APPENDIX N

SURFACE WATER QUALITY TECHNICAL REPORT

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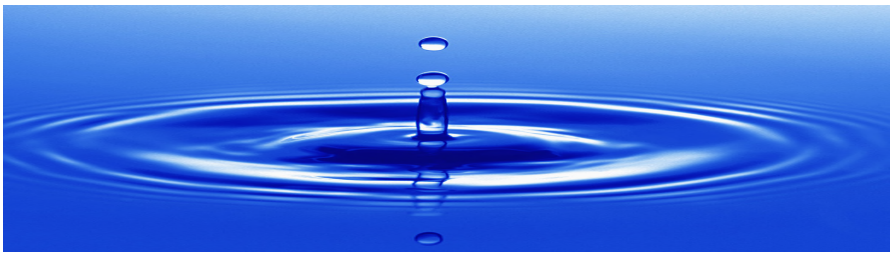

TAJIGUAS RESOURCE RECOVERY PROJECT

SURFACE WATER QUALITY

TECHNICAL REPORT

Prepared for:

County of Santa Barbara, Public Works Department,

Resource Recovery & Waste Management

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1.0 INTRODUCTION

This document provides an analysis of potential surface water and storm water quality impacts associated with construction and operation of a proposed Resource Recovery Project at the Tajiguas Landfill (Tajiguas Resource Recovery Project or Tajiguas RRP). The Tajiguas Landfill is a Class III municipal solid waste (MSW) landfill located 26 miles west of the City of Santa Barbara and operated by the County of Santa Barbara Public Works Department, Resource Recovery and Waste Management Division (RRWMD). The Vendor selected to construction and operate the project is Mustang Renewable Power Ventures, LLC (Mustang). The Tajiguas RRP is proposed to be constructed and operated at the Tajiguas Landfill to divert over 60% of the MSW which is currently buried in the landfill into a recycling stream and a waste-to-energy conversion stream. In addition to recovering and diverting recyclable material and producing green energy, the project would extend the operating life of the landfill until approximately the year 2036. As an optional element, the Tajiguas RRP could also process consumer source separated recyclables (CSSR).

The Tajiguas RRP consists of four major components: a Materials Recovery Facility, an Anaerobic Digester Facility (ADF), and an energy facility to be constructed in the western, central portion of the landfill property and a composting area and associated facilities in the eastern central area of the landfill property. The Materials Recovery Facility (MRF) separates the delivered MSW into three streams:

1. Recyclables which would be baled and shipped offsite to recycling facilities;
2. Organics which would be conveyed to the adjacent ADF where they are digested to produce methane gas and a digestate; and
3. Non-recyclable residual material which would be disposed of in the Tajiguas Landfill.

The methane gas produced by the ADF would be scrubbed and combusted to generate electricity in the on-site energy facility. The digestate would be mixed with chipped wood waste and delivered to the on-site composting facility for final conditioning prior to its sale as soil amendment or compost.

The project would have an overall environmental benefit by reducing the amount of MSW disposed of through landfilling, but several elements of the project have the potential to impact surface and storm water quality including:

- Construction activities associated with the addition of approximately 453,000 square feet of new structural development to the landfill property, and 107,000 cubic yards of grading;
- Runoff from new paved surfaces, parking areas and equipment storage;
- Tipping and processing of MSW;
- Collection, storage, treatment and reuse of process and domestic wastewater;
- Storage and use of hazardous materials (e.g., fuels);

- Storage of percolate for the ADF; and
- Open air composting/curing of digestate.

The potential impact of the project on surface and storm water quality from these activities and facilities is discussed in this report.

2.0 SETTING

2.1 Regional Hydrologic Overview

The following setting information is taken from *Review of Surface Water Resources, Tajiguas Landfill Expansion Project*, URS, October 2001.

The Tajiguas Landfill is located off of U.S. Highway 101 approximately 26 miles west of the City of Santa Barbara in southern Santa Barbara County, California (Figure 1). The landfill lies within the lower reaches of a relatively small coastal drainage basin along the southern flank of the Santa Ynez Mountains. In this area, the Santa Ynez Mountains are drained by a series of roughly parallel, south-facing canyons which extend differing distances upslope towards the crest of the range. The drainage containing Tajiguas (Canada de la Pila) is relatively small compared to other nearby canyons, including Arroyo Hondo to the west and Arroyo Quemado to the east.

The landfill is situated within the lower reaches of Cañada de la Pila. The watershed feeding Pila Creek encompasses an area of approximately 468 acres, extending to the Pacific Ocean from a drainage divide at approximate elevation 1150 feet above mean sea level (msl). Cañada de la Pila is fed by several smaller unnamed tributary canyons and drains via Pila Creek in a southerly direction directly into the Pacific Ocean. Pila Creek is an ephemeral stream that supports continuous flow only during and immediately following significant storm events, occurring principally between the months of November and April. Pila Creek and its smaller unnamed tributary drainages are dry for the majority of the calendar year.

The Pila Creek watershed is separated from the adjacent watershed areas and the Santa Ynez mountain front by surrounding ridges. Cañada de la Pila is flanked to the west by Arroyo Hondo and to the east by Arroyo Quemado. These flanking canyons are much larger than Cañada de la Pila, encompassing considerably more drainage area and extending to greater elevations along the front of the Santa Ynez Mountains. Watershed areas associated with these two larger flanking drainages surround Canada de la Pila, and join north of the drainage divide forming the northern limit of Cañada de la Pila Watershed areas associated with Arroyo Hondo and Arroyo Quemado extend to the crest of the Santa Ynez Mountains. In contrast to Cañada de la Pila, both Arroyo Hondo and Arroyo Quemado support perennial stream flow.

2.2 Site Specific Hydrologic Setting

As noted above, Pila Creek is an ephemeral stream that drains the Cañada de la Pila watershed to the Pacific Ocean. The natural channel has been modified on the landfill site and downstream by construction of U.S. Highway 101 and the Union Pacific Railroad. In the upper watershed area, the northerly reaches of the creek remain in a natural condition. North of the Operations Deck, as a part of the approved Tajiguas Landfill Reconfiguration Project, Pila Creek has been diverted into a concrete-lined trapezoidal channel. Surface flow in Pila Creek presently terminates approximately 200 feet north of the Operations Deck, and surface flows are routed around the landfill disposal area in a 48-inch diameter buried storm drain pipe (primary pipe) with an inlet elevation of 334.23 feet (msl). A second existing buried 48-inch diameter storm drain pipe is located above the primary storm drain pipe at an inlet elevation of 347.23 feet (msl) in the Operations Deck. The higher storm drain provides back up drainage conveyance capacity. Surface flow reemerges in the natural channel of Pila Creek at the southern limit of the landfill, south of the existing energy facility. Two out-of-channel sedimentation basins (north and south sedimentation basins) capture sediment and storm water from the landfill via a network of on-site storm drains.

With improvements constructed as a part of the Tajiguas Landfill Reconfiguration Project, the north sedimentation basin removes 94 percent of incoming sediment from the tributary area (primarily the disturbed landfill area), and 92 percent of the total sediment from the entire watershed (*Pila Creek at Tajiguas Landfill, Project Definition and Feasibility Study, Sediment Yield Analysis Report, Final Rev. 3*, HDR July 2008). The north sedimentation basin functions as one of many best management practices utilized at the landfill to minimize discharge of sediment to Pila Creek. The south sedimentation basin located at the downstream boundary of the waste disposal area, captures storm water run-off and entrained sediment from the southern portion of the landfill area. Storm water is discharged from the lower 48-inch diameter storm drain pipe culvert and the south sedimentation basin into the earthen Pila Creek channel south of the waste disposal area. Storm water flows in the creek then pass through three in-channel trash racks, an access road culvert (prior to leaving the Landfill property) and culverts under U.S. Highway 101 and the Union Pacific Railroad tracks before reaching the Pacific Ocean. Peak surface flow for a 100-year storm event at the access road culvert near the southern property boundary is estimated at 357 cubic feet per second (cfs)(*Tajiguas Landfill Resource Recovery Project*, *Hydrology and Hydraulic Analysis Report*, HDR Engineering, August 2013).

2.3 Regional Water Quality Setting

Basin Plan and Ocean Plan

California's Porter-Cologne Water Quality Control Act (1969), which became Division Seven ("Water Quality") of the State Water Code, establishes the responsibilities and authorities of the nine Regional Water Quality Control Boards (RWQCB) (previously called Water Pollution Control Boards) and the State Water Resources Control Board (SWRCB). The Porter-Cologne Act names these Boards "... the principal State agencies with primary responsibility for the coordination and control of water quality" (Section 13001). Each RWQCB is directed to "...formulate and adopt water quality control plans for all areas within the region." A water quality control plan for the waters of an area is defined as having three

components: beneficial uses which are to be protected, water quality objectives which protect those uses, and an implementation plan which accomplishes those objectives (Section 13050). The *Water Quality Control Plan for the Central Coast Basin* (Basin Plan) was last updated in June 2011 and presents a list of 22 beneficial use categories for surface water bodies within the region (including both ocean and inland waters), and identifies which uses apply to individual surface water bodies.. The Basin Plan is augmented by the *Water Quality Control Plan for Ocean Waters of California* (Ocean Plan 2009) prepared by the SWRCB. Together these documents represent principal planning mechanism used by the RWQCB to fulfil their charter in protecting state waters.

Arroyo Hondo, Arroyo Quemado and the Pacific Ocean are all listed in the Basin Plan as having a variety of beneficial uses. Designated beneficial uses are regarded as existing whether a water body is perennial or ephemeral, or the flow is intermittent or continuous. Pila Creek is not specifically listed and is therefore considered to have potential municipal and domestic uses (MUN). Protection of potential recreation use and of aquatic life is also required.

The Basin Plan also includes water quality objectives, which may be in numeric form, or more typically, narrative standards considered necessary to protect designated beneficial uses. Water quality objectives are achieved through enforcement of, and compliance with, the RWQCB's permit actions (i.e., the Landfill's General Industrial Permit and Waste Discharge Regulations (WDRs)) and through the implementation of the Basin Plan. Water quality objectives for ocean waters are defined in the Basin Plan and in the Ocean Plan for the following parameters:

- Bacteria
- Color
- pH
- Organic Chemicals
- Floating Particulates
- Sediment
- Dissolved Solids
- Nutrients
- Oil & Grease
- Dissolved Oxygen
- Metals
- Radioactivity

The Basin Plan also identifies the objectives for inland surface waters/enclosed bays/estuaries for the following parameters:

- Color

- Settleable material
- Turbidity Toxicity
- Taste & Odor
- Oil & Grease
- pH
- Pesticides
- Floating material
- Biostimulatory substances
- Dissolved oxygen
- Organic chemicals & metals (Title 22)
- Suspended material
- Sediment
- Temperature
- Radioactivity

Water quality objectives for bacteria are established only for surface waters/enclosed bays/ estuaries with designated beneficial uses REC-1 (water contact recreation) and SHELL (shellfish harvesting).

Section 303(d) of the Clean Water Act requires states to identify and prepare a list of waterbodies that do not meet water quality standards and to establish a Total Maximum Daily Load (TMDL) for the listed water bodies. Neither the ocean water in the project vicinity, nor the surface water in Pila Creek, are listed on the California 303(d) " list of impaired waters" maintained by the SWRCB.

2.4 Site-Specific Water Quality Setting

The Tajiguas Landfill is a Class III MSW solid waste disposal facility. The total landfill project site area is 497 acres, and the total permitted waste footprint is 118 acres. The maximum height limit is 620 feet above mean sea level (msl). The currently permitted landfill disposal capacity is 23.3 million cubic yards of waste. The Tajiguas Landfill is permitted to accept 1,500 tons per day of MSW and yard waste. Surface water quality at the Landfill is regulated under two programs administered by the Central Coast Regional RWQCB, Waste Discharge Requirements (WDR) Order No. R3-2010-0006 and the Industrial Storm Water General Permit (SWRCB Order No. 97-03-DWQ and National Pollutant Discharge Elimination System [NPDES] General Permit No. CAS000001) (General Industrial Storm Water Permit).

Under the WDR Monitoring and Reporting Program (MRP) No. R3-2010-0006, the Landfill is responsible for implementing the following surface water monitoring program:

> *Collect two (twice per year) storm water samples pursuant to State Water Board Order No. 97-03-DWQ, General Permit No. CAS000001, as follows:*

a. Within one hour of the first storm event of the wet season (October 1 through April 30) and within normal business hours.

b. During at least one other storm event of the wet season, following a minimum of three working days without a storm water discharge from the first storm event.

A storm event is an event that produces surface water runoff from the Landfill to waters of the state.

The parameters that are required to be monitored include:

Table 1 – WDR MRP No. R3-2010-0006 Storm Water Monitoring Parameters

Parameter	***USEPA Method[1]***	***Units[2]***
Specific Conductance	*120.1*	*µS/cm*
Nitrate & Nitrite as Nitrogen (30-day holding time)	*300.0*	*mg/L*
pH	*Field*	*pH Units*
Total Organic Carbon	*9060*	*mg/L*
Total Suspended Solids	*160.2*	*mg/L*
Iron (unfiltered)	*6010B*	*mg/L*

Footnotes:
[1] USEPA – United States Environmental Protection Agency. Upon receiving prior approval from the Central Coast Water Board Executive Officer, the Discharger may use equivalent analytical methods.
[2] mg/L – milligrams per liter; µS/cm – microSiemens per centimeter

(Source: Table 4 MRP Order R3-2010-0006).

In addition, MRP No. R3-2010-0006 requires the following:

Annually, collect a sediment sample from within each storm water sediment basin, and analyze for the metals listed in §64431, CCR Title 22, Division 4, Chapter 15, Article 4. Sediment sampling is not required if the Discharger removes the Basin's accumulated sediment prior to October 1 of each year and discharges the sediment into the Landfill's lined Waste Management Units.

The MRP does not provide specific thresholds for the storm water monitoring parameters but the RWQCB can require the Landfill to take corrective action if the parameters downstream of the landfill exceed the parameter levels upstream of the landfill.

Under the General Industrial Storm Water Permit the Landfill is responsible for implementing the following surface water monitoring program:

FREQUENCY: Sampling is taken for two storms per winter season. The samples are taken within the first hour of run off and within normal business hours.

PARAMETERS: Storm discharge is analyzed for:

pH –Field instrument

Total Suspended Solids (TSS) –Laboratory

Specific Conductance –Field instrument

Oil & Grease – Laboratory

Total Organic Carbon – Laboratory

Nitrate as N – Laboratory

Iron – Laboratory

(Source: *Storm Water Pollution Prevention Plan, Tajiguas Sanitary Landfill*, Santa Barbara County, May 3013)

The General Industrial Storm Water Permit also requires that storm water discharges meet all applicable provisions of Sections 301 and 402 of the Clean Water Act. Subchapter N of Title 40 Code of Federal Regulations (CFR) established effluent guidelines and standards for storm water discharges from landfills. Subchapter N monitoring parameters include:

BOD

Total Suspended Solids

Ammonia (as N)

[alpha]-Terpineol

Benzoic Acid

p-Cresol

Phenol

Zinc

pH

As can be seen above, there is overlap between the parameters required to be monitored under the two programs.

To meet the requirements of the programs (WDR MRP and Industrial Storm Water Permit) discharge is sampled at a total of four locations (Figure 2):

- SW-1 Up-gradient of the landfill activities
- SW-3 Combined discharge from the northern sedimentation basin and undisturbed area
- SW-4 Site downstream property boundary[1]
- SW-5 Downstream of south sedimentation basin

[1] Compliance monitoring location for the General Industrial Storm Water Permit.

Results from storm water sampling conducted are summarized in Table 2.

Table 2 Summary of Surface Water Quality Results

Analytes	Units	Sampling Locations								
		SW1*	Sediment Basin Storm 1	Sediment Basin Storm 2	SW3 Storm 1	SW3 Storm 2	SW4 Storm 1	SW4 Storm 2	SW5 Storm 1	SW5 Storm 2
Specific Conductance	µS/cm	0.538	0.872	0.523	0.922	1.137	2.41	3.96	3.61	2.72
Nitrate & Nitrite as Nitrogen	mg/L	1.1	1.5	6.7	1.6	6.7	3.0	9.7	5.2	13
pH	pH units	7.45	8.71	8.69	8.42	8.82	8.96	8.95	8.74	9.11
Total Organic carbon	mg/L	n/a	20	9.4	17	10	33	32	68	56
Total Suspended Solids	mg/L	6.2	73	28	5000	67	190	36	210	98
Iron	µg /L	170	6100	1200	47000	1800	4900	6900	6300	1500
BOD	mg/L	n/a	17	5.9	12	4.9	8.6	12	34	24
Ammonia	mg/L	n/a	0.096	0.066	0.048	0.029	0.45	0.41	1.5	1.0
(alpha) Terpineol	µg/L	n/a	ND	ND	ND	ND	ND	ND	ND	ND
Benzoic Acid	µg/L	n/a	ND	ND	ND	ND	ND	ND	ND	ND
p-Cresol	µg/L	n/a	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	µg/L	n/a	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	µg/L	n/a	19	7.3	150	6.3	23	40	45	74
Oil & Grease	mg/L	ND	ND	ND	ND	ND	ND	ND	1.8	ND

*12/29/10
Storm 1 – sampled 12/26/12
Storm 2 – sampled 01/25/13
n/a - not analyzed
ND – Not Detected

The sample test results indicate that the runoff from the landfill contains detectable concentrations of all of the analytes tested. In general, the concentration of analytes increases with an increase in contributing area from the landfill. The extreme variation in Total Suspended Solids for the two test dates at location SW-3 indicates that the results are very sensitive to the variation in runoff quantity.

There are currently no numeric effluent limitations under the General Industrial Storm Water Permit. The General Industrial Storm Water Permit requires facility operators to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges through the development and implementation of Best Management Practices (BMPs) which constitute compliance with Best Available Technology (BAT) and Best Control Technology (BCT). If receiving water quality standards are exceeded, facility operators are required to submit a written report providing additional BMPs that will be implemented to achieve water quality standards.

Existing Landfill Best Management Practices

Potential surface water pollution sources associated with the Landfill operations are managed by both structural and non-structural methods at the Tajiguas Landfill. A summary of the best management practice (BMP) for each activity is shown below.

Table 3 Summary of BMPs

AREA	ACTIVITY	POLLUTANT SOURCE	POLLUTANT	BEST MANAGEMENT PRACTICE
ALL ACTIVITIES	Disposal and Recycling, Circulation, Earthwork, Maintenance and Fueling	Refuse, Erosion, Spill, Leak	Refuse, sediment, fuel and chemicals	Good Housekeeping, Preventive Maintenance, Employee Training
Active Disposal Area	Refuse Disposal	Refuse	Refuse, litter, sediment	Daily Cover, Fiber Rolls, Straw Bales, Grading
Temporary Slopes and Decks (Refuse Filled)	Grading	Erosion	Sediment	Benches, Fiber Rolls, Surface Treatment, Swales
Earthwork– Borrow Cut	Grading	Erosion	Sediment	Fiber Rolls, Silt Trap, Surface Treatment
Earthwork– Stockpile	Grading	Erosion	Sediment	Fiber Rolls, Surface Treatment, Silt Fence
Inactive Disposal	Intermediate Cover	Erosion	Sediment	Benches, Surface Treatment
Wind Susceptible Areas	Windblown litter	Paper, floatables	Varies	Litter patrols, Permanent & Temporary Fence, Inlet Protection
Drainage Inlets	Convey Flows	Erosion	Sediment	Inlet Protection
Paved Roads	Vehicle Circulation	Erosion	Sediment	Street Sweeper, Corrugated Steel Tire Plate, Stabilized Road Entrance
Unpaved Roads	Vehicle Circulation	Erosion	Sediment	Stabilize surface, Swale, Traps
Green Waste Area	Chipping	Mulch	Organics	Inlet Protection
Vehicle Mtc. Shop &	Oil change, lube	Spills	Vehicle fluids	Roof, Good Housekeeping, Training,

Vehicle Wash				Recordkeeping
Fueling Area	Vehicle Fuel	Spill, Leak	Diesel Gasoline	Double-Walled Tanks, Good Housekeeping, Training
Waste Oil Storage	Oil Storage	Spill, Leak	Oil	Double-Walled Tank, Canopy, Good Housekeeping, Training
New Oil Shed	Oil Storage	Spill, Leak	Oil	Double-Walled Tank, Roof, Good Housekeeping, Training
Hydraulic Fluid Storage	Chemical Storage	Spill, Leak	Chemical	Canopy, Good Housekeeping, Training
Vehicle Mtc. Supply Shed	Supplies Storage	Spill, Leak	Hydraulic Fluid	Roof, Good Housekeeping, Training
White Goods Recycling	Appliance Storage	Spills	Freon	Dry Clean Up Methods
Household Hazardous Waste Collection	Temporary Storage	Spills, Leak	Paint, Batteries, Miscellaneous	Double-Containment, Locker, Good Housekeeping, Training
LCRS Tanks 1 – 4	Groundwater storage	Spills, Leak	Non-hazardous material	Not Required
LCRS Tanks A – D	Landfill Dewatering Well storage	Spills, Leak	Non-hazardous material	Double Walled Tank, Double-Containment, Training
Special Liner Projects	Liner Construction	Erosion	Sediment	Project specific SWPPP By Contractor

2.3 Regulatory Setting for the Resource Recovery Project

Overview

Surface water quality is affected by agricultural, urban, and industrial sources of pollution. Point sources, which are defined as specific outfalls discharging into natural waters, are easily identified and are regulated by California's RWQCBs and the US EPA. Nonpoint sources, including polluted runoff from urban and agricultural sources, are more challenging to identify. Nonpoint sources generally drain into a river or waterway over an extended area, or via many individual inlets. Common classes of water quality pollutants that are regulated under state and federal regulations include inorganics, pathogens, and pesticides and other organic compounds. Inorganics include nutrients (phosphorus and various forms of nitrogen including nitrate), salts, and metals (aluminum, antimony, arsenic, copper, cyanide, lead, mercury, nickel, etc.). Pathogens include total coliforms and fecal coliforms, as well as viruses, protozoa, and other microorganisms. Pesticides include herbicides and insecticides. Other organic compounds include volatile organic compounds (VOCs), and petroleum products (fuels, oils, greases, etc.). Water quality physical parameters such as dissolved oxygen are also regulated.

2.3.1 Water Quality Regulations

Federal

Clean Water Act

The federal Clean Water Act (CWA) established the basic structure for regulating discharges of pollutants into "waters of the United States." The act specifies a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. The CWA includes the following sections:

- Sections 303 and 304, which provide for water quality standards, criteria, and guidelines.
- Section 401, which requires every applicant for a federal permit or license for any activity that may result in a discharge to a water body to obtain a water quality certification that the proposed activity will comply with applicable water quality standards.
- Section 402, which regulates point- and nonpoint-source discharges to surface waters through the NPDES program. In California, the SWRCB oversees the NPDES program, which is administered by the regional boards. The NPDES program provides for both general permits (those that cover a number of similar or related activities) and individual permits. Anti-backsliding requirements provided for under CWA Sections 402(o)(2) and 303(d)(4) prohibit slackening of discharge requirements and regulations under revised NPDES permits. With isolated/limited exceptions, these regulations require effluent limitations in a reissued permit to be at least as stringent as those contained in the previous permit.
- Section 404, which establishes a program to regulate the discharge of dredged and fill material into waters of the U.S., including some wetlands. Activities in waters of the U.S. that are regulated under this program include fills for development, water resource projects (e.g., dams and levees), infrastructure development (e.g., highways and airports), and conversion of wetlands to uplands for farming and forestry.

National Pollutant Discharge Elimination System Permit Program

The NPDES permit program was established by the CWA to regulate municipal and industrial discharges to surface waters of the United States. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source storm water runoff. NPDES permits generally identify the following:

- effluent and receiving-water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge;
- prohibitions on discharges not specifically allowed under the permit; and
- provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

In November 1990, EPA published regulations establishing NPDES permit requirements for municipal and industrial storm water discharges. Phase 1 of the permitting program applied to municipal discharges of storm water in urban areas where the population exceeded 100,000 persons.

Phase 1 also applied to storm water discharges from a large variety of industrial activities, including general construction activity if the project would disturb more than 5 acres. Phase 2 of the NPDES storm water permit regulations, which became effective in March 2003, required that NPDES permits be issued for construction activity for projects that disturb between 1 and 5 acres. Phase 2 of the municipal permit system (known as the "NPDES General Permit for Small MS4s") required small municipal areas of less than 100,000 persons to develop storm water management programs.

In California, the USEPA has delegated its NPDES permitting functions to the SWRCB and the regional boards.

State

California State Non-Degradation Policy

In 1968, as required under the federal anti-degradation policy described above, the SWRCB adopted Resolution No. 68-16 a "Statement of Policy with Respect to Maintaining High Quality of Waters in California." Resolution 68-16 states that the disposal of wastes into state waters shall be regulated to achieve the highest water quality consistent with maximum benefit to the people of the state and to promote the peace, health, safety, and welfare of the people of the state, and provides as follows:

1. "Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated to the State that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies."

2. "Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained."

California Toxics Rule

In May 2000, the SWRCB adopted and EPA approved the California Toxics Rule, which establishes numeric water quality criteria for approximately 130 priority pollutant trace metals and organic compounds. The SWRCB subsequently adopted its State Implementation Policy of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries (SIP). The SIP outlines procedures for NPDES permitting for toxic-pollutant objectives that have been adopted in Basin Plans and in the California Toxics Rule.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Division 7 of the California Water Code) established the SWRCB and divided the state into nine regions, each overseen by a regional board. The nine regional boards have the primary responsibility for the coordination and control of water quality within their respective jurisdictional boundaries. Pursuant to the Porter-Cologne Water Quality Control Act, the regional boards establish water quality objectives for the purpose of protecting beneficial uses. The Act recognizes that water quality may be changed to some degree without unreasonably affecting beneficial uses. Designated beneficial uses, together with the corresponding water quality objectives, constitute water quality standards under the federal CWA. Therefore, the water quality objectives form the regulatory references for meeting state and federal requirements for water quality control. Under authority of the Porter-Cologne Water Quality Control Act, the regional boards require persons who discharge or propose to discharge waste that could affect the quality of waters of the State to file a Report of Waste Discharge with the appropriate RWQCB. The regional board then issues or waives WDRs for the discharge or requires the discharger to enroll under a general NPDES Order or general WDR order.

Waste Discharge Requirements (WDRs)

California's regional boards also oversee permitting as authorized under the Porter-Cologne Water Quality Control Act. If a project does not require federal permitting, it may still require a state permit found in Division 7 of the California Water Code, the Porter-Cologne Act requires persons who discharge waste that could affect the quality of waters of the State to file a Report of Waste Discharge with the appropriate regional board. Each RWQCB can adopt WDR General Orders (GOs) or individual WDR orders to regulate such discharges, and a given discharger will be subject to WDRs either under a GO or a project specific state permit. WDRs usually include discharge prohibitions and discharge specifications including flow volumes and water quality constituent limitations to which a discharger must adhere. WDRs usually impose water quality monitoring requirements, and may require liner systems or other engineered features. The limitations imposed by WDRs vary from region to region and from project to project, depending upon proposed discharge characteristics, and sensitivities of affected resources. In this manner, WDRs protect waters of the State from significant water quality degradation. Alternatively, if no degradation of water quality is anticipated from a proposed discharge, the regional board may issue a conditional waiver of WDRs.

With regard to composting operations, current practice is to issue individual WDRs for larger composting facilities. Currently, the SWRCB are developing statewide general WDRs that would address water quality protection at composting facilities that currently exist or may be constructed. Use of the general WDR or an individual WDR would be up to the discretion of the RWQCBs.

Construction Storm Water NPDES Permit

The federal Clean Water Act prohibits discharges of storm water from construction projects unless the discharge is in compliance with an NPDES permit. The SWRCB is the permitting authority in California and adopted a statewide General Permit for Storm Water Discharges Associated with Construction Activity (Order No. 99-08) for construction projects that disturb one or more acres of soil. Effective July

1, 2010, all dischargers are required to obtain coverage under the updated Construction General Permit Order 2009-0009-DWQ (the Construction General Permit), adopted on September 2, 2009. Construction activities include clearing, grading, excavation, stockpiling, and reconstruction of existing facilities (removal or replacement).The Construction General Permit requires a risk-based permitting approach, dependent upon the likely level of risk imparted by a project. The Construction General Permit contains several additional compliance items, including (1) additional mandatory BMPs to reduce erosion and sedimentation; (2) sampling and monitoring for non-visible pollutants; (3) effluent monitoring and annual compliance reports; (4) development and adherence to a Rain Event Action Plan; (5) requirements for the post construction period; (6) numeric action levels and effluent limits for pH and turbidity; (7) monitoring of soil characteristics on site; and (8) mandatory training under a specific curriculum.

Industrial Storm Water NPDES Permit

The federal Clean Water Act prohibits discharges of storm water from industrial projects unless the discharge is in compliance with an NPDES permit. The SWRCB is the permitting authority in California and adopted a statewide General Permit for Storm water Discharges Associated with Industrial Activity (Order No. 97-03-DWQ) from 10 different categories of industrial facilities including recycling facilities. The General Industrial Permit requires the implementation of management measures that will achieve the performance standard of best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT). The General Industrial Permit also requires the development of a Storm Water Pollution Prevention Plan (SWPPP) and a monitoring plan. Through the SWPPP, sources of pollutants are to be identified and the means to manage the sources to reduce storm water pollution are described. The General Industrial Permit requires that an annual report be submitted each July 1. The General Industrial Permit is currently being updated and a new version of the permit is projected to be released in 2014.

Municipal Storm Water NPDES Permit

The Municipal Storm Water Permitting Program regulates storm water discharges from municipal separate storm sewer systems (MS4s). Storm water is runoff from rain or snow melt that runs off surfaces such as rooftops, paved streets, highways or parking lots and can carry with it pollutants such as: oil, pesticides, herbicides, sediment, trash, bacteria and metals. The runoff can then drain directly into a local stream, lake or bay. Often, the runoff drains into storm drains which eventually drain untreated into a local waterbody.

Additionally, municipal or urban areas commonly include large impervious surfaces which contribute to an increase in runoff flow, velocity and volume. As a result streams are hydrologically impacted through streambed and channel scouring, in-stream sedimentation and loss of aquatic and riparian habitat. In addition to hydrological impacts, large impervious surfaces contribute to greater pollutant loading, resulting in turbid water, nutrient enrichment, bacterial contamination, and increased temperature and trash.

MS4 permits were issued in two phases. Under *Phase I*, which started in 1990, the Regional Water Quality Control Boards have adopted National Pollutant Discharge Elimination System General Permit

(NPDES) storm water permits for medium (serving between 100,000 and 250,000 people) and large (serving 250,000 people) municipalities. Most of these permits are issued to a group of co-permittees encompassing an entire metropolitan area. These permits are reissued as the permits expire. The Phase I MS4 permits require the discharger to develop and implement a Storm Water Management Plan/Program with the goal of reducing the discharge of pollutants to the maximum extent practicable (MEP). MEP is the performance standard specified in Section 402(p) of the Clean Water Act. The management programs specify what best management practices (BMPs) will be used to address certain program areas. The program areas include public education and outreach; illicit discharge detection and elimination; construction and post-construction; and good housekeeping for municipal operations. In general, medium and large municipalities are required to conduct monitoring.

On April 30, 2003 as part of *Phase II*, the SWRCB issued a General Permit for the Discharge of Storm Water from Small MS4s (WQ Order No. 2003-0005-DWQ) to provide permit coverage for smaller municipalities (population less than 100,000), including non-traditional Small MS4s, which are facilities such as military bases, public campuses, prison and hospital complexes. The Phase II Small MS4 General Permit covers Phase II Permittees statewide. On February 5, 2013 the Phase II Small MS4 General Permit was adopted and will become effective on July 1, 2013. Urbanized unincorporated areas of Santa Barbara County are included in the Phase II permit and the County has submitted a Notice of Intent and prepared a Storm Water Management Program (SWMP) to comply with SWRCB Order No.2003-005-DWQ NPDES General Permit No.CAS0000004 Waste Discharge Requirements for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (General Permit). The General Permit establishes certain unincorporated areas on the South Coast, in the Santa Ynez Valley, and in the Orcutt area of the Santa Maria Valley (see Figure 1 and Appendix A) in which the County is responsible for water quality in storm-drains and surface drainages. The Tajiguas Landfill does not fall within the covered area, but other facilities, such as the South Coast Recycling and Transfer Station, are within the permitted area.

2.3.2 County of Santa Barbara Water Quality Protection Policies

Policies regarding the protection of water quality in the unincorporated areas of Santa Barbara County are provided in the Comprehensive Plan Land Use Element, various Community Plans, and the Local Coastal Plan. The overarching policy which applies to both construction and post-construction is Land Use Element Hillside and Watershed Protection Policy 7 (Coastal Plan Policy 3-19), which states:

> *"Degradation of the water quality of groundwater basins, nearby streams, or wetlands shall not result from development of the site. Pollutants, such as chemicals, fuels, lubricants, raw sewage, and other harmful waste shall not be discharged into or alongside coastal streams or wetlands either during or after construction."*

Project approval requires a finding of consistency with this and all other applicable water quality policies in the Comprehensive and Community Plans.

2.4 Thresholds of Significance

2.4.1 State Water Quality Guidelines

With respect to water quality impacts, the State CEQA Guidelines Appendix G, identify that a significant impact may occur if a project would:

- Violate any water quality standards or waste discharge requirements.
- Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.
- Otherwise substantially degrade water quality.

2.4.2 County of Santa Barbara Surface and Storm Water Quality Significance Guidelines

The County of Santa Barbara has developed significance guidelines for use in evaluating surface and storm water quality impacts from new development (Santa Barbara County Thresholds and Guidelines Manual (Santa Barbara County, October 2008). The Santa Barbara County Environmental Thresholds and Guidelines Manual states: *The assessment of impacts must account for construction-related impacts (i.e., vegetation removal, erosion, use of construction materials on the site, and staging of construction activities) and post-construction (or post-development) impacts (i.e., increases in impervious surfaces and increased runoff, entrainment of pollutants, and effects of discharges on aquatic habitats and biota).* Table 4 summarizes the conditions under which a significant water quality impact is presumed to occur.

Table 4 County of Santa Barbara, Water Quality Significance Guidelines

	Potential Significant Impacts	**Applicability to Tajiguas RRP**
1	Is located within an urbanized area of the county and the project construction or redevelopment individually or as a part of a larger common plan of development or sale would disturb one (1) or more acres of land	Not in urban area. Does not apply.
2	Increases the amount of impervious surfaces on a site by 25 percent or more	Operations deck imperviousness increased by approximately 400%. Applies.
3	Results in channelization or relocation of a natural drainage channel	No channel alterations are proposed. Does not apply.
4	Results in removal or reduction of riparian vegetation or other vegetation (excluding non-native vegetation removed for restoration projects) from the buffer zone of any streams, creeks or wetlands	No project improvements in riparian zone. Does not apply.
5	Is an industrial facility that falls under one or more of	Located at a landfill and includes

	categories of industrial activity regulated under the NPDES Phase I industrial storm water regulations (facilities with effluent limitation; manufacturing; mineral, metal, oil and gas, hazardous waste, treatment or disposal facilities; **landfills; recycling facilities**; steam electric plants; transportation facilities; treatment works; and light industrial activity);	a recycling facility. Applies.
6	Discharges pollutants that exceed the water quality standards set forth in the applicable NPDES permit, the Regional Water Quality Control Board's (RWQCB) Basin Plan or otherwise impairs the beneficial uses of a receiving waterbody	Treated storm water is discharged to Pila Creek. Potentially applies.
7	Results in a discharge of pollutants into an "impaired" waterbody that has been designated as such by the State Water Resources Control Board or the RWQCB under Section 303 (d) of the Federal Water Pollution Prevention and Control Act (i.e., the Clean Water Act)	Pila Creek and the Pacific Ocean at the mouth of Pila Creek are not listed under 303(d). Does not apply.
8	Results in a discharge of pollutants of concern to a receiving water body, as identified by the RWQCB.	Treated storm water is discharged to Pila Creek. Potentially applies.

3.0 Impact Analysis

3.1 Potential Impacts – General

The following information is excerpted from *the Santa Barbara County Thresholds & Guidelines Manual* and several EPA publications including the preamble to the NPDES Phase II rules as published in the Federal Register[1] and EPA storm water fact sheets and guidance documents[2].

Storm water runoff from lands modified by human activities can harm surface water resources and, in turn, cause or contribute to exceedances of water quality standards by changing natural hydrologic patterns, accelerating stream flows, destroying aquatic habitat, and elevating pollutant concentrations. Such runoff may contain or mobilize high levels of contaminants, such as sediment, suspended solids, nutrients (phosphorous and nitrogen), heavy metals and other toxic pollutants, pathogens, oxygen-demanding substances, and floatables. After a rain, storm water runoff carries these pollutants into nearby streams, rivers, lakes, estuaries, wetlands, and oceans. The highest concentrations of these contaminants often are contained in ''first flush'' discharges, which occur during the first major storm after an extended dry period. Individually and combined, these pollutants impair water quality, threatening designated beneficial uses and causing habitat alteration or destruction.

Table 5- Relationship of Potential Sources to Primary Pollutants of Concern at Tajiguas RRP

	Primary Pollutants of Concern in Urban Runoff								
Pollutant source	Physical Parameters	Synthetic Organics	Petroleum hydrocarbons	Heavy Metals	Nutrients	Pathogens	Sediments	Oxygen Demanding Substances	Floatables
Fueling stations		●	●	●					
Parking Lots	●		●	●					●
Construction sites	●						●	●	
Corporation yards (Vehicle, equipment and vehicle storage & maintenance)	●	●	●	●					
Sewer Overflows (in the event of a pipe break or pump failure)	●					●		●	
Composting Area	●			●	●	●	●	●	●

3.2 Construction Site Runoff

Polluted storm water runoff from construction sites may flow to storm drains and ultimately may be discharged into local rivers and streams. Of the pollutants listed below, sediment is usually the main pollutant of concern. Sediment runoff rates from construction sites are typically 10 to 20 times greater than those of agricultural lands, and 1,000 to 2,000 times greater than those of forest lands. During a short period of time, construction sites can contribute more sediment to streams than can be deposited naturally during several decades. The resulting siltation, and the contribution of other pollutants from construction sites, can cause physical, chemical, and biological harm to our nation's waters. The siltation process described previously can (1) deposit high concentrations of pollutants in public water supplies; (2) decrease the depth of a water body, which can reduce the volume of a reservoir or result in limited use of a water body by boaters, swimmers, and other recreational enthusiasts; and (3) directly impair the habitat of fish and other aquatic species, which can limit their ability to reproduce. Excess sediment can cause a number of other problems for water bodies. It is associated with increased turbidity and

reduced light penetration in the water column, as well as more long-term effects associated with habitat destruction and increased difficulty in filtering drinking water.

Table 6 - Pollutants Commonly Discharged From Construction Sites:

Sediment	Pesticides
Solid and sanitary wastes	Concrete truck washout
Nitrogen (fertilizer)	Construction chemicals
Phosphorous (fertilizer)	Construction debris

3.3 Post Construction Runoff

There are generally two forms of substantial impacts of post-construction runoff. The first is caused by an increase in the type and quantity of pollutants in storm water runoff. As runoff flows over areas altered by development, it picks up harmful sediment and chemicals such as oil and grease, pesticides, heavy metals, and nutrients (e.g., nitrogen and phosphorus). These pollutants often become suspended in runoff and are carried to receiving waters, such as lakes, ponds, and streams. Once deposited, these pollutants can enter the food chain through small aquatic life, eventually entering the tissues of fish and humans. The second kind of post-construction runoff impact occurs by increasing the quantity of water delivered to the water body during storms. Increased impervious surfaces interrupt the natural cycle of gradual percolation of water through vegetation and soil. Instead, water is collected from surfaces such as asphalt and concrete and routed to drainage systems where large volumes of runoff quickly flow to the nearest receiving water. The effects of this process can include stream bank scouring and downstream flooding, which may lead to a loss of aquatic life and damage to property.

3.4 Project Specific Impacts and Mitigation Measures

The following section discusses potential water quality impacts associated with construction and operation of the RRP. The section also identifies any incremental impacts associated with the additional construction and operational water quality impacts associated with processing CSSR (optional element) as a part of the project. The classification of the significance of the impacts is based on the impact classification contained in the Guidelines for the Implementation of the California Environmental Quality Act of 1970 (June 2010):

- Class I Impacts. Significant unavoidable adverse impacts.
- Class II Impacts. Significant environmental impacts that can be feasibly mitigated or avoided.
- Class III Impacts. Adverse impacts found not to be significant.
- Class IV Impacts. Impacts beneficial to the environment.

3.4.1 Potential Impacts

Impact WQ-1: Construction of the RRP facilities could generate loose, erodible soils and other water quality pollutants that may impair water quality (Class II impact).

Construction of the RRP facilities would require 107,000 cubic yards of grading over a 5.0 acre area on and adjacent to the Operations Deck. Additional ground disturbance would also be required for installation of the ancillary facilities such as the water and reclaimed water storage tanks, Well 6 and the connecting pipelines and power lines, the composting area runoff collection tank and other ancillary facilities. Construction would occur over an 18-month period which may include construction during the rainy season. Construction would potentially result in erosion-induced sedimentation in Pila Creek. In addition, potential construction related contaminants include incidental spills of petroleum products (e.g., fuels and lubricants) from excavation and grading equipment, concrete washout, construction chemicals, cleaning solvents pesticides, trash and construction debris. These contaminants could potentially impact surface waters through direct contact with storm water runoff or through spills into the on-site storm drain system which ultimately discharges to Pila Creek. All of these contaminants have the potential to impair surface water quality.

The Project would exceed one acre of disturbance and would require coverage under the NPDES Construction General Storm Water Permit. Compliance with the Construction General Storm Water Permit requires preparation of a SWPPP that would include the following measures to reduce off-site water quality impacts during construction:

- Implementation of erosion control measures, including slope drains, silt fences, fiber rolls, gravel bag berms, use of soil binders and post construction stabilization of disturbed slopes using hydroseeding;
- Implementation of BMPs, including stabilized construction entrance/exit, exit tire wash, wind erosion control, stockpile management, controlled areas for vehicle and equipment cleaning, fueling, and maintenance; specifications for concrete curing and finishing; proper hazardous materials storage and use; spill prevention and control; and control of solid waste, hazardous waste, sanitary/septic waste, and liquid waste; and
- Implementation of non-storm water management and materials/waste management activities, including general site clean-up, spill control, and ensuring that no materials other than storm water are discharged from the construction site.

Implementation of construction best management practices and compliance with the Construction General Storm Water Permit would reduce potentially significant construction impacts to surface water quality to less than significant levels.

Mitigation Measures

Mitigation Measure WQ-1a. General Construction Storm Water Permit. All discharges of storm water from construction activities are prohibited unless covered under the General Construction Storm Water Permit issued by the RWQCB. A Notice of Intent (NOI) to obtain coverage under the General Construction Storm Water Permit shall be filed and a construction SWPPP shall be prepared.

TIMING: The NOI shall be submitted, and the SWPPP prepared prior to the start of construction. A copy of the SWPPP shall be kept at the project site during grading and construction activities.

MONITORING: RRWMD shall site inspect during construction for compliance with the SWPPP.

Mitigation Measure WQ-1b. Erosion and Sediment Control Plan. Grading and erosion and sediment control plans shall be prepared and designed to minimize erosion during construction and shall be implemented for the duration of the grading period and until re-graded areas have been stabilized by structures, long-term erosion control measures or permanent landscaping.

PLAN REQUIREMENTS: An Erosion and Sediment Control Plan (ESCP) using Best Management Practices (BMP) designed to stabilize the site, protect natural watercourses/creeks, prevent erosion, convey storm water runoff to existing drainage systems keeping contaminants and sediments onsite shall be a part of the SWPPP required for compliance with the General Construction Storm Water Permit (Mitigation Measure WQ-1a).

TIMING**:** The plan shall be implemented prior to the commencement of, and throughout, grading/construction.

MONITORING**:** RRWMD shall perform site inspections throughout the construction phase.

Mitigation Measure WQ-1c. Sediment and Contamination Containment. Water contamination shall be prevented during construction by implementing the following construction site measures:

1. All entrances/exits to the construction site shall be stabilized using methods designed to reduce transport of sediment off site. Stabilizing measures may include but are not limited to use of gravel pads, steel rumble plates, temporary paving, etc. Any sediment or other materials tracked off site shall be removed the same day as they are tracked using dry cleaning methods. Entrances/exits shall be maintained until graded areas have been stabilized by structures, long-term erosion control measures or landscaping.

2. Apply concrete, asphalt, and seal coat only during dry weather.

3. Cover storm drains and manholes within the construction area when paving or applying seal coat, slurry, fog seal, etc.

4. Store, handle and dispose of construction materials and waste such as paint, mortar, concrete slurry, fuels, etc. in a manner which minimizes the potential for storm water contamination.

5. Designate a washout area(s) for the washing of concrete trucks, paint, equipment, or similar activities to prevent wash water from discharging to the storm drains, street, drainage ditches, creeks, or wetlands. Note that polluted water and materials shall be contained in this area and removed from the site as needed to prevent over-spilling. The area shall be located at least 100 feet from any storm drain, waterbody or sensitive biological resources.

6. Straw wattles (or equivalent measures) shall be used to trap suspended sediment around work areas containing disturbed soils.

7. Construction materials and soil piles shall be placed in designated areas to prevent spillage or erosion into Pila Creek or storm drains.

8. Waste and debris generated during construction shall be stored in designated waste collection areas and containers away from Pila Creek, and shall be disposed of regularly.

9. All fueling of heavy equipment shall occur in a designated area at least 100 feet from Pila Creek, such that any spillage would not enter surface waters. The designated area shall include a drain pan or drop cloth and absorbent materials to clean up spills.

10. Vehicles and equipment shall be maintained properly to prevent leakage of hydrocarbons and coolant, and shall be examined for leaks on a daily basis. All maintenance shall occur in a designated area at least 100 feet from Pila Creek. The designated area shall include a drain pan or drop cloth and absorbent materials to clean up spills.

11. Any accidental spill of hydrocarbons or coolant that may occur on the construction site shall be cleaned immediately. Absorbent materials shall be maintained on the construction site for this purpose.

PLAN REQUIREMENTS: The construction site measures shall be included in the SWPPP, printed as notes on plans and included in any bid documents.

TIMING: Measures shall be in place prior to commencement of construction. Other measures shall be in place throughout construction.

MONITORING: RRWMD shall perform site inspections throughout the construction phase.

Impact WQ-2: Operation of the MRF and AD facilities could adversely affect surface water quality through contact with MSW before and after processing, leaks of percolate used in the anaerobic digestion process, wastewater disposal, contact with parking and storage areas and/or leaks or spills from fueling activities (Class II impact).

The elements of these facilities that have a potential to impact water quality are discussed below.

MSW Processing

MSW would be tipped and processed within the MRF to extract recyclable materials and organics. The incoming MSW could contain high levels of organic matter (which could have high biological oxygen demand [BOD]), sediment, nutrients, inorganic salts, and plastic and paper. Other potential water quality pollutants may be present in small quantities, including heavy metals, pathogens, hydrocarbons, and other contaminants. The MSW may also have a high liquid content from the trash such as partially empty beverage or food containers. During tipping and handing operations, the MSW, and associated contaminants, could be accidentally released from the project facilities or discharged during storm events, and enter surface waters and adversely impact water quality.

The following project design measures would reduce potential water quality impacts associated with MSW processing. Under the proposed project the tipping and processing of the waste would occur indoors, under cover in a negative air pressure building. The tipping and processing within the MRF building would eliminate the potential for storm water to come in contact with waste and would significantly reduce the potential for windblown plastic and paper waste to reach Pila Creek or the Pacific Ocean as compared to the current practice of tipping the waste at the Landfill working face. A six-foot high fence will surround the MRF and ADF and would trap wind-blown plastics and paper in the

unlikely event these materials are carried outside of the facilities. Liquids from the MSW and from the MRF washdown water would be collected in trench drains at the MRF and ADF door thresholds and directed to the proposed sanitary treatment system.

Organics Processing

The organic material recovered from the MSW would be separated and stored for processing the ADF. The organic material could be a source of BOD, pathogens, sediment and other contaminants if the material were to come in contact with storm water.

The following project design measures would reduce potential water quality impacts associated with organics processing. Under the proposed project the recovered organics would be transferred via a conveyor belt under cover to the AD facility where the material would be mixed, also under cover and loaded into the individual digesters. There the material would be anaerobically digested to produce methane. Digestion would occur within 16 individual air- and water-tight vaults that are designed to prevent leakage of feedstock or digestate.

Percolate Use and Storage

To accelerate gas generation within the AD facility, a liquid "percolate" is sprayed into the top of the digester to gravity drain through the digesting organic material. The percolate contains commonly occurring anaerobic microorganisms necessary for the production of the bio-gas (predominantly methane). The percolate would pass through organic matter and would therefore have the potential to contain contaminants such as coliforms. The percolate would be stored in one 150,000 gallon and two 75,000 gallon tanks. Storm or surface water could be adversely impacted if a leak occurred in the storage tanks or in the piping system between the tanks and the digesters.

The following project design measures would reduce potential water quality impacts associated with percolate use and storage. The percolate tanks would only be filled once at the beginning of the AD Facility's operation and the AD Facility percolate system would be a closed loop system that would not produce any wastewater discharges. Level indicators on each tank would be used to monitor for potential leaks from the tanks or piping. A 6-foot tall, waterproof spill containment wall would be constructed around the tanks to contain any potential spills or leaks. In addition, a catch basin release valve would be installed in the catchbasin within the containment area, which requires the operator to open a valve to drain storm water from the catch basin after first inspecting for potential odor, discoloration or slick on water surface. Any contaminated water observed in the catchbasin would be pumped out and disposed of appropriately.

Domestic and Process Wastewater

The proposed project includes the installation and operation of an advanced septic treatment system to treat water from employee domestic use and facility wash down water. The system would replace the existing septic system (dry wells) currently serving the Landfill operations buildings. The wastewater could be a source of BOD, nutrients and pathogens which could potentially enter and contaminate storm or surface waters because of a pipe or tank leak, or inadequate treatment.

The following project design measures would reduce potential water quality impacts associated with generation of wastewater from the project. The wastewater would be treated using aerobic oxidation and microbial digestion, advanced filtration (providing primary and secondary treatment) and ultraviolet light for disinfection (tertiary treatment). The reclaimed wastewater would be used for project landscape irrigation by way of a spray and drip irrigation system. Further, when conditions are not suitable for using the reclaimed water (e.g., during wet weather), the water would be stored in a 70,000 gallon storage tank. The treatment system would be regulated by, and would require a septic system permit from, the Santa Barbara County Department of Public Health, Environmental Health Service Division. The treatment system would undergo routine monitoring and maintenance to ensure its proper functioning. Continuous, fused HDPE pipe would be used to convey the wastewater which reduces the potential for leakage at the pipe connections as compared to conventional jointed pipes and inline pressure gauges will be used to alert the system operator to line breaks or other malfunctions. The use of the reclaimed wastewater would be monitored (using rainfall and soil moisture sensors) to ensure the application rate does not produce runoff or result in infiltration below the plant rooting depths due to over irrigation.

Fueling Facilities

The MRF and AD equipment would be fueled from a single 10,000 gallon above ground diesel/biodiesel storage tank. The tank would be approximately 8 feet in diameter and 27 feet long and would include secondary containment. Additionally, 7,500 gallon of diesel fuel storage would be provided under the standby generator. The tank would be approximately 3 feet, 9 inches high, 12 feet wide and 30 feet long and would include secondary containment. The fueling facilities could be a potential source of synthetic organics, petroleum hydrocarbons and heavy metals. These contaminants could potentially contact surface waters through fuel leakage or spills during fuel transfer.

Measures included in project design to reduce water quality impacts associated with use of the fueling facilities would include the use of secondary containment around the tanks and the refueling island would be surrounded by a 4-inch high asphalt dike to contain potential spills or leaks during fueling, making cleanup easier and preventing migration of contaminants to Pila Creek through the storm drain system.

Equipment and Vehicle Parking Areas

Currently the Operations Deck is partially paved (1.0 acre) with asphalt and the remaining areas consist of compacted dirt and compacted gravel. As a part of the Tajiguas RRP the deck area would be expanded and the entire surface, excluding buildings (2.2 acres) would be paved. The areas surrounding the new Tajiguas RRP building would be used for parking, equipment storage, and baled recyclable storage. A number of pollutants could accumulate within the parking areas including antifreeze, oil, hydrocarbons, metals rubber particles from vehicle and equipment operations and use, sediment from equipment transiting between the Tajiguas RRP facilities and the Landfill, and fugitive trash from operation of the MRF. New storm drains installed within the operations deck could carry materials accumulated in the parking areas to Pila Creek during storm events resulting in an adverse impact to surface water quality.

The following project design measures would reduce potential water quality impacts associated with construction and use of the new parking and outdoor storage areas. The pavement areas surrounding the MRF and ADF will be swept regularly using a commercial sweeping and vacuum truck. Sweeping will occur in advance of all forecasted rainfall events. Sweeping would remove sediment and heavy metals associated with the vehicular traffic in parking lots and driveways. Hydrodynamic separators will be installed at two locations on the ADF/MRF storm drain system. The separator units would trap oily residue, floatable trash, coarse sediment and fine sediment found in the storm water runoff. Separator units are typically pumped out on an annual basis to remove trapped sediments. The sediments can be disposed of in the landfill. In addition, sediment traps would be installed in the concrete swales surrounding the operations deck. These traps would intercept coarse sediment from slopes and driveways surrounding the MRF and ADF buildings. They would be inspected and emptied as necessary following significant rainfall events.

Because of the presence of the Landfill, and the prohibitions related to allowing water to infiltrate into waste, other low impact development water quality best management such as bioretention, vegetated swales, reduced and disconnected impervious surfaces and permeable pavement are not available for use at the project site.

Summary

The operation of the MRF and AD Facility has the potential to significantly impact storm and surface water quality. The potential impacts would largely be reduced through proposed project design measures including the following:

Table 7 Water Quality Measures and Potential Impacts Addressed

Description	Impact addressed
Unloading of trash indoors at MRF	Significantly reduces the potential for windblown plastic and paper. Replaces outdoor dumping of 60% of waste volume and also eliminates dumping of nearly all paper and other materials which can be windblown.
Trench drains at MRF and ADF door thresholds, directed to sanitary treatment system	Liquid waste runoff intercepted and treated.
Chain link fence around MRF and ADF	Wind-blown plastic and paper
MRF/ADF Pavement sweeping and vacuum clean-up	Removes dust, heavy metals in parking lots, driveways and composting area
Spill containment asphalt dike	Contains potential spills or leaks at re-fueling island

Spill containment wall	Contains potential spills or leaks at percolate tanks
Catchbasin release valve – requires operator to open a valve to drain the catch basin after first inspecting for potential odor or slick on water surface. The catchbasin valve will be opened only if the catch basin is free of contaminants.	Contains potential spills or leaks at percolate tanks
Hydrodynamic separators on storm drain system	Traps oily residue, floatable trash, coarse sediment and fine sediment down to the 10 micron particle size.
Continuous, fused HDPE pipe on storm drainage and sanitary sewer systems	Eliminates potential for storm water and sewage leakage
Sediment traps in concrete swales	Intercept sediment from slopes and driveways surrounding the MRF and ADF

The proposed location of these water quality design measures are shown on Figure 5-a and Figure 5-b.

However, given the various facilities/activities that could impact storm water quality, and to ensure the project water quality design elements are fully implemented and maintained throughout the project life, the following mitigation measures are required:

Mitigation Measure WQ-2a. General Industrial Storm Water Permit. A Notice of Intent (NOI) to obtain coverage under the General Industrial Storm Water Permit shall be filed and an Industrial Storm Water Pollution Prevention Plan (SWPPP) shall be prepared. The SWPPP shall include the following elements: identification of potential pollutant sources that may affect the quality of the storm water discharges; proposed design and placement of structural and non-structural BMPs to address identified pollutants; proposed inspection and maintenance program; method for ensuring maintenance of all BMPs over the life of the project and monitoring and reporting procedures. The approved measures shall be shown on site, building and grading plans. Records of maintenance of the BMPs shall be kept onsite.

TIMING: The NOI shall be submitted, and the SWPPP prepared prior to the start of operations. A copy of the SWPPP shall be kept at the project site through the life of the project. All measures specified in the plan shall be constructed and operational prior to issuance of building clearance. Maintenance records shall be kept on site.

MONITORING: RRWMD shall site inspect prior to building clearance to ensure measures are constructed in accordance with the approved plan. RRWMD shall review the annual monitoring reports and inspect project facilities as needed over the life of the project.

Mitigation Measure WQ-2b. Spill Prevention, Control, and Countermeasure (SPCC) Plan. In order to minimize water quality degradation associated with accidental spills at RPP, a Spill Prevention, Control,

and Countermeasure (SPCC) Plan shall be prepared. The SPCC Plan shall contain measures to prevent, contain, and otherwise minimize potential spills of pollutants (wastewater, percolate, fuels, etc.) during facility operation, in accordance with federal, state, and local requirements. The SPCC Plan shall provide for installation and monitoring of secondary containment and/or leak detection systems to ensure that pollutants are not accidentally discharged to the storm drain system or directly to Pila Creek. Monitoring of these systems shall be in accordance with SPCC Plan requirements. Additionally, the project applicant shall adhere to the requirements and recommendations of WDRs, which would be provided for the project by the applicable RWQCB.

TIMING: The SPCC Plan shall be prepared prior to initiating operations at the RRP facilities and updated annually at a minimum to address any changes in operations that might impact the type or nature of spills that could occur from the facilities.

MONITORING: RRWMD shall site inspect project facilities as needed over the life of the project.

Impact WQ-3: The operation of Composting Area could adversely affect surface and groundwater due to contact of the digestate/compost with storm water or due to the generation of leachate from improperly managed piles (Class II Impact).

The proposed project includes the outdoor curing/composting of the digestate from the Anaerobic Digestion Facility to produce a soil amendment/compost. Depending on the level of contaminants (i.e., glass, metal, wood and plastic) in the screened compost, the compost is anticipated to pass US Composting Council ("USCC") standards and be sold as agricultural quality compost. If the contaminants levels exceed USCC standards, the compost will be given away as a soil amendment for land application and erosion control or shipped off-site for use as fill.

The Composting Area is proposed to be located over the closed/capped landfill in the top deck area of the landfill site. During the aerobic composting the digestate material/compost would be exposed to precipitation, which can cause piles of feedstocks, additives, amendments, and compost (active or stabilized) to generate wastewaters (i.e., mixtures of process storm water and leachate). Wastewaters can then percolate to groundwater, or mix with surface water, if not properly managed. These activities have the potential to cause adverse groundwater quality impacts characterized by elevated concentrations of nutritive salts (e.g., nitrate), nonnutritive salts (e.g., sodium chloride) and other pollutants. Potential surface water impacts can include these constituents of concern, in addition to sediment, oxygen reducing materials, pathogens, plastics, heavy metals, pesticides and herbicides.

For the proposed RRP, runoff from the Composting Area would be collected in two gravity-fed Baker tanks to be located adjacent to the Composting Area. From the Baker tanks, the runoff would be pumped to a 325,000 gallon Composting Area Runoff Collection Tank located adjacent to the landfill. The Baker tanks would serve two functions: 1) their internal baffles would trap coarse sediments and oils; and 2) its relatively large storage capacity (21,000 gallons each) provides buffering capacity to "shave" the peak flow so that the discharge pumps to the Composting Area Runoff Collection Tank can be smaller. The Baker tanks will be equipped with multiple access hatches, to permit monitoring of sediment depth and pump out of accumulated sediments. The Composting Area Runoff Collection Tank

is proposed to have sufficient capacity to contain the 25-year, 24-hour storm. Rainfall events exceeding the 25 year storm would be diverted through an overflow system to the Landfill's upper sediment pond.

The collected water would generally be reused on the compost piles to maintain proper moisture content. To address the potential need for storage of runoff from back-to-back storm events, a controlled discharge of collected water would potentially be required. The proposed discharge protocol is for the operator to release water from the storage tank during the rainy season when the tanks are at 50% capacity or greater and when significant rainfall is forecast. The water would be released via a dedicated storm drain system to the North sediment pond after filtration to remove suspended solids and ultraviolet treatment to inactivate pathogens. The maximum pump discharge rate would be 500 gallons per minute or 1.1 cubic feet per second. This intentional discharge is likely to coincide with higher natural flows in Pila Creek as the discharge will occur during or following large rainfall events. The contribution of treated discharge at the point of discharge would be in the range of 1.0 to 5.0 percent of total Pila Creek flows.

Large-scale municipal composting of anaerobically digested MSW is relatively new to California. Testing of compost site runoff has been conducted by various agencies but constituents of concern have varied depending on jurisdiction and compost type. No tests conducted in California nor the United States were identified based on composting of anaerobically digested MSW. The majority of existing composting facilities utilize feedstocks of green waste, yard waste and or manure. Some compost facility feedstocks also include biosolids.

Table 8(below) compares potential compost runoff constituents with the beneficial use standards and existing water quality data for Pila Creek. The Central Coast Basin Plan does not specifically identify any beneficial uses for surface water in Cañada de la Pila. Therefore the default uses are Domestic and Municipal supply (MUN)as well as the protection of recreation uses (REC-1, Rec-2) and aquatic life. The compost site results were compiled by the State Water Resources Control Board (*Draft Leachate and Runoff Analysis Synopsis*, SWRCB, 2012). Ranges have been provided for the analytes tested based on 24 different composting facilities in California, Oregon and Washington. No information was provided with respect to the surface of the composting sites (bare earth vs. pavement) which could introduce other non-composting related analytes. Nor was any information provided with respect to the proportion of bare site area to compost area or rainfall intensities. All of these factors could significantly influence the observed analyte concentrations.

Table 8- Analytical Results for Composting Area Runoff Comparison with Water Quality Standards and Existing Pila Creek Results

Potential Compost Analyte	Unit	Central Coast Basin Plan Beneficial Use Standards (MUN unless otherwise noted)	Pila Creek (location SW4, sampled 01/25/13)[1]	SWRCB Compost Site Runoff Results[2]
Alkali metals				
Potassium	mg/l	none	not tested	167-4640
Sodium	meq/l	none	not tested	3.2-5.4
Alkaline Earth metals				
Calcium	meq/l	none	not tested	4.2-5.4
Magnesium	meq/l	none	not tested	1.5-1.9
Transition Metals				
Copper	mg/l	0.03[3]	not tested	ND-5.69
Iron	mg/l	none	6.9	2.01-128
Manganese	mg/l	none	not tested	0.644-12.2
Nickel	mg/l	0.10	not tested	0.008-0.34
Zinc	mg/l	0.20[3]	0.40	ND-1490
Metals				
Aluminum	mg/l	1.0	not tested	1.99-48.6
Lead	mg/l	0.03 [3]	not tested	ND-0.18
Metaloides				
Arsenic	mg/l	0.05	not tested	<0.02-0.088
Nonmetals				
Ammonia (as Nitrogen)	mg/l	none	0.41	0.10-1600
Nitrate (as NO3)	mg/l	45	9.7	7-9
Nitrite (as NO2)	mg/l	none	not tested	ND

Potential Compost Analyte	Unit	Central Coast Basin Plan Beneficial Use Standards (MUN unless otherwise noted)	Pila Creek (location SW4, sampled 01/25/13)[1]	SWRCB Compost Site Runoff Results[2]
Nitrogen (Total)	mg/l	10	not tested	<0.02-0.9
Nitrogen (Total Kjeldahl)	mg/l	none	not tested	14-3000
Ortho-phosphorus	mg/l	none	not tested	4.36-5.53
Phosphorus (Total)	mg/l	none	not tested	0.62-160
Phosphate (as phosphorus)	mg/l	none	not tested	11.5-17.8
Organic				
Biochemical oxygen demand		none	12	13-21000
Coliform (total)	MPN	none	not tested	500-1.7 million
E. Coli	MPN	none	not tested	40->1.7 million
Fecal coliform	MPN	2000/100 ml[4]	not tested	300-24million
Organics Percentage	%	none	not tested	0.6-0.8
Total Organic Carbon*	mg/l	none	32	158-590
Physical properties				
Chemical Oxygen demand		none	not tested	470-720
pH		6.5-8.3	8.95	5.1-9.59
Saturation	%	none	not tested	23.5-25.5
Specific Conductivity*	µmhos/cm	none	3.96	52-12000
Total Dissolved Solids	mg/l	none	not tested	<10-5000
Total Suspended Solids	mg/l	none	36	24-20000

Sources:
[1]Tajiguas Landfill runoff sample results: RRMWD, 2013.
[2]California Water Resources Control Board 2012
[3]Central Coast Basin Plan, Table 3-5, Toxic Metal Concentrations Not to be Exceeded in Aquatic Life Habitats (Hard water)
[4]REC-1 standard

The digestate/compost from the Tajiguas RRP is anticipated to have a lower concentration of these analytes due to the physical pre-Anaerobic Digestion screening of the organic waste where metals are removed and the Anaerobic Digestion cycle where 95% of the biomethane and VOC potential of the organic waste has been removed and combusted through the CHP. In particular, the organic analyte concentrations are expected to be several orders of magnitude lower at the Tajiguas RRP composting area compared to conventional compost sites such as those listed in Table 8. However, given the absence of analyte data specifically for digestate/compost from anaerobically digested MSW, and because there is the potential for the digestate/compost to come in contact with storm or surface water, there is the potential for significant water quality impacts to occur.

The impact to water quality from the Composting Area can be mitigated through the incorporation of design specifications, water quality monitoring, and best management practices to prevent either the formation of wastewaters or by preventing the wastewaters from percolating to groundwater or flowing off-site to surface water bodies.

The following project design measures and operational procedures are proposed to reduce potential water quality impacts associated with operation of the Composting Area:

- Prior to anaerobic digestion, the organic waste passes through a system of manual sorting, sorting devices, trommels, blowers, magnets and shredders which are designed to remove glass, metals, plastics and other inorganic contaminants.
- The anaerobic digestive (AD) process will exhaust all VOCs along with the methane gas generated during the process. The AD process will also inactivate most pathogens due to the high temperatures of the 28-day AD process.
- The high temperatures within the composting piles will also inactivate remaining pathogens.
- As noted above, storm water from, 25-year, 24-hour event would be would be collected and reapplied to the compost windrows. Overflow events at the Composting Area would only occur for rainfall events exceeding the 25-year, 24-hour storm. By definition these events are very rare.
- For light rainfall events, it is beneficial to maximize the absorption of the rainfall into the compost windrows to replace moisture lost to evaporation. The windrows would be turned following these events to ensure even distribution of the moisture content. However, to prevent leachate generation from the windrows, the Composting Area operator will be equipped with a moisture probe. Prior to and during heavier or longer duration rainfall events, the operator will probe the compost windrows. When the moisture level two feet below the compost surface approaches 65%, the operator will cover the windrows with plastic tarpaulins.
- During the rainy season, the aisles between compost windrows would be swept regularly between storm events with a vacuum sweeper to minimize the amount of loose compost residue that could come in contact with storm water.
- An HDPE pipe system would be used to convey the runoff to the Baker tanks. The HDPE pipe inlets would be located on the face of berm on the north side of the compost pad. They would

be readily accessible for inspection and maintenance from the compost pad. The HDPE pipes have fused joints and are therefore not subject to leakage.

- To prevent stormwater run on into the Composting Area, the Composting Area would be located on a plateau bounded by a 1-foot high asphalt-surfaced berm on three sides and a 6-inch high asphalt curb on the highest side. The Composting Area would be graded to convey runoff to three discrete inlets. The flared inlet pipes convey the runoff through a short pipe network to the Baker tanks.
- The Composting Area working surface will be constructed over the Tajiguas Landfill Prescriptive Final Cover System which will consist of a 2.0 foot thick earth cap overlying an impervious HDPE geosynthetic liner. In addition, the compost pad working surface would consist of 3.0 inches fine grade asphalt, over MPV500 paving fabric saturated in asphalt emulsion (to resist asphalt cracking), over 3.0 inches coarse grade asphalt, over 380RSi geofabric (to bridge potential voids), over 9.0 inches crushed aggregate base, over 8XT uniaxial geogrid (to reinforce the subgrade), over a minimum of 6.0 inches of clay fill.
- A litter fence will be installed around the perimeter of the Composting Area to collect any residual wind-blown debris.

In addition to these design/operational measures, the Composting Area would be subject to new or modified Landfill WDRs issued by the RWQCB which would include, but are not limited to, groundwater monitoring and completion of an anti-degradation analysis. The Composting Area would also be subject to compliance with the General Industrial Storm Water Permit program which requires the development and implementation of a SWPPP and a monitoring plan.

Mitigation Measures:

WQ-3a. Water Quality Monitoring and Corrective Action Plan. A water quality monitoring program shall be developed for the Composting Area. In addition to the four discrete locations currently monitored at the Tajiguas Landfill, two additional monitoring locations are recommended for the Tajiguas RRP. The additional recommended monitoring locations and timing of sampling include:

1. The point of discharge of the compost runoff storage tank for each discrete discharge event (CW-1).
2. The point of discharge of the composting pad overflow for each discrete discharge event (CW-2).

Consistent with the landfill's existing monitoring requirements, the discharge shall be tested for the following constituents of concern: Field Parameters (pH, Specific Conductance,); General (TSS, Ammonia, BOD, total organic carbon, oil & grease); General Minerals (nitrate and nitrite as nitrogen); Dissolved Metals (aluminum, arsenic, copper, iron, nickel, and zinc) Volatile Organics ((alpha)-terpineol, benzoic acid, p-cresol and phenol). Other locations and constituents of concern may be identified by the RWQCB as a part of compliance with the General Industrial Storm Water Permit or as a part of the issuance of new or modified WDRs for the composting operations.

The discharge shall not exceed water quality standards set forth in the General Industrial Storm Water Permit or established in the Landfill WDRs. If any of the constituents of concern measured at sample locations CW-1 or CW-2 are found to exceed these levels , the following action would be taken:

- Evaluation of the composting area management/operating measures to further identify water quality best management practices such as earlier covering of stockpiles during heavy rainfalls or more frequent sweeping of aisles between stock piles and/or revising the planned, treated discharge protocol at Composting Area Runoff Collection tank to enhance treatment (e.g., high capacity filtration, multiple stage filtration), enhance storage capacity or reduce frequency of discharge.

TIMING: The water quality monitoring program shall be prepared prior to initiating operations at the Composting Area. Monitoring shall occur as specified in the Plan.

MONITORING: RRWMD and the RWQCB staff shall site review the monitoring reports and shall ensure that additional actions/BMPs are taken if necessary to protect water quality.

Impact WQ-4: The operation of RRP would extend the life of the Tajiguas Landfill by approximately 10 years (from approximately 2026 to 2036) extending potential water quality impacts (sedimentation, storm water contact with MSW) associated with landfill operations (Class III Impact).

As a result of the diversion of up to 60% of the MSW from landfill disposal, the Tajiguas Landfill is not expected to reach its final permitted disposal capacity and undergo final closure and re-vegetation until approximately 2036. During this extended time the exposed areas of the Landfill would continue to be a source of sediment and water coming in contact with residual waste could also be source of other storm water contaminants. However, the Landfill working face would be significantly reduced in size due to the lower disposal volumes and the residual waste would be largely inert due to the removal of the recyclables and the organic matter. Storm water would continue to be diverted away from the active working face, landfill closure would continue as areas of the reach final fill elevations and existing erosion/sedimentation best management practices (storm drain inlet protection, hydroseeding, soil cement, sedimentation basins, etc.) would continue to be implemented. The Landfill would continue to be covered under with the General Industrial Storm Water Program, which requires preparation of a SWPPP, implementation of best management practices, and monitoring and reporting. In addition, the paper and light plastics that are currently subject to being windblown will be sorted within the MRF and either digested or recycled. Therefore, storm water quality impacts associated with the extended Landfill operational life would be less than significant.

Mitigation Measures:

No new measures identified, continue implementation of existing Landfill BMPs included in Landfill SWPPP.

3.4.2 Optional Element Water Quality Impacts

As an optional project element, CSSR would also be processed at the Tajiguas RRP. Processing of CSSR (optional element) at the project site would require the construction of an additional 10,000 s.f. of building area to the MRF. The addition would be in an area that would already be disturbed by construction of the Tajiguas RRP project and would require only a minor increase in the construction footprint that might impact water quality. As with the MSW, the CSSR would be processed under cover within the MRF building and would be stored within the building prior to shipment off-site. Any residual, fluid contained within the CSSR and released during processing would be captured in the MRF floor drain system and directed to the wastewater treatment facilities. Therefore, addition of the optional element would not increase water quality impacts above that which would occur for the proposed project.

3.4.3 Cumulative Impacts

RRWMD has provided a list and map of current and contemplated projects in the vicinity of the Tajiguas RRP (Appendix B). Since none of these projects are located within the Pila Creek watershed, there are no cumulative water quality impacts from these projects in combination with Tajiguas RRP.

4.0 Project alternatives

4.1 Alternative 1 – No Project

If the Tajiguas RRP project is not constructed, the landfill will reach its permitted capacity in approximately year 2026. Less than significant surface/storm water quality impacts (as described in 01-EIR-05 and 08EIR-00000-00007), primarily associated with erosion and sediment loss would occur until final closure of the Landfill. After this date, the Tajiguas Landfill would either need to be expanded to continue to accept the community's waste or the waste would need to be exported for disposal at another landfill. Further discussion of the impacts of these alternatives is provided in sections 4.3, 4.4 and 4.5.

4.2.1 Alternative 2A – MRF at MarBorg Industries Site, 620 Quinientos Avenue, Santa Barbara

Project Description

This alternative would involve construction and operation of the MRF component of the Project to the MarBorg Industries (MarBorg) property located at 620 Quinientos Street in Santa Barbara. The property comprises 4.19 acres, located at the southeast corner of Calle Real and Quinientos Street. Under this alternative, the AD facility, Energy Facility and Composting Area would remain at the landfill. The proposed preliminary site plan for the MRF at this location is shown on Figure 6.2A.

Current uses of the proposed site include a 1.1 acre green-waste chipping and inert materials processing facility, a concrete batch plant for ready-mix concrete (leased to Vulcan), vehicle and equipment storage

and inert material storage. Additionally, Lash Construction is a concrete, paving, and asphalt contractor that leases part of the property. The two lessees would relocate to other property in the area.

MarBorg has provided a preliminary, conceptual storm water management plan as part of the concept plan package. Sizing calculations for the storm water quantity and quality features were not provided. MarBorg's proposed storm water quality features and mitigation are proposed to include:

1. Unloading of trash indoors at MRF to prevent trash from coming into contact with rainwater.
2. Trench drains at MRF door thresholds, directed to sanitary sewer system to prevent liquid wastes from coming into contact with rainwater.
3. Concrete block walls around MRF property to prevent migration of windblown trash.
4. Maximize landscaped area to extent possible (14,000 SF or 7.7% of gross site area).
5. Roof downspout filters to filter roof runoff.
6. Vegetated swales around the perimeter of the site to intercept and filter parking lot and driveway runoff.
7. Bio-retention to intercept and filter parking lot and driveway runoff.

On-site runoff volume retention is not proposed as part of the MarBorg storm water management plan as the per cent imperviousness of the site is not increased relative to the current land use according to the conceptual drainage plan. The MarBorg property is served by City of Santa Barbara municipal sewer system. The alternative site is only 900 feet from the city's El Estero wastewater treatment plant. Wastewater from the proposed MRF would be discharged to the City's sewer system. There are no capacity limitations on the city sewers serving this site.

Hydrologic and Water Quality Setting

The following information is summarized from the Program Environmental Impact Report for the Plan Santa Barbara General Plan Update (City of Santa Barbara, September 2010).

Santa Barbara contains four major watersheds, each of which eventually drains to the Pacific Ocean. These watersheds are drained by Arroyo Burro, Mission, and Sycamore creeks, and the Laguna Channel. The proposed MarBorg Alternative MRF site is located within the watershed of the Laguna Channel. With the exception of some undeveloped canyons of the south face of the Riviera, the Laguna Channel drains an almost entirely urbanized watershed. The MarBorg site currently drains into the City of Santa Barbara's storm drain system via an adjacent catch basin on Calle Cesar Chavez. The city storm drain system conveys the runoff 200 feet south into an un-named tributary of the Laguna Channel within the Union Pacific Rail Road right of way which flows into Laguna Channel, approximately 1600 feet downstream.

Acting under Sections 305(b) and 303(d) of the Federal Clean Water Act (CWA), the Central Coast RWQCB has designated 13 beneficial uses for water bodies within the city of Santa Barbara in the Central Coast Basin Plan. Beneficial uses are not specifically identified for the Laguna Channel. According to the Central Coast Basin Plan, surface water bodies within the Region that do not have

beneficial uses specifically designated for them are assigned the following designations: Municipal and Domestic Water Supply and Protection of both recreation and aquatic life. The Laguna Channel is not listed as a 303(d) impaired water body, but the City Creeks Division has conducted extensive water quality testing on the creek and it does contain high levels of fecal indicator bacteria (FIB) (Laguna Watershed Study and Water Quality Improvement Feasibility Analysis, Geosyntec 2009). In addition, Laguna Channel discharges to a lagoon on East Beach. The Pacific Ocean at East Beach is a 303(d) impaired water body. The contaminant of concern for this water body is fecal coliform.

As noted above, the MarBorg alternative MRF site presently has several uses (green-waste chipping and inert materials processing facility, a concrete batch plant for ready-mix concrete (leased to Vulcan), vehicle and equipment storage and inert material storage) and ground covers (metal roof, asphalt, concrete and gravel (reportedly gravel over asphalt). Water quality data is not specifically available from the site but sediment, pesticides, nutrients, metals, pathogens, hydrocarbons, and trash have been identified as storm water pollutants of concern for industrial land uses in the City of Santa Barbara. It is doubtful that runoff is generated from the gravel covered surface for low intensity rainfalls ("first flush") as the gravel is porous and will likely contain the first ¾ inch of rainfall or so. Runoff from higher intensity rainfall events would tend to convey fine sediments offsite.

Water Quality Protection Regulations

In addition, to the Federal and surface and storm water quality regulations listed in section2.3 the following City regulations and programs address water quality:

City of Santa Barbara

- Storm Water Management Program – provides management policies and programs for storm water run-off, including temporary measures during construction and long-term measures for post-construction.
- Storm Water Best Management Practices (BMP) Guidance Manual – provides detailed guidance for project design measures to control storm water.
- City NPDES Phase II Program- Intended to reduce adverse impacts to water quality and aquatic habitat by instituting the use of controls on the unregulated sources of storm water discharges that have the greatest likelihood of causing continued environmental degradation.
- City Construction Storm Water Management Program- Implements federal Clean Water Act by establishing standard to control sediment and other pollutants associated with new construction.
- City Storm Water Pollution Prevention Program- Program that partners with residents and businesses to prevent pollution of local water bodies; such as creeks and the Pacific Ocean.
- City NPDES Permit for El Estero Wastewater Treatment Plant – Establishes criteria for the operation and maintenance of publicly-owned treatment works, and establishes limits for discharge from the City's wastewater treatment plant to the Pacific Ocean.
- City General Plan

- Conservation Element-Identifies goals, policies and implementation measures to improve drainage and flood control as well as ensure water quality of potable water resources.
- Open Space Element-Stipulates that creeks, hillsides, the shoreline and the ocean shall be maintained as close to possible in their natural state, directing development of policies forbidding channelization, minimizing erosion and sedimentation, and restricting development near creeks and in flood plains.
- Parks & Recreation Element- Identifies ways in which beaches and the shoreline can be maintained for public use while avoiding environmental degradation.
- Seismic Safety and Safety Element- Identifies goals regarding public safety related hazards such as fire, flood, earthquake, bluff retreat and dam safety and establishes the policies and programs to protect the community from risks.
- City Local Coastal Plan- As required by the Coastal Act, establishes policies and regulations for most activities within the coastal zone, including protection of freshwater and marine environments and minimization of hazards such as flooding and bluff retreat.
- City of Santa Barbara Municipal Code- Contains ordinances that establish creek setbacks for development, guide proper disposal of industrial and liquid waste, maintain public safety, etc.

The City of Santa Barbara began implementing the Storm Water Management Program (SWMP) in January of 2009. The City of Santa Barbara's SWMP is intended to reduce the discharge of non-point source pollutants to the "maximum extent practicable" to protect water quality into local creeks and the Pacific Ocean. The City of Santa Barbara has implemented a peak runoff discharge rate requirement, a volume reduction requirement, and a treatment requirement.

The City SWMP classifies projects according to several tiers. The MarBorg MRF Alternative would be considered to be a Tier 3 project (Industrial project with > 4000 SF new or replaced impervious surface). Tier 3 projects are required to meet the Storm Water Runoff Requirements through an integrated design approach including site design, basic BMPs, and storm water runoff BMP options.

Environmental Thresholds

As this proposed alternative MRF site is located within the City of Santa Barbara City-limits, it is subject to the City of Santa Barbara Impact Evaluation Guidelines. With respect to water quality, a significant impact would result from:

Substantial discharge of sediment or pollutants into surface water or groundwater, or otherwise degrading water quality, including temperature, dissolved oxygen, or turbidity.

Impact Analysis and Mitigation Measures

Impact WQ-1: Construction of the MRF could generate loose, erodible soils and other water quality pollutants that may impair water quality (Class II impact).

Construction of the MRF at the MarBorg Site would require removal of approximately 11,000 SF of existing development, removal of approximately 172,000 SF of existing paving, approximately 14,000

cubic yards of fill over a 4.1 acre area, and construction of 106,222 SF of new structures, 60,170 SF of parking areas and roads and 16,535 SF of landscaping. Construction would occur over a 17-month period which may include construction during the rainy season. Construction would potentially result in erosion of fill material into the nearby storm drains which could ultimately reach the Laguna Channel. In addition, potential construction related contaminants include incidental spills of petroleum products (e.g., fuels and lubricants) from excavation and grading equipment, concrete washout, construction chemicals, cleaning solvents pesticides, trash and construction debris. These contaminants could potentially impact surface waters through direct contact with storm water runoff or through spills into the storm drain system which ultimately discharges to the Laguna Channel. All of these contaminants have the potential to impair surface water quality.

Similar to the proposed project, compliance with the following mitigation measures would reduce impacts to a less than significant level:

Mitigation Measure WQ-1a. General Construction Storm Water Permit.

Mitigation Measure WQ-1b. Erosion and Sediment Control Plan.

Mitigation Measure WQ-1c. Sediment and Contamination Containment.

Impact WQ-2: Operation of the MRF could adversely affect surface water quality through contact with MSW before and after processing, contact with parking and storage areas and/or leaks or spills from fueling activities (Class II impact).

MSW Processing

MSW would be tipped and processed within the MRF to extract recyclable materials and organics. The incoming MSW could contain high levels of organic matter (which could have high biological oxygen demand [BOD]), sediment, nutrients, inorganic salts, and plastic and paper. Other potential water quality pollutants may be present in small quantities, including heavy metals, pathogens, hydrocarbons, and other contaminants. The MSW may also have a high liquid content from the trash such as partially empty beverage or food containers. During tipping and handing operations, the MSW, and associated contaminants, could be accidentally released from the project facilities or discharged during storm events, and enter surface waters and adversely impact water quality.

The following project design measures would reduce potential water quality impacts associated with MSW processing. Similar to the proposed project, under the MarBorg MRF alternative the tipping and processing of the waste would occur indoors, under cover in a negative air pressure building. The tipping and processing within the MRF building would eliminate the potential for storm water to come in contact with waste and would significantly reduce the potential for windblown plastic and paper waste to be blown off site. Dry cleaning methods would be used in the interior of the MRF to reduce the generation of any process wastewater. A floor drain system is not proposed.

Equipment and Vehicle Parking Areas and Fueling

Currently the majority of MarBorg MRF alternative site is comprised of concrete or asphalt paving, covered in gravel with a concrete base below, or consists of compacted gravel or dirt. As noted above, the existing surfaces would be replaced with 106,222 SF of new structures, 60,170 SF of parking areas

and roads and 16,535 SF of landscaping. A number of pollutants could accumulate within the parking areas including antifreeze, oil, hydrocarbons, metals and rubber particles from vehicle and equipment operations and use, and fugitive trash from operation of the MRF. No on-site fuel storage for mobile operating equipment is proposed. Mobile equipment would be fueled by a fuel truck. Spills of diesel fuel of gasoline could occur during the fueling activities. New storm drains installed within the site could carry materials accumulated in the parking areas and any spills from equipment fueling to the City's storm drain system during storm events resulting in an adverse impact to surface water quality.

MarBorg Industries provided a preliminary, conceptual storm water management plan as part of the concept plan package (Figure 6). To reduce storm water quality impacts and meet the storm water treatment requirements of the City of Santa Barbara's Storm Water Management Program, the Marborg MRF alternative proposes to treat building runoff via roof downspout filters and pavement runoff via vegetated swales and bioretention. Sizing calculations for the storm water quantity and quality features were not provided and the MarBorg MRF alternative site has several constraints (limited project area, shallow groundwater table, location partially within the 100-year floodplain) which limit the applicability/performance of the storm water quality BMPs. However, it is assumed that a combination of best management practices could be implemented on-site or on adjacent, off-site Marborg owned property. Given the various facilities/activities that could impact storm water quality, and to ensure the project water quality design elements are fully implemented and maintained throughout the project life, similar to the proposed project, the following mitigation measures would be required:

Mitigation Measure WQ-2a. General Industrial Storm Water Permit.

In addition, construction of the MRF at the MarBorg site would require compliance with the City's Storm Water Management Program.

Because the MarBorg MRF alternative would be served by the City's sewer system, there would be no water quality impacts associated with the discharge of wastewater from the MRF.

Implementation of the measures listed above is expected to mitigate impacts to site runoff quality. The MarBorg MRF alternative site runoff turbidity after mitigation is expected to be lower than for current site conditions. With the mitigation provided by the proposed storm water BMPs, the project's residual storm water quality impact is expected to be less than significant.

Changes in Environmental Impacts at the Tajiguas Landfill

Under this alternative the MRF would not be constructed at the Tajiguas Landfill, however the AD Facility, Energy Facility and related development (e.g., percolate tanks) would still be located at the operation deck area and would require the same grading and pavement to create a pad for the remaining facilities. Potential surface/storm water quality impacts associated with operating the MRF at the landfill would be eliminated. In addition, because of the reduced number of on-site employees and the elimination of the wastewater from washdown of the MRF, this alternative would also reduce the Tajiguas RRP wastewater discharge by approximately 2145 gallons per day. This would eliminate the larger of the two on-site advanced septic treatment systems. The treated effluent discharge would be reduced by 3.36 acre-feet/year.

Surface and storm water quality impacts associated with operation of the Composting Area would be the same as described for the proposed project.

4.2.2 MRF at South Coast Recycling and Transfer Station (SCRTS)

Project Description

This Alternative would involve construction and operation of the MRF component of the Resource Recovery Project at the existing County-owned and operated SCRTS site located at 4430 Calle Real in Santa Barbara, California. The proposed site plan for the SCRTS MRF alternative is shown on Figure 7. The MRF would consist of an 86,600 SF metal building plus two weigh scale buildings, outdoor storage areas, a 39,000 SF parking lot and two biofilters. Under this Alternative the MRF would be integrated with the existing solid waste operations at the SCRTS. Similar to the proposed project, the AD Facility would be located at the Tajiguas Landfill, with disposal of residual waste also at the Tajiguas Landfill.

A portion of the SCRTS site overlays the closed Foothill Landfill, which operated from the 1940s to 1967. The solid waste operations area is located on 8.3 acres in the central portion of a larger 143.48 acre publicly owned parcel (APN 059-140-023). The facility has been in operation since 1967 and is used primarily to collect and transfer MSW, recyclable materials and green waste generated in the South Coast urban area. Currently MSW, recyclable materials, and green waste tipping and storage occur in an uncovered outdoor area. The waste is consolidated and transported to the Tajiguas Landfill for disposal and the recyclable materials are consolidated and transferred off-site to other processing facilities. The SCRTS site is served by an 8-inch diameter, County-owned sanitary sewer which in turn connects to the Goleta Sanitary District sewer system at El Sueno Road. There is adequate capacity in the sewer system to serve the average additional staff of 25 persons per shift. The GSD wastewater treatment plant located at One William Moffett Place in Goleta has adequate capacity for the modest increase in sewage flows from the MRF at this alternative location.

Similar to the Proposed Project, nearly all waste and recyclable delivery and sorting will be conducted indoors thereby eliminating the potential for waste to come into contact with precipitation. This would reduce the potential storm/surface water quality impacts at the site relative to existing conditions in which all tipping, storage and processing occurs outdoors. Fluids draining from the waste stream would be discharged through a filter to the sanitary sewer system. Some inert waste products will be sorted and stored outdoors such as drywall, tires, rocks, metals, rubble, treated lumber and mattresses. These items will be stored in large metal bins. Green waste will also be dropped tipped and temporarily stored outdoors (as is currently conducted) until the material is transferred to the Tajiguas Landfill to be mulched.

Storm water quality best management practices included in the project design for the for the SCRTS MRF alternative include:

1. Unloading of trash indoors at MRF to prevent trash from being windblown or entering any watercourse.

2. Trench drains at MRF door thresholds, directed to sanitary sewer system to prevent any liquid wastes from coming into contact with precipitation and runoff.
3. Chain link fence around MRF to trap any windblown trash which might leave the MRF building or trash trucks.
4. Hydrodynamic separator on storm drain system to trap oils, trash and sediment that might enter the storm drain system.
5. Sediment Traps in concrete swales to trap coarse sediments from the slopes adjacent to the site.

Storm water quality enhancement is currently provided by a proprietary oil/trash/sediment separator (CDS Unit). The rated treatment capacity of this device is 9 CFS. The recently adopted Resolution R3-2012-0025 Post-Construction Storm Water Management Requirements for Development Projects in the Central Coast Region, California Regional Water Quality Control Board, Central Coast Region, September 2012 requires new development or redevelopment projects with greater than 5000 SF of new impervious area to treat the Storm Water Quality Development Flow (SQDF). The SQDF is defined as the runoff produced by two times the 85th percentile 24-hour rainfall depth. For this location, the 85th percentile rainfall depth is 1.4 inches. The calculated SQDF is 20 cfs. This means that an additional CDS unit of 11 cfs capacity will be required to mitigate the SQDF.

Hydrologic and Water Quality Setting

The proposed SCRTS MRF alternative is located within the Goleta Slough watershed. Surface water occurs in the project vicinity as intermittent flow within small drainages. These drainages typically contain water during, and for a short period after, rainfall events. The most significant drainages in the project area are Hospital Creek to the west and Atascadero Creek to the east. Both of these creeks ultimately empty into the Goleta Slough. The surface water source closest to the project site is a small unnamed drainage located east of the project site, between the inactive Foothill Landfill and the residential areas adjacent to Sherwood and El Sueno Roads. There are no beneficial uses listed for Hospital Creek in the Central Coast Basin Plan. However, the beneficial uses of Atascadero Creek include municipal, agricultural, groundwater, recreational and aquatic habitat. The beneficial uses of the Goleta Slough are a subset of these uses. None of these water bodies are 303d listed. However Goleta Beach at the Pacific Ocean is listed for indicator bacteria.

Runoff at SCRTS drains by sheet flow and is collected in a series of drains and culverts. Drainage water is directed down the County Road to storm water drains in Calle Real which drain into Hospital Creek in the vicinity of Calle Real and U.S. Highway 101. Hospital Creek flows into Atascadero creek a short distance downstream of this location. All on-site storm water is collected by a drainage system which consists of the following:

Drainage Inlets at the SCRTS

Drainage inlets at the SCRTS are located throughout the SCRTS to collect storm water as quickly as possible thereby preventing localized flooding and excessive contact with the MSW. There are 11 drainage inlets at the SCRTS.

Storm Drain Pipes

The storm drain drainage inlets at the SCRTS convey surface water to a network of on-site underground storm drain pipes.

Storm Water Clarifier

The on-site drainage system discharges to a proprietary oil/trash/sediment separator (CDS Unit or storm water clarifier) at the site's downstream-most point. The clarifier removes debris from the flows before exiting the drainage system and discharging to an off-site drainage system of underground pipes aligned along the County Road. The rated treatment capacity of this device is 9 CFS. This off-site drainage system empties to the surface into a tributary of Hospital Creek on the east side of County Road near Calle Real. The Hospital Creek tributary is conveyed under Calle Real and U.S. Highway 101 to a de-silting basin that is part of the County Flood Control system.

Storm water run-on at the SCRTS is limited to flows from the hillsides to the west and north of the facility. The areas of the hillsides total about 1.5 acres and are not in contact with MSW. Run-on to the SCRTS is collected by the on-site drainage system.

Due to intermittent flows in the creeks near the project site, their water quality has not been monitored. However, at the existing SCRTS site, storm water pollution can occur due to run-off contact with uncovered MSW and erosion of graded soil. The location and nature of storm water pollution varies with each drainage inlet. A summary of potential storm water pollution sources is shown in Table 9.

Table 9 SCRTS, Potential Storm Water Pollution Sources

AREA	ACTIVITY	POLLUTANT SOURCE	QUANTITY OF MATERIAL	DISCHARGE HISTORY
Drainage Inlet 1	MSW	MSW	Varies zero to several hundred cubic yards.	Minor quantities observed entering drainage inlet in the past
Drainage Inlet 2	Co-Mingled Recyclables Storage Area	Recyclables	Varies zero to several hundred cubic yards.	None observed
Drainage Inlet 3	Scrap Metal, C&D Storage Area	Scrap Metal, C&D Storage	Varies zero to several hundred cubic yards.	None observed
Drainage Inlet 4	Top of Transfer Trailer Loading Ramp	Waste Activities	Varies zero to several hundred cubic yards.	None observed

AREA	ACTIVITY	POLLUTANT SOURCE	QUANTITY OF MATERIAL	DISCHARGE HISTORY
Drainage Inlet 5	Absorbent Shed Area	Waste Activities	Tributary area includes fully contained wastes.	None observed
Drainage Inlet 6	Bottom of Inactive Loading Pit	Windblown Waste	Windblown quantities only. This pit is not in use.	None observed
Drainage Inlet 7	Bottom of Active Loading Pit	Green Waste Activities	Varies zero to small amount escaping stockpiles.	None observed
Drainage Inlet 8	Road Drainage	Road and parking lot drainage	This inlet is outside of the waste activity location.	None observed
Drainage Inlet 9	Bottom of Transfer Trailer Loading Ramp	Waste Activities	Varies zero to small amount escaping loader bucket.	None observed
Drainage Inlet 10	Road Drainage	Road and parking lot drainage	This inlet is off-site, therefore no waste at this location.	None observed
Drainage Inlet 11	Road and Hillside Drainage	Road drainage and sediment	Windblown waste varies. Sediment quantity variable.	Small amount of waste entering storm drain observed in the past.

(Source: Storm Water Pollution Prevention Plan, South Coast Recycling and Transfer Station, Santa Barbara County, April 2009)

Existing operations at the SCRTS are subject to compliance with the General Industrial Storm Water Permit and a SWPPP has been prepared to address storm water quality issues and best management practices associated with the existing operation of the site.

Water Quality Protection Regulations

In addition, to the Federal and State surface and storm water quality regulations listed in section 2.3.1, the SCRTS site is located within area subject to the Storm Water Management Program (SWMP) prepared by the County of Santa Barbara (County) pursuant to State Water Resources Control Board Water Quality Order No. 2003-005-DWQ National Pollutant Discharge Elimination System (NPDES) General Permit No.CAS0000004 Waste Discharge Requirements for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (General Permit).

As noted above, the recently adopted Resolution R3-2012-0025 Post-Construction Storm Water Management Requirements for Development Projects in the Central Coast Region, California Regional Water Quality Control Board, Central Coast Region, September 2012 requires new development or redevelopment projects with greater than 5000 SF of new impervious area to infiltrate runoff or store and re-use runoff unless technically infeasible. Due to the former landfill underlying a portion of the site and the confined nature of the site, it is infeasible to mitigate the project flow increase with infiltration, detention or runoff re-use.

Environmental Thresholds

Thresholds of significance applicable to the SCRTS MRF alternative are the same as those discussed in Section 2.4 of this report. Table 10 summarizes the conditions under which a significant water quality impact is presumed to occur and identifies the applicability of the conditions in the context of the SCRTS MRF alternative.

Table 10 County of Santa Barbara, Significant Impacts

	Potential Significant Impacts	**Applicability to SCRTS**
1	Is located within an urbanized area of the county and the project construction or redevelopment individually or as a part of a larger common plan of development or sale would disturb one (1) or more acres of land.	Approximately 9 acres would be disturbed by construction activities. Potentially significant impact mitigated through water quality design features. Applies.
2	Increases the amount of impervious surfaces on a site by 25 percent or more	Does not apply. Increased impervious surface is less than 15 percent of the 8.3 acre site area.
3	Results in channelization or relocation of a natural drainage channel	Does not apply.
4	Results in removal or reduction of riparian vegetation or other vegetation (excluding non-native vegetation removed for restoration projects) from the buffer zone of any streams, creeks or wetlands	Does not apply.
5	Is an industrial facility that falls under one or more of categories of industrial activity regulated under the NPDES Phase I industrial storm water regulations (facilities with effluent limitation; manufacturing; mineral, metal, oil and gas, hazardous waste, treatment or disposal facilities; landfills; **recycling facilities**; steam electric plants; transportation facilities; treatment works; and light industrial activity).	Existing industrial SWPPP would need to be revised to address the addition of the MRF at this location. Applies.
6	Discharges pollutants that exceed the water quality standards set forth in the applicable NPDES permit, the Regional Water Quality Control Board's (RWQCB) Basin Plan or otherwise impairs the beneficial uses of a receiving waterbody.	Mitigated impact. The SCRTS MRF alternative includes the proposed installation of a hydrodynamic separator tol treat storm water runoff such that

		pollutants do not exceed applicable standards. Applies.
7	Results in a discharge of pollutants into an "impaired" waterbody that has been designated as such by the State Water Resources Control Board or the RWQCB under Section 303 (d) of the Federal Water Pollution Prevention and Control Act (i.e., the Clean Water Act)	Goleta Beach at the Pacific Ocean is listed under 303(d). Mitigated impact. The proposed hydrodynamic separator would treat storm water runoff such that pollutants do not exceed applicable standards. Applies.
8	Results in a discharge of pollutants of concern to a receiving water body, as identified in by the RWQCB.	Mitigated impact. The proposed hydrodynamic separator would treat storm water runoff such that pollutants do not exceed applicable standards. Applies.

Impact Analysis and Mitigation Measures

Impact WQ-1: Construction of the MRF could generate loose, erodible soils and other water quality pollutants that may impair water quality (Class II impact).

Construction of the MRF at the SCRTS site would require removal of approximately 7,500 SF of existing development, removal of approximately 217,000 SF of existing paving, approximately 10,200 cubic yards of fill over an 8.3 acre area, and construction of 119,000 SF of new structures, 156,100 SF of parking areas and roads and 21,300 SF of landscaping. Construction would occur over a 12-month period which may include construction during the rainy season. Construction would potentially result in erosion of fill material into the nearby storm drains which could ultimately reach Hospital Creek and the Goleta Slough. In addition, potential construction related contaminants include incidental spills of petroleum products (e.g., fuels and lubricants) from excavation and grading equipment, concrete washout, construction chemicals, cleaning solvents pesticides, trash and construction debris. These contaminants could potentially impact surface waters through direct contact with storm water runoff or through spills into the storm drain system which ultimately discharges to the Goleta Slough. All of these contaminants have the potential to impair surface water quality.

Similar to the proposed project, compliance with the following mitigation measures would reduce impacts to a less than significant level:

Mitigation Measure WQ-1a. General Construction Storm Water Permit.

Mitigation Measure WQ-1b. Erosion and Sediment Control Plan.

Mitigation Measure WQ-1c. Sediment and Contamination Containment.

Impact WQ-2: Operation of the MRF could adversely affect surface water quality through contact with MSW before and after processing, contact with parking and storage areas and/or leaks or spills from fueling activities (Class II impact).

MSW Processing

As discussed under the proposed project, MSW would be tipped and processed within the MRF to recover recyclable materials and organics. The incoming MSW could contain high levels of organic matter (which could have high biological oxygen demand [BOD]), sediment, nutrients, inorganic salts, and plastic and paper. Other potential water quality pollutants may be present in small quantities, including heavy metals, pathogens, hydrocarbons, and other contaminants. The MSW may also have a high liquid content from the trash such as partially empty beverage or food containers. During tipping and handing operations, the MSW, and associated contaminants, could be accidentally released from the project facilities or discharged during storm events, and enter surface waters and adversely impact water quality.

Currently, self-haul MSW and CSSR are tipped, consolidated and transferred from the SCRTS for disposal at the Tajiguas Landfill or, in the case of CSSR, for off-site processing. These activities currently occur in uncovered, outdoor areas at the SCRTS. With implementation of the proposed project the volume of MSW processed at the site would increase, however the existing self-haul MSW and the CSSR processing activities and the proposed franchise waste processing and storage would occur within an enclosed, covered building reducing the potential for precipitation or storm water runoff to come in contact with the materials and reducing the potential for storm water quality **impacts.**

Equipment and Vehicle Parking Areas and Fueling

The SCRTS site is currently 65.8% impervious. The construction of the building biofilters and parking lot expansion will increase the impervious surface area at the site by approximately 1.0 acre. A 1.0 cfs increase in peak runoff for both the 25 and the 100 year storm events is anticipated due to constructing the MRF at this location. A number of pollutants could accumulate within the parking areas including antifreeze, oil, hydrocarbons, metals and rubber particles from vehicle and equipment operations and use, and fugitive trash from operation of the MRF. Similar to the proposed project, at SCRTS MRF alternative, there will be a 10,000 gallon diesel storage tank and dispensing station located near the existing maintenance building. Storm drains installed within the site could carry materials accumulated in the parking areas or spills from the fueling facility to the County's storm drain system during storm events resulting in an adverse impact to surface water quality.

To treat runoff from the parking areas and other paved area, the SCRTS MRF alternative included the installation of a hydrodynamic separator on storm drain system to trap oils, trash and sediment that might enter the storm drain system and to help reduce storm water quality impacts. This would operate in conjunction with the hydrodynamic separator that currently operates at the site. Given the various facilities/activities that could impact storm water quality, and to ensure the project water quality design elements are fully implemented and maintained throughout the project life, similar to the proposed project, the following mitigation measures would be required:

Mitigation Measure WQ-2a. General Industrial Storm Water Permit.

Mitigation Measure WQ-2b. Spill Prevention, Control, and Countermeasure (SPCC) Plan.

Because the SCRTS MRF alternative would be served by the Goleta Sanitary District's sewer system, there would be no water quality impacts associated with the discharge of wastewater from the MRF.

Changes in Environmental Impacts at the Tajiguas Landfill

Under this alternative the MRF would not be constructed at the Tajiguas Landfill, however the AD Facility, Energy Facility and related development (e.g., percolate tanks) would still be located at the operations deck area and would require the same grading and pavement to create a pad for the remaining facilities. Potential surface/storm water quality impacts associated with operating the MRF at the landfill would be eliminated. In addition, because of the reduced number of on-site employees and the elimination of the wastewater from washdown of the MRF, this alternative would also reduce the Tajiguas RRP wastewater discharge by approximately 2145 gallons per day. This would eliminate the larger of the two on-site advanced septic treatment systems. The treated effluent discharge would be reduced by 3.36 acre-feet/year.

Because the SCRTS alternative would be served by the Goleta Sanitary District sewer system, there would be no water quality impacts associated with the discharge of wastewater from the MRF.

4.3 Alternative 3 – Aerobic Composting (Engel and Gray Facility)

Project Description

This Alternative would involve processing organic waste recovered in the MRF using open air aerobic composting methods at Engel and Gray's existing composting facility in the City of Santa Maria, instead of enclosed dry fermentation anaerobic digestion at the Tajiguas Landfill. Similar to the proposed project, the MRF would be located at the Tajiguas Landfill, with disposal of residual waste also at the Tajiguas Landfill. Under this alternative there would be no recovery of biogas from the organic waste.

The existing Engel and Gray Composting facility is located at 745 Betteravia Rd. in Santa Maria. The entire Engel and Gray leased property comprises approximately 40 acres. The current composting operation occupies roughly 26 acres and is currently expanding. The site operates under Solid Waste Facility Permit 42-AA-0053, which authorizes receipt of up to 52,200 tons per quarter of compostable materials, a site storage capacity of 400,000 cubic yards, and an average permitted daily traffic volume of 75 vehicles/day. The permitted hours of operation are 7:00 am to 7:00 pm, Monday through Sunday. Permitted waste that can be received includes green-waste, agricultural waste, manures, bio-solids (sewage sludge), food material and organic feedstock. Waste Discharge Requirements (Order 99-11) issued by the Central Coast Regional Water Quality Control Board limits materials on-site to 100,000 cubic yards of feedstock and actively composting materials, and 100,000 cubic yards of finished compost.

Under the proposed alternative, up to an additional 240 tons/day or 73,600 tons/year (MRF design capacity) of organic waste recovered from MSW at the proposed MRF (to be located at the Tajiguas Landfill) would be transported to the Engel & Gray site for aerobic composting. This could include up to 20,000 tons/year of SSOW from existing and future food waste collection programs. The proposed Tajiguas RRP anaerobic digesters reduce the duration of composting by from 14 to 6 weeks. Given that the Tajiguas RRP composting area is proposed to occupy a 5.0 acre area, it is estimated that processing the recovered organics via aerobic composting would require approximately 11.7 acres for the same quantity of organic waste.

Hydrologic and Water Quality Setting

The Engel and Gray Aerobic Composting alternative site is located with the Santa Maria River Watershed. The Central Coast Water Board has identified the following beneficial uses for the Santa Maria River: municipal and domestic supply, contact and non-contact recreation, industrial service supply, groundwater recharge, wild and scenic water, warm and cold fresh water habitat, migration of aquatic organisms, rare and endangered species habitat, commercial and sport fishing, and freshwater replenishment. The Santa Maria River is CWA 303d listed with the following pollutants of concern: Chlorpyrifos, DDT, Dieldrin, Endrin, fecal coliform, nitrate and un-ionized ammonia.

Mean surface elevation at the Engel and Gray site is 155 feet and the topography is nearly flat. No named surface water features are located within proximity to the site. As identified in the facility's existing WDRs, a number of surface water and ground water quality constituents of concern (e.g., pathogens, heavy metals, nitrogen) are present in the composting feedstocks and therefore runoff from the site is required to be managed to protect water quality. Surface water run on/off is controlled by a series of berms which separate the composting site from the adjacent land uses. Internally the site is hydraulically split in half with surface water from each sub-area collected in grass-lined swales that drain to one of two retention/percolation basins located at the west end of the site. The grass-lined swales act as biofilters to mitigate nitrogen levels in the runoff from the compost windrows. As specified in the WDRs, the composting facility's precipitation control facilities are required to be designed, constructed and maintained to limit, to the greatest extent possible, ponding, infiltration, inundation, erosion, washout, and over-topping due to a 24-hour precipitation event with a predicted frequency of once in 100 years.

Pursuant to the facility's Monitoring and Reporting Program 99-11, the facility's storm water basins are required to be sampled quarterly (when water is present) for the following constituents: pH, fecal coliform and total nitrogen. If off-site discharges occur, these discharges must be sampled monthly and must be sampled for pH, fecal coliform and total nitrogen and total organic carbon or oil and grease, total suspended solids and specific conductance. Further details regarding the timing of the monitoring/sampling requirements are included in the Monitoring and Reporting Program.

Water Quality Protection Regulations

In addition, to the Federal and State surface and storm water quality regulations listed in section 2.3, the Engel and Gray site is located within area subject to the Storm Water Management Plan (SWMP) prepared by the City of Santa Maria pursuant to State Water Resources Control Board Water Quality

Order No. 2003-005-DWQ National Pollutant Discharge Elimination System (NPDES) General Permit No.CAS0000004 Waste Discharge Requirements for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (General Permit).

Environmental Thresholds

WDR 99-11 stipulates that the Composting Operation shall neither cause nor contribute to a condition of pollution or nuisance to the waters of the State, or in any way cause unreasonable impairment of state waters' beneficial uses. The beneficial uses of the Santa Maria River include municipal, agricultural, industrial, groundwater, recreational, cold and warm water habitat, migratory fish and spawning. The maximum concentrations of various analytes are as stated in Table 8.

Impact Analysis and Mitigation

As noted above, under this alternative, organics recovered from the MRF would be processed at the existing, permitted Engel and Gray composting facility. The addition of more compost piles is not expected to increase the runoff quantity. However, the concentration of contaminants in the runoff would be expected to increase by virtue of greater compost site coverage. The facility has been analyzed in an Initial Study/Conditional Negative Declaration (IS/CND, E-94-56) prepared by the City of Santa Maria (May 1995) and an addendum to IS/CND, E-94-56 also prepared by the City (July 2008). No significant surface/storm water quality impacts were identified in these documents. The facility is subject to WDRs issued by the RWQCB which identify and regulate storm and ground water quality issues and require control and containment of runoff from the site. Since the facility appears to have sufficient capacity to accommodate the additional organic material that would be generated from implementation of the project MRF and the facility appears to be in compliance with its permit requirements, no additional impacts are anticipated to occur. However, it should be noted that organic waste recovered from MSW presents additional management challenges (e.g., presence of plastics and other contaminants, high liquid content, etc.) not experienced with the feedstocks currently processed at the Engel and Gray facility which may require significant facility improvements (e.g., litter fencing). In addition, the State Water Board is increasing its regulatory oversight of composting facilities and the WDRs for this facility were issued approximately 15 years ago and have not been updates since issuance. The RWQCB reserves the right to review and revise the WDRs when necessary (WDR Order No. 99-11, Condition 19) and therefore additional measures may be required at the site in the future to ensure adequate protection of water quality.

Changes in Environmental Impacts at the Tajiguas Landfill

Under the Aerobic Composting Alternative, the MRF component of the Tajiguas RRP project would still be constructed at the Tajiguas Landfill and potential water quality impacts associated with the operation of this facility would be the same as described for the proposed project. The AD Facility (and related infrastructure), the Energy Facility and the Composting Area would not be constructed therefore potential water quality impacts associated with the operation of these facilities would not occur.

4.4 Alternative 4 – Tajiguas Landfill Expansion

Project Description

Under this Alternative the Tajiguas RRP facilities would not be constructed instead, this Alternative would involve expansion of the Tajiguas Landfill to extend its life by at least 10 years (similar to the proposed project) from the currently projected closure in approximately 2026 to approximately 2036. Under this alternative there would be reduced recovery of biogas from the organic waste compared to the RRP.

The expansion would provide additional disposal capacity to extend its life as compared to the proposed Resource Recovery Project which, would reduce the disposal rate through the recovery of additional recyclable materials and organics and utilize the permitted capacity to achieve the same extension of Landfill life. The expansion has been designed to preserve the existing North Sedimentation basin and to avoid additional impacts to the Pila Creek channel.

Under the Expansion Alternative, the permitted maximum daily tonnage for the Tajiguas Landfill would remain at its current level of 1,500 tons/day. The existing landfill would be expanded both vertically and horizontally, to provide an additional 3.7 million cubic yards of airspace or 6.9 million tons of waste disposal capacity. The expansion would increase the total disposal capacity from 23.3 million cubic yards to 27 million cubic yards.

The 3.7 million cubic yards of additional capacity would be provided by expanding the Landfill footprint in the back canyon area of the Landfill property in the area of the Landfill reconfiguration project that was approved in 2009. This expansion would create a total landfill waste footprint of 131 acres. The expansion would consist of approximately 38 acres of vertical expansion on the existing landfill waste footprint, approximately 14 acres of horizontal expansion within previously disturbed areas of the landfill property and approximately one acre of new disturbance.

Under the expansion, the landfill elevation would not exceed the currently permitted maximum elevation of 620 feet above msl. The overall capacity increase would be achieved by lining and placing additional waste against the existing landfill cut slope and by additional excavations in the back canyon area increasing the waste fill elevations in the back canyon by approximately 60 feet. Approximately 300,000 cubic yards of excavation would be required to create the additional capacity and to facilitate the installation of the composite liner. The fill slopes would be constructed with 15-foot wide benches every 40 vertical feet to create overall fill slopes of 2.4:1. The expansion would be developed in phases. Figure 8 presents a conceptual fill plan for this alternative. On-site drainage features would be designed and constructed in the expanded landfill area to control storm water runoff form landfill surfaces and run-on from the surrounding watershed.

To accommodate the Landfill expansion, additional soil would be needed for daily, intermediate and final cover. This cover material would be obtained by expanding the North Borrow/Stockpile area by approximately 12 additional acres, to the west of the existing borrow/stockpile footprint. The current soil stockpile would continue to be used for permitted landfill operations and cover requirements.

Hydrologic and Water Quality Setting

The hydrologic and water quality setting is that same as described for the proposed Tajiguas RRP (see section 2.2).

Water Quality Protection Regulations

The water quality protection regulations are the same as described for the proposed Tajiguas RRP (see section 2.3).

Environmental Thresholds

The thresholds of significance are the same as described for the proposed Tajiguas RRP (see section 2.4).

Impacts and Mitigation Measures

Additional vegetation removal and land disturbance to create the new waste cells and due to creation of new the borrow/stockpile area could result in additional erosion and sedimentation. Storm water runoff from the landfill expansion area would be directed to the existing North Sedimentation Basin for removal of suspended sediment prior to discharge into the concrete-lined portion of upper Pila Creek. In addition, sediment control BMPs (hydroseeding, silt fencing, straw bales, straw wattles, soil stabilizers) currently used at the Landfill would continue to be used on disturbed areas pursuant to the requirements of the Landfill's SWPPP and compliance with the Landfill WDRs.

Precipitation and/or runoff coming in contact with the waste could adversely impact surface water quality, however under the proposed Expansion alternative surface water would continue to be diverted away from the working face, the size of the working face would be limited, working areas of the landfill would receive daily cover and completed areas would receive interim of final cover systems, litter fences would be installed to capture windblown debris, and the leachate collection system would be in place to collect and manage any incidental water penetrating into the waste. Domestic wastewater generation would be similar to current volumes and wastewater would continue to be disposed of via an on-site septic system. Therefore, similar to existing operation of the Tajiguas Landfill impacts to surface water quality from the proposed Tajiguas Landfill Expansion Alternative would be potentially adverse but not significant.

Changes in Environmental Impacts at Tajiguas Landfill

Under this alternative, none of the RRP components would be constructed. Therefore the environmental benefits associated with reducing the working face of the landfill would not be realized under this alternative. The potential surface and stormwater quality impacts associated with the RRP would not occur.

4.5.1 Alternative 5A – Waste Export to the Proposed Simi Valley Landfill and Recycling Center Project (SVLRC)

Project Description

This Alternative would involve transportation of all MSW generated in the Tajiguas Landfill wasteshed (up to 270,000 tons/year of MSW, maximum of 1,500 tons/day as currently permitted) to the Simi Valley

Landfill and Recycling Center (SVLRC), when the Tajiguas Landfill reaches its permitted capacity (approximately 2026). The SVLRC is located at 2801 Madera Road, Simi Valley, California approximately 65 miles from the City of Santa Barbara. It is assumed that the additional waste from the Tajiguas Landfill wasteshed would be accommodated within the permitted capacity of the SVLRC. Under this alternative there would be greatly reduced recovery of biogas from the organic waste buried in the landfill due to the inefficiencies of collecting landfill gas compared to biogas recovery from the AD facility at the RRP.

A Final EIR for Expansion of the SVLRC was completed in December 2010 (Ventura County, 2010), a Major Modification No. 8 to CUP-3142 was approved by Ventura County on July 19, 2011 and a revised solid waste facility permit was issued on April 3, 2012 (56-AA-007). Surface water quality setting and impacts described in the Final EIR are summarized below.

Hydrologic and Water Quality Setting

Drainage from the SVLRC flows to Arroyo Simi, which collects water from canyons surrounding the proposed project site as well as runoff from the City of Simi Valley. Downstream, Arroyo Simi flows westerly through the City of Moorpark where the channel name changes to the Arroyo Las Posas. The Arroyo Las Posas flows in a generally southwesterly direction and becomes known as Calleguas Creek at the northerly boundary of the City of Camarillo, near St. John's Seminary. From this point, Calleguas Creek flows in a southerly direction to Mugu Lagoon and then to the Pacific Ocean at Point Mugu Naval Air Weapons Station. The total surface flow distance from the proposed project site to the ocean is approximately 28 miles. Various reaches within the Calleguas Creek watershed are identified on the 2002 Clean Water Act Section 303(d) list of water quality limited segments as impaired due to water column and sediment toxicity, organophosphate pesticides in water, and chlorpyrifos in fish tissue.

Existing surface water flows and water quality on and proximal to the site have been monitored on a regular or periodic basis, at LARWQCB-designated points of compliance in accordance with Water Quality Order No. 97-03-DWQ. Such monitoring would continue in association with landfill expansion. Surface water quality data generated in 2008 and 2009 were compared with water quality objectives contained in the Basin Plan, including TMDL amendments. Based on this data, water quality objectives were exceeded for nitrates, sulfate, total dissolved solids, and mercury. In addition, the LARWQCB has indicated that surface water quality concentrations currently exceed Federal EPA benchmarks for total suspended solids, specific conductance, nitrates, nitrites, and several metals, including iron and lead. As toe barrier liquids from the unlined portion of the landfill are surface applied for dust control, the possibility exists that groundwater-based pollutants may exist within surface runoff, as suggested by these water quality objective exceedances.

The Industrial Storm Water General Permit for the SVLRC is established such that there are no analytical thresholds. Although the LARWQCB has indicated that surface water quality data is in excess of EPA Federal benchmarks, no violations or enforcement actions are currently in-place pertaining to the SVLRC. Wastewater at SVLRC is currently disposed of using an existing on-site septic system and an on-site self-contained packaged wastewater treatment plant that was constructed for the 2010 expansion. The on-site septic system discharges treated wastewater to the ground. The wastewater treatment

plant effluent is discharged to the landfill's leachate storage system and the leachate is re-used for dust control and irrigation of vegetated landfill phases.

Water Quality Protection Regulations

The federal and state water quality protection regulations are the same as described for the proposed Tajiguas RRP (see section 2.3). The LARWQCB regulations are very similar to the Central Coast RWQCB and are found in the *Water Quality Control Plan, Los Angeles Region, Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties.* Beneficial water uses for Calleguas Creek include municipal, industrial, process, agriculture, groundwater, recreation, warm water aquatic habitat and wildlife. Water quality monitoring is specified for the SVLRC under Water Quality Order No. 97-03-DWQ.

Environmental Thresholds

The thresholds of significance are the same as described for the proposed Tajiguas RRP (see section 2.4).

Impacts and Mitigation Measures

Under this alternative, MSW sent to the SVLRC would contribute to the following surface water quality impacts associated with construction and operation of the SVLRC as identified in the referenced December 2010 Final EIR:

Surface Water Quality Ponding and Erosion

Impacts due to the potential ponding of water on the landfill surface, washout of cover materials and erosion from disturbed areas of the landfill were identified as less than significant impact with use of existing and proposed drainage and erosion control measures.

Surface Water Contaminants

According to the December 2010 Final EIR analysis surface water quality impacts were identified as significant because 1) existing surface water quality at the SVLRC exceeds Basin Plan and Federal EPA benchmark water quality objectives, thus contributing to impairment of the Calleguas Creek watershed; 2) there is no indication that future landfill operations would be different from existing landfill operations (i.e., contaminated runoff could continue to occur); 3) currently contaminated runoff from the existing landfill would be co-mingled with runoff from Phase I of the proposed expansion; and 4) toe barrier liquids from the landfill, possibly containing groundwater-based pollutants, would continue to be used for dust control.

Mitigation Measures included in the SVLRC EIR:

Mitigation Measure WR-1: Toe Barrier Liquid Analysis by VCWPD. Toe barrier liquids sampling results shall be reviewed by the Ventura County Watershed Protection District, Water & Environmental Resources Division, Water Quality Section, for conformance with Basin Plan surface water quality objectives, including associated TMDLs, prior to use in dust control. In the event that sampling results are in excess of these water quality objectives, use of toe barrier liquids for dust control shall cease pending enhanced remedial actions and additional sampling demonstrating that the toe barrier liquids are within acceptable limits.

Mitigation Measure WR-2: Storm water Runoff Analysis by VCWPD. Storm water runoff sampling results shall be reviewed by the Ventura County Watershed Protection District, Water & Environmental Resources Division, Water Quality Section, for conformance with Basin Plan surface water quality objectives, including associated TMDLs. In the event that sampling results are in excess of these water quality objectives, on-site Best Management Practices (BMPs) shall be adjusted and enhanced until additional sampling demonstrates that storm water runoff is within acceptable limits. BMPs that shall be adjusted and enhanced to increase surface water quality shall include, but not be limited to the following:

- Runoff shall be directed by berms and ditches away from the active landfill face to the on-site drainage system.

- Runoff from within the active face, during rain events (i.e., not runoff associated with dust control), shall be detained in temporary basins, sampled, and analyzed prior to discharge into the on-site drainage system, to verify that runoff complies with Basin Plan surface water quality objectives, including associated TMDLs.

- A sump, including a water quality filter, shall be provided to collect surface runoff at the household hazardous waste collection facility. The water quality shall be sampled and analyzed bi-monthly, during the rainy season (i.e., November 15 to April 15) to verify that runoff complies with Basin Plan surface water quality objectives, including associated TMDLs.

With implementation of Mitigation Measures WR-1 and WR-2, comparison of toe barrier liquids and storm water sampling results with Basin Plan water quality objectives, and associated remedial actions in the event of non-compliance, the SVLRC EIR identified that residual surface water quality impacts would be reduced to less than significant levels.

Changes in Environmental Impacts at Tajiguas Landfill

Under this alternative, none of the RRP components would be constructed. The potential surface and stormwater quality impacts associated with the RRP would not occur.

4.5.2 Alternative 5B – Waste Export to the Proposed Santa Maria Integrated Waste Management Facility (IWMF) (Las Flores Canyon)

Project Description

This Alternative would involve transportation of all MSW generated in the Tajiguas Landfill wasteshed (up to 270,000 tons/year of MSW, maximum of 1,500 tons/day as currently permitted) to the proposed Santa Maria IWMF (estimated to open in 2019), when the Tajiguas Landfill reaches its permitted capacity (approximately 2026). The Santa Maria IWMF is proposed to be located on a 1,774 acre site, approximately 7 miles south of the Santa Maria city center (approximately 70 miles from the City of Santa Barbara) and one mile east of U.S. 101 . The City of Santa Maria plans to construct a new Class III municipal solid waste landfill to replace the existing Santa Maria Regional Landfill. A Final EIR (SCH# #2006091069) was completed in April 2010 (City of Santa Maria, 2010), the project was approved by

City Council, and a solid waste facility permit (42-AA-0076) from CalRecycle has been issued, however other regulatory permits are still pending. Under this alternative there would be no beneficial recovery of biogas from the organic waste as the project only involves flaring the collected landfill gas as compared to the RRP.

The following information is summarized from the Final EIR.

Hydrologic and Water Quality Setting

The project site encompasses fairly gentle canyon land within the Solomon Hills, which form the southern edge of the Santa Maria Valley, and is bounded by a north-south trending ridgeline on the western side of the site. On-site canyons, which descend from the western ridgeline, drain in a northeasterly direction. The northern canyon is a tributary to Bradley Canyon, while the southern canyon is tributary to Cat Canyon. Both Bradley Canyon and Cat Canyon ultimately discharge into the Santa Maria River. The headwaters of a third canyon are located at the eastern edge of the site, between the northern and southern canyons. Two southwest draining tributaries to the Solomon Canyon are located on the western portion of the site, in the vicinity of the existing site access road from Highway 101.

No surface water quality data was identified for the drainages located on our tributary to the Santa Maria IWMF site. As noted previously, the Santa Maria River is 303d listed.

Water Quality Protection Regulations

The water quality protection regulations are the same as described for the proposed Tajiguas RRP (see section 2.3).

Environmental Thresholds

The thresholds of significance are the same as described for the proposed Tajiguas RRP (see section 2.4).

Impact Analysis and Mitigation Measures

Under this alternative, MSW sent to the Santa Maria IWMF would contribute to the following surface water quality impacts associated with construction and operation of the Santa Maria IWMF as identified in the referenced April 2010 Final EIR:

Site disturbance during initial grading and construction, as well as grading and construction of subsequent phases, could increase the level of soil erosion, sedimentation, and pollutant discharges. In total approximately 618 acres would be disturbed. Assuming full compliance with the NPDES General Construction Permit, including implementation of BMPs identified in the required SWPPP and compliance with the Landfill WDRs, short- and long-term impacts were determined to be less than significant.

The proposed project would introduce approximately 313.7 acres of impervious surfaces, which would increase storm water runoff and potentially result in downstream flooding and degraded water quality. However, proposed on-site detention basins and leachate collection and removal systems would reduce runoff rates and filter contaminants, which would reduce impacts to a less than significant level.

Leachate resulting from the landfill has the potential to impact surface and groundwater quality. However, implementation of the proposed Leachate Collection and Removal System would reduce potential impacts to a less than significant level.

Changes in Environmental Impacts at Tajiguas Landfill

Under this alternative, none of the RRP components would be constructed. The potential surface and stormwater quality impacts associated with the RRP would not occur.

References

1. *Pila Creek at Tajiguas Landfill, Project Definition and Feasibility Study, Sediment Yield Analysis Report, Final Rev. 3*, HDR July 2008
2. *Simi Valley Landfill and Recycling Center Expansion Project Final EIR*, County of Ventura December 2010, SAIC
3. *California Stormwater Best Management Practice Handbook (*March 1993), CASQA
4. *Santa Barbara County Environmental Thresholds and Guidelines Manual,* County of Santa Barbara Planning and Development, October 2008
5. *Review of Surface Water Resources, Tajiguas Landfill Expansion Project*, URS, October 2001
6. *Pila Creek at Tajiguas Landfill, RRP Study, Hydrology and Hydraulic Analysis Report,* HDR, 2013
7. *Santa Maria Integrated Waste Management Facility EIR*, City of Santa Maria, April 2010
8. *Final Negative Declaration/Initial Study, Santa Barbara County Transfer Station 95-ND-05,* County of Santa Barbara, May 1995
9. *Laguna Watershed Study and Water Quality Improvement Feasibility Analysis,* Geosyntec 2009
10. *Joint Technical Document, Tajiguas Landfill,* County of Santa Barbara Public Works Department, Resource Recovery & Waste Management Division, Revised March 2010
11. *Water Quality Control Plan for the Central Coast Basin* (Basin Plan),June 2011
12. *Storm Water Pollution Prevention Plan, Tajiguas Sanitary Landfill,Santa Barbara County, California*, May 2013
13. *City of Santa Barbara, Storm Water BMP Guidance Manual,* June 2008
14. *Draft Requirements, General Waste Discharge Requirements for Composting Operations,* State Water Resource Control Board*,* August 2013
15. *Waste Discharge Requirements Order No. 99-11 for WDID No. 3 429812001for Engel & Gray Regional Composting Facility,*RWQCB Central Coast Region, 1999
16. *Solid Waste Facility Permit 42-AA-0053 Engel & Gray Regional Composting Facility, Renewal March 30, 2010.*
17. *Statewide Anaerobic Digester Facilities for the Treament of Municipal Organic Solid Waste, Final program Environmental Imapact Report.*SCH No. 2010042100 Prepared by ESA for CalRecycle
18. *Draft Leachate and Runoff Analysis Synopsis*, *SWRCB, 2012*
19. *Storm Water Pollution Prevention Plan, South Coast Recycling and Transfer Station*, Santa Barbara County, April 2009

FIGURES

LOS PADRES NATIONAL FOREST

LOS PADRES NATIONAL FOREST

Cañada De Guillermo

Arroyo Hondo

Arroyo Quemado

Cañada de la Pila

Tajiguas Ranch

TRRP

Composting Area

TAJIGUAS LANDFILL

Cañada De La Gallina

Cañada De Huerta

Leon Canyon

Tajiguas Cr

Lento

To Buellton, 17 miles

CALLE REAL

Tajiguas

To Santa Barbara, 25 miles

Sources:
USGS 1:24,000 Topo Maps
- Tajiguas, CA 2012
- Gaviota, CA 2012
- Solvang, CA 2012
- Santa Ynez, CA 2012

Legend

- Tajiguas Landfill Property Boundary
- Pila Creek Watershed

SCALE: 1"=1500'

0' 1500' 3000'

Tajiguas Resource Recovery Project

Figure 1

Pila Creek Watershed Map

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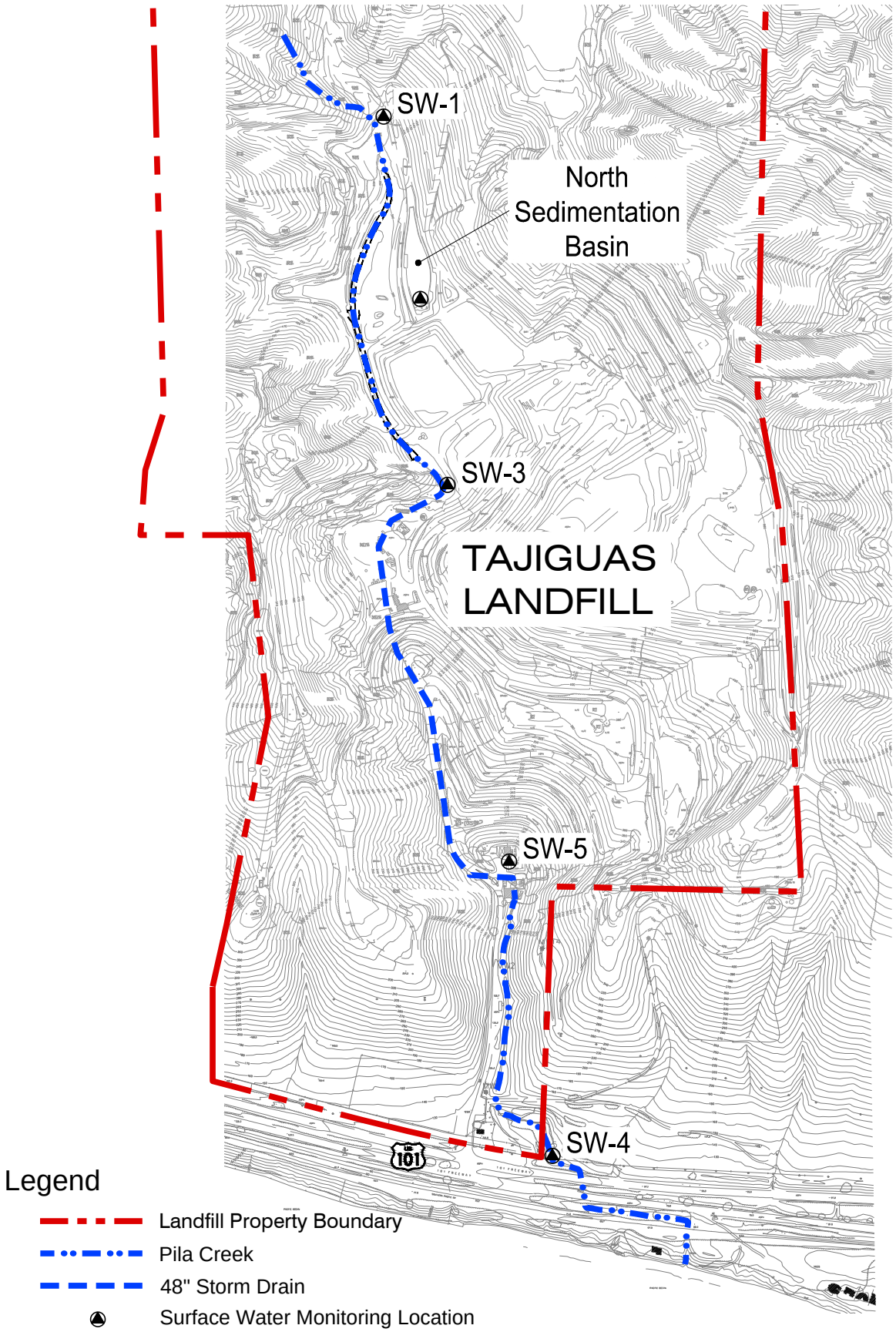

SCALE: 1"= 800'

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Tajiguas Resource Recovery Project

Figure 2

Existing Landfill Water Quality Sampling Points

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Keynotes

1. Proposed Resource Recovery Project
2. Temporary Landfill Operations and Maintenance Facilites during project construction
3. Proposed Composting Area
4. Proposed Water Tank - 220,000 gallons
5. Proposed Recycled Water - 70,000 gallons
6. Proposed Well 6 (Approx. Location)
7. Proposed Landfill Maintenance Building
8. Proposed Composting Area Runoff Collection Tank - 325,000 gallons
9. Existing North Sedimentation Basin
10. Existing Concrete Drainage Channel (Pila Creek)
11. Composting Area Overflow and Composting Area Runoff Collection Tank Overflow Pipe to North Sedimentation Basin

Well 5

TAJIGUAS LANDFILL

Well 3

Pila Creek

MRF

ADF

US 101

SCALE: 1" = 400'

0' 400' 800'

AERIAL IMAGE DATE: 09/2012

Legend

- Landfill Property Boundary
- Existing Water Lines
- Proposed Water Lines
- Well
- Existing Power Lines
- Proposed Power Lines
- Proposed Power Lines [not part of the RRP]
- Pila Creek
- 48" Storm Drain

Tajiguas Resource Recovery Project

Figure 3

Existing and Proposed Facilities

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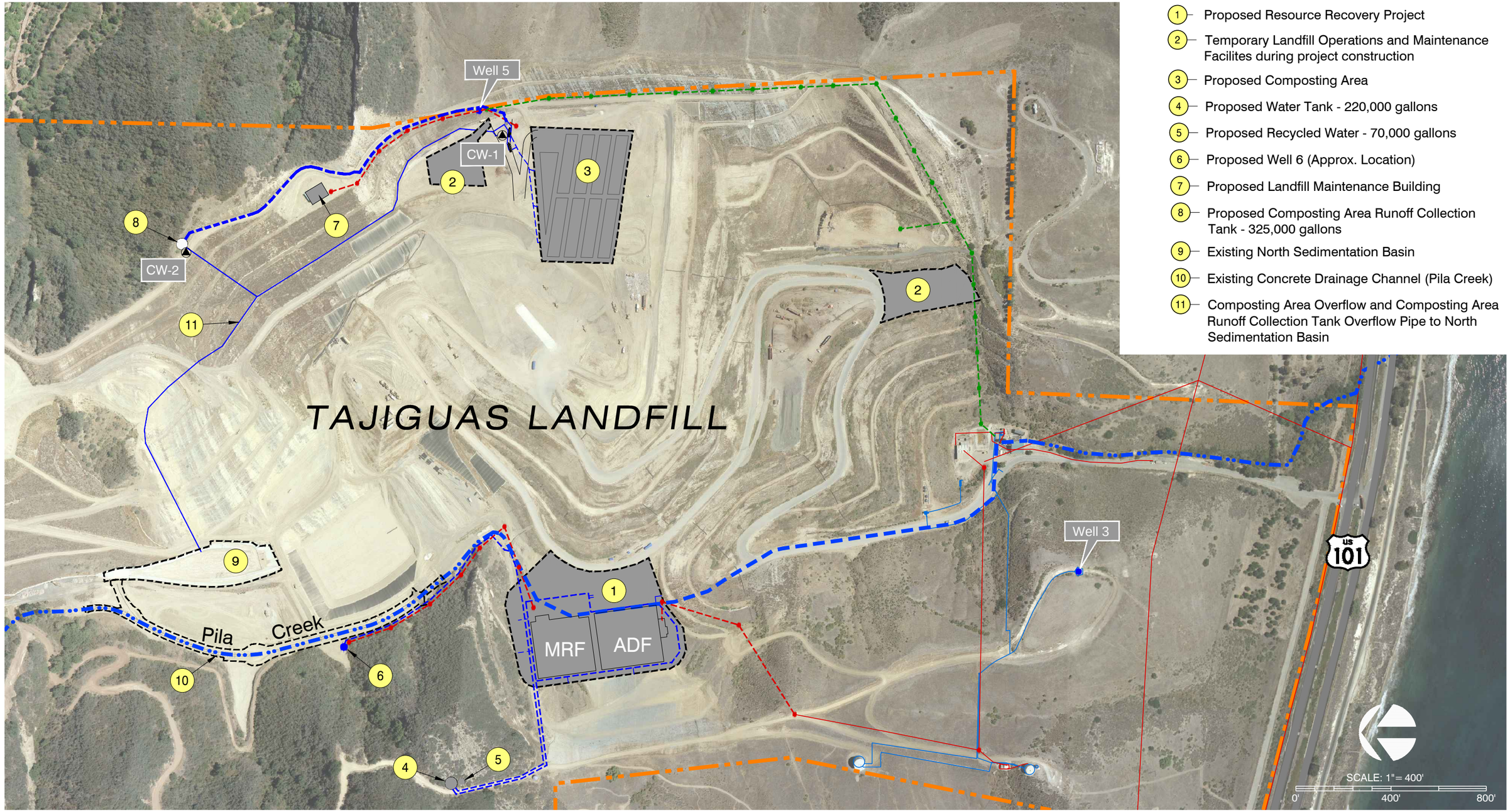
Keynotes

1. Proposed Resource Recovery Project
2. Temporary Landfill Operations and Maintenance Facilites during project construction
3. Proposed Composting Area
4. Proposed Water Tank - 220,000 gallons
5. Proposed Recycled Water - 70,000 gallons
6. Proposed Well 6 (Approx. Location)
7. Proposed Landfill Maintenance Building
8. Proposed Composting Area Runoff Collection Tank - 325,000 gallons
9. Existing North Sedimentation Basin
10. Existing Concrete Drainage Channel (Pila Creek)
11. Composting Area Overflow and Composting Area Runoff Collection Tank Overflow Pipe to North Sedimentation Basin



AERIAL IMAGE DATE: 09/2012

Legend

- Landfill Property Boundary
- Existing Water Lines
- Proposed Water Lines
- Well
- Existing Power Lines
- Proposed Power Lines
- Proposed Power Lines [not part of the RRP]
- Pila Creek
- 48" Storm Drain
- CW-1 TRRP Surface Water Quality Monitoring Location

Tajiguas Resource Recovery Project

Figure 4

Proposed TRRP Water Quality Sampling Points

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TRRP Water Quality Design Measures

Design Measure No.	Description	Impact Addressed
1	Unloading of trash indoors at MRF	Greatly reduces the potential for windblown plastic and paper. Replaces outdoor dumping of 60% of waste volume and also eliminates dumping of nearly all paper and other materials which can be windblown
2	Trench drains at MRF and ADF door thresholds, directed to sanitary treatment system	Liquid waste runoff intercepted and treated
3	Chain link fence around MRF/ADF and composting area	Wind-blown plastic and paper trapped and collected
4	MRF/ADF Pavement sweeping and vacuum clean-up	Removes dust and heavy metals in parking lots, driveways and composting area
5	Spill containment asphalt dike	Contains potential spills or leaks at re-fueling island
6	Spill containment wall	Contains potential spills or leaks at percolate tanks
7	Catchbasin release valve - requires operator to open a valve to drain the CB after first inspecting for potential odor or slick on water surface	Contains potential spills or leaks at percolate tanks
8	Hydrodynamic separators on storm drain system	Traps oily residue, floatable trash, coarse sediment and fine sediment down to the 10 micron particle size
9	Continuous, fused HDPE pipe on storm drainage and sanitary sewer systems	Eliminates potential for storm water and sewage leakage
10	Wastewater Treatment and recycled wastewater irrigation reuse.	Maintains denser vegetation on landscaped areas surrounding MRF/ADF which increases interception of rainfall through increased surface area and increases evapotranspiration, reducing overall runoff and compensating for the increased runoff from the new parking and building areas
11	Composting area runoff interception, storage, filtration and reuse	Eliminates runoff from 5.0 acre impervious top deck for rainfall depths up to and including 25-year event
12	Filtration and UV-treatment of stored compost area runoff	Filters and disinfects sored runoff prior to discharge to sediment basin
13	Sediment Traps in concrete swales	Intercept sediment from slopes and driveways surrounding the MRF and ADF

Tajiguas Resource Recovery Project

Figure 5a

Water Quality Design Measures

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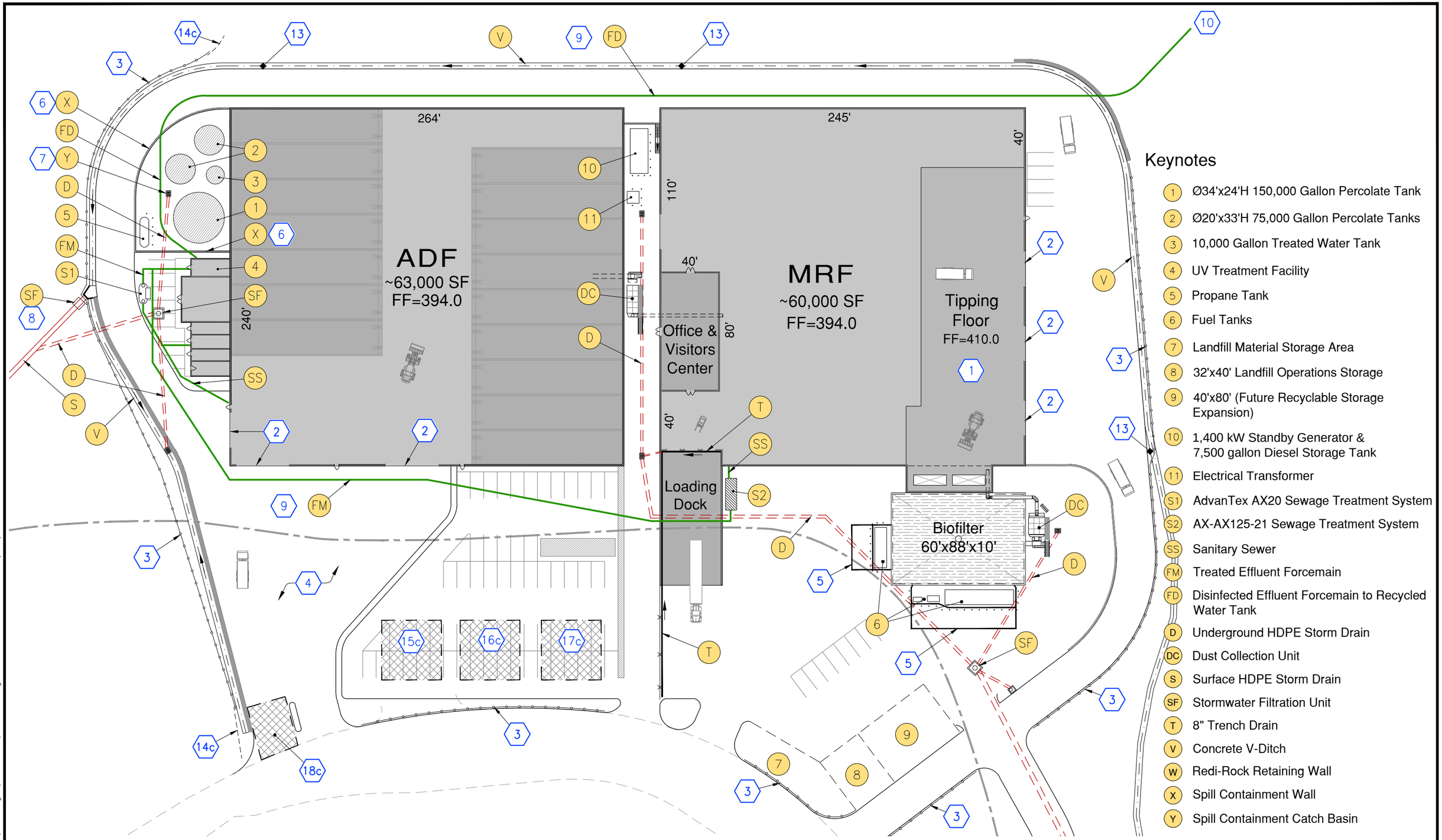

Keynotes

1. Ø34'x24'H 150,000 Gallon Percolate Tank
2. Ø20'x33'H 75,000 Gallon Percolate Tanks
3. 10,000 Gallon Treated Water Tank
4. UV Treatment Facility
5. Propane Tank
6. Fuel Tanks
7. Landfill Material Storage Area
8. 32'x40' Landfill Operations Storage
9. 40'x80' (Future Recyclable Storage Expansion)
10. 1,400 kW Standby Generator & 7,500 gallon Diesel Storage Tank
11. Electrical Transformer
- S1 AdvanTex AX20 Sewage Treatment System
- S2 AX-AX125-21 Sewage Treatment System
- SS Sanitary Sewer
- FM Treated Effluent Forcemain
- FD Disinfected Effluent Forcemain to Recycled Water Tank
- D Underground HDPE Storm Drain
- DC Dust Collection Unit
- S Surface HDPE Storm Drain
- SF Stormwater Filtration Unit
- T 8" Trench Drain
- V Concrete V-Ditch
- W Redi-Rock Retaining Wall
- X Spill Containment Wall
- Y Spill Containment Catch Basin

Legend

Waste Footprint

1 Water Quality Design Measure, see Figure 5a

SCALE: 1"= 60'

0' 60' 120'

Tajiguas Resource Recovery Project

Figure 5b

ADF/MRF Water Quality Design Measures

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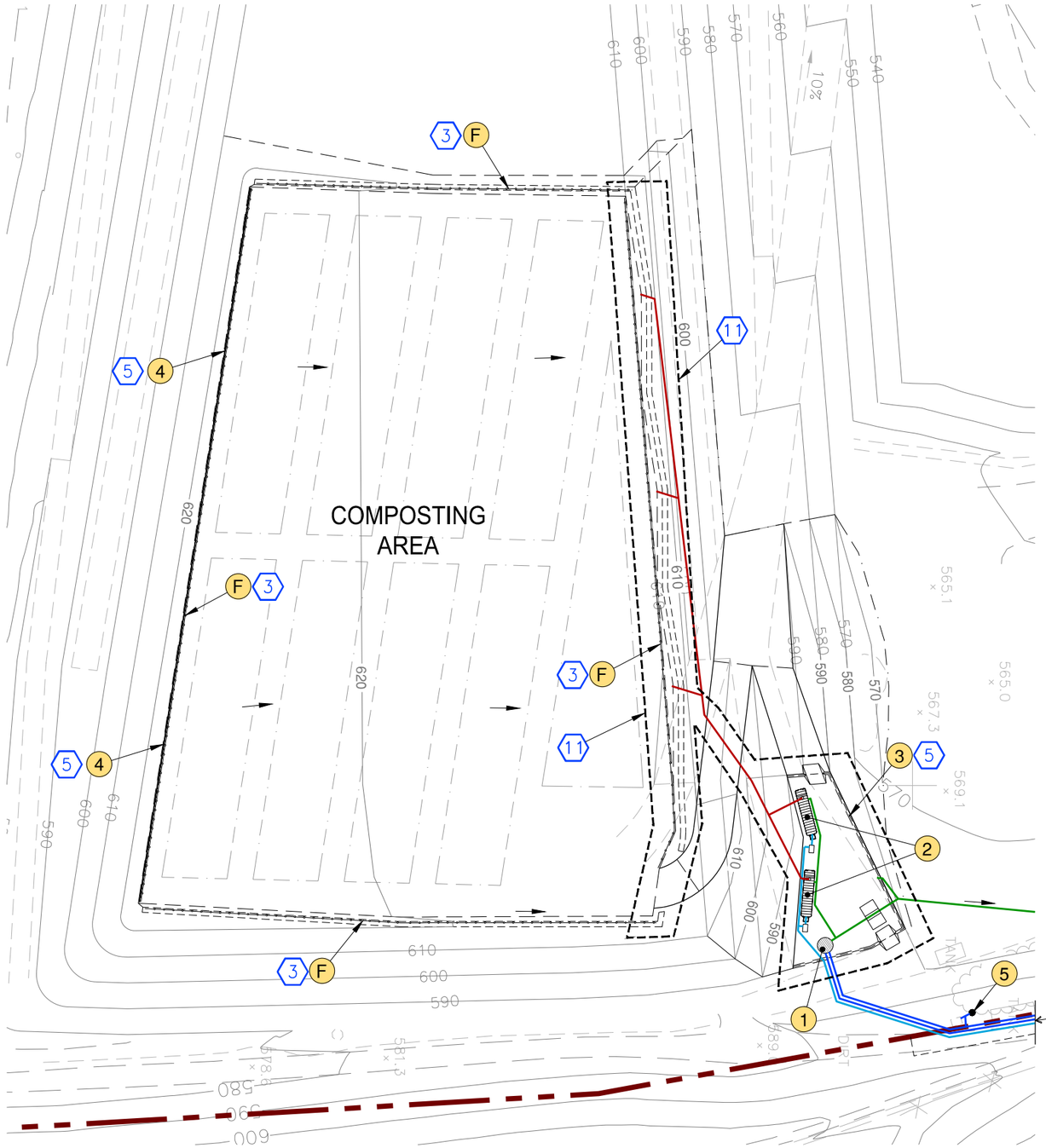

Keynotes

1. Compost Watering Storage Tank
2. Baker Tank
3. 1 ft. High Containment Berm
4. 6" AC Curb
5. Existing Well 5
6. Composting Area Runoff Collection Tank

F. Litter fence

Legend

- Runoff Collection
- 25-yr/24-hr Runoff to Composting Area Runoff Collection Tank
- Overflow Collection to North Sedimentation Basin
- Water Supply from Well or Runoff Collection Tank
- Landfill Property Boundary
- (1) Water Quality Design Measure, see Figure 5a

SCALE: 1"= 100'

0' 100' 200'

Tajiguas Resource Recovery Project

Figure 5c

Composting Area Water Quality Design Measures

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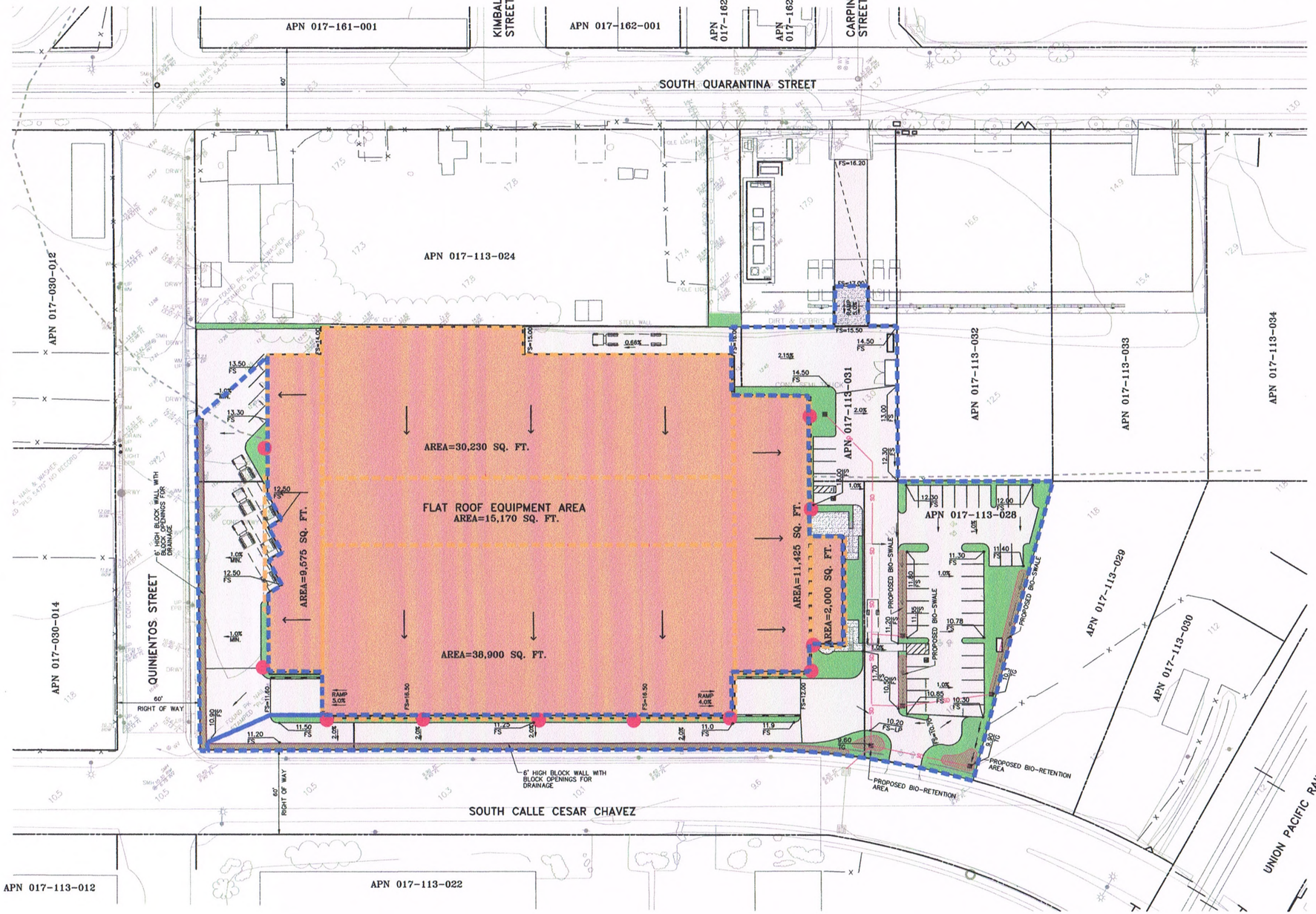

STORM WATER QUALITY SUMMARY

THE PROPOSED PROJECT REPLACES AN EXISTING FACILITY THAT IS NEARLY 100% IMPERVIOUS WITH AN INDUSTRIAL FACILITY, OFFICE SPACE AND ASSOCIATED PARKING ALONG WITH ROUGHLY 14,500 SQ. FT. OF LANDSCAPE AREA. THE MAJORITY OF THE OPEN SPACE AREA WILL ALSO SERVE AS AREAS OF STORM WATER TREATMENT. BECAUSE THE PROPOSED FACILITY REDUCES THE AMOUNT OF IMPERVIOUS AREA, IT IS ANTICIPATED THAT ON SITE VOLUME RETENTION IS NOT REQUIRED.

TO MEET THE STORM WATER TREATMENT REQUIREMENTS OF THE CITY'S STORM WATER MANAGEMENT PROGRAM THE PROJECT PROPOSES SEVERAL METHODS OF STORM WATER TREATMENT:

ROOF TREATMENT: ROOF DOWNSPOUT FILTERS
PAVEMENT RUNOFF: VEGETATED SWALES, BIO-RETENTION

SEE MAP FOR TREATMENT LOCATIONS.

LEGEND

- PROPERTY LINE
- EXISTING CONTOUR
- GRADE BREAK
- SD — PROPOSED STORM DRAIN
- PROPOSED RETAINING WALL
- EXISTING FENCE
- EXISTING GRADE
- FS — FINISHED SURFACE
- TC — TOP OF CURB
- SD — FLOWLINE
- PROPOSED PAVEMENT
- PROPOSED STRUCTURE ROOF
- LANDSCAPED AREA
- ROOF SLOPE
- PAVEMENT DRAINAGE AREA
- ROOF DRAINAGE AREA
- VEGETATED STORM WATER TREATMENT
- ROOF DOWNSPOUT FILTER LOCATION

MARBORG MATERIALS RECOVERY FACILITY
CONCEPTUAL DRAINAGE PLAN
620 QUINIENTOS STREET

CITY OF SANTA BARBARA, CALIFORNIA
APRIL, 2013

TRUE NORTH
ARCHITECTURAL REFERENCE NORTH
SCALE: 1"=30'
0 30 60 90

Figure 6

Penfield & Smith
Engineering · Surveying · Planning · Construction Management
111 East Victoria Street, Santa Barbara, CA 93101
Phone: (805) 963-9532 Fax: (805) 966-9801

42-DB SAVE DATE: 4/30/2013 2:15:23 PM PLOT BY: Michael Hamilton PLOT DATE: 5/2/2013 10:59:53 AM PLOT SCALE: 1:1
DRAWING: r:\sood\work\17733\17733-02\civil\17733-prel-drainage.dwg

PROPOSED
SCRTS MRF
~88,600 SF

DEMO EX. S
CURB & GUTTER
DEMO EX. S
COUNTY DUMP RD
DEMO EX. W
CAP EX. W
CROSS GUTTER
DEMO EX. W
CAP EX. W
CB
DS
FH
8"W
LOADING DOCK
FDC
TRENCH DRAIN
CURB & GUTTER
CURB & GUTTER
6"S
4"DW
CO
EX. SMH
CB
DEMO EX. W
FH
8"W
CB
CURB & GUTTER
DEMO EX. W
8"W
1 1/2"W
ADDITIONAL HYDRODYNAMIC SEPARATOR
CO
4"S
SCALE
CB
DEMO EX. W
BIOFILTER 'B'
~10,000 SF
BIOFILTER 'A'
~10,900 SF
783
340.10

Legend

- Existing Permit Area
- Proposed Storm Drain
- Existing Storm Drain
- DS → Down Spout Location & Flow Direction

SCALE: 1"=80'
0' 80' 160'

Prepared by:

John Kular Consulting
10901 Rockridge Way, Bakersfield, CA 93311
661-663-7732 kularconsult.com

Tajiguas Resource Recovery Project - MRF Alternative 2B

Figure 7

SCRTS Conceptual Utility and Drainage Plan

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TAJIGUAS LANDFILL

Proposed Additional Waste Disposal Area (Max. Elevation 620')

Existing Waste Disposal Area

Existing Borrow/Stockpile Area

Proposed Additional Borrow/Stockpile Area

Pila Creek

AERIAL IMAGE DATE: 09/2012

Legend

- Landfill Property Boundary
- Pila Creek
- 48" Storm Drain
- Existing Permitted Areas
- Proposed Expansion Areas

SCALE: 1"= 400'

0' 400' 800'

Tajiguas Resource Recovery Project

Figure 8

Tajiguas Landfill Expansion Plan

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APPENDICES

Appendix A – Excerpt from CalRecycle Draft Guidance Document for CEQA Review of Municipal Organic Waste Anaerobic Digester facilities in California

CalRecycle Review Draft

GUIDANCE DOCUMENT FOR CEQA REVIEW OF MUNICIPAL ORGANIC WASTE ANAEROBIC DIGESTER FACILITIES IN CALIFORNIA

Using the Program EIR

Prepared for the
California Department of Resources
Recycling and Recovery (CalRecycle)

August 2011

ESA

APPENDIX C

Best Management Practices (BMPs) in the Program EIR

In addition to the mitigation measures in the Program EIR, there were also some BMPs assumed as part of the setting for Environmental Resource Chapters in the Program EIR. Local project need to incorporate these measures (or equivalent measures) for the tiered document to be consistent with the Program EIR.

Water Quality

- Construct physical barriers to prevent erosion and sedimentation, including setbacks and buffers, rooftop and impervious surface disconnection, rain gardens and cisterns, and other installations (page 6-13)
- Construct and maintain sedimentation basins (page 6-13 of the Program EIR)
- Limit construction work during storm events (page 6-13 of the Program EIR)
- Use swales and mechanical or chemical means of stormwater treatment during construction, including vegetated swales, bioretention cells, chemical treatments, and mechanical stormwater filters (page 6-13 of the Program EIR)
- Implement spill control, sediment control, and pollution control training. (page 6-13 of the Program EIR)

Hazardous Materials

- To avoid hazardous materials transport from the facility: (page 11-14 of the Program EIR)
  - Install sediment barriers such as silt fence and fiber rolls along perimeter of construction area
  - Maintain equipment and vehicles used for construction
  - Develop and implement a spill prevention and cleanup plan
  - Provide hazardous waste training for construction workers
- Sort mixed solid wastes prior to delivery to remove any household hazardous wastes (page 11-14 of the Program EIR)
- Segregate and sample hazardous wastes and appropriately dispose at licensed landfill facilities. (page 11-14 of the Program EIR)
- Store hazardous materials in containers according to the manufacturer's guidelines and label appropriately (page 11-14 of the Program EIR)

- Retain the Material Safety Data Sheet for each chemical (page 11-14 of the Program EIR)
- Inform workers of the hazards associated with the materials they handle and maintain records documenting training. (page 11-14 of the Program EIR)
- To control vector populations, implement best management practices such as enclosing waste storage areas within a building; routine cleaning; insect traps, rodent control services, and chemical treatment; and minimize stagnant waters. (page 11-18 of the Program EIR)

Impact	Mitigation Measure	Responsibility for Compliance	Method for Compliance	Timing of Compliance
6. Hydrology and Water Quality				
Impact 6.2: The operation of AD facilities could adversely affect surface and groundwater quality.	**Measure 6.2a:** During pre-processing, all water that contacts digester feedstock, including stormwater from feedstock handling and storage facilities and water from equipment washdown and feedstock wetting, shall be contained until appropriately disposed or utilized. Best Management Practices (BMPs) may be used to reduce loading of sediment, nutrients, trash, organic matter, and other pollutants. These BMPs may include, but are not limited to, trash grates and filters, oil-water separators, mechanical filters such as sand filters, vegetated swales, engineered wastewater treatment wetlands, settling ponds, and other facilities to reduce the potential loading of pollutants into surface waters or groundwater. All discharges of stormwater are prohibited unless covered under the General Industrial Stormwater Permit, other National Pollutant Discharge Elimination System (NPDES) permit, or are exempted from NPDES permitting requirements. The NPDES permits will generally require implementation of management measures to achieve a performance standard of best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT), as appropriate. The General Industrial Stormwater Permit also requires the development of a storm water pollution prevention plan (SWPPP) and a monitoring plan, in compliance with permit requirements.[1] Other liquid and solid wastes may only be discharged pursuant to an NPDES permit or waste discharge requirement (WDR) order.	Operator Regional Water Quality Control Board	Contain water during pre-processing activities. Enforce water quality regulations.	Operations Operations
	Measure 6.2b: In order to minimize the amount of fugitive trash or feedstock released to surface waters, the following measures shall be implemented. When feasible, the project proponent shall preferentially select feedstocks that contain minimal amounts of trash that could become entrained in surface water, either via direct contact with stormwater flows or via other accidental release, such as due to wind. Processing of such feedstocks may, however, be unavoidable, such as in support of an AD facility that processes MSW. Therefore, the project applicant shall ensure that (1) drainage from all feedstock loading, unloading, and storage areas is contained onsite or treated to remove trash and stray feedstock, and sediment prior to release as permitted; (2) in all feedstock loading and unloading areas, and all areas where feedstock is moved by front loaders or other uncovered or uncontained transport machinery, the applicant shall ensure that mechanical sweeping and/or equivalent trash control operational procedures are performed at least daily, during operations; and (3) the facility operator shall train all employees involved in feedstock handling so as to discourage, avoid, and minimize the release of feedstock or trash during operations.	Project Applicant/ Operator Regional Water Quality Control Board	Implement measures to minimize fugitive trash/feedstock release to surface waters. Enforce water quality regulations.	Operations Operations

1 For more information, please refer to: http://www.swrcb.ca.gov/water_issues/programs/stormwater/industrial.shtml

LEA – Local Enforcement Agency

Appendix B – Gaviota Coast Cumulative Project List

Tajiguas Landfill Resource Recovery Project
Gaviota Coast Cumulative Project List
(Draft January 14, 2012)

MAP #	Project Name/ Case Number	Location/APN	Description	Environmental Review	Status*
	Bean Blossom Lot H Single Family Residence/ 02CDP-00000-00022	14200 Calle Real/ 081-200-032	13,884 sf dwelling (includes 1,102 sf garage), 866 sf guest house, 582 sf cabana and accessory structures including a pool on 109.56 acre parcel.	N/A - Ministerial	Approved/Under Construction
	Bean Blossom Lot X Single Family Residence/ 02CDP-00000-00022	1400 Calle Real/ 081-210-047	17,605 sf dwelling (includes 4,895 sf basement and underground garage), 1,229 sf guesthouse and accessory structures including pool and driveway of ~4,200 linear feet. 56,000 yd^3 of cut and fill on 287.36 acre parcel.	N/A - Ministerial	Approved/Under Construction
	El Capitan Canyon Campground Relocation and Development (Area F)/10AMD-00000-00004 (amendment to 01-CUP-00000-00096)	11560 Calle Real/ 081-250-014	Application for an Amendment to relocate and develop entitlements to 40 campsites to an area approximately 2,000 feet east of the existing campground (Area F) based on approved Conditional Use Permit (01CUP-00000-00096) on 196.31 acre parcel. The project would also include conversion of an existing 5,716-square-foot service building into general mercantile, food service, comfort station, laundry, and other incidental uses for the guests.	15164 Addendum to Negative Declaration 04NGD-00000-00008	Approved
	Gaviota Holdings Habitat Restoration/ 07CDH-00000-00037	8555 Highway 101/ 079-200-005	Approximately 60 acres Application for a Coastal Development Permit to implement a habitat restoration plan. Application submitted to help mitigate the impacts	Mitigated Negative Declaration in preparation	Under Review

MAP #	Project Name/ Case Number	Location/APN	Description	Environmental Review	Status*
			of unpermitted removal of 7.45 acres of eucalyptus trees, coastal sage shrub, native grass, and nonnative vegetation.		
	Gaviota Marine and Oil Storage Terminal Demolition and Rezone/ 06DRP-00000-00004 and 04RZN-00000-00008	16899 Hwy 101/ 081-130-060	Demolition of an abandoned oil pump station located at the Gaviota Terminal, with restoration of the site. County-initiated revision to land use and zone district designations from Coastal-Dependent Industry to Recreation.	06NGD-00000-00031	Approved and demolition complete (tanks and other aboveground facilities were removed in September 2009). Soil Investigation in progress to identify remediation options. Revision to land use and zone district designations suspended pending additional information.
	Hart Farm Employee Dwelling/ 06CUP-00000-00030 and 07CDP-00000-00087	081-150-033/ 14610 Terra Vista Drive	1,600 sq. ft. farm employee dwelling on 24.24 acre parcel.	CEQA Notice of Exemption (Section 15303)	Building Permit Withdrawn
	Hart Single Family Residence/ 02CDP-00000-00109	14640 Terra / 081-150-033	4,885 sq. ft. dwelling (includes 840 sq. ft. attached garage) and 797 sq. ft. guest house on 24.24 acre parcel.	N/A - ministerial	Approved, under construction
	Larralde Single Family Residence/	2169 Refugio Road/	New 2,914 sf single-family dwelling including garage, 375 sf cabana, 796 sf	N/A - ministerial	Approved, under construction

MAP #	Project Name/ Case Number	Location/APN	Description	Environmental Review	Status*
	05LUP-00000-00988 Larralde Garage Conversion/ 12LUP-00000-00103 Residential/Alteration/ 12RVP-00000-00033 Change of use of garage to bedroom 12REV-00000-00486	081-040-028	guesthouse, 1365 sf attached accessory structure and (N) pool. Approx. 3300 cu. yd. of grading is proposed.		
	Las Varas/Edwards Ranch Tentative Parcel Map, Lot Line Adjustments, Water System and Consistency Rezone (Doheny)/ 05TPM-00000-00002, 05LLA-00000-00005, 05LLA-00000-00006, 07RZN-00000-00006, 07RZN-00000-00007, 07CUP-00000-00057, 11COC-00000-00001, 11CDP-00000-00078	North and south of Hwy 101, immediately west of Naples Townsite/ 10045 Calle Real, in the Gaviota area/ Includes Assessor Parcel Numbers(APN): 079-080-001, 079-080-002, 079-080-009, 079-080-012, 079-080-013, 079-080-014, 079-080-022, 081-240-003 and 81-240-014.	The project entails reconfiguring nine lots comprising approximately 1,784 acres zoned AG-II-100 and "U" into seven new lots via a subdivision (05TPM--00000-00002) and two lot line adjustments (05LLA-00000-00005 and 05LLA-00000-00006). Future residential development on the parcels would be limited to designated building envelopes of between 2.5 and 5 acres, the project includes infrastructure improvements (access roads, water distribution system, etc.) to serve future development.	10EIR-00000-00005 (Final EIR being recirculated)	Under review
	Paradiso del Mare	The parcels are	Permit applications for two single-	09EIR-00000-00003	Under review

MAP #	Project Name/ Case Number	Location/APN	Description	Environmental Review	Status*
	Ocean and Inland Estates/ 06CDH-00000-00038, 06CDH-00000-00039, 07CUP-00000-00065, 09CDH-00000-00045, 10CUP-00000-00039 and 10CDP-00000-00094.	located south of Highway 101 approximately one mile west of the City of Goleta/ 079-200-004 079-200-008	family residences and accessory structures on two separate, adjacent parcels on the Gaviota Coast. One application is for a residence on a 64.80-acre parcel that adjoins the ocean, referred to as the Ocean Estate (Coastal Development Permit 06CDH-00000-00038/APN 079-200-004). The second application is for a residence on a 77.90- acre parcel that adjoins Highway 101, referred to as the Inland Estate (Coastal Development Permit 06CDH-00000-00039/APN 079-200-008). The project also includes guest houses, garages and other accessory structures for each of the two homesites. Water lines and other utilities would be extended to the project site (Conditional Use Permit 07CUP-00000-00065 and Coastal Development Permit 09CDH-00000-00045). The project includes conditional offers to dedicate easements for public lateral access across the project site and vertical access to the beach (Conditional Use Permit 10CUP-00000-00039 and Coastal Development Permit 10CDP-00000-00094) and for a 91-acre Open Space Conservation Easement.	Revised Draft EIR released on September 12, 2012	
	Santa Barbara	Santa Barbara	Project entails an array of legislative	04EIR-00000-00014	Approved/Not yet

MAP #	Project Name/ Case Number	Location/APN	Description	Environmental Review	Status*
	Ranch Project	and Dos Pueblos Ranches, north and south of Hwy 101, 2 miles west of Goleta/ 079-040-005 to 081-240-018	and quasi-judicial actions including: (1) text and map amendments to the Comprehensive Plan, Coastal Land Use Plan and Coastal Zoning Ordinance; (2) subdivision applications including Vesting Tentative Tract Map, Lot Mergers, Lot Line Adjustments and Conditional Certificates of Compliance; (3) cancellation, modification and re-issuance of Williamson Act contracts; (4) new agricultural conservation and open space Easements; (5) zoning applications including Development Plans, Conditional Use Permits and Minor Conditional Use Permits, Land Use Permits and Coastal Development Permits; and (6) miscellaneous actions including development agreements. Overall project includes 71 new residences, equestrian center, agricultural support facilities, a worker duplex, public amenities (e.g., access road, parking, restroom, coastal access trails), and creation of conservation easements for permanent protection of open space and agriculture. The project is divided into two components: Inland Area component including 50 new residences and Coastal component including 21 residences. Portions of the Inland Area		built. The Santa Barbara Ranch Project was approved by the Board of Supervisors on October 21 and December 9, 2008. Included in the Board's approval were two separate Development Agreements, one for the coastal portion of the project located on Santa Barbara Ranch ("Coastal Project") and one for the inland portion of the project ("Inland Project"). The Coastal Development Agreement was rescinded by the Board of Supervisors on November 3, 2009. The Inland Development Agreement remains effective.

MAP #	Project Name/ Case Number	Location/APN	Description	Environmental Review	Status*
			component may proceed in advance of the Coastal Zone component provided applicant satisfies various conditions.		
	Shell/Hercules Remediation and Slope Stabilization/ 09CDH-00000-00002	14730 Calle Real Rd/ 081-150-041	The site is designated as a State Superfund site and is being remediated for PCBs, mercury, and hydrocarbons. California Department of Toxic Substances Control (DTSC) is the lead agency. A Remedial Action Plan (RAP) was approved in 1994. Remediation was found to be unsuccessful due to the continued presence of PCBs. The RAP is currently being reviewed for further cleanup options and will be amended by approximately 2014.	Mitigated Negative Declaration (DTSC)	Under review
	Schulte/Dos Pueblos Ranch Lot Line Adjustment/ Case #10LLA-00000-00003	Portion of Santa Barbara and Dos Pueblos Ranches, north of Hwy 101, 2 miles west of Goleta/100 N. Dos Pueblos Road APN 079-060-066, 079-080-021, 079-090-030, 081-240-018	Lot Line Adjustment (LLA) to adjust the lot lines between a 1,977.50-acre parcel (Parcel A) and an adjacent 76-acre parcel (Parcel B). LLA would result in a 1,693.50-acre parcel (Parcel 1) and a 360-acre parcel (Parcel 2). LLA would help reconfigure a parcel that would be subdivided and developed under a Vesting Tentative Parcel Map approved as part of Santa Barbara Ranch Project.	15162 Determination to 04EIR-00000-00014	Under review
	Simon Single Family	15000 Calle	Project consists of: New 2800 sf SFD,	N/A - Ministerial	Approved

MAP #	Project Name/ Case Number	Location/APN	Description	Environmental Review	Status*
	Residence / 05CDP-00000-00148	Real/ 081-150-028	with attached 616 sf garage. New 800 sf guesthouse, with 484 sf garage on a 47.70 acre parcel.		
	Stoltman Single Family Residence/ 06LUP-00000-00840	420 Calle Lippizana/ 081-260-004	Construction of a 3,996 sf single story single family residence with attached 644 sf garage on a 10.03 acre parcel. Approximately 570 cy of grading is proposed.	N/A - Ministerial	Approved/Built
	Zacara Ranch Development Plan and Conditional Use Permit/ 10CUP-00000-00030 10DVP-00000-00012	10920 Calle Real/081-250-016	Development Plan to legalize unpermitted development and add new residential units and horse barns on 201.08 acre parcel.	TBD	Under review
	Canada El Capitan Oaks LLC - New SFD & Accessory Structures/ 11LUP-00000-00021	500 Calle Lippizana Rd/ 081-240-048	Demolition of an existing septic system and storage shed of approximately 300 square feet and construction of a new single-family dwelling of approximately 4,973 square feet, detached garage of approximately 924 square feet, guesthouse of approximately 795 square feet, and barn of approximately 1,422 square feet on 120 acre parcel. Grading of 4,500 cubic yards of cut, 2,400 cubic yards of fill, and 1,100 cubic yards of export.	N/A - Ministerial	Approved
	Baron Ranch Trail Extension/ N/A	South slope of the Santa Ynez Mountains on T5N, R31W, Sections 16 and	United States Forest Service (USFS) & Santa Barbara Trails Council proposal to construct a 3.5 mile extension of the existing Baron Ranch Trail through the Santa Barbara front country of the	NEPA review in progress	Under review

MAP #	Project Name/ Case Number	Location/APN	Description	Environmental Review	Status*
		21.	Los Padres National Forest to the crest of the Santa Ynez Mountains.		
	Gaviota Coast Plan	Gaviota Coast Planning Area. Planning area is along the Gaviota Coast, 3rd Supervisorial District, bounded by Vandenberg AFB on the west, the Goleta Community Planning Area on the east, the Pacific Ocean to the south and generally north to the crest of the Santa Ynez mountains.	The Gaviota Coast Plan is a long-term land use plan for the Gaviota Coast Planning Area (approximately 100,000 acres) that will address all land use issues and express community values in areas such as zoning and land use, agricultural uses, visual resources, resources stewardship, and transportation, energy, and infrastructure for the next 20-years.	CEQA review to be initiated in ~spring/summer 2013.	Under review
	SoCal Gas Storage Enhancement Project 12RVP-00000-00056	1171 More Ranch Road/ 171-210-001	Increase gas storage capacity of existing operations by extracting native gas from previously untapped deep reservoirs. Two new wells to be drilled into known reserves and two wells to be drilled into prospective reserves. Wells to be used for storage purposes once the native gas has been produced (estimated to take 3-5	10EIR-00000-00001	Under review. (Staff is preparing a recirculation document for release in late 2012.)

MAP #	Project Name/ Case Number	Location/APN	Description	Environmental Review	Status*
			years).		
	Highway 101 Gaviota Curve Alignment	Santa Barbara County, Highway 101, Post mile 45.6/46.4, at Gaviota State Park	The proposed project will include realigning northbound Route 101 and replacing the existing compound curve. The new northbound lanes will have a single radius curve designed for travel at 65 MPH. This curve will require a new cut slope that will exclude benches and add a catchment area at the base.	In progress	Under Review. Tentative schedule: Begin Construction – Spring 2016 Complete Construction – Summer 2017

* Status is based on definitions in the County's CEQA Guidelines including:

a. Partially occupied or under construction. Note: once constructed and occupied the project becomes part of the existing environmental setting.

b. Approved. Those projects which have received final discretionary approval from the decisionmakers.

c. Under review. Those projects which have been deemed "complete" for processing and are currently undergoing review by lead agencies.

Appendix C – Tajiguas Landfill 2013 Surface Water Sample Test Results

ANALYTES	UNITS	SAMPLE LOCATION								
		SW1[a]	SED BASIN (Storm 1)[b]	SED BASIN (Storm 2)[c]	SW3 (Storm 1)	SW3 (Storm 2)	SWS4 (Storm 1)	SW4 (Storm 2)	SW5 (Storm 1)	SW5 (Storm 2)
Specific Conductance	µS/cm	0.538	0.872	0.523	0.922	1.137	2.41	3.96	3.61	2.72
Nitrate & Nitrite as Nitrogen	mg/L	1.1	1.5	6.7	1.6	6.7	3.0	9.7	5.2	13
pH	pH Units	7.45	8.71	8.69	8.42	8.82	8.96	8.95	8.74	9.11
Total Organic Carbon	mg/L	n/a	20	9.4	17	10	33	32	68	56
Total Suspended Solids	mg/L	6.2	73	28	5000	67	190	36	210	98
Iron	µg/L	170	6100	1200	47000	1800	4900	6900	6300	1500
BOD	mg/L	n/a	17	5.9	12	4.9	8.6	12	34	24
Ammonia (as N)	mg/L	n/a	0.096	0.066	0.048	0.029	0.45	0.41	1.5	1.0
[alpha] Terpineol	µg/L	n/a	ND	ND	ND	ND	ND	ND	ND	ND
Benzoic Acid	µg/L	n/a	ND	ND	ND	ND	ND	ND	ND	ND
p-Cresol	µg/L	n/a	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	µg/L	n/a	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	µg/L	n/a	19	7.3	150	6.3	23	40	45	74
Oil & Grease	mg/L	ND	ND	ND	ND	ND	ND	ND	1.8	ND

Notes:

[a] SW-1 is in the upper reaches of Pila Creek and flow is not present during some storm events. December 29, 2010 is the most recent testing date for this sampling location.

[b] Storm 1 – sampled December 26, 2012

[c] Storm 2 – sampled January 25, 2013

n/a – Not Analyzed

ND – Not Detected