No.: **E-07-011**

Applicant: **Whole Energy Fuels Corp.**

Project Location: 700 Coast Highway, Pacifica, CA 94044
Approx. 1700 feet east of the Pacific Ocean, adjacent to Mori Point, City of Pacifica, San Mateo County.

Project Description: Construct a 3 million gallon-per-year biodiesel production plant at the Calera Creek Wastewater Recycling Plant (CCWRP) within the City of Pacifica, including installation of a 40 ft. by 100 ft. by 35 ft. warehouse on a pre-existing concrete slab containing a biodiesel production unit and various holding and settling tanks. An 800 HP boiler and a 35 kW co-generator (to be fueled with biodiesel product) will be located adjacent to the new building.

- **Exhibit A:** Map & Coastal/Aerial Views with Project Location
- **Exhibit B:** Site Plan
- **Exhibit C:** Process Floor Plan/Elevation
- **Exhibit D:** Wetland/ESHA Areas
- **Exhibit E:** Visual Simulations
- **Exhibit F:** Applicant response letter to staff, 4/25/08
- **Exhibit G:** Applicant response letter to staff, 5/8/08

Substantive File Documents:

- E-07-011 Coastal Development Permit Application, Whole Energy Fuels Corp.
- TRA Consulting, Pacifica Wastewater Facilities Plan EIR, Addendum 3 (Jan. 2008)
- Swaim Biological, Inc., Status of the San Francisco Garter Snake at Pacifica Quarry (Jan. 25, 2007)

Executive Summary

Whole Energy Fuels Corporation (Whole Energy) is proposing to install a biodiesel production facility (BPF) onsite at the existing Calera Creek Wastewater Recycling Plant (CCWRP), located immediately west of Highway 1 in Pacifica (see Exhibit A). The BPF will convert waste vegetable oil collected from various restaurants around San Mateo County into biodiesel. The BPF is to be self-contained within a 40-foot long by 100-foot wide by 35-foot high prefabricated warehouse housing the treatment process and storage tanks (see Exhibits B and C), and placed atop an existing concrete pad that was intended for a temporary storage warehouse at the plant (permitted under CDP #1-95-040-A2). A boiler and a co-generator to provide heat energy for the processing will be located adjacent to the new building.

The project is to be integrated with the CCWRP (owned by the City of Pacifica), sending wastewater and emissions to the plant and using its treated water in the production process. The applicant states that the BPF will support and enhance existing CCWRP functions by reducing significant amounts of used cooking oil in the wastewater stream and providing biodiesel to offset peak energy requirements, thereby reducing the City's electricity usage and carbon footprint by creating an alternative source of energy to traditional fossil fuels. In addition, the majority of emissions from production will be absorbed within the CCWRP's existing soil scrubbers rather than released to the atmosphere.

While the project is proposed on an industrial site, environmentally sensitive habitat areas (ESHA), primarily riparian wetlands, exist adjacent to the site. Sensitive species, such as the California red-legged frog (CRLF, listed as Federal Threatened) and San Francisco garter snake (SFGS, listed as State and Federal Endangered), are known to inhabit the Golden Gate National Recreation Area at nearby Mori Point and CRLF have been found in Calera Creek and throughout the riparian areas adjacent to the CCWRP (Swaim Biological Report, 2007). The City implemented measures during the CCWRP's construction that were recommended by the California Department of Fish and Game to mitigate direct impacts to sensitive species and their habitat during construction; Whole Energy intends to implement similar measures during construction of the BPF, including extending a 4-foot high plywood border along the fence next to the BPF to prevent frogs and snakes from entering the site. Special Condition 11 requires that a biological monitor be onsite at all times during construction to observe for the presence of sensitive species and relocate any animals that enter the project site to adjacent habitat. The monitor shall also have the authority to halt construction to prevent impacts to sensitive species. No wetland areas will be filled or otherwise disturbed by the proposed project. Potential impacts to ESHA from a biodiesel or chemical spill will be minimized through the use of spill prevention design and containment measures approved by staff. Therefore, with adequate mitigation measures, the Commission concludes that, as conditioned, the proposed project will not adversely affect ESHA, and is therefore consistent with Section 30240(b) of the Coastal Act.

The potential exists for a waste oil, biodiesel or hazardous material spill, resulting from an accident at the biodiesel facility or vehicles transporting materials to and from the facility, adversely affecting sensitive species in Calera Creek and the adjacent wetlands. No petroleum products, including diesel, will be used or stored at the BPF as the biodiesel is composed of processed vegetable oil only (B100); however, the BPF will use several hazardous chemicals, including methanol and sulfuric acid, as part of the treatment process. To prevent and control

potential spills, Whole Energy has incorporated several spill contingency measures into the construction site plans, including installing leak detection systems and alarms onto the equipment and BPF warehouse (monitored by a BPF employee) and double containment tanks and pipes for the catalyst chemicals (hazardous materials), as well as grading the paved area around the warehouse with swales and concrete berms to direct spills into either a grease interceptor (from which materials can be recovered and properly disposed of) or a catch basin that drains to the CCWRP. With input from the San Mateo County Hazardous Materials Program, the Commission staff has reviewed and determined adequate the project Spill Contingency Plan and emergency spill measures. The Pacifica Police and Fire Departments have also issued an emergency response plan to address a release or other catastrophic event at the BPF. The Commission concludes that adequate and effective site design and spill response measures have been proposed to minimize impacts from a spill at the BPF; therefore the project, as conditioned, is consistent with Section 30232 of the Coastal Act.

All water used in the production of biodiesel at the BPF will be provided and treated by the CCWRP and completely contained. Stormwater runoff will be collected by the new concrete berms and swales around the BPF site and either drained to the CCWRP for treatment or directed into the adjacent CCWRP settlement ponds, depending on the location (see Exhibit B, Site Plan, and Section 4.4.3, Water Quality). The applicant has proposed erosion and sediment control measures to prevent runoff of excavated materials due to trenching and grading activities from reaching the adjacent settlement ponds and wetlands during construction of the BPF; additionally, Special Condition 7 requires the applicant to employ additional prevention measures such as silt fencing as well as dust and trash minimization measures as part of a Construction Plan. The BPF will operate under the CCWRP's current Non-Point Source Discharge (NPDES) permit issued by the Regional Water Quality Control Board. With the spill prevention measures discussed above, the Commission concludes that the project, as conditioned, will not result in adverse impacts to water quality under Section 30231 of the Coastal Act.

The proposed biodiesel facility is to be located on an existing concrete pad in a pre-existing industrial development area containing the CCWRP; however, the proposed location is situated within a larger open space and is separated by Highway 1 and a 20-foot berm from other developed areas, including sensitive human receptor sites such as schools and hospitals. The CCWRP provides sufficient public services to support the proposed project's needs and, in turn, the proposed biodiesel facility will offset energy demand at the CCWRP. The applicant is also proposing to avoid significant impacts to coastal resources with implementation of appropriate spill mitigation measures. As conditioned, the Commission finds the project consistent with Section 30250(a) of the Coastal Act. Due to the presence of certain hazardous chemicals at the BPF, the facility qualifies as a hazardous facility; thus, this distant location is preferred in the event of a spill or other catastrophic event. As such, the Commission concludes that the siting of the project is consistent with Section 30250(b) of the Coastal Act.

The proposed project will not significantly alter coastal views as it is sited adjacent to the CCWRP, a pre-existing industrial plant, and is visually compatible with the character of the site. Furthermore an earthen berm conceals the CCWRP, blocking the plant from public views along the coast and Highway 101; the BPF, located within this bermed area, will not alter the character of existing public views. The project will not block or diminish public access to the coast or recreational trails in the nearby Calera Creek recreational area. Therefore, the Commission finds that the project is consistent with Sections 30251, 30211 and 30212(a) of the Coastal Act.

The applicant has obtained the necessary approvals and permit exemptions from the Bay Area Air Quality Management District (BAAQMD) for all regulated components of the proposed project, and is thus consistent with Section 30253(3). Whole Energy has also provided a greenhouse gas (GHG) emissions analysis. Based on this analysis, it appears the BPF will produce approximately 352 metric tons per year of CO_2 and near negligible amounts of other greenhouse gases; however, 99% of these emissions will be removed through the CCWRP soil scrubber process. The additional amounts of GHGs emitted by delivery trucks transporting oil and biodiesel to and from the facility will be less than a typical diesel truck due to the use of biodiesel fuel. The applicant has also proposed to use multiple containment (dual bladder) trucks to simultaneously pick up biodiesel from and deliver used cooking oil to the BPF, effectively reducing necessary truck trips by half. As conditioned, the project is therefore consistent with the Coastal Act's policies for air quality (Section 30253(3)) and energy minimization/vehicle miles traveled (Sections 30253(3) and (4)).

1.0 STAFF RECOMMENDATION

1.1 Approval with Conditions

The staff recommends conditional approval of Coastal Development Permit Application No. E-07-011.

Motion:

I move that the Commission approve Coastal Development Permit Application No. E-07-011 subject to the conditions specified below.

The staff recommends a YES vote. To pass the motion, a majority of the Commissioners present is required. Approval of the motion will result in the adoption of the following resolution and findings.

Resolution

*The Coastal Commission hereby **grants** permit No. E-07-011, subject to the conditions below, for the proposed development on the grounds that (1) as conditioned, the development will be in conformity with the provisions of Chapter 3 of the California Coastal Act of 1976 and (2) there are no feasible alternatives or feasible mitigation measures, other than those specified in this permit, which would substantially lessen any significant adverse impact which the activity may have on the environment.*

2.0 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 applicant 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 applicant to bind all future owners and possessors of the subject property to the terms and conditions.

3.0 SPECIAL CONDITIONS

This permit is granted subject to the following special conditions:

1. **Lease and Deed Restriction**. PRIOR TO ISSUANCE OF THE PERMIT, the applicant shall provide to the Executive Director for review and approval documentation demonstrating that the applicant and has executed and recorded against its leasehold interest(s) in the property governed by this permit a lease restriction (in which any owner of the fee interest in such property shall join or to which it shall agree to be bound), in a form and content acceptable to the Executive Director (a) indicating that, pursuant to this permit, the California Coastal Commission has authorized development on the Property, subject to terms and conditions that restrict the use and enjoyment of the Property; and (b) imposing all of the Special Conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the Property. The restriction shall include a legal description of the Property. It shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the Standard and Special Conditions of this permit shall continue to restrict the use and enjoyment of the Property so long as either this permit or the development it authorizes – or any part, modification, or amendment thereof – remains in existence on or with respect to the Property.

2. **Assumption of Risk and Waiver of Liability**. By acceptance of this permit, the applicant acknowledges and agrees, on behalf of itself and all successors and assigns: (i) that the project site may be subject to hazards from seismic events, liquefaction, storms, waves, floods and erosion; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; and (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards.

3. **Liability for Costs and Attorneys Fees:** The applicant shall reimburse the Coastal Commission in full for all Coastal Commission costs and attorneys fees – including (1) those charged by the Office of the Attorney General, and (2) any court costs and attorneys fees that the Coastal Commission may be required by a court to pay -- that the Coastal

Commission incurs in connection with the defense of any action brought against the Coastal Commission, its officers, employees, agents, successors and assigns challenging the approval or issuance of this permit. The Coastal Commission retains complete authority to conduct and direct the defense of any such action against the Coastal Commission.

4. **Limits of Development**. This permit authorizes the construction and operation of the Pacifica Biodiesel Processing Facility and associated infrastructure as described in the project description of this staff report, as clarified and modified by these conditions.

5. **Final Plans**. PRIOR TO COMMENCEMENT OF CONSTRUCTION, the applicant shall submit to the Executive Director for review and approval final plans for all project components. The applicant shall undertake development in accordance with the approved plans and any changes shall be reported to the Executive Director. No material changes shall occur without a Commission-approved amendment to this coastal development permit unless the Executive Director determines that no amendment is necessary. Changes to the project requiring review for amendment would include changes in the physical or operational design of the facility or delivery capacity increases beyond those shown on the final plans or in the project description.

6. **Other Approvals**. PRIOR TO COMMENCEMENT OF CONSTRUCTION, the applicant shall submit to the Executive Director official documentation on letterhead showing that the project has obtained final approvals for project construction and operation from the City of Pacifica, the San Mateo County Environmental Health Division Hazardous Materials Program, the California Department of Fish and Game and the U.S. Fish and Wildlife Service, or official documentation showing that these approvals are not needed.

7. **Construction Plan**. PRIOR TO COMMENCEMENT OF CONSTRUCTION, the applicant shall submit to the Executive Director for review and approval a Construction Plan. The Construction Plan shall include a schedule of all construction activities and identify the specific location of all construction, grading and staging areas in site plan view in the coastal zone. The Plan shall also identify the type and location of erosion control/water quality best management practices (BMPs) that will be implemented during construction to protect coastal water quality, including the following:

   - Grading and land alteration outside of the approved construction zone is prohibited.
   - Silt fences, or equivalent apparatus, shall be installed at the perimeter of the construction areas to prevent construction-related runoff and/or sediment from entering the wetlands, settlement ponds and/or Calera Creek.
   - Equipment washing, refueling, and/or servicing shall not take place within the designated project area. All construction equipment shall be inspected and maintained at an off-site location to prevent leaks and spills of hazardous materials at the project site.
   - The construction site shall maintain good construction housekeeping controls and procedures (e.g., clean up all leaks, drips, and other spills immediately; keep materials covered and out of the rain (including covering exposed piles of soil and wastes); dispose of all wastes properly, place trash receptacles on site for that purpose, and cover open trash receptacles during wet weather; remove all construction debris from the site when construction is completed).

- All erosion and sediment controls shall be in place prior to the commencement of construction as well as at the end of each workday. A copy of the approved Construction Plan shall be kept at the construction job site at all times and all persons involved with the construction shall be briefed on its content and meaning prior to commencement of construction. The applicant shall notify the Executive Director at least three working days in advance of commencement of construction, and immediately upon completion of construction. The applicant shall undertake construction in accordance with the approved Construction Plan. Any proposed changes to the approved Construction Plan shall be reported to the Executive Director. No material changes to the approved Construction Plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is necessary.

8. **Construction Hours**. All construction work shall occur only between the hours of 6 a.m. and 7 p.m. Monday through Saturday.

9. **Air emissions**. WITHIN 6 MONTHS OF BEGINNING OPERATION, the applicant shall provide for Executive Director review and approval a copy of the correspondence to the Bay Area Air Quality Management District containing results of the in-situ air emissions tests from the biodiesel facility assessing the efficiency of the soil scrubbing system in capturing operational air emissions. The applicant shall also provide notification of any remedial action required by the BAAQMD if emissions of regulated pollutants exceed regulatory standards.

Biological Protection:

10. At least five days before starting work at the project site, the applicant shall provide for Executive Director review and approval the name(s) of the proposed biologist(s) to be used on the project. The biologist(s) shall ensure that the applicant and its contractors fully comply with the conditions of this permit related to biological protection.

11. The biologist(s) approved by the Executive Director will be present at all times during construction activities to observe for the presence of sensitive species and relocate any animals that enter the project site to adjacent suitable habitat. The biologist(s) shall have the authority to halt construction when activities could result in harm to sensitive species or habitat. In the event a sensitive species is spotted within the boundaries of the construction site, the biologist(s) shall report the observance and any protective measures taken to appropriate personnel at the U.S. Fish and Wildlife Service and California Department of Fish and Game.

12. PRIOR TO ISSUANCE OF THE PERMIT, the applicant shall submit a copy of all official project-related correspondence from California Department of Fish and Game and U.S. Fish and Wildlife Service that contains pertinent information, directives or mitigation measures related to biological protection, and resulting changes to the proposed project, including site design, operations or production rates.

Spill Prevention and Response:

13. The applicant and its contractors shall adhere to the measures in the project-specific Oil Spill Contingency Plan submitted on May 9, 2008. In the event of a hazardous materials

spill, the applicant shall notify Ellen Faurot-Daniels at the Coastal Commission at 415/904-5285 or 415/201-5792 (pager) as well as appropriate personnel at the San Mateo County Hazardous Materials Program.

14. During construction and all project operations, the applicant shall have available at the site spill response equipment that can immediately respond to the maximum credible spill.

15. A vacuum truck shall either be on the project site or immediately deliverable for oil spill response during project operations.

16. Prior to commencement of construction activities, the applicant shall submit to the Executive Director for review and approval a revised Spill Response Plan that includes earthquakes, tsunamis and flooding as specific events triggering the Spill Response Plan. No construction activities shall begin until the applicant has received written notification from the Executive Director that the revised Spill Response Plan has been approved.

4.0 FINDINGS AND DECLARATIONS

4.1 Project Description

The City of Pacifica selected Whole Energy Fuels Corporation to install a new biodiesel production facility (BPF) onsite at the existing Calera Creek Wastewater Recycling Plant (CCWRP) in Pacifica (Exhibit A). The BPF will convert waste vegetable oil collected from various restaurants around Pacifica and greater San Mateo County into a commercial biodiesel product. Initial production capacity of the BPF will total about 50,000 gallons of biodiesel per month; at full capacity, the BPF could produce up to 250,000 gallons per month, or 3 million gallons per year.

The BPF will be self-contained within a 40-foot long by 100-foot wide by 35-foot high steel-framed, prefabricated warehouse (Exhibit B). The 4000 ft^2 building will be placed on a pre-existing concrete slab that the City constructed under a previously-approved amendment (1-95-40-A2) to the original Commission-issued coastal development permit for the CCWRP.[1] The new biodiesel building will house the various processing equipment and tanks shown in the project schematic drawings (Exhibit C). The facility includes twelve tanks in the 2,000 to 12,000 gallon range containing materials required for or produced by the biodiesel production process, including: used cooking (vegetable) oil, wash water, glycerin, methanol, sodium and/or potassium methylate, and sulfuric acid.

To create biodiesel, Whole Energy combines waste vegetable oil with methanol to produce a chemical reaction that is accelerated when a base catalyst, such as sodium or potassium methylate (methoxide), is added. The result of the reaction is biodiesel and glycerin. Sulfuric acid (approximately 2 gallons for each 1,000 gallons of biodiesel produced) will also be used to improve the efficiency of the process. In addition, up to 3 million gallons per year of recycled water from the CCWRP will be piped into the BPF for use in the biodiesel processing (approximately 1 gallon of wastewater will be required for each gallon of biodiesel produced). Used water will be returned to the CCWRP for treatment following the biodiesel production process. A 900,000 Btu boiler will provide heat for the process, increasing the oil temperature prior to the reaction and "polishing" the finished biodiesel product by evaporating excess methanol. The boiler and a 35 kW (50 HP) generator to power the production process will both use biodiesel for fuel. Exhaust gas from these units will be piped into the BPF where it will be connected to the base of the used vegetable oil (feedstock) tank to allow emissions to bubble up through the waste oil to remove particulates and Volatile Organic Compounds (VOCs). From the top of the oil tank, the remaining gases will mix with the ventilation air in a manifold before being drawn by a blower through an underground exhaust duct that is linked to the biological soil scrubbers located on the roof of the CCWRP. Whole Energy estimates that the use of the scrubber devices will reduce BPF emissions of carbon dioxide and other GHGs, as well as methanol vapors, particulate matter and odors by up to 99%.

[1] The Commission issued coastal development permit 1-95-40 to the City of Pacifica on January 11, 1996, for the construction of the CCWRP. The concrete pad was subsequently constructed under an amendment (1-95-40-A2); however, the temporary warehouse that was also permitted under this amendment was never installed.

Two delivery trucks will visit the BPF each work day, bringing 6,000-8,000 gallons of waste vegetable oil in and delivering equal amounts of biodiesel out from the facility. Once processed, the biodiesel will be transported to Richmond (California) by truck for distribution. Whole Energy also has local service stations within Pacifica positioned for future distribution, including a Valero station in Linda Mar and a Beacon station in Vallemar. At peak capacity, one tanker truck per week will be required to deliver methanol, sodium/potassium methylate (methoxide), and sulfuric acid and to remove glycerin co-product. Sulfuric acid, methanol and sodium/potassium methylate will be transported to the site from industrial chemical suppliers in the San Francisco Bay Area. Glycerin co-product will be transported by tanker truck to a local port or to a rail facility in the South San Francisco Bay for shipment to existing Whole Energy customers.

Whole Energy estimates construction of the BPF will last approximately six months, with an additional two to three months for integration and commissioning of the project components. Work hours will be between 6:00 AM and 7:00 PM, Monday through Saturday (per Special Condition 8); no construction-related traffic will occur between the peak traffic hours of 7:00 to 9:00 AM or 4:00 to 6:00 PM. Construction materials will be stored on the existing concrete pad, away from CCWRP traffic and activities. Whole Energy expects 1-2 semi-truck trips each week to deliver construction materials. The prefabricated steel building will be delivered in pieces by two trucks, offloaded with a forklift, and erected with a twenty-ton crane. Once erected, the warehouse will be painted to match the existing CCWRP facility.

In addition to building the warehouse, construction work will also include the following grading activities: 1) installing a utility trench through the existing parking lot from the BPF to the CCWRP maintenance building; 2) installing a 3,000-gallon ground-level grease interceptor in the existing parking lot to catch oil, biodiesel or process chemicals in case of a spill from the BPF warehouse or delivery trucks; 3) installing a 1,000-gallon catchment basin and 15-inch PVC pipe to the CCWRP; and 4) building a concrete swale and asphalt berms around the warehouse to direct spilled oil to the grease interceptor and rainfall runoff to the catch basin and settlement ponds. (See Exhibit B for Site Plan.)

Approximately 37 tons of asphalt will be removed by saw-cutting and, once the trenching and grading are complete, replaced with asphalt and concrete to create the berms and swale. Once exposed, 25 cubic yards of soil will be excavated for the utility trench, with 15 cubic yards re-compacted and 10 cubic yards disposed off-site. Soil stockpiled on-site for recompacting will be covered in plastic sheeting and the utility trench covered with plywood at the end of each work day during construction to prevent dust and sediment runoff. Following installation of the utilities, the trench will be covered with a concrete swale, requiring about 18 cubic yards of concrete. The swale is intended to direct surface runoff from the surrounding road and hillside away from the BPF into an adjacent containment area. An additional 50 cubic yards of soil will be excavated to create the sunken catch basin and grease interceptor and either disposed of or reused. Whole Energy will install a 10-inch berm around the grease interceptor, consisting of approximately 50 tons of asphalt. This berm will direct all runoff and potential spills from the BPF and adjacent parking area to the grease interceptor, and provide another 15,000 gallons of containment in the event the grease interceptor backs up or overfills. Soil will be disposed of at Ox Mountain landfill east of Half Moon Bay. Used asphalt will be recycled and new material sourced from an asphalt plant in Colma, California. This site work will take approximately two weeks to complete. Equipment involved will include: a concrete saw, backhoe, paving machine, concrete truck, oil tack truck and one semi-truck for delivery of materials.

The proposed construction activities will all take place within the existing paved footprint of the CCWRP, with the exception of a temporary waste vegetable oil storage tank to be sited at the defunct Sharp Park Wastewater Treatment Plant located at 2212 Beach Boulevard in Pacifica. The City permitted the storage of used cooking oil within an existing 4,000 gallon tank at the Sharp Park Plant under a Use Agreement with Whole Energy that was approved by the Pacifica City Council on September 10, 2007.

In the permitting process for the CCWRP, the City of Pacifica designated the parcel containing the BPF site as an industrial zone (C-3X); the parcel is also located within a Hillside Preservation District. Under Section 9-4.1201 of the City's General Plan, permitted uses within the C-3 zone include warehouses and storage facilities, machine shops, service stations, and the operation of other industrial facilities such as large-scale craft production plants that use heat sources and chemicals for processing. The City granted the CCWRP a special use permit for the wastewater treatment facility within this zone per the requirements of Section 9-4.2306; the City determined in 2007 that the BPF would also qualify under this special use permit as a reclamation facility.[2]

Project Purpose
The proposed project is intended to reduce the amount of used vegetable oil from the wastewater stream that enters the CCWRP (p. 1, Final EIR Addendum 3, January 2008), thereby decreasing operating costs and energy expenditures for wastewater treatment. By reusing rather than disposing of the waste vegetable oil, the BPF will also reduce the CCWRP's waste output by diverting the oil from landfills. In addition, the applicant has agreed to provide 3,200 gallons of biodiesel in monthly rent to the City of Pacifica to help power the CCWRP during peak energy periods; this alternative power source will allow the City to reduce its energy payments by decreasing electricity consumption at the CCWRP, as well as minimize the facility's carbon footprint. The CCWRP will in turn supply the water necessary for the biodiesel facility, as well as recycle production wastewater and absorb any emissions from the production process using the existing soil scrubbers. In terms of the potential throughput impact to the CCWRP, the washing process for biodiesel produces a minimal amount of wastewater compared to the capacity of the treatment plant. Wastewater volumes from the BPF will not exceed 2 gallons per minute at a plant with a water treatment capacity of more than 5,000 gallons per minute.

Project Alternatives
As noted in Section 6.0 of these findings, the City of Pacifica, as lead agency under the California Environmental Quality Act (CEQA), certified an EIR Addendum for the proposed project. The Addendum analyzes the potential environmental impacts from this project and concludes with a finding of no significant effects but does not include an analysis of project alternatives. In response to a request by Commission staff for an analysis of feasible alternative project sites, the applicant provided the following rationale for selecting the Calera Creek site for its proposed biodiesel facility in a letter dated April, 25, 2008.

The Biodiesel Production Facility was designed specifically to be integrated with Pacifica's Waste Water Recycling Plant (CCWRP).[3] The City of Pacifica commissioned Whole Energy to build the BPF at the CCWRP to capitalize not only on the benefits of providing a local source of

[2] Section 9.4-2306(13) of the City of Pacifica's Municipal Code for Planning and Zoning prescribes procedures to grant special use permits for wastewater treatment and reclamation facilities.
[3] Letter from Nancy Hall, provided by applicant in response to staff enquiry, 4/25/08 (Exhibit F).

biodiesel, but also of co-locating an industrial project on an existing permitted industrial site that provides water for the treatment processes, paved accessways and adequate spill-containment features. Whole Energy, which has built several other wastewater treatment plants in Washington state, states that wastewater facilities are suitable candidates for co-location as they readily provide water for biodiesel processing and treatment equipment for wastewater as well as air emissions, in this case, with biological scrubber systems. The CCWRP in turn has an energy-related goal of being self-sustaining and carbon neutral; as such, solar power (the CCWRP houses a solar panel array to generate a portion of its energy needs) and power generated by recycled biodiesel are central to achieving those goals.[4] By integrating with a wastewater treatment plant, the City intends to provide an alternative source of power to the CCWRP in exchange for public services (processing water and treatment of wastewater), a trade-off that is more difficult and costly if the plant is constructed in other industrial locations in Pacifica. In addition to the CCWRP site, the applicant considered the old Sharp Park Wastewater Treatment Plant at 2212 Beach Boulevard but found it inadequate for multiple reasons, including environmental risks exceeding those of the CCWRP.[5] According to Whole Energy, given the above-described unique features of the CCWRP site in terms of utility interconnections and existing spill prevention features, any other site in the City would be either economically infeasible due to the costs of transporting process materials, such as water (fresh and waste streams) and biodiesel, and the additional costs of retro-fitting another site to the level of spill protection provided by the CCWRP, or more environmentally risky, or both.[6]

For these reasons, the Commission concurs with the applicant's choice of the CCWRP site as the most appropriate, least environmentally damaging location for this facility.

4.2 Coastal Commission Jurisdiction and Standard of Review

The proposed project is within the Commission's retained jurisdiction. The standard of review is whether the project complies with the policies of Chapter 3 of the Coastal Act. The Commission may use the City of Pacifica Local Coastal Program (LCP) as guidance.

4.3 Other Agency Approvals

1. City of Pacifica – On January 14, 2008, the Pacifica City Council adopted Addendum 3 of the Final Environmental Impact Report (SCH#93033015) for the Calera Creek Wastewater Recycling Plant which addressed the proposed biodiesel project. In addition, the City Council authorized the city manager to enter into a ground lease agreement with Whole Energy for the construction, operation and maintenance of the biodiesel facility at the CCWRP. The applicant still needs to issue building and grading permits from the City once the Coastal Development Permit is secured from the Commission. The City previously approved a special use permit for the CCWRP.

2. San Francisco Bay Regional Water Quality Control Board – In a letter to Commission staff on February 28, 2008, the Regional Water Quality Control Board (SFBRWQCB) determined that the proposed project will not create significant water quality impacts and is acceptable for operation under the existing NPDES permit for the CCWRP.

[4] Applicant response letter to staff, 4/25/08 (Exhibit F).
[5] Applicant response memo to staff, 5/22/08.
[6] Applicant response letter to staff on site selection and distribution, 5/08/08 (Exhibit G).

3. Bay Area Air Quality Management District – On April 9, 2008, the Bay Area Air Quality Management District (BAAQMD) issued an Authority to Construct as well as Permit Exemptions to Whole Energy for regulated portions of the Biodiesel Production Facility, including the waste vegetable oil, biodiesel and chemical storage tanks and the boiler.

4.4 Coastal Act Issues

4.4.1 Biological Resources (ESHA)

Coastal Act Section 30240(b) states:

> *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 proposed biodiesel facility is located within the Calera Creek Water Recycling Plant (CCWRP) site and approximately 15 feet from the chain link fence that borders Calera Creek and its associated wetlands. The lower reaches of Calera Creek and its associated wetlands were restored under the permit for the CCWRP (1-95-040), which included significant re-alignment and re-grading activities to re-establish the creek and its functionality; the original creek bed had been filled as a result of grading activities conducted by the previous quarry owner (see 1-95-040). The CCWRP was constructed with five settlement ponds to provide biological treatment for tertiary wastewater from the facility as well as parking lot and building runoff. The ponds are located to the south of the CCWRP (see Exhibit B). The total area of the ponds is approximately 1.5 acres and the area is planted with emergent native riparian vegetation. The first pond treats parking lot runoff from a filtered parking lot drain and overflows through a log weir to the second pond which treats runoff from the remainder of the uncontained parking lot, the building drains and effluent from the biological scrubber; this second pond overflows from a log weir to the third pond which overflows through another log weir to the fourth pond. This fourth pond then sheet-flows into the fifth pond which flows through dense riparian vegetation into Calera Creek near the CCWRP access bridge. The ponds have also been used to contain wastewater overflow from the CCWRP filters in the past.[7]

The Commission considers Calera Creek and the upland areas within 300 feet, including the settlement ponds, to be environmentally sensitive habitat area (ESHA, see Exhibit D) due to the presence of a federally threatened species, the California red-legged frog (CRLF). The San Francisco garter snake (SFGS), a state and federally endangered species, was historically present in the grassy area and wetlands surrounding the CCWRP and the nearby Pacifica quarry but has not been observed during recent biological surveys around Calera Creek (Swaim report, 2007); however, the snake is present in increasing numbers within the Golden Gate National Recreation Area at nearby Mori Point (GGNRA, 2008). The California Department of Fish and Game (DFG) and the U.S. Fish and Wildlife Service (FWS) generally assume SFGS to be present at

[7] See Exhibit F. Note that the settlement ponds will not be used for emergency containment by the biodiesel plant and associated loading areas. All containment for any spills in the biodiesel plant will be provided by berms and catch basin/grease interceptor in the BPF building and the contained portion of the parking lot and drained to the treatment plant's sump system, and only if these containment vessels are completely filled, into the sequential batch reactors.

least periodically where CRLF is observed since the frog is prime prey for the garter snake. Therefore, due to the presence of CRLF and suitable habitat conditions in the Calera Creek area, the Commission considers the wetlands and settlement ponds potential habitat for SFGS. Special Condition 11 requires Whole Energy to employ a Commission staff-approved biologist to observe for the presence of sensitive species in the project site during construction and relocate any animals that enter the project site to adjacent suitable habitat. The biologist(s) is also authorized to halt construction when project activities could result in direct harm to sensitive species and/or habitat.

The site where the BPF is proposed is not itself ESHA due to its location within the CCWRP parking lot. The warehouse will be installed on a pre-existing concrete slab and all grading activities for the utility trench, drainage pipes and catch basin/grease interceptor will be conducted within the existing developed area on fill originally placed for the CCWRP. Whole Energy contractors will cover any open trenches at the end of each work day as well as soil stockpiled for recompacting to prevent dust and place straw wattles around the construction site as erosion control measures to keep sediment from running off into the adjacent ponds or wetlands (Special Condition 7 also requires the use of silt fencing around the BPF site). Therefore, the construction and operation of the proposed facility will not directly affect or degrade ESHA through the placement of fill, development, erosion or other means.

In addition, no outdoor fixed lighting is proposed at the BPF warehouse or loading area adjacent to the warehouse as operations at the BPF would occur during daylight hours between 6 A.M and 6 P.M., thereby eliminating impacts from lighting at the BPF on wildlife in adjacent areas. Special Condition 8 limits construction hours between 6 A.M. and 7 P.M, Monday through Saturday.

Noise from construction at the BPF would be temporary due to the limited amount of materials delivered (15 trips) and grading required. Equipment used for excavation and grading will include a concrete saw, backhoe, compactor, paver and cement mixer. Construction noise will be similar in context but on a smaller scale than that heard during construction of the CCWRP and will not have any adverse impacts on surrounding biological resources (EIR Addendum 3). Operational noises at the BPF would consist of sounds from the loading and unloading of materials from delivery trucks in the loading area and from the operation of the 50 HP (35 kW) generator and 800 HP boiler. The 200 HP of noise-producing equipment in the BPF will likely be non-detectable from outside the insulated building; the generator and boiler would be separately housed within an insulated container to minimize noise impacts. Whole Energy is seeking to eventually upgrade the generator to 800 HP, pending approval by the BAAQMD, which would result in a noise level of approximately 70-75 dBA, or the equivalent of an idling truck engine inside the insulated shed. The 800 HP boiler is essentially a water heater and would not generate considerable noise. Overall, noise production at the BPF would be less than the current noise levels generated from various equipment sources at the CCWRP, which measures below 40-50 dBA at 100 feet, due to the smaller equipment size. The CCWRP noise levels have not appeared to have an effect on local wildlife or recreational users in the Calera Creek Parkway given the distance, vegetation and topography of the area (EIR Addendum 3). The CCWRP/BPF site is also separated from other sensitive human receptor sites by a 20-foot berm and Highway 1.

The potential exists for a spill of waste oil, biodiesel or hazardous chemicals from the BPF or delivery trucks which could negatively affect ESHA and species within, however the risk of spill

into these areas is unlikely with the spill prevention and containment measures described below (Section 4.4.2) and in the applicant's Spill Contingency Plan (deemed adequate by staff). Any remaining risk of spill would be minimized through immediate cleanup and response by Clean Harbors Environmental (the applicant's contractor for spill cleanup) and the San Mateo County Hazardous Materials Program. Special Condition 14 also requires the applicant to have spill response equipment on hand at all times during construction and operation and Special Condition 16 requires the spill plan to be revised to account for natural events that may occur, such as earthquakes, flooding and tsunamis, resulting in spills of hazardous materials.

The California Department of Fish and Game (DFG) and U.S. Fish and Wildlife Service (USFWS) visited the site in March, 2007, and made preliminary recommendations to Whole Energy to ensure sensitive species protection and adequate spill prevention and design. In response, Whole Energy incorporated these recommendations into their proposal, specifically extending the exclusionary habitat fencing for CRLF and SFGS around the east end of the CCWRP site northward to the fence boundary (see Site Plan, Exhibit B) to prevent sensitive species from entering the BPF site. In addition, Whole Energy agreed to use multiple containment, or dual bladder, delivery trucks to decrease the risk of spill from the transport of waste oil and biodiesel, although this conversion will not happen until it is economical to do so, around 2 million gallons per year production capacity. The official comment letters containing the agencies' Biological Opinions and determination of take for the project have not been released and are not expected until August, 2008. Special Condition 6 requires Whole Energy to submit to the Commission official documentation showing that the project has obtained final approvals for project construction and operation from the DFG and the USFWS (among other agencies), or official documentation showing that these approvals are not needed. Special Condition 12 further requires the applicant to submit a copy of all official correspondence from DFG and FWS that may contain pertinent biological protection information, directives or mitigation measures affecting the proposed project.

Given the avoidance of direct impacts to ESHA from fill of wetlands, lighting and noise, as well as the spill prevention and containment measures designed to avoid impacts from biodiesel or hazardous materials spills into the environment, the Commission finds the proposed project, as conditioned, would not degrade ESHA or disrupt the sensitive species and recreational users found therein, and is thus consistent with Section 30240(b) of the Coastal Act.

4.4.2 Hazardous Material Spills

Coastal Act Section 30232 states:

> *Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.*

The new biodiesel warehouse will contain the various processing equipment and tanks shown in the project schematic and elevation drawings (see Exhibit C). The volume capacities (in gallons) of the tanks associated with the biodiesel plant are:

- Used cooking oil 1 10,000
- Used cooking oil 2 10,000

- Methoxide 5,000
- Methanol 5,000
- Reactor 1 5,000
- Reactor 2 5,000
- Settling tank 1 10,000
- Settling tank 2 10,000
- Crude glycerin 5,000
- Polished glycerin 10,000
- Biodiesel 12,000
- Wash water 2,000

At any one time, based on maximum production volume of 8,200 gallons of biodiesel per day (to be processed in daily batches rather than continuously), Whole Energy estimates the worst case spill at the BPF to be 62,000 gallons, composed of 54,800 gallons of materials in storage tanks within the BPF at any point during the day and 7,200 gallons in a typical delivery tanker truck in the loading area.[8] However, due to the presence of several hazardous chemicals that can potentially produce toxic gas or an exothermic reaction causing fire or explosion (which could happen in the event of a simultaneous spill of the above chemicals), adequate containment of these materials and spill prevention and response measures are necessary to prevent explosion or fire at the BPF.

The BPF will also use an existing, permitted 500 gallon tank inside the CCWRP to store sulfuric acid. The acid (H2SO4) will be pumped into the BPF by a dosing pump in the CCWRP at a rate of less than one pint per minute (less than 6 gallons per hour) through a double-contained 1-inch diameter stainless steel pipe to be located within the utility trench connecting the BPF and CCWRP. Sulfuric acid is highly corrosive and can result in potentially large explosions if reacted in sufficient dosage with water. Although sulfuric acid alone is non-flammable, if it contacts certain common metals it can lead to fire, off-gassing hydrogen gas, sulfur dioxide, and acid aerosols that are hazardous to human health. To minimize potential fire and other chemical reactions, Whole Energy is storing sulfuric acid in the CCWRP, separate from the other chemicals used in the BPF.

Methanol is a colorless, toxic liquid that is also volatile, flammable and poisonous enough to be fatal to humans if ingested, inhaled or absorbed through the skin; the most common severe side effects include blindness and nerve damage. Methoxides, such as potassium methylate, are also highly corrosive and can react explosively with water.

Spill Prevention

The first test of Coastal Act Section 30232 requires permit applicants to provide "protection against the spillage of crude oil, gas, petroleum products, or hazardous substances…" No petroleum products will be used or stored at the BPF as the biodiesel is composed of vegetable oil only (B100); however, several hazardous substances, including methanol, sulfuric acid and sodium/potassium methylate (methoxide) will be used in the production process and stored in the warehouse, with the exception of sulfuric acid which will be stored inside an existing, permitted

[8] Whole Energy estimates that no more than 62% of total vessel capacity, or less than 55,000 gallons, will be used during the batch production process due to the necessity that additional vessel space be available for receiving of processed materials.

tank in the CCWRP. There is risk of a spill from the biodiesel facility and/or delivery trucks transporting material in/out of the BPF that could adversely impact humans and natural resources in the immediate vicinity, including sensitive species (discussed above) in Calera Creek and the adjacent wetlands.

To protect against potential impacts from spills at the BPF, Whole Energy has proposed several spill prevention measures, including installing double containment tanks and pipes for storage and transport of all hazardous materials as well as leak, vapor and temperature detection systems and alarms on each piece of equipment, including the BPF warehouse. Additionally, tanks containing methanol will be blanketed in nitrogen and all pumps transferring methanol will use a pneumatic diaphragm system to prevent ignition and fire. The applicant also proposes switching to double-containment (multiple bladder) trucks for the waste oil and biodiesel once it is economically feasible to do so (i.e., when production surpasses 2 million gallons per year). The double-containment system will use multiple collapsible bladders within the truck tank, allowing the simultaneous delivery of waste oil in and finished biodiesel product out of the BPF, effectively cutting in half the number of truck trips required. Additionally, using bladder-equipped tank trucks will effectively reduce the risk of waste oil/biodiesel spills resulting from a truck accident.

With the installation of double-containment tanks, pipes and bladder trucks as well as leak detection systems and alarms on the equipment and warehouse, the Commission finds the project would protect against hazardous materials spills and is therefore consistent with the first test of Coastal Act Section 30232.

Spill Response

The second test of Coastal Act Section 30232 requires permit applicants to provide "effective containment and cleanup" equipment for accidental spills that do occur. Whole Energy has incorporated several spill contingency measures and design features into the construction site plans as well as created a Spill Response Plan that will reduce the risk of spills and their adverse impacts.

The BPF and the adjacent loading area (where trucks will either deliver or remove liquids) are designed with multiple containment systems and have redundancies in case of overflow. Spill containment design features include grading for swales and installation of concrete berms around the BPF and loading area (see Figure 1 below) which will direct spills to a 3,000 gallon grease interceptor and a 1,000 gallon catch basin, both located immediately north of the BPF and connected via a drain pipe to the CCWRP's sump system. Spills that may occur during loading and unloading in Region 4 will be channeled by concrete berms to the grease interceptor (capacity 3,000 gallons) that connects to an underground 15-inch diameter PVC pipe to the CCWRP sump system. The pipe will be sloped at an approximate pitch of 3 degrees, and will have a capacity of at least 3000 gal/min (180,000 gal/hr). A valve (Valve 2) will be installed between the grease interceptor and the catch basin to allow the catchment of hazardous materials in the interceptor for collection and removal prior to flowing into the CCWRP system; this valve will remain closed during loading and unloading and in the event of a spill from the BPF. Region 5, consisting of the BPF warehouse, will contain a 9-inch high concrete berm along the base of the walls to contain spills up to 14,400 gallons (20% more than the largest tank capacity) inside the building. The concrete berm will be shortened to a height of 7 inches for the final five feet of the north end of the west wall to provide an engineered spill point to Region 4 in the event

of overflow.[9] A valve at the north side of the warehouse (Valve 1) will normally be closed to isolate the building's floor drains from the remainder of the drainage system in the event of a hazardous materials spill, enabling the BPF itself to act as a reservoir in case of a spill. Valve 1 will only be opened during equipment wash-down events to discharge the wastewater contents of the building into the grease interceptor. Rain runoff in Regions 1, 3, and 6 will be directed offsite to the settlement ponds located south of the site (see Section 4.4.3).

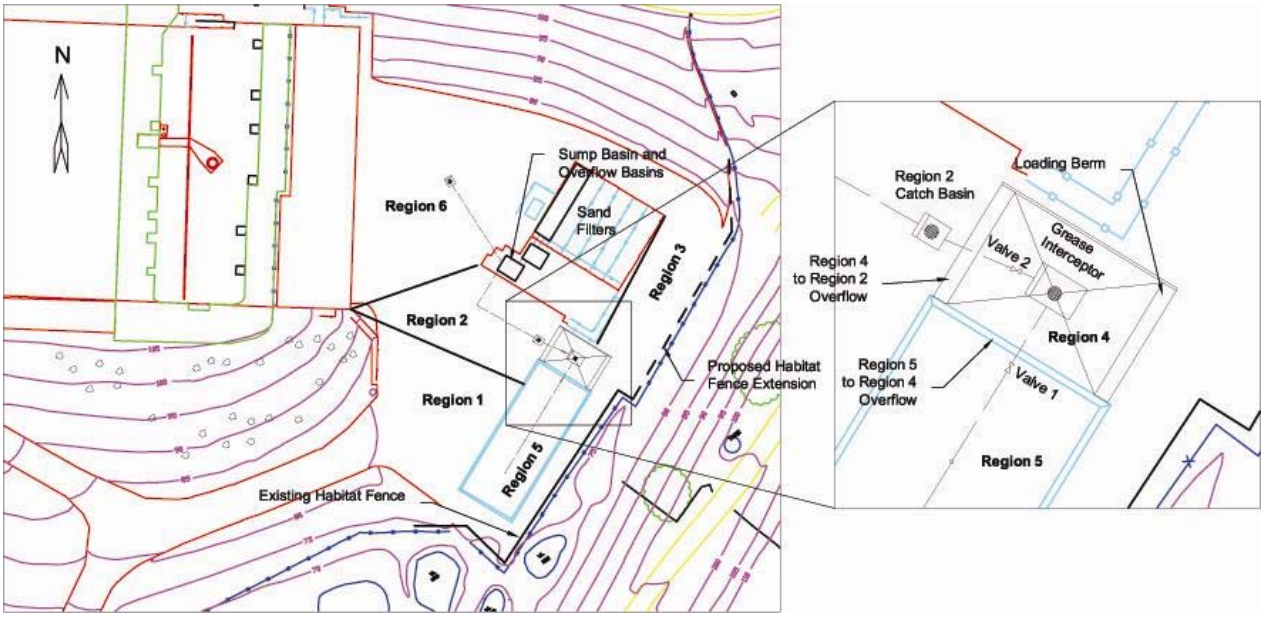


Figure 1 – Spill flow and containment design

The CCWRP is not equipped to handle hazardous materials; therefore, if spilled, materials will be recovered from the interceptor and/or catch basin using a portable, air powered diaphragm pump to transport the material into the 5,000 gallon reactor tank(s) within the BPF, which will serve as temporary storage. In the event the spilled material is contaminated beyond recovery, Clean Harbors Environmental (CHE, located in San Jose) will be contacted to remove the material. A representative from CHE has said that response time is typically in the range of one to four hours (24 hours a day, seven days a week), depending on the situation.

Whole Energy has created a project-specific Spill Response Plan containing emergency spill measures, which the Commission staff reviewed and deemed adequate. The San Mateo County Hazardous Materials Program is also reviewing the Plan; Whole Energy is expected to submit a Hazardous Materials Business Plan separately for the County's review to ensure that the containment and spill contingency measures proposed for the BPF are adequate. Special Conditions 14 and 15 further require Whole Energy to maintain spill response equipment at or near the project site, including a vacuum truck, available for immediate response. Due to the high volatility of methanol and sulfuric acid and the potential for an explosive chemical reaction, the BPF has been designed with fire suppression sprinklers and alarms. Whole Energy will employ one staff person to monitor the processing and safety of the BPF during operating hours.

[9] The warehouse siding will be bolted to the building's structural members and will not make a hermetic seal with the ground. As an additional precaution and to allow sufficient overflow into Region 4, the siding will be shortened at the engineered spill point to leave several inches of space between the siding and the ground, eliminating any containment functionality of the siding. A screen will be installed as a precaution to prevent rodent ingress.

In case of a small fire, BPF personnel will respond according to the Spill Response Plan and attempt to extinguish the fire using one of twelve fire extinguishers in the BPF (all located within 15 feet of one another). Oily rags will be mixed with grit in a specialized container and disposed of daily to reduce chance of fire due to thermal decomposition and smoldering. To avoid build-up of fugitive (potentially volatile) emissions, the warehouse ventilation system will draw in at least 3,500 cubic feet of fresh air per minute and flush out existing air through the blower to the air duct connected to the CCWRP.

In case of a sulfuric acid spill, the BPF employee will immediately shut down the CCWRP dosing pump to stop the flow of acid into the BPF. Dry lime, sand or soda ash will then be applied to the spill and the resulting mixture stored in plastic containers for disposal by Clean Harbors Environmental. Although the acid would react exothermically with sprinkler water, the quantities of acid flowing into the BPF are small enough that the risk of fire is low. Clean Harbors Environmental will be contacted before attempting to neutralize any spills larger than 5 gallons.

For secondary response, CCWRP staff maintains a spill plan and emergency response equipment within the adjacent wastewater treatment facility containing the necessary spill response equipment for a minor hazardous materials release. The Pacifica Police Department has also designed and submitted a Response Plan that outlines the specific response procedures to be followed by BPF, Police and Fire Department personnel in case of a spill or other catastrophic event at the biodiesel facility. The Police Department is located across Highway 1 from the site and response time is estimated at less than one minute, while the Fire Department can respond within 3-4 minutes, depending on which station is used (there are two stations, one north and one south, both within 3-4 minutes drive of the CCWRP). Both departments will comment upon the final building plans for the BPF during the City's building permit phase to ensure that all security and fire prevention and containment issues have been addressed.

With these spill response measures and design features in place, the Commission finds that the spill response methods and equipment in place for this project will be effective and are consistent with the second test of Coastal Act Section 30232.

The Commission concludes that, as conditioned, the project will employ sufficient spill prevention and response measures to minimize impacts from a spill at the BPF and is therefore consistent with Coastal Act Section 30232.

4.4.3 Water Quality

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.*

The BPF site is located adjacent to Calera Creek and its associated wetland areas, and just over ½ mile from the Pacific Ocean (see Exhibit A). The CCWRP is designed so that all treated water drains into the settlement ponds for tertiary treatment (see Figure 2 below) and then into the adjacent wetlands and eventually Calera Creek and the Pacific Ocean; this system provides a continuous source of treated freshwater to Calera Creek and the wetlands that had previously been graded over (see original EIR for water quality impacts created and mitigated by the CCWRP, including increased nutrient levels and decreased oxygen levels due to the discharge of treated sewage effluent into Calera Creek and near-shore marine environments). Wastewater from the BPF will be reclaimed and treated at the wastewater plant before flowing out with the rest of the treated water to the settlement ponds. No groundwater will be used in the biodiesel production process; instead, treated water from the CCWRP will be piped in for biodiesel scrubbing. Wastewater from the BPF will be contained in a tank and sent via underground pipe to the CCWRP for treatment.

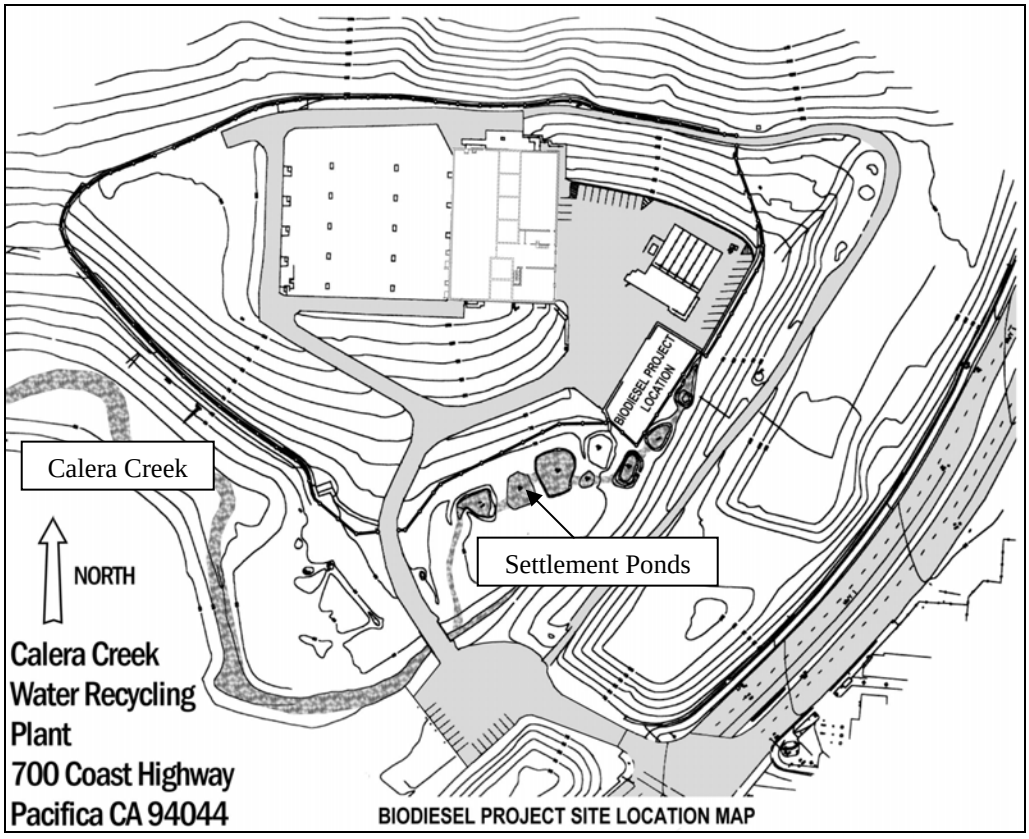


Figure 2 - Topography of CCWRP Site

The paved areas around the BPF (currently the CCWRP parking lot) will be graded and bermed such that runoff will either be directed offsite into the settlement ponds or into the catch basin and grease interceptor, to be installed north of the BPF warehouse (see Figure 1 above). Runoff in Regions 1 and 3 (Figure 1) will be directed offsite by berms over a log weir to the settlement ponds, located south of the CCWRP site. Runoff from region 2 will be directed into the 1,000-gallon catch basin and from Region 4 into the grease interceptor, both to be installed below ground level. Runoff in Region 6 will drain into an existing storm drain engineered into an existing low point in the CCWRP parking lot that connects to the CCWRP sump system.

The site topography, stream course of Calera Creek, and natural vegetation around the CCWRP site will not change as a result of the proposed project. A 15-foot natural buffer between the BPF fenceline and settlement ponds will remain intact (see Exhibit D). Although the BPF is within the 100-foot buffer the Commission traditionally considers adequate for wetland protection, the Commission specifically authorized this smaller buffer in its permit for the CCWRP to facilitate the discharge of treated water from the wastewater treatment plant into the settlement ponds and wetlands; installation of the BPF will not alter or hinder this design.

To prevent adverse water quality impacts to the adjacent settlement ponds, wetlands and Calera Creek from construction-related runoff and erosion during construction, Whole Energy proposes to cover any open trenches, remove all soil from the trenches that will not be reused on the same day and cover soil stockpiled for recompaction securely in plastic. In addition, there are two berms in the parking lot, one from the south east corner of the CCWRP building to the sump structure and one that curves from the northeast corner of the CCWRP around the sump building, that direct rainwater off-site into the settlement pond area. The applicant proposes to line the areas in the parking lot where construction-related drainage may flow off-site with straw bales or wattles. In addition, Special Condition 7 requires the applicant to install silt fencing at the perimeter of the entire construction area to prevent construction-related runoff and/or sediment from entering the wetlands, settlement ponds and/or Calera Creek. There will be no grading, trenching or excavation outside of the parking lot area or deeper than the existing fill placed for the CCWRP.

The San Francisco Bay Regional Water Quality Control Board reviewed the proposed project and determined that the BPF will not create any new significant water quality impacts to the surrounding area, including the wetlands and Calera Creek. Because the project does not propose any new impervious surfaces (all grading and paving will occur within the existing CCWRP footprint) or changes to the existing storm water drainage design that would increase surface runoff flow to off-site areas, the SFBRWQCB determined that the BPF will be in accordance with the permitted activities and discharge volumes of the existing NPDES permit requirements for the CCWRP.

For the reasons discussed above, the Commission finds that the project, as conditioned, will not violate RWQCB water quality standards and will maintain the biological productivity and quality of coastal waters and minimize adverse effects on habitat and species. The project is therefore consistent with Coastal Act Sections 30230 and 30231.

4.4.4 Hazardous Facility Siting/Concentration of Development

Coastal Act Section 30250(a) states:

> *New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.*

Coastal Act Section 30250(b) states:

> *Where feasible, new hazardous industrial development shall be located away from existing developed areas.*

The proposed biodiesel facility is to be located on an existing concrete pad in an industrially developed area containing the CCWRP. The CCWRP parcel is zoned for industrial use (C-3X) in the City of Pacifica's General Plan. Under Section 9-4.1201, permitted uses within the C-3 zone include warehouses and storage facilities, machine shops, service stations, and the operation of other industrial facilities such as large-scale craft production plants that use heat sources and chemicals for processing. The parcel is also located within a Hillside Preservation District which promotes development guidelines that adhere to safe building regulations, conform to the natural topography of the hillside and preserve their natural and visual resources as much as possible. The City issued a special use permit to allow for the specific installation of the wastewater treatment facility within this zone per the requirements of Section 9-4.2306, and determined in 2007 that the BPF also qualifies as an allowable use under this permit.

The project is to be integrated with the CCWRP (owned by the City of Pacifica), sending wastewater and emissions to the plant and using treated water from the plant in the production process. The BPF will use its own biodiesel product as fuel for the generator and boiler that drive the production process. Therefore, all public services necessary for the support and function of the BPF that are not provided by the BPF itself are currently available from the CCWRP. The applicant states that the BPF, in turn, will support and enhance existing CCWRP functions by reducing significant amounts of used cooking oil in the wastewater stream and providing an alternative power source to reduce peak electricity usage. In addition, by reusing rather than disposing of the waste vegetable oil, the plant will reduce the City's waste output by diverting the waste from landfill. Integrating the two facilities will minimize the BPF's carbon footprint by using the existing CCWRP soil scrubbers to absorb emissions. As conditioned, the project will not adversely affect coastal resources in the area, given the appropriate spill prevention and containment measures contained in the plans approved by the Commission staff and reviewed by the San Mateo County Hazardous Materials Program (Section 4.4.2, Hazardous Materials Spills). As such, the Commission finds that because the project is located within an existing industrial developed area that is able to accommodate it and where it will not adversely impact coastal resources, the proposed project, as conditioned, is consistent with Section 30250(a) of the Coastal Act.

The CCWRP is also situated within an open space away from other developed areas, including sensitive human receptor sites such as schools and hospitals. The nearest school, Vallemar School, is approximately ¼ mile away from the proposed BPF and on the other side of Highway 1. Due to the presence of certain hazardous chemicals proposed for use at the BPF, including sulfuric acid, methanol and sodium/potassium methylate, the facility qualifies as a hazardous facility; thus, this removed location is consistent with the intent declared in Section 30250(b) to isolate hazardous materials from residential areas to minimize risks from a spill or other catastrophic event. As the BPF will contain these hazardous chemicals, several containment and leak detection measures have been proposed to prevent spills which could lead to fatal human exposure, corrosion of equipment and/or explosion (see Section 4.4.2). These measures were deemed adequate by Commission staff and reviewed by the San Mateo County Hazardous Materials Program.

Because the BPF will be located in an open area that is at least ¼ mile away from existing developed areas and separated by a major traffic corridor and 20-foot berm, the Commission concludes that the siting of the project is consistent with Section 30250(b) of the Coastal Act.

4.4.5 Visual

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.*

The proposed project is sited adjacent to the CCWRP, an industrial plant consisting of a large warehouse containing the wastewater treatment equipment, an asphalt parking lot to the east, and a solar panel array and soil scrubbers to the west. The CCWRP is painted in neutral colors with an earth tone roof to blend into the surrounding landscape. As part of the CCWRP permit, the City installed a 20-foot tall earthen berm between the facility and Highway 1 and planted trees atop the berm and around the site to screen the facility from nearby vantage points. Currently the CCWRP is not visible from Highway 1 or the Calera Creek public access area to the south, but will be visible from public hiking trails at Mori Point and certain streets in higher elevation neighborhoods to the east (see Exhibit E).

The BPF will be housed within a similar warehouse as the CCWRP and erected on an existing concrete slab within the parking area; as such, the project will not extend outside of the existing paved footprint and will not alter the surrounding natural landscape of the area. The proposed warehouse will be painted in similar colors as the CCWRP and will not exceed the height of the existing CCWRP building. Given the proposed design and colors of the warehouse, the proposed BPF will integrate with the industrial look and architectural design of the CCWRP and is therefore visually compatible with the character of the site. In addition, the BPF will not create a new source of light or glare that could negatively impact views of the area or local wildlife as no lighting fixtures are proposed outside the warehouse. Furthermore, the earthen berm and trees surrounding the CCWRP will conceal the plant from most public views along Highway 1 and within the adjacent Calera Creek Parkway; the BPF, located within this bermed area, will not significantly alter coastal views from the traffic corridor (see Exhibit E).

Viewers from higher elevations above the project site, including public views from Mori Point and private views from the adjacent neighborhood of Vallemar, along Hillside Drive, and at Shelldance Nursery, will be able to see the new building. However, the new construction will blend in with the existing industrial site and will not block or alter the character of public views to the ocean or other scenic coastal areas.

The City of Pacifica designated the area around the CCWRP as a Hillside Preservation District, a designation intended, in part, to "preserve, enhance, and promote the existing and future

appearance and resources of hillside areas."[10] Building atop ridgelines and on steep hillside areas is largely discouraged under Pacifica's General Plan. As mentioned above, the BPF will be sited within a previously developed industrial area, one that is not located on a ridgeline or steep hillside (the CCWRP is located at the foot of the hillside leading to Mori Point). Given the visual mitigation measures incorporated into the project above, the facility will not significantly change the existing appearance of the CCWRP site or the adjacent hillside and therefore will not significantly affect surrounding public views.

Because the proposed project is compatible with the existing character of the CCWRP site and will not block scenic coastal public views, alter natural landforms of the adjacent hillside district, or otherwise degrade the visual quality of the surrounding area, the Commission finds that the project is consistent with Coastal Act Section 30251.

4.4.6 Public Access and Recreation

Coastal Act Section 30211 states:

> *Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*

Coastal Act Section 30212(a) states:

> *Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources, (2) adequate access exists nearby, or (3) agriculture would be adversely affected. Dedicated accessway shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.*

Coastal Act provisions generally require that development not limit public access to the shoreline and that projects located between the first public road and the sea in most cases provide public access. The Commission previously found that the CCWRP was permitted in part to facilitate the restoration of Calera Creek and associated wetlands. The City installed a recreation area as part of that permit (1-95-040), including a public parking lot and paved walkway/bicycle trail through the wetlands which are commonly used to access the coastline. The parking area for Calera Creek wetlands/trail system lies along the existing access road to the CCWRP but is not within the CCWRP boundaries; the CCWRP and proposed project site are fenced off from the surrounding open space by a chain link fence and public access through the entry gate is limited to business hours. Public access to the recreation area, wetlands and shoreline beyond is not dependent upon access to the CCWRP site and as such the proposed development will not interfere with existing public access. Therefore, the Commission finds that the project is consistent with Coastal Act Section 30211.

The proposed biodiesel facility will be located between Highway 1 (nearest public roadway to the shoreline) and the Pacific Ocean. As mentioned, a dedicated recreation area and parking lot

[10] City of Pacifica Municipal Code, Title 9, Chapter 4, Section 9-4.2552.

adjacent to the project site currently exist to provide adequate public access to the Calera Creek Parkway, coastline and ocean. Therefore, a dedicated public access point already exists next to the proposed project site and the Commission finds that no new access is required under Section 30212(a) because adequate public access exists nearby.

In terms of traffic impacts to the Calera Creek recreation area (addressed in the project CEQA document), the proposed project will not significantly affect ingress or egress from the public parking lot. The construction and operation of the BPF will increase off-peak traffic (9 AM to 4 PM) at the Calera Creek turnoff from Highway 1 by approximately 13 one-way truck trips per day on average due to the delivery of materials, pick-up of biodiesel product and waste disposal, adding approximately 260 one-way truck trips per month to the intersection (EIR Addendum 3). Given this low level of traffic (less than 2 trips per hour), the project will not affect recreational traffic. This includes 40 one-way trips (20 round trips, 1 per work day) for the commute of the single BPF employee who may need to access the facility during peak traffic hours (7-9 AM and 4-6 PM) to operate the BPF. The access road intersection with Highway 1 (Reina del Mar) is currently rated at a Level of Service 'F', the slowest rating possible for traffic at an intersection. A traffic analysis prepared by a traffic consultant[11] for the EIR Addendum shows that no new significant effects or substantial increase in the severity of impacts will occur from the single additional employee commuter round trip per day to the level of service during peak hours at this intersection. A future highway widening project may alleviate the current traffic impacts along Highway 1 at this location; until that time this intersection is likely to remain at a low level of service during peak hours. However, the project will not adversely affect recreational traffic or otherwise result in burdens to public access, and the Commission therefore concludes that the project is consistent with the Coastal Act's public access and recreation policies (Sections 30211 and 30212(a)).

4.4.7 Air Quality and Greenhouse Gas Emissions

Coastal Act Section 30253 states in part:

> *New development shall:*
>
> *…(3) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Control Board as to each particular development.*
>
> *(4) Minimize energy consumption and vehicle miles traveled.*

The BPF will add three new emission sources to the existing CCWRP site: a boiler, a generator, and a methanol recovery network. The boiler and generator will burn biodiesel for fuel and produce carbon dioxide (CO_2), carbon monoxide (CO), nitrous oxides (NO_x), and organic particulates. All emissions will initially be sent through and "scrubbed" in the feedstock (waste vegetable oil) tank and steam strippers, which will remove particulate matter and volatile organic compounds (VOCs). Remaining emissions will be vented by a 6,000 cubic feet per minute (cfm) air blower through an underground exhaust duct to the existing biological soil scrubber system at the CCWRP. This system is designed using aerobic, anaerobic and facultative bacteria to absorb nearly 100% of emissions, including carbon oxides (CO and CO_2) and NO_x, and reduce them to their base elements. The methanol recovery system is directly linked to a check valve located at

[11] RKH Civil and Transportation Engineering, Foster City, CA.

the base of the feedstock tank; when the methanol vapor pressure reaches a certain level, the methane gas will be bubbled up through the waste oil, condensed and sent through the biodiesel production process with the waste oil to be recovered.

The CCWRP is located within the Bay Area Air Quality Management District (BAAQMD) in the County of San Mateo. The BAAQMD issued an Authority to Construct on April 9, 2008, for the project, as well as permit exemptions for those components of the project within their jurisdiction, including storage of waste vegetable oil, biodiesel, glycerin, and the use of a biodiesel-fired boiler. Additionally, the BAAQMD regulates the storage of certain liquids with hazardous emissions such as methanol, subject to Regulation 8, Rule 5. Methanol stored on-site must be in a fixed-roof tank, equipped with submerged fill pipes, and have a pressure relief valve. The BPF will therefore adhere to these standards regarding methanol emissions, e.g. methane (Section 8-5-300, Standards):

- 8-5-307 (Requirements for Fixed Roof Tanks, Pressure Tanks and Blanketed Tanks)
- 8-5-302 (Requirements for Submerged Fill Pipes)
- 8-5-303 (Requirements for Pressure Vacuum Valves)
- 8-5-403 (Inspection Requirements for Pressure Relief Devices)
- 8-5-501 (Maintenance of Records)

If properly maintained and operated in compliance with the Air District's regulations, as proposed the BPF will not result in a violation of any ambient air quality regulations or contribute to an existing or projected air quality violation.

The U.S. Environmental Protection Agency (EPA) documents VOC emission factors for gas stations, which provide a convenient reference point for comparing overall BPF emissions.[12] For example, for every 1,000 gallons of fuel pumped (approximately 100 cars, or one full day of operation for a small- to medium-sized gas station), about 1.7 lbs. of VOCs will be emitted. These emissions are due to breathing losses from the underground gas tank, breathing losses during tank filling, and topping off of the car's tank. The emissions of VOCs from the BPF will total approximately 0.25 lbs. per day and would therefore be less than one third the amount of emissions from a small- to medium-sized sized gas station.

Additional odors from the biodiesel production process are not expected to create a negative impact on surrounding areas as the biodiesel process takes place within an enclosed building with constant ventilation. All odors will be drawn with other air emissions through a blower into the exhaust duct to the CCWRP and sent through the soil scrubbers. The blower will operate at at a steady rate, drawing 6,000 cubic feet of air per minute (cfm) out of the warehouse. Four 2-foot by 2-foot louvers will be installed in the warehouse siding to allow constant intake of fresh air and to maintain atmospheric pressure; the average speed of the air coming in through the louvers into the plant will be approximately 2 miles per hour. Air within the BPF will be replaced approximately every 32 minutes by the ventilation system. The spill overflow region at the northwest end of the warehouse will create a gap of several inches between the siding and the ground (see Section 4.4.2); however, the negative atmospheric pressure created by the blower drawing air out will prevent odors and emissions from escaping the warehouse through this gap.[13]

[12] Theses factors were acquired by ARB tests, and can be verified in the EPA AP-42 document.
[13] Email correspondence from Martin Wahl for Whole Energy, 6/19/08.

Whole Energy states that greenhouse gas (GHG) emissions from the biodiesel processing operations will be significantly reduced by the soil scrubbers at the CCWRP. During normal operations, the applicant estimates the project will generate approximately 352 metric tons per year of CO_2, 5 metric tons of CO, 15 metric tons of NO_x and 1.7 metric tons of particulate matter (PM_{10}). Although GHGs would result in adverse effects if emitted directly into the atmosphere, the emissions from the BPF will be routed through an underground exhaust duct to the CCWRP soil scrubbers, where 99% of all emissions will be removed. Whole Energy has agreed to test in-situ emissions from the BPF to confirm the efficiency of the scrubbing system once the plant is in operation and provide the test results to the BAAQMD for review. Special Condition 9 requires Whole Energy to submit a copy of this correspondence containing these results, as well as notification of any remedial action required by the BAAQMD if emissions of regulated pollutants exceed regulatory standards.

The proposed project will produce short-term greenhouse gas emissions and fine particulate matter (PM_{10}) from the use of construction equipment (i.e., the forklift and crane) and ground disturbance, such as trenching and grading. While no significance thresholds apply to short-term construction activities under local air district standards, the construction equipment will emit less than the AQMD threshold of 25 tons of emissions per year for listed pollutants; as such, no offsets will be required. Ground disturbance will be limited to 250 feet of trenching to install the underground exhaust duct between the BPF and CCWRP and the 64 cubic foot (3,000 gallon) grease interceptor and an approximately 21 cubic foot (1,000 gallon) catch basin. All ground work will remain within the boundary and depth of existing engineered fill at the CCWRP site.

Whole Energy proposes several Best Management Practices (BMPs) to minimize the amount of dust generated by grading, excavation, and transportation of cut and fill materials by spraying water on and covering with plastic any exposed dirt surfaces as necessary; all exposed dirt areas will be hosed down with water from a water truck at least once a day and covered at the end of each work day during project-related grading and disposal activity.

Total energy consumption at the site will be reduced by integrating the biodiesel production process with the operations of the CCWRP. By providing an alternative source of power in the form of biodiesel to the CCWRP for its water treatment processes during peak hours, the BPF will be alleviating energy usage of electricity from the local power grid. The BPF will also significantly reduce the amount of waste oil discharged into the wastewater supply at the CCWRP, thereby decreasing the amount of energy devoted to waste removal and water treatment. In exchange, the CCWRP will provide a steady supply of water necessary for the production of biodiesel, eliminating the need for water hookups and construction of off-site pipelines to the BPF, as well as wastewater treatment services.

To minimize vehicle miles traveled, fuel usage and GHG emissions from transportation, the applicant has agreed to use multiple containment (dual bladder) trucks to simultaneously pick up biodiesel from and deliver used cooking oil to the BPF, reducing necessary truck trips by half. Whole Energy will convert over to these trucks once it is economically feasible to do so (at a 2 million gallon-per-year production rate).

The Commission finds that the design of the BPF will minimize greenhouse gas emissions, particulate matter and energy consumption, and will minimize energy use and vehicle miles traveled. The Commission further finds the project consistent with the rules and requirements of

the BAAQMD. The Commission thus finds the proposed project consistent with Coastal Act Sections 30253(3) and (4).

5.0 CITY of PACIFICA LCP/PREJUDICE

The Commission effectively certified Pacifica's Local Coastal Plan (LCP) on June 7, 1994; however, the Quarry and adjacent parcels (including those containing the CCWRP parcel and proposed BPF site) remain an area of deferred certification. Principal issues affecting the LCP certification in this area include the undecided future use of the quarry, steep hillside slopes around Mori Point, and protection of the rare and endangered San Francisco garter snake, which will affect the location and type of future development.

In terms of prejudicing the future LCP to permit or prohibit certain uses and types of development in this area with approval of the proposed project, the Commission found in the original permit for the CCWRP (1-95-040) that the special use permitting of the wastewater treatment facility did not prejudice Pacifica's Local Coastal Plan. To reach that conclusion, the Commission adopted the following findings:

> *The subject property is designated as a Special Area in the City's Coastal Land Use Plan (LUP). This portion of the City's coastal zone was not certified by the Coastal Commission during the summer of 1994, and it remains as "an area of deferred certification". The City's LUP indicates that the site is "to be developed as a unit, and to include commercial, residential, City Hall, and Marina Uses". The plan emphasizes that the property is one of the few remaining large vacant sites suitable for commercial development and that a substantial portion of the commercial uses should be coastally oriented visitor destinations.*
>
> *In approving the special use permit for the wastewater treatment plant, the City of Pacifica found that the proposed use was not inconsistent with the existing land use in the area. The city found that the treatment plant location provides adequate separation from existing residential uses east of Highway One and that adequate separation is available from future commercial and residential development in the surrounding quarry area.*
>
> *The certified EIR for the project states that use of a portion of the quarry site for the wastewater treatment plan and its associated creek and wetlands would conform to the Coastal Plan narrative provided that the rest of the property remains available for development. The project could also be considered as a municipal facility that is not inconsistent with the City Hall uses described in the LUP. In addition, the project will increase the site's developability through the consolidation of wetlands currently scattered throughout the quarry site.*
>
> *The Coastal Commission concurs with the above findings, except to point out that future visitor-serving commercial development in the quarry area will have a higher priority of use under the Coastal Act tha[n] private residential and general commercial development. The Commission finds that approval of the project, as conditioned, will not prejudice local government's ability to implement a certifiable LCP for the quarry area.*

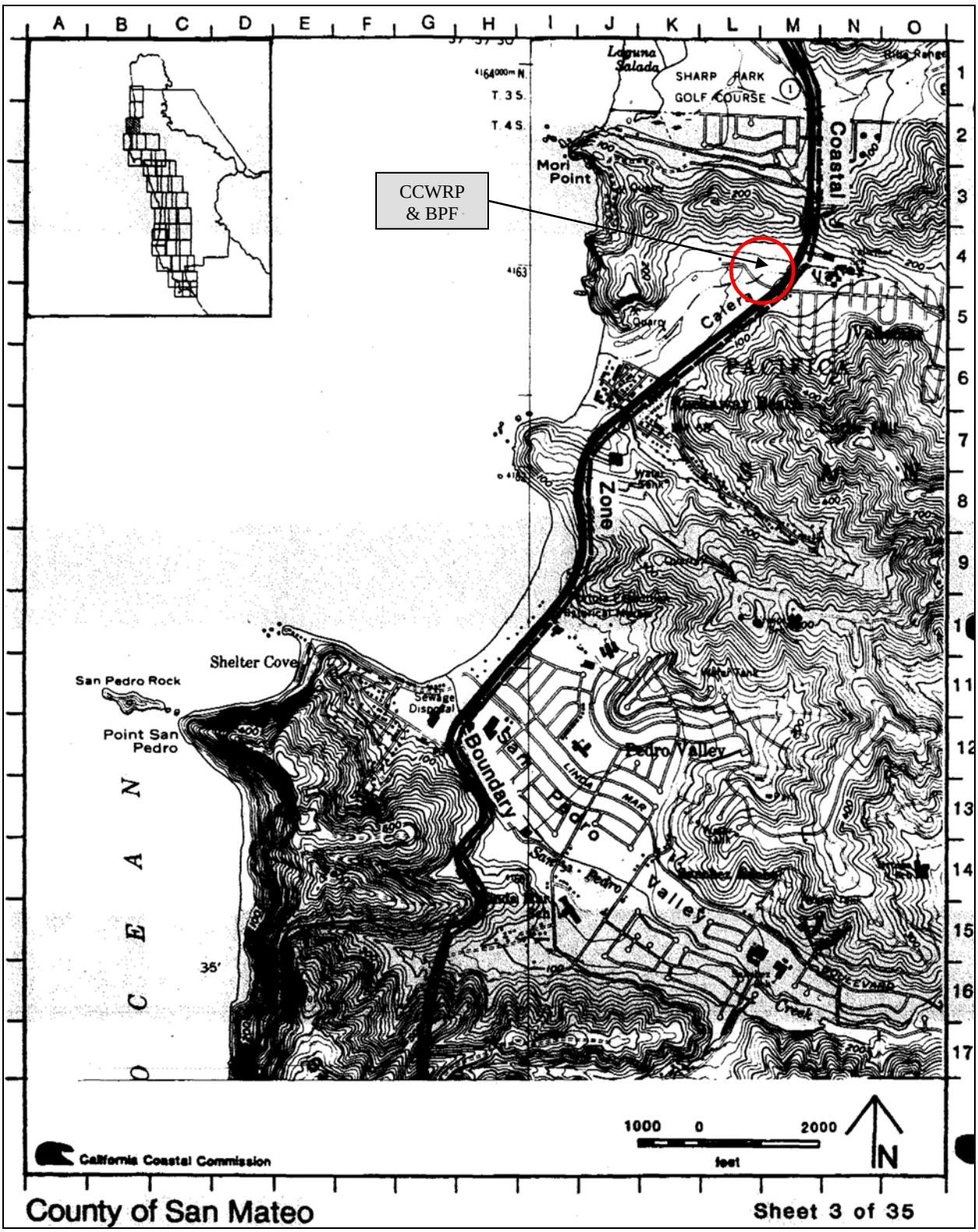
Because the proposed project is located within the footprint of the treatment facility, the Commission reiterates these findings with respect to the proposed biodiesel facility, and concludes that the approval of the proposed project, as conditioned, will not prejudice the City of Pacifica's ability to implement a certifiable LCP in the future for this area.

6.0 CALIFORNIA ENVIRONMENTAL QUALITY ACT

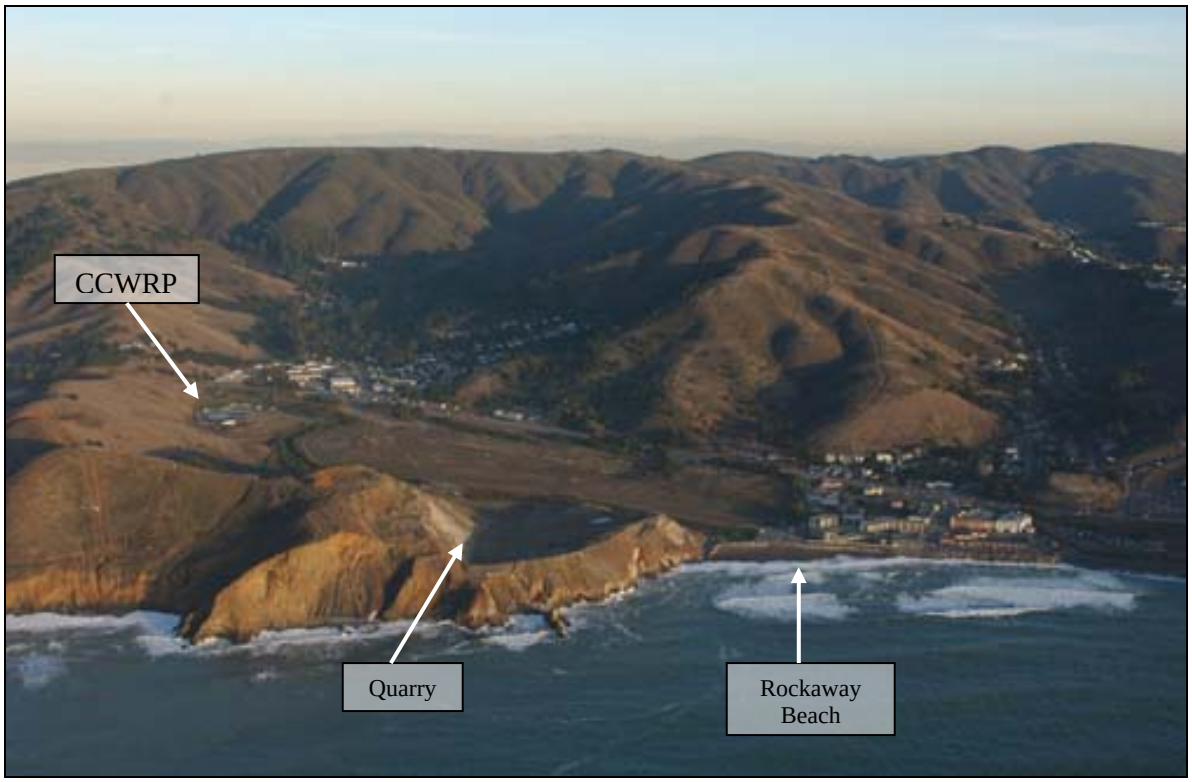
To satisfy the California Environmental Quality Act ("CEQA"), the applicant, pursuant to Section 15164 of the CEQA Guidelines, prepared an Addendum (3) to the original EIR for the Calera Creek wastewater treatment facility. The EIR Addendum concludes that no significant environmental impacts are likely to occur as a result of the proposed project and therefore does not identify mitigation measures, nor does it consider project alternatives. The City of Pacifica, acting as lead agency, certified the EIR Addendum for the proposed project at a public hearing on January 14, 2008.

Section 13096 of the Commission's administrative regulations requires Commission approval of coastal development permit applications to be supported by a finding showing the application, as modified by any conditions of approval, to be consistent with any applicable requirements of the CEQA. The Commission's regulatory program of issuing Coastal Development Permits is certified by the Secretary of Resources pursuant to the provisions of Section 21080.5 of the CEQA. (See CEQA Guidelines § 15251(c).) Section 21080.5(d)(2)(A) of the CEQA prohibits approval of a proposed development if there are feasible alternatives or feasible mitigation measures available that would substantially lessen any significant impacts that the activity may have on the environment. In Section 4.1 of these findings, the Commission finds that there are no feasible less environmentally damaging alternative locations for the proposed project. Furthermore, as described herein, the Commission finds that the project, in combination with conditions of approval, includes measures necessary to avoid any significant environmental effects under the Coastal Act and the CEQA. Accordingly, the Commission finds that the proposed project is consistent with the CEQA.

EXHIBIT A



Coastal Zone Map of Project Area

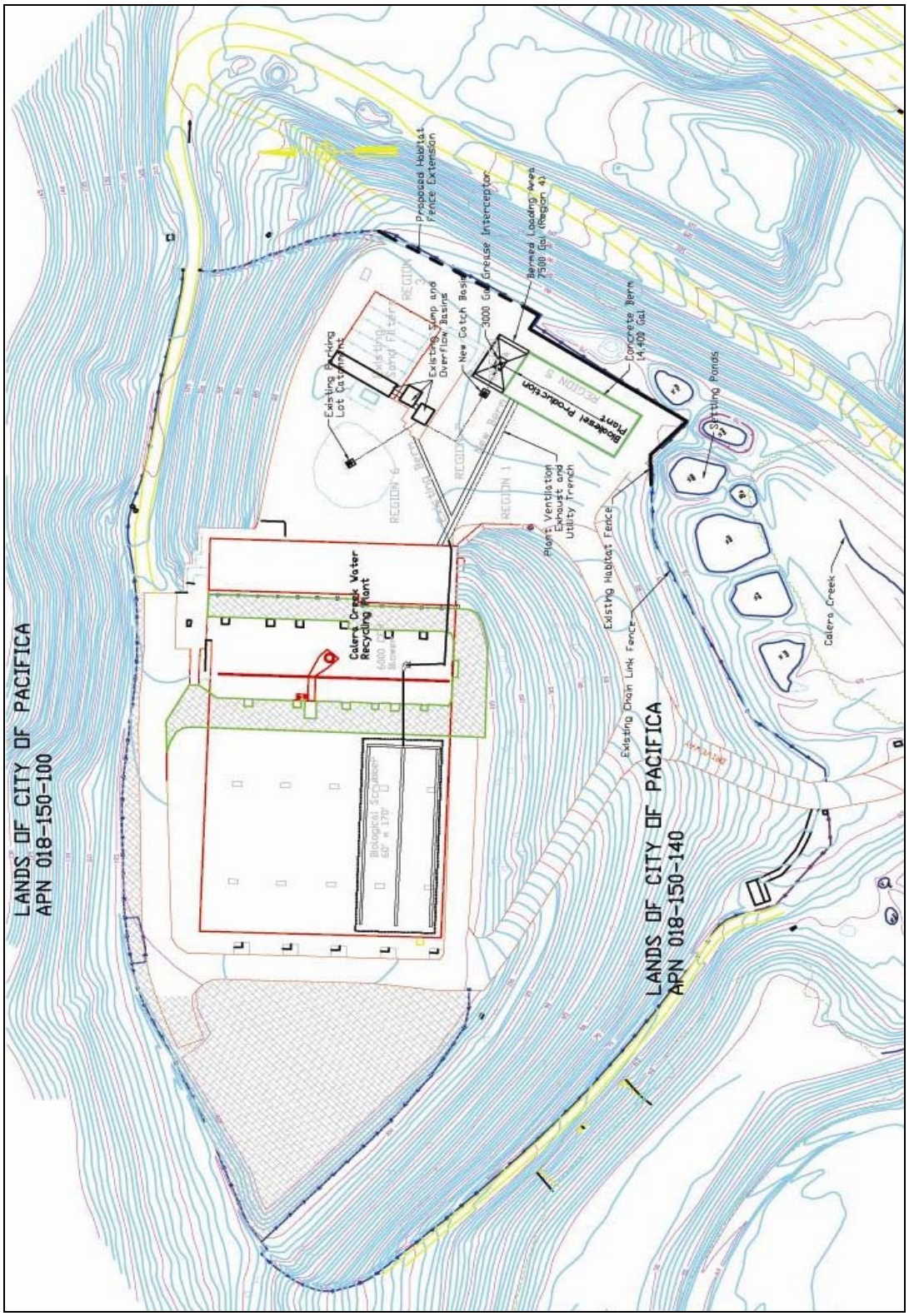


Coastal view looking northeast at Mori Point and South Pacifica; the Pacifica Quarry is in the foreground and Highway 1 runs southwest, separating the wastewater treatment plant from the Vallemar neighborhood to the east.

Aerial view looking down at (east to west) Highway 1, the CCWRP and BPF site, Pacifica Quarry and Calera Creek wetlands running along the toe of the hillside below Mori Point.

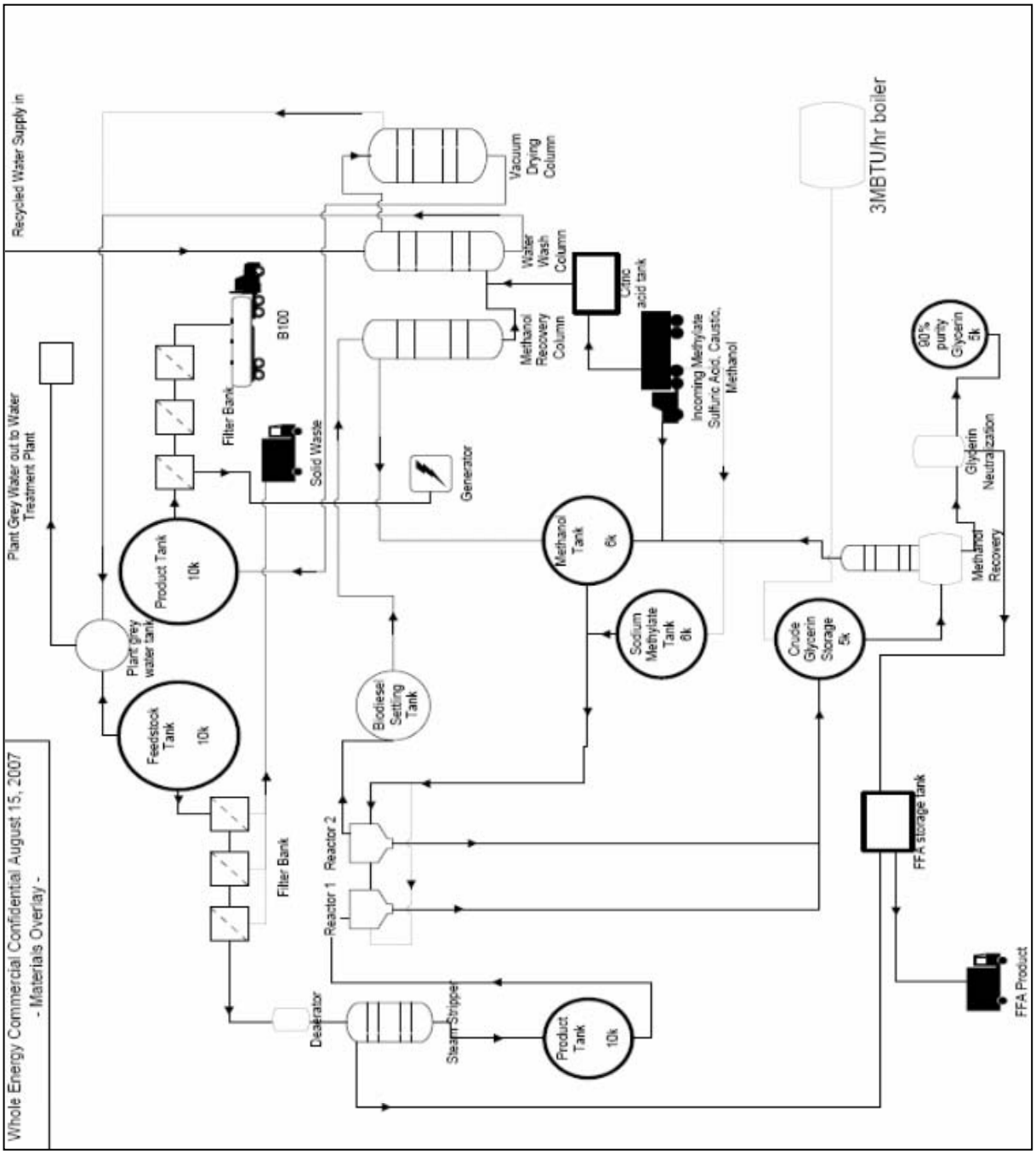
Copyright Google, www.maps.google.com.

EXHIBIT B

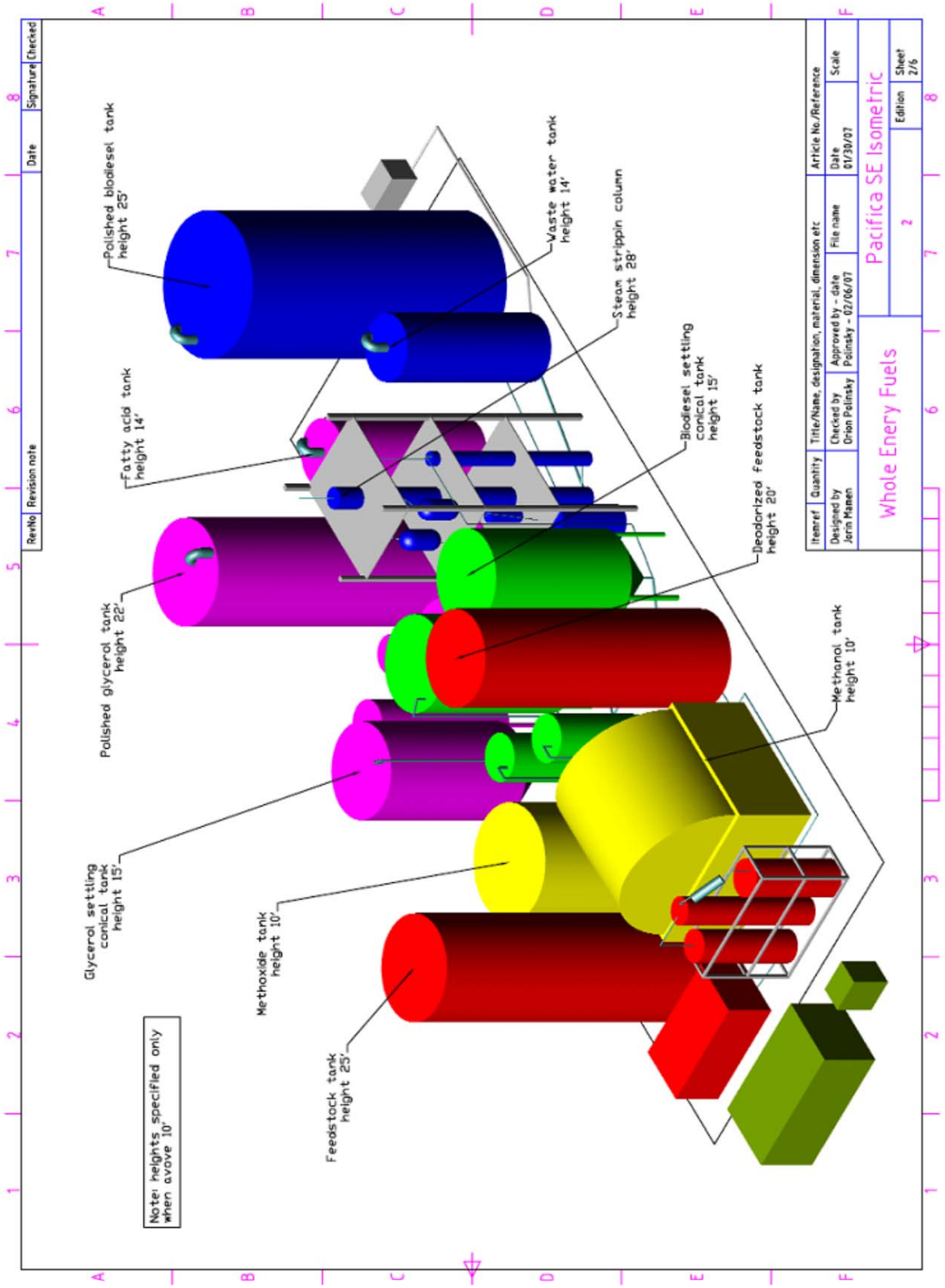


Site Plan

EXHIBIT C

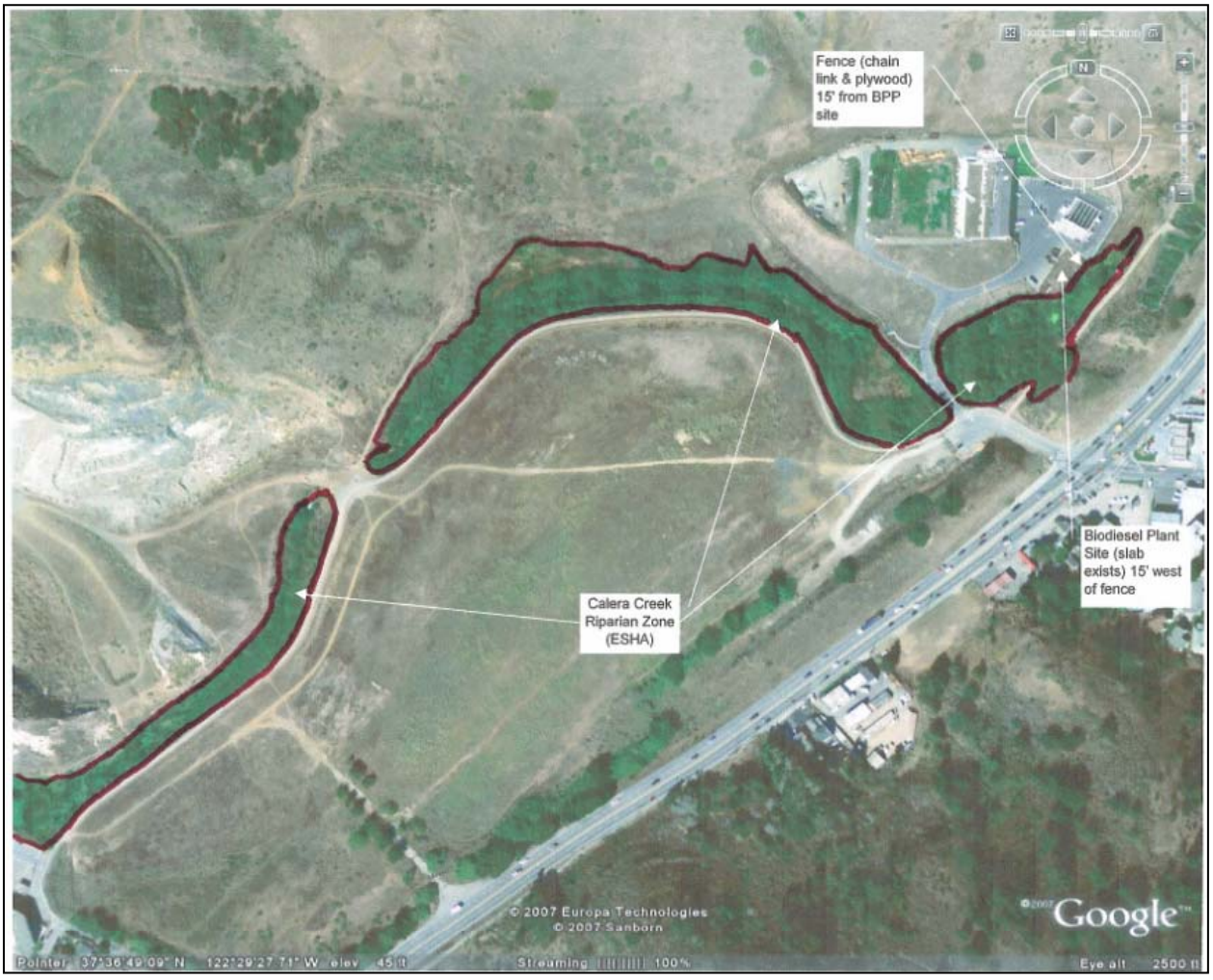


Biodiesel Process Schematic



Biodiesel Process Elevation

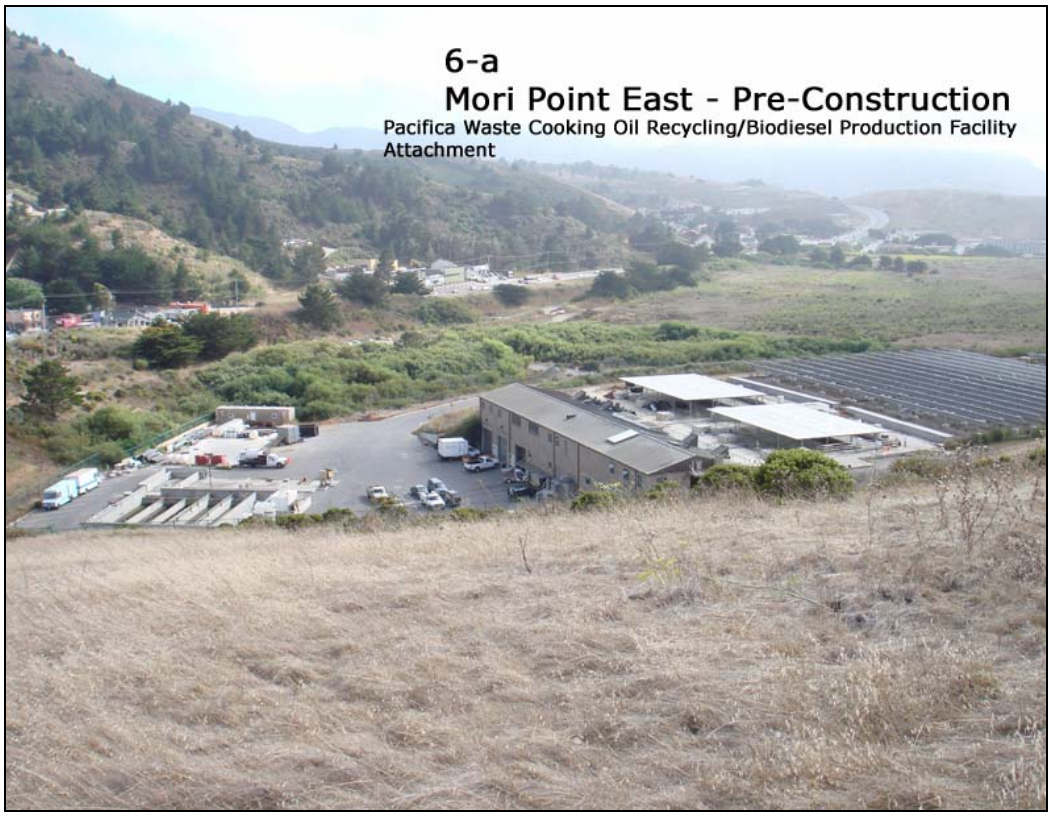
EXHIBIT D



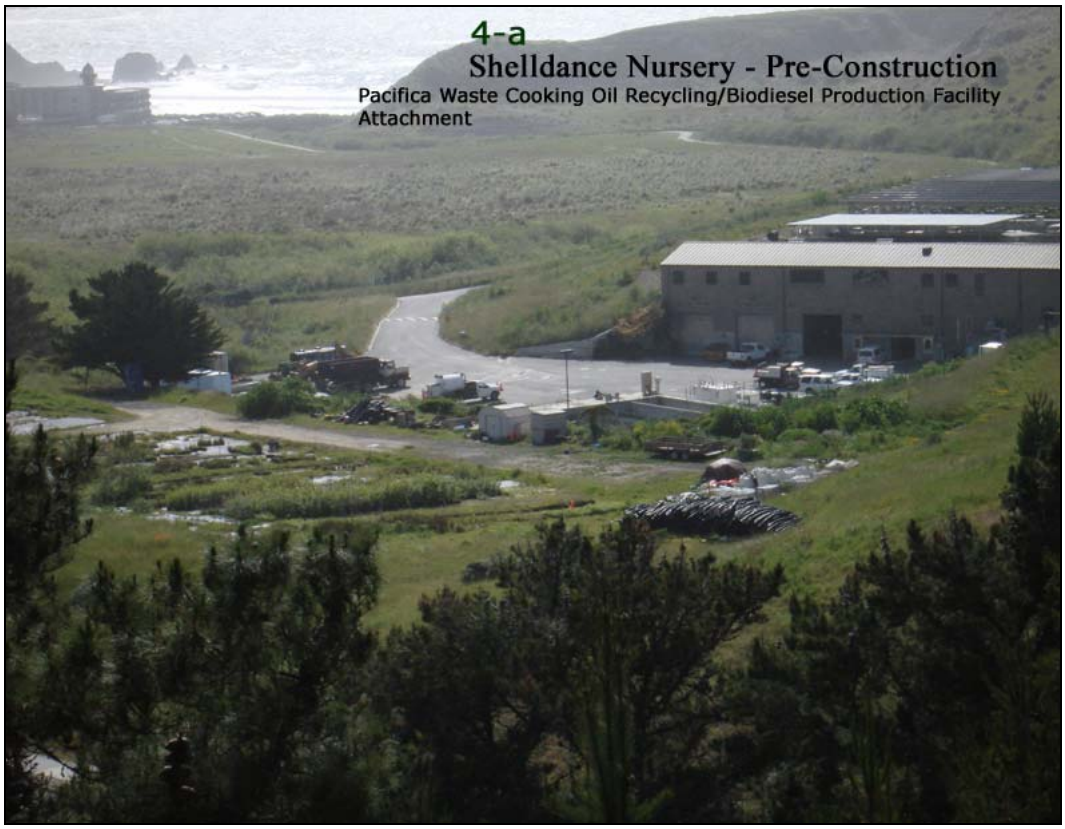
ESHA outlined in red- Riparian wetlands run east-west along the toe of Mori Point hillside. The proposed biodiesel plant, shown adjacent to the CCWRP, lies approx. 15 feet west of the chain link fence, adjacent to the CCWRP settlement ponds and Calera Creek.

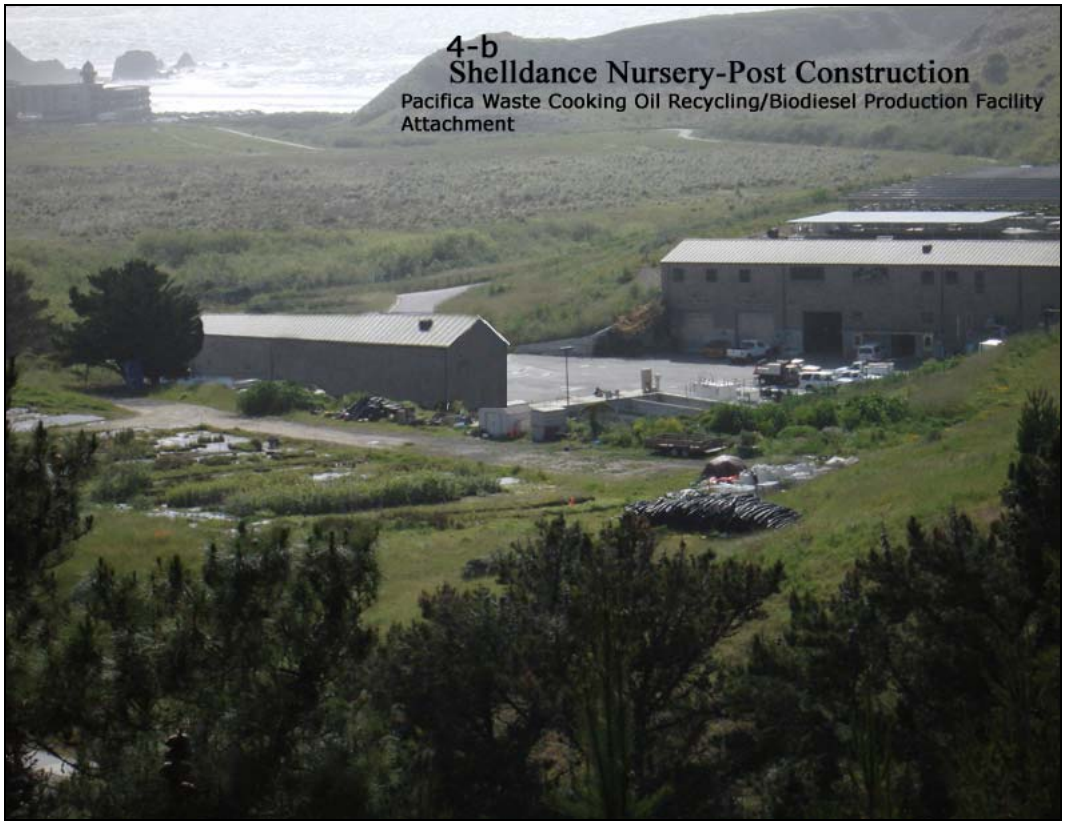
Courtesy Martin Wahl, Whole Energy Fuels Corp.

EXHIBIT E


6-a
Mori Point East - Pre-Construction
Pacifica Waste Cooking Oil Recycling/Biodiesel Production Facility
Attachment


6-b Mori Point East -Post Construction
Pacifica Waste Cooking Oil Recycling/Biodiesel Production Facility
Attachment


4-a
Shelldance Nursery - Pre-Construction
Pacifica Waste Cooking Oil Recycling/Biodiesel Production Facility
Attachment


4-b
Shelldance Nursery-Post Construction
Pacifica Waste Cooking Oil Recycling/Biodiesel Production Facility
Attachment


2
Vallemar Cut (HWY 1) pre-and post Construction (no Visual Impact)
Pacifica Waste Cooking Oil Recycling/Biodiesel Production Facility
Attachment

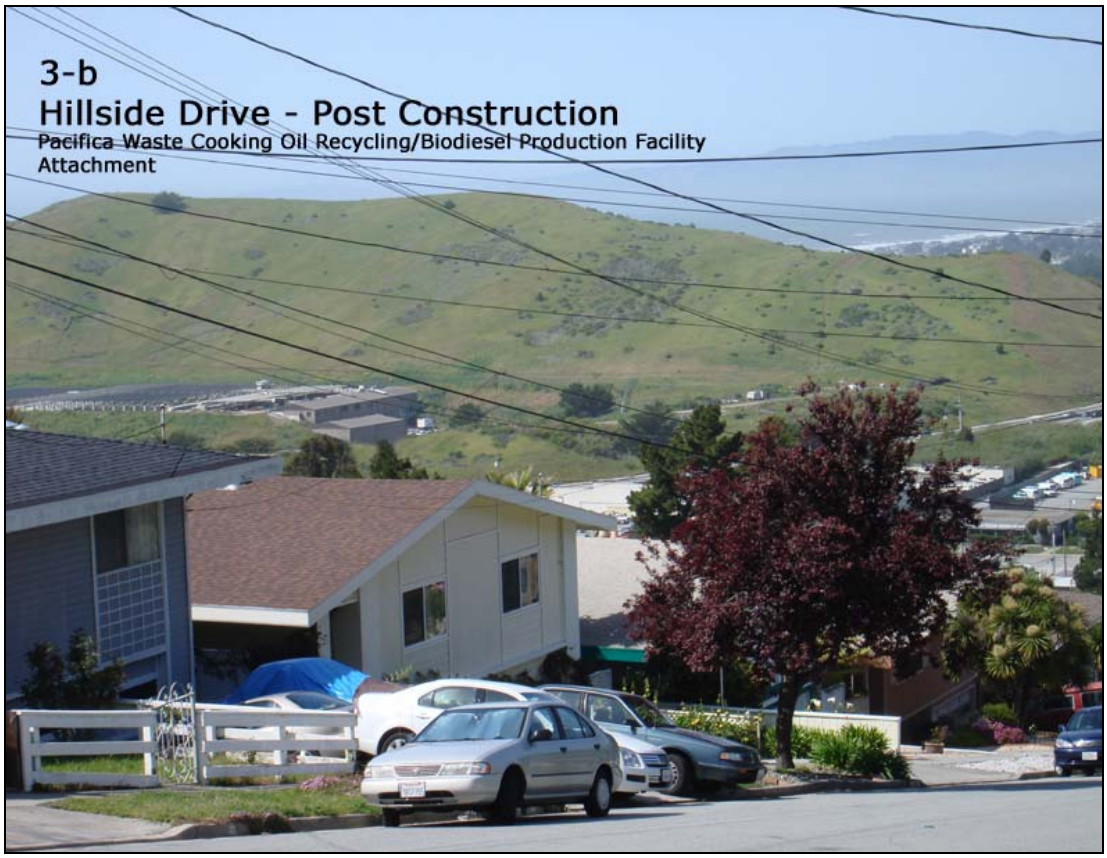

3-b
Hillside Drive - Post Construction
Pacifica Waste Cooking Oil Recycling/Biodiesel Production Facility
Attachment

EXHIBIT F

WEF response letter to CCC staff, April 25, 2008

Here are responses to your most recent requests concerning:

1. ESHA Maps.
2. Revised spill containment procedures
3. Police Response Plan
4. Meetings & Publicity in Pacifica
5. Consideration of Alternate Locations
6. Distribution of Biodiesel in Richmond and Pacifica
7. Additional Items Suggested by USF&WS

These are discussed below.

1. ESHA Maps

Attached are two overhead-photos of the Calera Creek site:

The first map, the Swaim Map, Attachment 1-A, is from the February 2007 report "Status of the San Francisco Garter Snake at Pacifica Quarry, San Mateo, California" by Swaim Biological of Livermore California. The report identified important breeding areas for the CRF and habitat for the San Francisco Garter Snake to the south and west of the CCWRP.

The Swaim research did not include the riparian and pond areas to the north of the access road and bridge to the CCWRP, however it is likely that both species inhabit these areas. The second map, Attachment 1-B, is an aerial site photo annotated to show the areas identified in the Swaim map including the biological treatment pond and the northern Calara Creek riparian areas as well as the areas identified in the Swaim map.

It is our understanding that the Swaim Report and Map are draft and not official documents. They also do not reflect biological surveys within the location of the biodiesel plant. The City has performed monitoring reports and gathered data in this area. There has been no official designation of ESHA in the quarry. We are assuming that if the area is restored native plants wetlands with water and the presence of RLF it is ESHA.

The Calera Creek Water Recycling Plant (CCWRP) site was constructed with 5 ponds to provide biological treatment for parking lot runoff. The ponds are to the western boundary of the plant fence. We have assumed that if an ESHA determination were made in the future, these parking lot drainage treatment ponds would meet that designation. The total area of the ponds is approximately 1.5 acres and is planted with emergent riparian vegetation:

- The first pond treats parking lot runoff from behind the filters and overflows through a log weir to
- The second pond which treats runoff from the remainder of the uncontained parking lot, the building underdrains and the runoff from the biological scrubber., this pond overflows from a log weir to

- The third pond that overflows through a log weir to the fourth pond and from there sheet-flows into
- The fifth pond that sheet-flows through dense vegetation into the creek near the bridge.

The ponds have contained overflow from the filters in the past and have functioned well by preventing accidental discharges into the creek.

Note that the ponds can and will not be utilized for emergency containment by the biodiesel plant and associated areas. All containment for any spills in the biodiesel plant will be in the building, the contained portion of the parking lot and the treatment plant's influent chambers, and only if these containment vessels are completely filled, into the sequential batch reactors. In the next section, the individual source volumes are identified along with spill containment sequences. The implementation of the biodiesel plant's site work will actually provide an additional of protection for the creek habitat by reducing the area of parking lot area that currently drains into the settlement ponds by 4,000 square feet.

2. Revised Spill Containment Procedures

Attachment 2, BPP Spill Containment System Plan, provides detailed spill containment and management systems and procedures, including maps of the revised parking lot area. The attachment shows how spills will be managed an-+d how excess spill volumes will be directed to the CCWRP influent chamber.

3. Police Response Plan

Attachment 3 enclosed with this document is the plan developed by Pacifica Police Chief James Saunders after meeting with Whole Energy and the City Manger to identify the protocols and responses to potential emergency situations at the biodiesel plant. These do not differ from emergency procedures in place for other commercial establishments.

4. Meetings and Publicity in Pacifica

The planned biodiesel plant at the CCWRP has been in the public discussion for many years in Pacifica. Below are lists of public meetings and publications with items devoted to the topic.

Pacifica City Council Meetings and agenda item summaries

- May 23, 05 item 11 '…direct staff to negotiate with Coastside Scavenger to include the biodiesel recycling program in the franchise agreement'
- July 25, 05 item 13 '…Biodiesel production facility and consultation services agreement amendment with thermal processes for $20,000.00 for the study of NOx reduction in peak shaving generator required for air resources permit.'
- Aug. 8, 05 item 7 '…approve agreement with thermal processes authorize City manager to execute documents.'
- Feb. 14, 06 item 11 '…council input on status of BD project ...direction to staff
- Sept. 25, 06 'item 13 ' authorize staff to prep a request for proposals for biodiesel production facility and return to council any responses and complete any necessary CEQA analysis as required by state law.

- March 26, 07 item 11 'authorize the city to negotiate exclusively with whole energy for a lease agreement for biodiesel production facility at Calera creek waste water recycling plant.'
- July 23 07 item 12 '…authorize the City Manger to sign a letter of intent with Whole Energy Fuels Corporation for a ground lease for the construction of a biodiesel production and co-generation facility to be located... and authorize additional budget authority of $75,000.00 from the CARB grant .'
- Sept. 10. 07 item 8 '…use agreement with whole energy for used cooking oil storage at the sharp park waste water treatment site.'
- Jan 14, 08 item 10 '…adoption of resolution adopting City of Pacifica waste water facilities plan final Environmental Impact Report (sch#93033015 addendum 3 for the biodiesel project addendum), and authorize the city manager to enter into a ground lease agreement with whole energy fuels corporation for the construction, operation and maintenance of the waste cooking oil recycling facility (biodiesel Facility) at the Calera Creek Wastewater Recycling Plant.'

American Association of University Women, Pacifica Branch

Held a public meeting on January 17, 2007 devoted to the biodiesel plant. About 40 Pacificans heard a presentation and submitted numerous questions during the meeting. The announcement concerning the meeting is reproduced below:

Pacifica Branch, American Association of University Women

Pacifica Branch, American Association of University Women presents a thought-provoking program, "Should Biodiesel Fuel be Refined in Pacifica? A discussion of How, Why, Where, and When." It will be led by Nancy Hall. Thursday, January 17 at 7 p.m., in the Pacifica Community Center, Card Room, Highway 1 at Crespi Drive.

Biodiesel is a diesel equivalent processed from vegetable oils, algae, and animal fats that can be used in unmodified diesel engine vehicles. This fuel is biodegradable and nontoxic and typically produces 60% less carbon dioxide emissions, and 65% less smog emissions. CO2 emissions can differ widely between fuels depending on production methods, of the source vegetable oils and the processing methods used. It is debatable how well biodiesel reduces CO2 emissions compared to those from petroleum-based diesel.

Nancy Hall drives a car fueled by biodiesel, and has done extensive research into the production and use of this fuel. This will be an opportunity to hear firsthand about this important development. Members of the community are invited to come, listen, and discuss. For more details, call Mar Kaden at 650/359-5863 or email Christine Krenzel at chris@chriskrenzel.com.

The Pacifica School District Board

At its February 27, 2008 meeting the school board took up the issue of safety concerning the biodiesel plant. After presentations by the respective Fire and Police Chiefs and lengthy discussion, a motion to pursue the matter further was not seconded.

Newspaper Appearances

Articles and related publications concerning the biodiesel plant appeared have appeared in issues of the Pacifica Tribune over the years. Some of them are listed below:

7/27/2005	Front Page
9/27/2006	Front Page
10/4/2006	Letter to the Editor
3/21/2007	Front Page
6/6/2007	Front Page
1/23/2008	Front Page
1/30/2008	Editorial Page
2/6/2008	Artist's Rendering Photo
2/27/2008	Letter to the Editor

5. Consideration of Alternate Locations for the Biodiesel Plant

Two perspectives are presented here, one giving the community development view and the other enumerating the synergies and benefits both to the CCWRP and those that make the implementation of a compact, efficient biodiesel facility near the source of feedstock supply and fuel demand feasible

Livability Project Organizer Nancy Hall offers this community-based assessment:
" Why was the Pacifica Waste Cooking Oil Recycling/Biodiesel Production Facility not considered for sites other than the Calera Creek Wastewater Recycling Plant?"

The short answer is: The project design is site-specific.

From the beginning, the Waste Cooking Oil Recycling/Biodiesel Production Facility was designed specifically to be integrated with Pacifica's Waste Water Recycling Plant site. Having just taken an informational tour of the Water Recycling Plant, and also having recently participated in a permaculture and sustainability seminar, I began to see the potential for creating additional clean energy/bio-fuel and micro-generation functions at the site, which had also recently brought a large photo-voltaic array on line for the same purpose.

I work with a local sustainability education and outreach organization called The Livability Project. We operate a biodiesel group-purchase and distribution network. I was quickly educated as to the challenges of maintaining a steady flow of affordable, high-quality biodiesel. Pacifica's commitment to the environment makes it a good host for green projects, supporting our assertion that "Our Ecology is Our Economy", one of the defining statements attached to our City's Strategic Plan. Partnering with the City on the chosen site gives necessary support to reach sustainability at a regional level for recycling waste oil.

The permaculture mind set always seeks opportunities for stacking functions and using existing infrastructure to maximize efficiencies. With this in mind, The Livability Project staff helped develop and present a proposal for integrating the new plant with the existing one. This preliminary proposal was met with interest and enthusiasm by the City of Pacifica, and I began

to work closely with Pacifica's Public Works Department to further develop the synergies in this integrated approach.

Together we were able to design a project that makes efficient use of an existing permitted building site, a spill-contained industrial site, adding value with electricity generation as well as biodiesel production. We initially identified many potential integrations with the CCWRP that could include heat transference and use of sequence batch reactors for microbial emissions mitigation, but ultimately decided to start with the most accessible components which include diversion of readily available recycled waste water for waste oil recycling, a tie-in to the electrical system which is in part powered by the large solar array, and use of an over-built and under utilized biological soil scrubber. Use of the existing biological soil scrubber will be permitted through the Bay Area Air Quality Management District and used for mitigation of emissions created in the micro-generation component of the project, which uses biodiesel to produce electricity during peak electrical hours, thereby taking responsibility for creating renewable electricity on-site for running the Waste Water Plant. The soil scrubber also acts as an air filter for the air in the plant itself, renewing all air approximately 3 times per hour. This acts as back-up to an already fully double contained, closed loop processing system.

The existing site is also already permitted for the same materials we will use in our process, as well as being permitted for an existing, on-site petroleum diesel and gasoline pump station for City use by the City fleet. All of these uses are currently permitted and regularly reviewed and inspected by relevant agencies at this site.

These integrated aspects are really the crux of what makes this an innovative and efficient model of how local governments can take regional responsibility for energy solutions. The California Air Resources Board granted $620,000.00 dollars to this project primarily because of the intelligent design and use of an existing site that is so uniquely ideal for these integrated applications.

I hope this description of our process helps to explain why alternate sites were not really part of our investigation for this project. Could it happen elsewhere? Perhaps, but at much greater expense, and with much greater environmental impact.

Thank you for your interest and consideration,

Nancy Hall
The Livability Project, a partner in
Pacifica's Waste Cooking Oil Recycling/Biodiesel Production Facility

Technical/ Economic Considerations for Collocating the Biodiesel Plant at CCWRP
Whole Energy Fuels seeks to build and operate small to mid-sized biodiesel plants collocated with facilities near the source of feedstock supply and fuel demand. In urban environments, an ideal feedstock is used cooking oil and an ideal collocation partner is a wastewater treatment plant.

Specific considerations for collocation of the plant with the Calera Creek WRP include:

1. The CCWRP is a recycling plant with the goal of being environmentally sustainable. Recycling waste cooking oil is consistent with those goals.

2. As with every wastewater plant, the CCWRP experiences problems with restaurant and residential grease in the collection system. Grease in the collection system is the primary cause of sewage spills in Pacifica. Any program that reduces grease in the collection system reduces the risk of sewage overflows.

3. The CCWRP has an energy-related goal of being self-sustaining and carbon neutral. Solar power, and power generated by recycled biodiesel are key to achieving those goals.

4. The operational impact of producing 3 million gallons of biodiesel on the CCWRP is trivial. The City produces 2 billion gallons of raw sewage per year and more than 40 million wet pounds of sewage solids are handled per year. The incremental impact of biodiesel production will not be detectable.

5. In terms of the potential throughput impact to the CCWRP, the washing process for biodiesel produces a very small amount of wastewater compared to the capacity of the trunk lines and treatment plant. Wastewater volumes from the biodiesel plant will not exceed 2 gallons per minute at a plant with a water treatment capacity of more than 5000 gallons per minute.

6. The components of biodiesel production waste are easily treated in a secondary treatment process. The volume of solids in the biodiesel wastewater stream is non-detectable in the wastewater treatment process at the CCWRP.

7. A three million gallon per year used cooking oil biodiesel plant can only be operated sustainably when collocated with another facility. In the Bay Area, wastewater treatment plants are the most realistic candidates. The CCWRP is the only plant in the area with a soil scrubber to help meet emissions requirements for larger-scale electricity generation.

8. Additionally, other treatment plants in the area are not sited as well as the Calera Creek plant from an environmental protection standpoint. The CCWRP has 9 layers of containment to prevent oil spills from entering into the environment. No other site in the City has this level of protection.

9. The CCWRP site is more than 500 feet from any residential area. Trucks delivering and picking up during off-peak hours once a day will not cause traffic impact.

10. The biodiesel plant has a small footprint compared to the CCWRP and is located adjacent to the parking lot in an excavated hole behind a berm with minimal visual impacts.

All the treatment processes in cooking oil recycling are similar to those that already exist at the CCWRP.

The biodiesel plant in treating its own odors can make additional improvements to the CCWRP odor system. By improving soil scrubber operation and providing redundant intake fans, the

biodiesel plant can treat all of the odors for the CCWRP if there is a failure of the CCWRP main scrubber system. Failure of the main scrubber can occur if the two sets of blowers fail at the CCWRP fail. The biodiesel plant provides a third level of redundancy: the more levels of redundancy, the lower the chance of failure.

The CCWRP operates under a USFWS take permit and an environmental monitoring plan. The plant is within a paved area with habitat fencing already in place and does not contain any potential for frog or snake habitat. The entire CCWRP site is contained and spills to the environment are limited. The slight improvements to the containment system for the biodiesel plant will further minimize the potential for spills into the environment.

Having additional biodiesel plant operations personnel at the CCWRP site improves safety and reduces operational cost for the CCWRP.

6. Distribution of Biodiesel in Pacifica and Richmond

This section addresses the reasons for locating the wholesale distribution site outside of Pacifica while supporting the distribution of biodiesel to local fueling stations.

While Pacifica's CCWRP may be an ideal production location, Pacifica is not a good candidate for a commercial fuel rack. Motor vehicle fuel distribution to jobbers and retailers is centered in a few places in the Bay Area: Richmond is one of the better sites for fuel wholesaling.

Additionally, early in the planning process for the plant in Pacifica we identified that the CCWRP site could not support the ad-hoc arrival of fuel trucks throughout the day, many of which would be adding small amounts of biodiesel to trucks containing petro diesel to achieve blends of between 5 and 20 percent. For the same reason, we identified that the waste oil collection center should also be off-site. The Reina del Mar and Highway 1 intersection could not support the level of peak hour traffic anticipated.

Whole Energy must achieve annual sales levels of biodiesel far greater than the 3 million gallon maximum capacity of the Plant to sustain a market presence in the Bay Area, and thus needs a facility more closely associated with the fuel transportation infrastructure. We need to maintain the volumes and types of biodiesel that the larger market demands. That said, we have committed to support local retailing of the biodiesel produced at the plant in Pacifica and throughout San Mateo. In fact, Whole Energy today provides the biodiesel used in the 20% blend in Allied Waste's trucks in San Mateo, using biodiesel obtained from other producers until the Pacifica site is on line.

The difficulties associated with biodiesel retailing in California are many, and we anticipate that Whole Energy's experience supplying fuel through jobbers and petroleum companies to more than 30 fuel stations in Washington State will help greatly in mainstreaming the product here.

As retail biodiesel outlets are developed in Pacifica and throughout San Mateo County, Whole Energy will arrange cost-effective distribution to sites neighboring the plant.

7. Additional Items Suggested by USF&WS

At a site meeting [in March 2008], [a representative] of California Department of Fish and Game and [a representative] of US Fish and Wildlife Services made the following suggestions for the biodiesel plant implementation, which we will adopt:

- We will continue the 4 foot high plywood sheath north along the chain link fence bordering the eastern end of the WWRP site as an additional barrier against protected species encroachment on the site. This will be beneficial irrespective of the implementation of the biodiesel plant.
- Originally, USF&WS had been under the misimpression that more than two trips per day for pick up and delivery (one each) was part of the original plan. Because the reduction of truck trips even further will be economically beneficial for plant operation, we will investigate the implementation of dual-bladder-equipped tanker trucks that may be able to limit the maximum number of daily feedstock delivery and fuel pick up trips from two to a single, multi-purpose trip whereby one truck is able to deliver feedstock and pick up biodiesel during the same trip.
- USF&WS will notify the City concerning the need to trim/reduce plants that have grown up in and around the settlement ponds, but that is not a contingency for the permitting of the biodiesel plant.

EXHIBIT G

WEF response letter to CCC staff, May 8, 2008

1. Site Selection Rationale

The Calera Creek Water Recycling Plant (CCWRP) site was selected for the Biodiesel Processing Plant (BPP) in the Bay Area because:

- Pacifica was the only city to invite Whole Energy Fuels (WEF) to bid on building a BPP. The City did so because they desired to make the CCWRP more sustainable from a power and pollution reduction standpoint. Environmental control of oil and grease is the responsibility of wastewater authorities. Wastewater plants are the only facilities technically and environmentally equipped for this type of process because it is essentially identical to the processes that take place in wastewater plants: the containment processes are the same, the chemical processes are typical and the permit processes are the same
- No other Bay Area wastewater treatment plant that is not already involved with biofuel projects (such as East Bay MUD, Santa Rosa and Millbrae) has a site as well suited from an environmental protection standpoint as CCWRP. All Bay Area wastewater treatment plants produce effluent in a sensitive water environment (Ocean or Bay). Pacifica's CCWRP is the most forward thinking wastewater facility in the Bay Area: one of the first use digester gas for cogeneration, one of the first to use solar power for peak shaving and are the first to produce Title 22 recyclable water.
- No other wastewater treatment plant has a soil scrubber for implementing peak shaving generator exhaust abatement.
- CCWRP has a high proportional demand for electricity and hence value for the peak-shaving benefit component of the project.

The BPP must be sited within the grounds of the CCWRP in Pacifica because:

- It is not economically feasible to transport liquid work in process inventory from one location to another and achieve the synergistic benefits required to operate such a small capacity plant.
- Improving another site to the level of environmental protection provided by CCWRP would be cost-prohibitive for such a small capacity plant.

2. Local Biodiesel Distribution

Biodiesel produced at the CCWRP BPP will be made available to retail fuel distributors in Pacifica and adjoining areas. WEF is committed to support the implementation of biodiesel at local permitted retail sites. Because WEF leases tankage at a commercial facility in Richmond, California that is permitted for and supports ad hoc delivery and pick up of fuel products throughout the day, it is not limited to distribution in Pacifica and adjacent areas.

Autopia Biofuels, 1025 S. Railroad Avenue in San Mateo and Pacific Biofuel, Inc. 433 Ocean Street in Santa Cruz are examples of existing retailers of biodiesel who are enthusiastic about being able to provide biodiesel produced from local used cooking oil. Unfortunately, the Pacifica and Half Moon Bay biodiesel cooperatives have closed, but WEF is working with their representatives to plan their re-opening when Pacifica-sourced biodiesel is available.

Any deliveries by WEF from the BPP to local retail sites will be coordinated to be part of the off-peak hour shipment of biodiesel no more than one time per day. Biodiesel that is not delivered to retail sites will be transported to the Richmond or other commercial Bay Area fuel facilities.