CITY OF
HAYWARD
HEART OF THE BAY

WATER POLLUTION CONTROL FACILITY

1,000 kW PHOTOVOLTAIC RENEWABLE ENERGY PROJECT

Environmental Initial Study/
Draft Mitigated Negative Declaration

September 2009

Attachment IV

CITY OF HAYWARD

DRAFT MITIGATED NEGATIVE DECLARATION

Notice is hereby given that the City of Hayward finds that the proposed project could not have a significant effect on the environment as prescribed by the California Environmental Quality Act of 1970, as amended will occur for the following proposed project:

I. PROJECT DESCRIPTION:

The City of Hayward proposes to construct a 1,000 kW (kilowatt) solar photovoltaic project to convert sun energy to usable electric energy at the City of Hayward's Water Pollution Control Facility (WPCF), located at 3700 Enterprise Avenue. The project will be located at the west edge of the WPCF property. The reasons for undertaking this project are:

1. To use solar energy to partially offset energy currently acquired from PG&E for wastewater treatment, and to sell energy back to PG&E during periods of maximum solar conversion.

2. To reduce the demand on the PG&E electric power grid during peak demand hours in the summer.

3. To reduce the carbon footprint associated with WPCF operations and to meet one of the objectives of the City's Climate Action Plan. PG&E's CO_2 emissions factor used in the Climate Action Plan is 470 lbs/MWh. A 1-megawatt solar system would generate about 1,950 MWh (megawatt hours) of energy, offsetting 955,500 lbs of CO_2 that would otherwise be emitted into the atmosphere annually.

The solar collectors will occupy about 10 acres of land that has low usage for WPCF operations.

II. FINDING PROJECT WILL NOT SIGNIFICANTLY AFFECT ENVIRONMENT:

1. The proposed project has been reviewed according to the standards and requirements of the California Environmental Quality Act (CEQA) and an Initial Study Environmental Evaluation Checklist has been prepared for the proposed project. The Initial Study has determined that the proposed project, with the recommended mitigation measures, could not result in significant effects on the environment.

2. The project is visually consistent with the existing industrial uses at the WPCF. No potentially significant impacts will occur and no mitigation measures are required.

3. The proposed project is consistent with the General Plan. No lands in the area of the project are zoned for agricultural use. There is no nearby land designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Thus no impacts to agricultural resources, zoning or farmland conversion will occur, and no mitigation is required.

4. The proposed project involves the construction of photovoltaic panel structures within the WPCF active operational area. The project would not result in population growth; therefore, the project would not conflict with or prevent attainment of the local air quality management plan. In fact, this project will improve air quality because it will produce energy from a renewable resource, thus no mitigation is required.

   During construction there will be the potential of creating fugitive dust, but this will be mitigated with Best Management Practices (BMP) that will include sprinkling the site with water as needed to keep dust to a minimum.

5. Construction of the proposed project will be within the fenced WPCF property and will not affect wildlife habitats. Therefore, the proposed project will not conflict with any local policies, or ordinances protecting biological resources, or any adopted local, regional, or state habitat conservation plans. No mitigation required.
   The project will not result in significant impacts to known cultural resources including historical resources, archaeological resources, paleonotological resources, or unique topography.

   Uncovering or disturbance of human remains will be mitigated by halting excavation or disturbance of the site, contacting appropriate authorities followed by disposition in accordance with all applicable laws and regulations.

6. No potentially significant impacts are anticipated with the implementation of Mitigation for erosion and soil loss in areas of disturbance during construction.

7. The project area is not located within a "State of California Earthquake Fault Zone", however, development will be required to comply with the Uniform Building Code standards to minimize seismic risk due to ground shaking. No potentially significant impacts are anticipated, thus no mitigation is required.

8. The project will not lead to the exposure of people to hazards or hazardous materials, and no mitigation is required.

9. The project, with the recommended mitigation measures, will meet all water quality standards. Construction activities will incorporate Best Management Practices (BMPs) to control and minimize the potential contribution of pollutants to storm runoff.

10. The project is consistent with the policies of the City's General Plan and the Zoning Ordinance.

11. The project will not result in a significant impact to mineral resources due to the geological nature of the land, current land use, and zoning restrictions in place at and near the project.

12. Only during construction would noise increase above ambient and this impact is expected to be insignificant in comparison to existing noise levels. Operation of the proposed project will not generate significant levels of ground borne noise or vibrations and no mitigation is required.

13. The proposed project would not directly result in substantial growth because it does not include either new homes or new businesses. Nor would it indirectly encourage new growth through the provision of new infrastructure. The proposed project would not displace any existing housing. As there will be no impacts no mitigation is required.

14. The project will not result in a significant impact to public services. There will be no increase in the existing City staff levels, nor any increase in the treated waste water service levels. No increases are expected in the demand for the public services that support new residents, schools, utilities, parks, fire or police protection. No mitigation is required.

15. The proposed project will not generate new jobs, housing or visitors, so it would not increase the use of existing neighborhood or regional parks or result in their deterioration. No mitigation is required.

16. There will be a minor and temporary increase in traffic during construction only. The temporary increase in vehicle trips will not cause long term degradation in the level of service of roadways used to access the treatment plant. No mitigation is required.

III. PERSON WHO PREPARED MITIGATED NEGATIVE DECLARATION:

Donald Clark

Donald Clark, Utilities Engineer
Dated: 9/17/2009

IV. COPY OF INITIAL STUDY PREPARED BY DON CLARK, UTILITIES ENGINEER IS ATTACHED

For additional information, please contact the City of Hayward, Water Pollution Control Facility, 3700 Enterprise Ave., Hayward, CA 94545, telephone (510)293-5098, or email don.clark@hayward-ca.gov.

DISTRIBUTION/POSTING

- Provide copies to all organizations and individuals requesting it in writing.
- Reference in all public hearing notices to be distributed 30 days in advance of initial public hearing and/or published once in Daily Review 30 days prior to hearing.
- Project file.
- Post immediately upon receipt in the City Clerk's Office, the Main City Hall bulletin board, and in all City library branches, and do not remove until the date after the public hearing.

Table of Contents

List of Tables

List of Figures

List of Abbreviations and Acronyms

AC	alternating current
BAAQMD	Bay Area Air Quality Management District
BMP	best management practice
CEQA	California Environmental Quality Act
City	City of Hayward
DC	direct current
EIR	environmental impact report
IS	initial study
kW	kilowatt (one thousand watts)
HARD	Hayward Area Recreation & Park District
MMRP	Mitigation Monitoring and Reporting Plan
MND	mitigated negative declaration
MWh	megawatt hours (1,000 watt hours)
PV	photovoltaic
WPCF	Water Pollution Control Facility

1.0 Introduction

The City of Hayward sewage collection and wastewater treatment system serves a population of about 146,000 with 350 miles of sanitary sewer mains in connections to the sanitary sewer collection network. About 70 % of the collected volume comes from residential origin; the remaining comes from commercial and light industrial sources. The City also provides a storm water collection system.

The City's Water Pollution Control Facility (WPCF) uses trickling filter/solids contact secondary treatment. Raw sewage is first passed through vacuators for preliminary treatment and then through primary clarifiers prior to secondary treatment. Secondary effluent passes through final clarifiers before being disinfected with chlorine and finally discharged. The WPCF also uses primary digesters to biologically stabilize solids removed from the treatment process. Solids are thickened using gravity belt thickeners and then air dried in sludge beds prior to landfill disposal. Gas from the digestion process is used to power internal combustion engines to generate energy that partially offsets what would otherwise be purchased from the PGE grid.

These processes were thoroughly described in the Project Report submitted for the Improvements SRF loan and particularly in the September 2001 Master Plan and the October 2001 Facilities Plan, prepared by Brown and Caldwell, Engineers.

East Bay Dischargers Authority (EBDA) holds a permit to discharge wastewater to waters of the State and the United States through a common outfall that includes discharges from the Hayward WPCF. Permitting authority and water quality standards for the common effluent falls under the National Pollutant Discharge Elimination System (NPDES). The treated effluent is dechlorinated prior to discharge through a deepwater outfall into San Francisco Bay.

Existing NPDES waste discharge rates for Hayward are

- Average Dry Weather Flow (ADWF)- 16.5 million gallons per day
- Peak Wet Weather Flow (WWF)- 35.0 million gallons per day

For comparison, the ADWF for Hayward WPCF in 2008 was 11.84 MGD; the average flow for all days was 12.27 MGD.

1.1 Purpose and Need for Project

The City of Hayward desires to reduce electric energy purchased from PG&E. There are four reasons why Hayward wants to develop on-site renewable power generation from solar energy via photovoltaic cells.

1. To offset most of electric energy that is currently purchased from PG&E for operating the Water Pollution Control Facility (WPCF).
2. Reduce the demand on the electric power grid during peak demand hours in the summer. There are exceptions such as on a cloudy day which are unusual in the summer.
3. Reduce the carbon footprint associated with WPCF operations. The average CO2 emissions rate in the United States from natural gas-fired generation is 1,135 lbs/MWh. A 1-megawatt solar system would generate about 1,750 MWh, offsetting 1,986,250 lbs of CO2 that would otherwise be emitted from a natural gas fired power plant each year.

The City recently made improvements at the WPCF for reliability and to meet discharge requirements with an increased factor of safety. Such improvements have resulted in increased energy demand. The trickling filter/solids contact (TF/SC) process now in place is generally considered to be more energy efficient than the activated sludge process an option the City could have pursued. Thus the City has made a long-term financial investment and commitment to a quality treatment process that minimizes energy consumption per volume of wastewater treated. Being sensitive to energy usage is a beginning step and needs to be supplemented by using alternative energy when the opportunity presents itself.

The City proposes to construct a renewable (green) energy project at the WPCF using photovoltaic (PV) technology that converts solar energy to electrical energy. This will offset the additional energy demand from the recent plant improvements.

Financial consideration for solar energy has two options available to Hayward. The first is to contract for energy with a Power Provider Agreement (PPA) whereby a third, private party would construct and own the solar system located on City property. The City in turn would guarantee purchasing all energy provided by the solar system at an agreed to price per unit of energy. PPAs are popular because of Federal tax breaks and accelerated depreciation, factors that are not directly available to a municipal government. The downside for the City is that the reduced energy cost is minimal and indeed can be negative. These projects are sometimes pursued by a municipality in the interest of being "green," as long as the cost in comparison with commercial energy is negligibly higher.

The other option would be for the City to construct, own, and maintain the solar energy system. But this is not financially viable without input of rebates and other financial incentives. To be financially viable, the City must rely on one of the following: a low, below market, interest rate; a zero rate of interest on a loan; or a combination of forgiveness with low or no interest.

The City strives to keep energy costs low. Hayward WPCF uses a significant portion (63%) during the off-peak time-of-use TOU by balancing-out the hydraulic flow through the treatment process. Also the City uses digester gas to fuel cogeneration that is operated to diminish peak-demand-power and energy prices.

1.2 Background on Photovoltaic and Solar Energy Systems

Photovoltaic is one of four main types of solar energy technologies. A photovoltaic system is made up of different components. These include photovoltaic modules (groups of photovoltaic cells), which are commonly called photovoltaic panels; an inverter for converting energy to alternating current (AC); wiring; and mounting framework. A photovoltaic array, or collector, is a linked collection of photovoltaic modules, which are in turn made of multiple interconnected solar cells.

Sunlight is made up of photons, or particles of solar energy. Photons contain various amounts of energy, corresponding to the different wavelengths of the solar spectrum. When photons strike a photovoltaic cell, they may be reflected or absorbed, or they may pass right through. Only the absorbed photons generate electricity. When this happens, the energy of the photon is transferred to an electron in an atom of the photovoltaic cell (which is actually a semiconductor). With its newfound energy, the electron escapes from its normal position in an atom of the semiconductor

Figure 1. Project location

material and becomes part of the direct current (DC) in an electrical circuit. DC electricity is then converted by an inverter to alternating current (AC) power for use.

Photovoltaic systems produce power intermittently because they work only when the sun is shining. More electricity is produced on a clear, sunny day and with a more direct light angle, as when the sun is perpendicular to the photovoltaic modules. Cloudy days will reduce output, and no power is produced at night. Photovoltaic systems work best during summer months when the sun is higher in the sky and the days are longer. In the style selected for this Project, a single-axis tracking structure will rotate the photovoltaic panels to track the position of the sun for maximum direct exposure. The rows of photovoltaic modules will be arranged such that their drive mechanism gradually rotates the rows of photovoltaic modules throughout the day from an east-facing direction in the morning to a west-facing direction in the afternoon.

2.0 CEQA Process

Pursuant to CEQA, the purpose of an Initial Study is to:

- Determine whether the project may have a significant effect on the environment. (i.e. whether an EIR or Negative Declaration should be prepared);
- Identify measures that mitigate project impacts to a less than significant level (mitigated negative declaration);
- Define the scope of the EIR, if one is required;
- Justify lead agency's decision to adopt a Negative Declaration, if one is prepared; and
- Determine whether to rely on a previously prepared EIR.

In accordance with CEQA, a Mitigated Negative Declaration shall be prepared if the following criteria are met:

- There is no substantial evidence that the project may have a significant effect; or
- Where there may be a potentially significant effect, revisions to the project would avoid or mitigate the effects to a point where clearly no significant effects would occur.

The Initial Study identified potentially significant impacts, and the City of Hayward has incorporated mitigation measures that will reduce those impacts to less than significant levels. The City` has prepared this draft Mitigated Negative Declaration to provide the public, and Responsible and Trustee Agencies reviewing this project, with information about the Project and potential effects on the local and regional environment. This draft Mitigated Negative Declaration was prepared in compliance with Section 15070 of the CEQA Guidelines of 1970 (as amended). In accordance with Section 15073 of the CEQA Guidelines, this document is being circulated to local, state and federal agencies and to interested organizations and individuals who may wish to review and comment on the report.

3.0 Project Description & Construction

3.1 Project Location

Hayward's Water Pollution Control Facility (sewage treatment plant) is located at the west end of Hayward, near the east shoreline of San Francisco Bay and a short distance north of Highway 92. The WPCF is separated from the shoreline by East Bay Regional Park District land, known as

Cogswell Marsh. Figure 1 shows the regional location, and Figure 2 shows an aerial view of the WPCF and its immediate surroundings.

WPCF is a 24/7 operation with personnel on site at all times. The City employs a permanent staff of plant operation and maintenance personnel, mechanics, electricians, and chemists; approximately 10 such workers are on site daily. The facility is fenced with chain link fencing and locked gates. Public access is restricted without prior authorization.

The WPCF lies within and is surrounded by land zoned by the City of Hayward as Industrial (I). As mentioned above the East Bay Regional Parks District lands are a buffer between the WPCF and the San Francisco Bay shoreline. The nearest hiking trail within the park is at least ¼-mile from the fenced WPCF boundary.

3.2 Proposed Facilities

3.2.1 Project Footprint

Photovoltaic (PV) systems can be installed on rooftops or on the ground. Due to size limitations at the WPCF, configuration requirements, as well as higher construction costs, the photovoltaic system cannot be placed on the rooftops of existing buildings at the WPCF.

The Project will occupy a permanent footprint of approximately 8 acres within the existing WPCF (see Figure 2). An additional 0.25 acre within the existing facility will be used during the construction phase for temporary equipment storage and staging. A construction trailer will be located at the site during construction. The height above ground of the system will change throughout the day; the maximum height will be approximately 16-feet above ground at its full tilt angle of 45 degrees.

The system's support footings will require new concrete. Assuming 350 footings, the project will result in approximately 45 cubic yards of new concrete.

3.2.2 System Components

The system will consist of PV panels, transformers to change the voltage, and inverters to change the amperage from direct current to alternating current. Other features such as conduit and wiring will be placed underground. The system will be connected into the WPCF primary voltage distribution system that will allow the solar energy to be pushed into the PG&E electrical grid when solar generation plus cogeneration exceeds plant demands.
The photovoltaic system will include the following key design features:

- 120 Solar panels arranged in 20 rows (Figure 3)
- Galvanized steel rack structure
- High reliability, distributed mechanical drives
- Remotely/automatically operated and monitored
- Either single-axis tracking East to West with the possibility of double-axis tracking that would include up and down (azimuth)
- Seismic-rated
- 90 mph wind loading (non-stowed)
- Automatic sprinkler system to wash system components as needed, usually every 3 months or less frequently

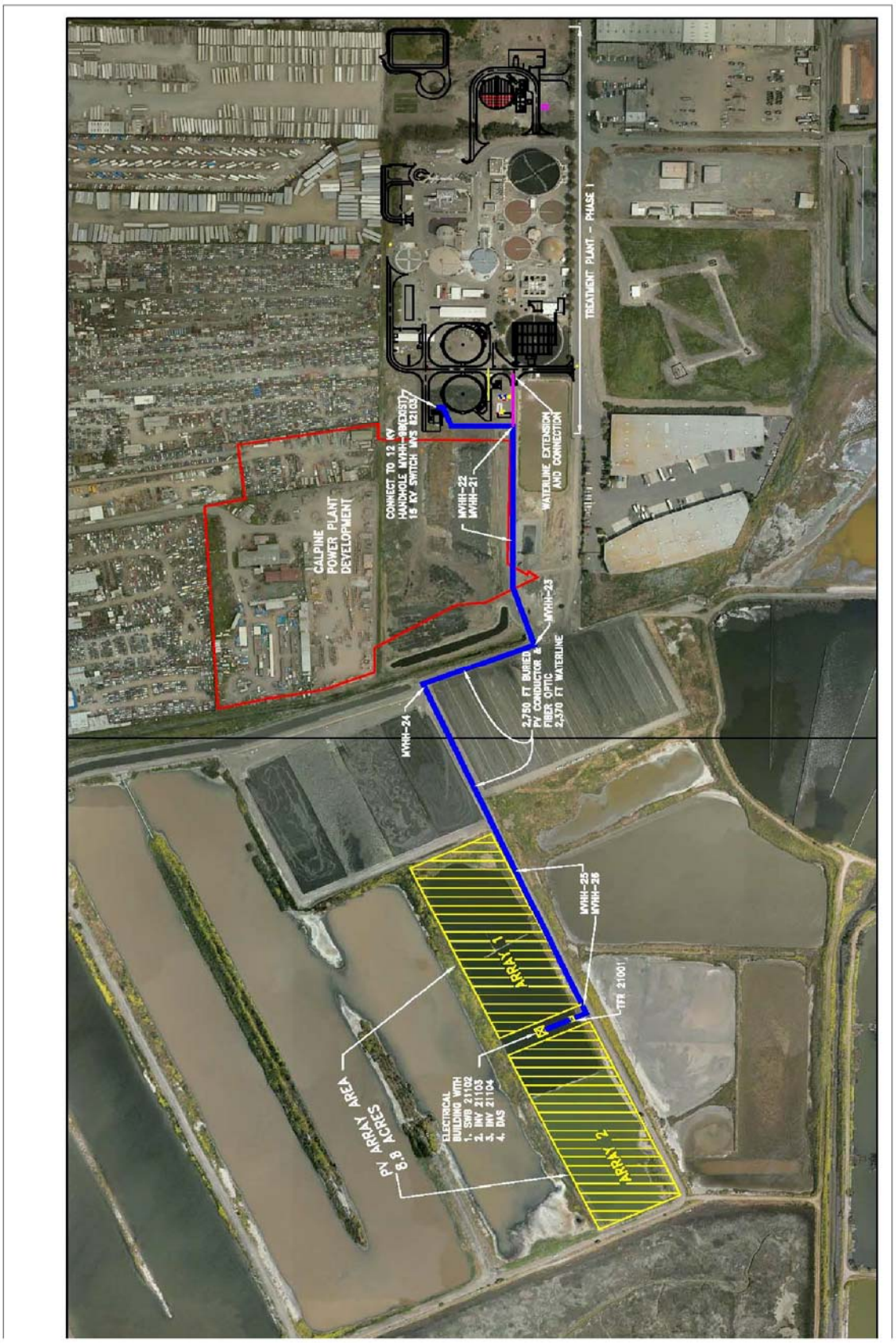

Figure 2. Plan of Development

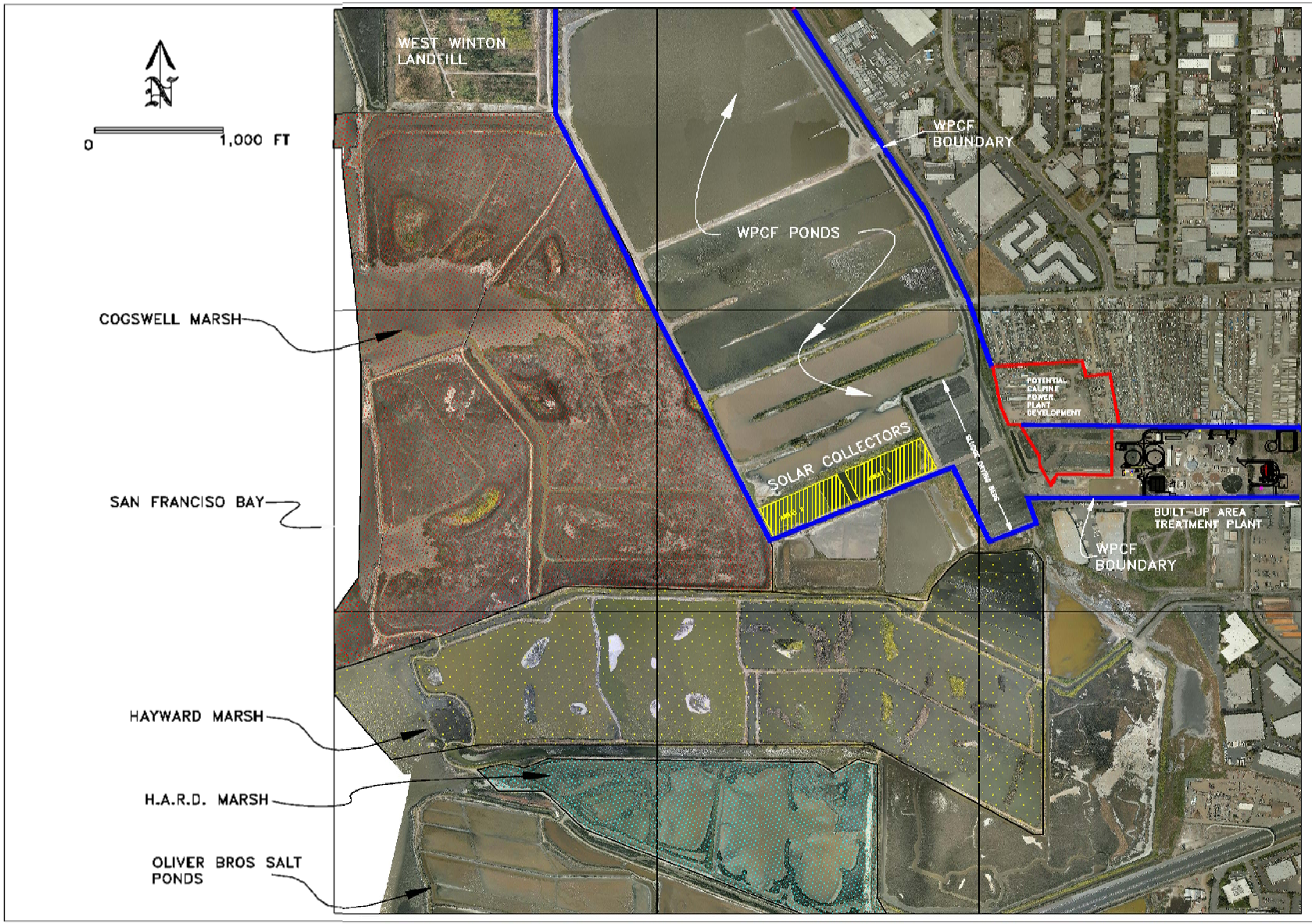

Figure 3. Ecologic Viewpoint

City of Hayward
Solar Photovoltaic
2009 WPCF Ecologic Viewpoint

During system operation, inverters and trackers make minimal noise (<65 dBA), and the balance of the system is silent. No new lighting is planned. With proper maintenance the system will operate for 10 to 20 years or more before requiring major modification or replacement. Figure 4, below, shows an example of a single axis photovoltaic system.

3.3 Construction Activities

3.3.1 Project Sequencing and Schedule

Construction can commence only after the CEQA document is finalized and approved by the City of Hayward City Council. Construction of the system is planned to begin in the spring of 2010, and will last approximately 5 months. The system is planned to be operational by the end of 2010, with final calibration and site clean-up possibly occurring in January 2011.
The general construction sequence will be as follows (some activities will overlap):

- Site preparation and clearing/grading − 2 weeks
- Underground work (boring, trenching, installing conduit) − 4 weeks
- System installation − 8 to 10 weeks
- Testing − 1 to 2 weeks
- Clean up/restoration − 1 week

Figure 4. Example of a Single Axis Photovoltaic System
(photos courtesy Thompson Technology Industries, Inc)

Construction will be scheduled to minimize impacts to operations at the WPCF. Tie-ins to the existing plant electric power distribution will require temporary shutdown to some of the plant operations and will be coordinated with the overall operation schedule to avoid raw sewage inflow assimilation. Construction will generally be between 8:00 a.m. and 5:00 p.m., Monday through Friday. Work on the weekend is not anticipated.

3.3.2 Site Clearing/Grading and Underground Work

The project site is generally flat and clear of major vegetation, and only requires minor clearing and grading prior to the installation of the photovoltaic system. The project area will be graded flat (not level) using cut and fill techniques, and there will be no spoils. To accomplish this, approximately 2,500 cubic yards of soil will be disturbed.

The majority of the underground work (electrical conduit) will be 24" deep.

3.3.3 Truck Trips and Haul Routes

There will be approximately 40 large truck deliveries at WPCF over the course of the 5-month construction period, including shipments of modules, inverters and related electrical wiring and balance of system components; concrete deliveries; and construction trailer delivery/pickup.

The WPCF lies within a heavy industrial area where truck traffic is common.

It is anticipated that the major haul route will ingress and egress into the local roads from State Route 92.

3.3.4 Construction Equipment and Workers

A range of large construction equipment will be used, including:

- bobcats (approx. 2)
- pick-up trucks (approx. 6)
- flatbed delivery trucks (approx. 2)
- small boom crane (approx. 2)
- auger (approx. 1)
- trencher (approx. 1)
- forklift (approx. 1)
- water truck (approx. 1)
- backhoe (approx. 1)
- concrete vibrators (approx. 2)
- drills (approx. 2)
- generators (approx. 2)

Additionally, there will be an average of approximately 10 temporary workers over the duration of the Project (ranging from 2 to 20 workers on any given day), all of whom will drive to and park their personal vehicles at the Project site each day.

3.3.5 Post-Construction Site Cleaning and Restoration

Immediately following construction, the construction area will be cleared of all unnecessary construction equipment and debris.

3.4 Operations and Maintenance Activities

The system will operate on 8-acres of bare ground currently used to stockpile dewatered sludge. It is expected that, with proper maintenance, the system will last 10-20 years or more before requiring major modification or replacement.

Ongoing, post-construction maintenance activities will include bi-annual system cleaning and site cleaning, and quarterly equipment inspection (for a total of approximately 8 activities annually). These activities are typically conducted by two to four workers in a period of 4-8 hours. Bi-annual site cleaning may require the use of a water truck and spray hose. In this event, BMPs as identified earlier will be employed. No hazardous chemicals will be used or stored on site for these activities.

3.5 Permits and Approvals

The Project does not include an increase in permitted WPCF treatment capacity and there will not be a need to modify the City's East Bay Dischrge Authority EBDA permit. The Project will not cause additional air pollution, and the existing permit with the Bay Area Air Quality Management District (BAAQMD) will not need to be modified.

The Power Provider will need to obtain a building permit, grading permit, and prepare a surface water pollution prevention plan (SWPPP) pursuant to the State's General Construction activity Storm Water Permit Program.

3.6 Schedule

On February 25, 2009 the City applied for a California Solar Initiative Rebate reservation with a total capacity of 1,000 kilowatts (kW). On March 24, 2009, PG&E confirmed and accepted the project at Government 3 step 4, or $0.26/kWh produced over the first five years.

In compliance with the deadline, on May 18, 2009, staff prepared and issued a Request for Proposal (RFP) for a Purchase Power Agreement (PPA) of a 1,000 minimum kW solar system. On May 21, 2009 the City filed a Proof of Project Milestone with PG&E, and PG&E confirmed and approved the application. The City has to complete PG&E's construction checklist by September 23, 2010. The following are major items of the checklist:

Required Documents		
1.	Completed Proof of Project Milestone Checklist	☐
2.	Copy of Completed Interconnection Application	☐
3.	Copy of executed contract for system installation	☐
4.	Copy of executed alternative System Ownership agreement (if System Owner is different than Host Customer	☐
5.	Project Cost Breakdown Worksheet	☐
6.	Revised System Sizing Calculations (If applicable)	☐
7.	Revised Incentive Calculation Worksheet (If applicable)	☐
8.	CSI Program Contract with Original Signature	☐
9.	Copy of RFP or solicitation (Government, Non-profit and Public Entities only) Submitted on:	/ /

4.0 Environmental Setting

This section provides an overview of key environmental features of the project site. Additional information is included within the topical discussions in Section 5.2.

The proposed project is located within the City of Hayward city limits, Alameda County, California. The City is located along the eastern shore of San Francisco Bay. The physical setting consists of a 1- to 2-mile-wide band of wetlands along the Bay that are often referred to as "Bay lands", and a flat to gently sloping "Bay plain" extending about 4 miles from the Bay to the base of the hills to the east. The WPCF is located in the City's West Industrial Corridor, which lies within the open spaces of the Bay lands to the west and commercial and industrial area of the Bay plain. The solar panels of the proposed project are located in the Bay lands, but will be within a built up (elevated) area developed into oxidation ponds for sewage treatment.

Land in the industrial corridor surrounding the WPCF and its ancillary facilities have been developed at varying levels of intensity. Manufacturing facilities, fabrication shops, warehouses, trucking operations, and automotive salvage yards are all located in this Industrial Corridor. Many of the manufacturing and warehouse facilities are housed in relatively new, one-story tilt-up structures surrounded by industrial park-style landscaping.

Although much of the development in the Industrial Corridor is horizontal in character, consisting of one and two story buildings, there are a number of prominent vertical features as well. Examples are KFAX radio station's four towers, a 180-foot high stack of the Rohm and Haas paint polymer facility, and the trickling filters and the solids handling building at the WPCF.

The photovoltaic panels will lie about ½-mile from the San Francisco Bay east shoreline. This is an open-space area with no residential development or planned residential development. The nearest residential development is located approximately 1-mile to the east of the Project.

The existing treatment plant's facilities and operations occupy about 350 acres of land which have been owned by the City of Hayward for many years and used for sewage treatment and sludge drying operations. The present treatment plant front-line treatment processes lie within a narrow strip on the north side of Enterprise Avenue, beginning at Whitesell Avenue and then running west for about 1,000 feet. This built-up treatment area is occupied by buildings, tanks, and paved surfaces while most of the remainder of the WPCF site are ponds, open channels, and beds for air-drying sludge developed in the treatment process. The ponds were once used for secondary treatment, but today are used to capture and retain excessive inflows to the plant. One of two open channels is used to convey treated effluent to a disinfection station and then onward to EBDA for treated effluent disposal. The other channel is used to convey flows from the ponds back to the treatment processes. A third channel owned by Alameda Flood Control conveys storm water runoffs to the Bay. The earthen pond berms are elevated as they were formed by excavating soils to form the ponds. There is very little vegetation on the site, other than landscape plantings along Enterprise Avenue and within the built-up plant area. Volunteer grasses and forbs provide a ground cover in some areas that have not been recently graded.

All of the proposed solar facilities, collectors and small structure, would be constructed in the area that was the southern-most oxidation pond (See Figure 2). This pond has been filled in with soils

and recently has been a stage for drying and curing sludge created by biological treatment at the WPCF.

While the plant's surroundings are for the most part industrial in character, it is bordered to the west by marshland. Several large restored wetlands areas are: Cogswell Marsh; Hayward Marsh; and Hayward Area Recreation Department (H.A.R.D.) Marsh. These areas provide significant habitat for a number of special status plant and animal species.

An Interpretive Center owned and operated by H.A.R.D. is located near the end of Breakwater Avenue in the Bay lands. This facility, built in 1986, provides exhibits related to the Bay and Bay land ecosystems. It provides ecological education programs for children, and serves as a staging area for visitors using the network of hiking and biking trails in the adjacent Hayward Shoreline Marsh and Hayward Regional shoreline.

The Interpretive Center building is surrounded by elevated wood decks that provide vantage points for views across the Bay lands. The center and surrounding Bay lands are visited by a moderately large number of people, and the focus of the activities at this location is to observe and appreciate nature. The facility is designed to provide views across the Bay lands and the sensitivity of the view from this observation point can be considered high.

The climate of Hayward is dominated by the San Francisco Bay and sea breezes predominantly from the west. The Bay cools the air with which it comes in contact during warm weather, while during cold weather the Bay warms the air.

The Project is consistent with the City's General Plan. The General Plan notes that the WPCF is to treat wastewaters generated within the City. The PV solar system can be argued to be industrial in that a renewable input is converted to a desired and useful product.

Some natural vegetation exists within the WPCF, along the pond berms and the open channels. Weed abatement is used to preserve the ability to conduct treatment operation activities. Thus, the amount of vegetation can be considered as sparse and normally exists along or near the property lines.

No riparian habitat or wetlands lie within the WPCF property. The nearest major water body to the proposed project and the WPCF is the San Francisco Bay.

The proposed project site and the WPCF is located approximately four miles from the Hayward fault zone and is in an area identified for potential liquefaction.

5.0 Environmental Impacts and Discussion

5.1 Environmental Factors Potentially Affected

The environmental factors checked below may be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following page.

[X] Aesthetics	[ ] Agriculture Resources	[X] Air Quality
[ ] Biological Resources	[ ] Cultural Resources	[X] Geology/Soils
[ ] Hazards & Hazardous Materials	[X] Hydrology/Water Quality	[ ] Land Use/Planning
[ ] Mineral Resources	[X] Noise	[ ] Population/Housing
[ ] Public Services	[ ] Recreation	[X] Transportation/Traffic
[ ] Utilities/Service Systems	[ ] Mandatory Findings of Significance	

5.2 Evaluation of Environmental Impacts

5.2.1 Initial Study Checklist

I. AESTHETICS	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Discussion (Aesthetics):

Question a). The proposed project will be located within the existing WPCF property fenced property line (see Figure 3). The collector system will be silver and gray/black in color. The system's height above ground will change throughout the day; the maximum height will be approximately 16-feet above ground at its full tilt angle of 45 degrees.

The sensitive view shed in the project vicinity would be visitors to the marshes of the East Bay Regional Park District marshes and from the H.A.R.D. Interpretive Center located next to Breakwater Avenue. However, the proposed project is within the fence line of the existing WPCF and will be visually consistent with the existing wastewater treatment facility and industrial buildings, particularly to the south of the WPCF along Enterprise Avenue.

The closest public viewpoint of the solar collection system would be from hiking trails within Cogswell Marsh. Because the terrain is relatively flat and the solar panels would be somewhat

elevated, the panels would be visible from the hiking trails, as well as from the Interpretive Center. However, for the marshland visitors to see the collectors, they would have to also be oriented to see other structures of the Industrial Corridor. The panels would be a small impact compared to the other in-place features of the Industrial zone.

Because of the general industrial nature of the plant site and its surroundings, the installation of the solar panels is not expected to have a significant adverse effect on views in the project area. The project will have a very minor impact upon scenic vista, thus no mitigation is required.

Question b). The only scenic resource is the open marsh land located west of the WPCF and other built-up features of the Industrial Corridor. As indicated above, the Industrial Corridor and the marsh land abut each other. Views from within the marshland to their west would see an open Bay, the San Mateo Bridge, and structural features of the Peninsula as well as San Francisco. Looking northward, southward, and particularly westward, one would view developed structures, generally low-lying, but also some with vertical perception such as the radio towers.

The marshland west of the WPCF cannot be seen from the WPCF built-up area where the treatment processes are located. Thus the collector system cannot interfere or degrade the marsh land view from the WPCF developed area. The pond area is not open to the public and will not have visitors. Thus the solar collectors will not spoil the views into Cogswell Marsh from the west.

The solar collection panels will not have a significant impact upon the view shed for the reasons enumerated in Question a, thus no mitigation is required.

Question c). The existing visual character of the project area is industrial. The proposed project would be located on a site consisting of bare graded earth that is used for sludge drying. Processing equipment frequently traverse the site. There are no trees or riparian habitat that will need to be removed for installation and utilization of the solar panels. Therefore, the project does not have the potential to degrade the existing visual character of the site or the surrounding areas. No impact is anticipated, thus no mitigation is required.

Question d). The proposed project does not include any new lighting. The photovoltaic panels are designed to absorb and capture sunlight rather than reflect sunlight, and the industry incorporates design features, such as extended glass, that further reduces reflectivity. Because the tracking structure does not appear to contribute glare, the impact is considered less than significant and no mitigation is required.

Conclusion. The project is visually consistent with the existing industrial uses at the WPCF. No potentially significant impacts will occur and no mitigation measures are required.

II. AGRICULTURE RESOURCES:

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☒

Discussion (Agriculture):

Questions a), b), and c). The proposed project will be located within the WPCF fence line.

The proposed project site has been part of the Treatment Plant for approximately 55 years and is not considered Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

The project site is not zoned for agricultural use, nor is it under a Williamson Act Contract. The project does not involve any development that would convert agricultural land to a non-agricultural use, nor interrupt on-going agricultural activity. It thus would not result in the conversion of farmland to non-agricultural use.

Conclusion. The proposed project is consistent with the General Plan and will not affect agricultural resources. Construction and operation of the proposed project will not affect land designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. No impacts to agricultural resources, zoning or farmland conversion will occur, thus no mitigation is required.

III. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

Discussion (Air Quality):

Question a). The proposed project is located within the San Francisco Bay Area Air Quality Management District (BAAQMD), which regulates air pollutant emissions in the nine-county San Francisco Bay Area including Alameda County. The BAAQMD monitors air quality in the San Francisco Bay Air Basin for carbon monoxide (CO), reactive gases (ROG), nitrogen monoxide ($NOX_)$, sulfur oxide (SOX) and particulates (PM10) pollutants. State and national ambient air quality standards are established for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, fine particulates matter and lead. The Bay Area is designated as a nonattainment area for the state and federal ozone standard and for the state Particulate Matter (PM10) standard (particulate matter less than 10 microns in size).

The proposed project will not conflict or obstruct the implementation of the applicable air quality plans since no new air pollutant sources will be created. This project will reduce reliance on traditional fossil fuel resources at the WPCF.

The proposed project involves the construction of photovoltaic panel structures within the WPCF active operational area. The project would not result in population growth; therefore, the project would not conflict with or prevent attainment of the local air quality management plan. In fact, this project will improve air quality because it will produce energy from a renewable resource, thus no mitigation is required.

Question b). Construction activities including grading could increase local concentrations of PM10. Fugitive dust emissions including PM10 will be a short-term impact. Due to the minimal size and extent of this project, this potential impact is considered less-than-significant. The amount of grading will be minimal and only to flatten (not level) the site. No soil will be brought in nor disposed of. Construction emissions from equipment use, including carbon monoxide and ozone precursors, are included in the Bay Area Air Quality Management District's emission inventory which is used as the basis for the regional air quality plans and therefore construction emissions associated with the proposed project are not expected to impede attainment or maintenance of ozone and carbon monoxide standards in the Bay Area (BAAQMD 1999). The City will implement standard construction Best Management Practices to further reduce fugitive dust generation, as identified in **Mitigation Measure AQ-1**.

Measure AQ-1. Dust Abatement Program. The City will reduce fugitive dust generation during construction activities. At a minimum, the contractor(s) will be required to implement the following measures (adopted from BAAQMD's CEQA Guidelines for Assessing the Air quality Impact of Projects and Plans for PM10 (1991)). The following construction practices are included in the project and would be implemented during all phases of construction on the project site:

- Water all construction sites with active excavation at least twice daily.
- Cover all trucks hauling soil or require all trucks to maintain at least two feet freeboard.
- Apply water three times daily, or apply non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.
- Sweep daily with water sweepers all paved access roads, parking areas, and staging area at construction sites during earthwork activities.
- Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
- Enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand).
- Limit the speed of all construction vehicles to 5 miles per hour while on unpaved road at the project site.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.

- Install wheel washers for all exiting trucks, or wash off the tires and/or tracks of all trucks and equipment used in the unpaved areas before leaving the site.

Operation of the proposed project will not violate any air quality standard or contribute to an existing or projected air quality violation since no new air pollutant sources nor will new employee vehicle trips be created during operation. There will be no new emission sources with operation of the new equipment since the equipment will be electrically operated. A negligible addition in vehicle traffic to the WPCF will occur for routine maintenance (approximately 10 vehicle trips annually).

Construction of the proposed project would result in temporary emission as a result of trenching and drilling equipment activities. The amount of soil that would be disturbed is approximately not more than 500 cubic yards. The majority of soil involved in trenching will go back into the trench for compaction, and the majority of soil from drilling will be spread in the available areas in the plant site. Any asphalt removed during the trenching will be transported off-site and recycled.

Question c). The project will not contribute to a cumulative net increase of NOX, PM10 or ozone, criteria pollutants since no new air pollutant sources will be created. The renewable (photovoltaic) project will reduce the City's reliance on traditional energy sources.

As was stated above, due to limited amount of earth-moving activities, use of heavy machinery is not required; thus, the project would not generate construction emissions and pollutants in excess of BAAQMD's thresholds, and the impact is less than significant and no mitigation is required.

Question d). The proposed project is located about 1.5 miles from the nearest sensitive receptor, a housing development to the east of Hesperian Avenue. Because of the limited amount of earthwork and no new permanent source of emissions, the project will not expose sensitive receptors to substantial pollutant concentrations, thus no mitigation is required.

Question e). The uses surrounding the WPCF are industrial; therefore the proposed project would not affect substantial numbers of people with either objectionable odors or dust from construction. The proposed project would not increase the amount of odor from the plant, nor would it change the way in which the sewage sludge is dried for disposal. The proposed project would not generate any odor, thus no mitigation is required.

Conclusion. With the implementation of Mitigation AQ-1, potential impacts to air quality during construction will be reduced to less than significant.

IV. BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐

b) Have a substantial adverse effect on any riparian aquatic, or wetland habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other applicable habitat conservation plan?	☐	☐	☐	☒

Discussion (Biological Resources):

Question a). The project will not result in habitat modification. The project will be within the WPCF fenced boundary on bare ground. While the WPCF occurs within the geographic range of several special status species, habitats for these species do not occur on the proposed project site due to the present industrial use of the site (WPCF):

Question b). The proposed project is located within the WPCF fenced property in a bare-ground area used to air dry sludge. This area does not support vegetation or provide wildlife habitat. Vegetation within the WPCF is limited to landscaped areas at the entrance and non-native grasses and weedy species. No sensitive habitats including wetlands occur within the WPCF. No riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFG or USFWS occurs within the WPCF and the proposed project site.

The proposed project would be located on a site that has been cleared, graded, and used for various treatment functions in a sustained manner over a period of more than 50 years. There is no sensitive habitat or natural community on this site, thus no mitigation is required.

Question c). No wetlands occur within the fenced WPCF property. Therefore, the project will have no effect on federally protected wetlands as defined by Section 404 of the Clean Water Act.

As described above, there are no federally protected wetlands on the project site, nor is it hydrologically-connected to adjacent wetlands. Thus, the proposed project would not involve any direct impacts or substantial adverse affects on such wetlands, thus no mitigation is required.

Question d). The proposed project site is within the fenced WPCF property. The proposed site is disturbed and vegetation is absent and the WPCF is fenced. Therefore, the proposed project, which is within the fence line, will not obstruct or interfere with wildlife corridors or impede the use of wildlife nursery sites.

The proposed project would not interfere with the movement, migration, or nursery sites of any fish or wildlife species because there is no suitable habitat of any kind on the proposed site, thus no mitigation is required.

Question e). The proposed project site is within the fenced WPCF property. No impacts to biological resources, including mature or heritage trees, will occur. No trees will be removed.

There are no adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved habitat conservation plans with which the proposed project could conflict, thus no mitigation is required.

Question f). Construction of the proposed project will be within the fenced WPCF property and will not affect wildlife habitats. Therefore, the proposed project will not conflict with any local policies, or ordinances protecting biological resources, or any adopted local, regional, or state habitat conservation plans.

Conclusion. No potentially significant impacts to biological resources are anticipated, thus no mitigation is required.

V. CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Discussion (Cultural Resources):

Question a). There are no known historical resources on the project site, which has been cleared and graded on a roughly annual basis for more than 50 years. Thus there would be no impacts on historical resources from the proposed project, thus no mitigation is required.

Question b), c), and d). No paleontological, archaeological, or unique geologic sites are known to exist within the proposed project site or the WPCF. While it is unlikely that unknown paleontological or cultural resources will be encountered during site preparation grading, the potential for encountering and disturbing known or unknown cultural resources will be minimized with implementation of **Mitigation Measure CR-1**.

Measure CR-1: The following measures will be implemented to minimize potential adverse impacts to unknown cultural resources during construction:

If cultural resources are encountered during construction of the solar panel array, the contractor shall avoid any further disturbance of the materials and immediately discontinue earthwork within 100 feet of the find. At that time, the City of Hayward shall contact a qualified archaeologist, certified by the Registry of Professional Archeologists (RPA), to evaluate the situation. Any identified archaeological resources shall be recorded by the archeologist on form DPR 422

(archeological sites) and/or DPR 523 (historic properties), or similar forms. Project personnel shall not collect cultural resources. Procedures for stopping construction, in the event that cultural resources are exposed, shall be part of the project plans and documents. In anticipation of discovering cultural deposits, procedures shall be in place so that the contractor can move on to another phase of work, thus allowing sufficient time to evaluate the nature and significance of the find and implement appropriate management procedures.

No human remains are known to exist in the project vicinity. However, **Mitigation Measure CR-2** addresses the procedures that will be implemented in the event that human remains are discovered during construction. The potential for encountering and disturbing human remains will be minimized with implementation of this Mitigation Measure.

Measure CR-2: The following measure will be implemented in the event that human remains are unearthed during construction:

In the event that human remains are encountered, ground disturbing activities at that location shall cease immediately, and there shall be no further excavation or disturbance of the site, or any nearby areas reasonably suspected to overlie adjacent human remains, until the County Coroner makes a determination of whether an investigation of the cause of death is required or that the remains are Native American. If the coroner determines that the remains are Native American, then the Native American Heritage Commission in Sacramento shall be contacted within 24 hours (by County coroner), along with the Most Likely Descendant(s) of the deceased Native America (by Native American Heritage Commission), and disposition of the remains shall be in accordance with all applicable laws and regulations.

Conclusion. Impacts to cultural, historical or paleontological resources are unlikely because (1) there are no known resources within the existing WPCF, and (2) the minimal amount of earthwork proposed. However, the mitigation measures above provide additional assurance that such resources would not be adversely impacted by the Project.

VI. GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☒	☐
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐

iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

Discussion (Geology & Soils):

Question a). According to the Alquist-Priolo Earthquake Fault Zone Map, the project site is not located within a Fault Zone, and thus would not be subjected to ground rupture. The Hayward Fault oriented in a southeast-northwest trend is the closest known fault to the project site, passing approximately 4.0 miles to the northeast.

The proposed project is located in the seismically active San Francisco Bay Area. According to the Working Group on California Earthquake Probabilities, there is a 62 percent chance of a major earthquake in the Bay Area in the next 30 years, and a 27 percent chance that that quake will occur along the Hayward Fault. Thus the project site, which is located on land fill, could be subjected to "Very Strong" ground shaking, with "Extremely High" amplification of shaking due to the composition of the fill on which it sits.

The proposed photovoltaic project will be designed to meet the Uniform Building Code requirements. By its nature, the proposed project will be unlikely to expose people to risk of loss, injury or death from seismic ground shaking or seismic related ground failure.

The project site is located on flat terrain at the interface between the San Francisco Bay and the alluvial plain of the East Bay Hills. As a result, it is not at risk from landslides, and no mitigation is required.

Question b). There will be limited site preparation and grading activities associated with the construction of the Project (i.e. less than 2,500 cubic yards of earthwork over 8 acres). Hydrology and Water Quality **Mitigation Measure WQ-1**, will mitigate for erosion and soil loss in the limited areas of disturbance during construction. Therefore, the impact of substantial soil erosion/loss of topsoil will be less than significant, based on the limited area of construction and the erosion / drainage control measures to be implemented during construction.

Question c). The solar collector foundations would be constructed with supervision of engineers and system designers to insure that the integrity of the system is not compromised due to underlying soil characteristics. Thus, there will be no impact and no mitigation is required.

Question d). The soils underlying the project site are expansive, which could damage pavement and foundations associated with the proposed project. In order to minimize the hazardous potential of expansive soils, the following mitigation measure would be implemented.

Question e). The project will not include the installation of septic systems or alternative wastewater systems, thus mitigation is required.

Conclusion. No potentially significant impacts are anticipated with the implementation of Mitigation Measures WQ-1.

VII. HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

Discussion (Hazards and Hazardous Materials):

Questions a), b), and c). The proposed project will not use or store hazardous materials, thus no mitigation is required.

Question d). No underground storage tank (UST) has ever been documented in the PV array area. This area, which was developed into ponds for treating waste water, was constructed by significant soil excavation and embankment. The resulting levees that surround and separate the ponds are relatively narrow and used to support roadways for operational needs. Placing a UST within an operations roadway would have been impractical for equipment staging or maintenance. Thus there are no USTs in the solar collector area and therefore no impacts from USTs will occur.

Questions e) and f). The proposed Photovoltaic Project would be located within two miles of the Hayward Airport, and beneath the flight path for the Oakland Airport. New construction associated with the proposed project would not result in a significant intensification of land use or employment density at the site, nor would it result in any light structures or towers taller than those currently found on the site. No impacts on aircraft operations will occur.

Question **g).** The proposed project site is not part of any adopted emergency response plans or emergency evacuation plans. Therefore, no impacts will occur.

Question h). The proposed project is an addition to an existing waste water treatment facility and will not expose people or structures to wildfires. The proposed project will be isolated from potential wildfires by developed roads and existing ponds. Therefore, no impacts will occur.

Conclusion. No potentially significant impacts to Hazard or Hazardous Materials are anticipated, thus no mitigation is required.

VIII. HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☒
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?	☐	☐	☐	☒
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Discussion (Hydrology and Water Quality):

Question a). Site preparation for the proposed project will require handling an estimated 500 cubic yards of soil for site grading and to complete the installation of the photovoltaic system. Because the ground disturbance would be limited to grading, trenching, and backfill, there is little potential for erosion at the site unless stockpiled soil is transported by wind or water. During construction, loose soil stockpiled at the site will need to be secured to prevent wind and water erosion.

In order to mitigate for potential discharges to surface waters associated with rain water, **Mitigation Measure WQ-1** will be implemented. The City will require the construction contractors to follow a Storm Water Pollution Protection Plan (SWPPP) to prevent the discharge of pollutants to stormwater runoff to the maximum extent practicable by implementing Best Management Practices (BMPs) including installation of silt barriers during construction to avoid erosion and discharge of silty runoff offsite. The SWPPP will follow guidelines for BMPs. With implementation of a Storm Water Quality Protection Plan, the proposed project will not violate water quality standards for construction activities and will reduce potential impacts to less than significant.

Measure WQ-1: Storm Water Pollution Protection Plan. Best Management Practices (BMPs) for construction activities as appropriate in the California Storm Water Best Management Practices Handbook (Storm water Quality Task Force 1993 and/or the Manual of standards for Erosion and Sediment Control Measures (ABAG 1995) will be implemented by the contractor. The BMPs include measures for management and operation of construction sites to control and minimize the potential contribution of pollutants to storm runoff from these areas. These measures address procedures for controlling erosion and sedimentation and managing all aspects of the construction to ensure control of potential water pollutants to the maximum extent practicable.

Erosion and sediment control practices include:

- installation of silt barrier
- stabilize stockpiled soils
- post construction stabilization or revegetation
- runoff control

The City will prepare a site-specific Storm Water Pollution Protection Plan and will require the construction contractor to incorporate the measures into all aspects of the project.

Question b). The proposed project consists of installing a photovoltaic system in areas that were previously disturbed and graded, and would not adversely affect groundwater supplies, thus no mitigation is required.

Questions c), d), e). The proposed project site is elevated some 4 feet above the close-by representative terrain elevation that is outside of the WPCF boundary. The project site will be graded to direct runoff to existing ponds abutting the north side of the fill where the PV panels will be located. Water in this pond is disposed of by evaporation, and the amount of runoff is not expected to cause the active pond to be overtopped. If in the event that the receiving pond approaches over topping, some water would be removed via pumping and sent back to the treatment plant for processing. Thus the proposed project would have no impact on the existing drainage pattern of the site or its surrounding area that could cause substantial erosion or siltation.
As described above, the proposed project would not change the existing drainage pattern of the area or create an increase in the rate or amount of surface runoff in a manner that could result in flooding on- or off-site, thus no mitigation is required.

Question f). During construction of the proposed project, as described above, a SWPPP will be implemented that employ BMPs to avoid offsite discharges of surface water runoff

Question g). The proposed project is within an existing industrial facility and does not include housing. Therefore, new housing will not be placed in a 100-year flood zone. The proposed project would not include the creation of any housing, thus no mitigation is required.

Question h). The proposed project will not be located within a flood hazard area. It will be sited within the San Francisco Bay 100-year flood plain. As such any inundation will not result from focused or local runoff but rather would be equal to all parts of the Bay that would be subject to general water level increases. All adjacent marsh land would be inundated before the project as the project is on elevated ground created by constructing the WPCF improvements. Therefore, the project will not impede or redirect 100-year flows and no impact will occur. The PV panels will be elevated some 2 feet above the ground and the footprint that could become submerged would be less than 1% of the project area, thus no mitigation is required.

Question i). The Photovoltaic Project is not associated with any levees or dams. The developed features are quite removed from any dam or levee and would not effort any impact upon such improvements, thus no mitigation is required.

Question j). Because of its location, the proposed project would not be at risk for seiche or mudflows. The existing treatment plant and the proposed project site are potentially at risk from a tsunami, however the tsunami risk at this area inside the Bay are similar to the risks from major flood events, so the built-up area on the site would also protect against tsunami inundation, thus no mitigation is required.

Conclusion. With implementation of the **Mitigation WQ-1**, potential impacts to hydrology and water quality will be reduced to a less than significant level.

IX. LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the LARDP, general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Discussion (Land Use and Planning):

Question a). The proposed project is within an established waste water treatment plant and is not surrounded by a community. Construction and operation of the proposed project will not physically divide an established community including residential, commercial or industrial uses and no impacts will occur, thus no mitigation is required.

Question b). The WPCF lies within Hayward's city limits and is consistent with the City's General Plan, thus no mitigation is required.

The project is consistent with the California Solar Initiative (CSI) energy conservation policy that calls for reducing requirements from the electricity grid.

Question c). There are no applicable habitat conservation or natural communities conservation plans that apply to the project site, thus no mitigation is required.

X. MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Discussion (Mineral Resources):

Questions a) and b). The project site is not designated as a locally-important mineral resource recovery site in any local plans, thus no mitigation is required.

XI. NOISE

Would the project result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in any applicable plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion (Noise):

Questions a), b), c) and d). Noise generated at the proposed project and immediate vicinity is mostly from the existing WPCF equipment where noise levels are low and to a lesser extent intermittent traffic along Highway 92 located some ¾-mile south of the treatment plant. Residences to the east are at least 1.5-miles from the project.

Construction of the proposed project could result in temporary increases in ambient noise levels in the project vicinity. The closest sensitive receptors are more than one-mile from the project site. However, the project once constructed will not emit audible noise. Noise associated with construction will be similar to noise now generated by operation of the treatment plant. Only during construction would noise increase above ambient and this impact is expected to be insignificant in comparison to existing noise levels, thus no mitigation is required.

Once constructed, the project will not generate any audible noise. There would be no impact, thus no mitigation is required.

Operation of the proposed project would not generate significant levels of ground borne noise or vibrations, thus no mitigation is required.

Question e) and f). The proposed project would be located within two miles of the Hayward Airport, and within the airport land use plan referral area of the Oakland Airport. However, the proposed project would not increase the number of people exposed to aviation-related noise because

it includes no housing, and would not generate any new jobs, thus no mitigation is required.

The proposed project is not within the vicinity of a private airstrip, thus no mitigation is required.

XII. POPULATION AND HOUSING

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion (Population and Housing):

Question a), b), and c). The proposed project would not directly result in substantial growth because it does not include either new homes or new businesses. Nor would it indirectly encourage new growth through the provision of new infrastructure. The proposed project would not displace any existing housing, thus no mitigation is required.

XIII. PUBLIC SERVICES

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Discussion (Public Services):

Question a). There will be no increase in the existing WPCF staff levels, nor any increase in the treated waste water service levels provided by the City as a result of this Project. Therefore, no increases are expected in the demand for the public services that support new residents, schools, utilities, parks, fire or police protection. In addition, the proposed project will be within the fenced and secured location and there will not be a significant increase in the demand for police and fire protection onsite, thus no mitigation is required.

XIV. RECREATION

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Discussion (Recreation):

Question a). The proposed project would not generate new jobs, housing or visitors, so it would not increase the use of existing neighborhood or regional parks or result in their deterioration, thus no mitigation is required.

Question b). The proposed project would neither create new recreational facilities nor require the construction or expansion of existing recreational facilities, thus no mitigation is required.

XV. TRANSPORTATION AND TRAFFIC

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☒	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Result in inadequate parking capacity?	☐	☐	☐	☒
g) Conflict with applicable policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

Discussion (Transportation and Traffic):

Questions a) and b). Construction of the proposed project will involve a minor temporary increase in traffic during the 5-month construction period. The increase in vehicle trips will be associated with deliveries of construction materials and equipment (a total of approximately 40 large truck deliveries over 5 months), and construction worker daily trips to and from the construction site (an average of approximately 10 daily). The project does not include hauling of soil to or from the site. The temporary increase in vehicle trips would not cause long term degradation in level of service of roadways used for access to the WPCF.

Construction traffic will likely access the project via Highway 92 and then use local roads to access the plant. The amount of vehicle trips generated during construction is minimal in comparison to the existing traffic loads.

Various maintenance activities will take during operations, totaling approximately 10 round trip vehicle trips annually. There will not be an increase in on-site workers as a result of this project, thus no mitigation is required.

Question c). Although the proposed project is within or near the flight path of both the Oakland and Hayward Airports, it would not have any impact on air traffic patterns, thus no mitigation is required.

Question d). External access to the project site will be by the existing paved two-lane access road to the WPCF. No modification to the existing access road is proposed, thus no mitigation is required.

Question e). The proposed project would not affect emergency access to the treatment plant site, thus no mitigation is required.

Question f). Parking for the construction work force and equipment will be provided at the WPCF, where adequate parking capacity can readily accommodate the current on-site workforce, construction workers, and construction equipment, thus no mitigation is required.

Question g). As there are no proposed improvements off-site, the proposed project would not conflict with any adopted policies, plans or programs regarding alternative transportation, thus no mitigation is required.

XVI. UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with applicable federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

Discussion (Utilities and Service Systems):

Questions a) through g). The proposed project would not induce population growth, and therefore would not increase the generation of wastewater or solid waste or increase the demand for potable water. The proposed project also would not increase the amount of storm water runoff on the plant site, and therefore would not necessitate any expansion in drainage facilities. No impact would occur, thus no mitigation is required.

The site for the proposed project is within the 100-year flood zone of the San Franciso Bay, but is located on higher ground than the topography of the adjoining marsh land. The WPCF will capture all storm water runoff generated within the project area. Thus the proposed project would not require the construction or expansion of storm water facilities and no mitigation is required.

Water for the proposed project will be provided to clean the PV cell surfaces in order to retain optimal transfer of solar to electrical energy. Water will be provided from the City's water distribution system. Annual demand is expected to be less than one-million gallons.

The proposed project would not generate any additional demand for wastewater treatment, thus no mitigation is required.

As the project site is within the WPCF grounds, project implementation would not directly affect any parks or other public facilities. No impact to public service would occur and no mitigation is required.

The proposed project would not result in the treatment plant being in non-compliance with federal, state, or local solid waste regulations, thus no mitigation is required.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☒
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	☒
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

Discussion (Mandatory Findings of Significance):

Question a). While the proposed project has the potential to degrade the quality of the environment in terms of air quality, cultural resources, and water quality, with implementation of the mitigation measures included in Section 5, all potentially significant adverse impacts will be reduced to a less-than-significant level. No adverse impacts to plants, fish or wildlife habitat or species will occur. No impacts that will eliminate important examples of the major periods of California history or prehistory will be associated with the proposed Project.

Question b). The proposed project is not expected to create incremental effects that will result in a considerable contribution to cumulative impacts since adverse construction impacts will be short term and mitigated and there will be no long term impacts associated with the proposed project.

Question c). The proposed project will have adverse impacts on human beings without implementation of mitigation measures. Adverse impacts include short-term potential degradation of local air quality and water quality from construction activities, and a small short-term increase in construction traffic. These impacts will be minor and temporary, and are not considered significant. Implementation of the mitigation measures identified above and included in Section 6 will reduce all potential significant adverse impacts to a less-than-significant level.

6.0 Mitigation Monitoring and Reporting Plan

A mitigation monitoring and reporting plan (MMRP) follows.

Table 1. Mitigation Monitoring and Reporting Plan

Mitigation Measure	Implementation Procedure	Monitoring and Reporting Actions	Monitoring Responsibility	Monitoring Schedule
Measure AQ-1. Dust Abatement Program. City will reduce fugitive dust generation during construction activities. At a minimum, the contractor(s) will be required to implement the following measures (adopted from BAAQMD's CEQA Guidelines for Assessing the Air quality Impact of Projects and Plans for PM10 (1991)). The following construction practices are included in the project and would be implemented during all phases of construction on the project site: • Water all construction sites with active excavation at least twice daily. • Cover all trucks hauling soil or require all trucks to maintain at least two feet freeboard. • Apply water three times daily, or apply non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites. • Sweep daily with water sweepers all paved access roads, parking areas, and staging area at construction sites during earthwork activities. • Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more). • Enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand). • Limit the speed of all construction vehicles to 5 miles per hour while on unpaved road at the project site. • Install sandbags or other erosion control measures to prevent silt runoff to public roadways. • Install wheel washers for all exiting trucks, or wash off the tires and/or tracks of all trucks and equipment used in the unpaved areas before leaving the site.	City reviews contractor specifications to ensure dust abatement requirements are included. Construction contractor implements measures in the program.	City reviews and approves dust abatement program. Construction contractor weekly documentation that measures are being implemented.	City Project Manger Construction Supervisor/City Project Manger	Prior to construction During construction
Measure CR-1. Procedures when Encountering Cultural Resources. The following measures will be implemented to minimize potential adverse impacts to unknown cultural resources during construction: If cultural resources are encountered during construction of the PV system, the contractor shall avoid any further disturbance of the materials and immediately discontinue earthwork within 100 feet of the find. At that time, City shall contact a qualified archaeologist, certified by the Registry of Professional Archeologists (RPA), to evaluate the situation. Any identified archaeological resources shall be recorded by the archeologist on form DPR 422 (archeological sites) and/or DPR 523 (historic properties), or similar forms. Project personnel shall not collect cultural resources. Procedures for stopping construction, in the event that cultural resources are exposed, shall be part of the project plans and documents. In anticipation of discovering cultural deposits, procedures shall be in place so that the contractor can more on to another phase of work, thus allowing sufficient time to evaluate the nature and significanc4 oaf the find and implement appropriate management procedures.	In the event that cultural resources are found, construction shall stop and a qualified archaeologist shall be consulted.	City Project Manager notified immediately.	Construction contractor Construction Supervisor	During construction

Measure CR-2. Procedures when Encountering Human Remains. The following measure will be implemented in the event that human remains are unearthed during construction: In the event that human remains are encountered, ground disturbing activities at that location shall cease immediately, and there shall be no further excavation or disturbance of the site, or any nearby areas reasonably suspected to overlie adjacent human remains, until the County Coroner makes a determination of whether an investigation of the cause of death is required or that the remains are Native American. If the coroner determines that the remains are Native American, then the Native American Heritage Commission in Sacramento shall be contacted within 24 hours (by County coroner), along with the Most Likely Descendant(s) of the deceased Native America (by Native American Heritage Commission), and disposition of the remains shall be in accordance with all applicable laws and regulations.	In the event that cultural resources are found, construction shall stop and a qualified archaeologist shall be consulted.	City Project Manager notified immediately.	Construction contractor Construction Supervisor	During construction
Measure WQ-1: Storm Water Quality Protection Plan. Best Management Practices (BMPs) for construction activities as appropriate in the California Storm Water Best Management Practices Handbook (Storm water Quality Task Force 1993 and/or the Manual of standards for Erosion and Sediment Control Measures (ABAG 1995) will be implemented by the contractor. The BMPs include measures for management and operation of construction sites to control and minimize the potential contribution of pollutants to storm runoff from these areas. These measures address procedures for controlling erosion and sedimentation and management all aspects of the construction to ensure control of potential water pollution sources. Erosion and sediment control practices include: • installation of silt barrier • stabilize stockpiled soils • post construction stabilization or revegetation • runoff control City will prepare a site-specific Stormwater Quality Protection Plan and will require the construction contractor to incorporate the measures into all aspects of the project.	City reviews contractor specifications to ensure SWQPP/BMP requirements are included. Construction contractor implements measures in the program.	City reviews and approves SQPP. CONSTRUCTION CONTRACTOR weekly documentation that measures are being implemented.	City Project Manger CONSTRUCTION CONTRACTOR construction supervisor/City Project Manger	Prior to construction During construction

7.0 Related References

1. Calpine/Bechtel Joint Development. Application for Certification for the Russell City Energy Center, Volumes I and II. May 2001.
2. City of Hayward Community and Economic Development Department. City of Hayward General Plan. March 12, 2002.
3. East Bay Regional Park District. Hayward Regional Shoreline Online Publication. May 22, 2009.
4. Federal Emergency Management Agency (FEMA). FIRM Map 06001C0269G. August 3, 2009.
5. Oro Loma Sanitary District/Castro Valley Sanitary District. Recirculated Environmental Initial Study-Solar Arrays in Wastewater Treatment Plant-500kW Photovoltaic Renewable energy Project. April 2008