Attachment G

TAJIGUAS RESOURCE RECOVERY PROJECT

FINAL SUBSEQUENT ENVIRONMENTAL IMPACT REPORT
(EIR No. 12EIR-00000-00002, SCH No. 2012041068)
MITIGATION MONITORING AND REPORTING PROGRAM

Santa Barbara County Public Works Department

Resource Recovery and Waste Management Division

May 2016

TAJIGUAS RESOURCE RECOVERY PROJECT
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INTRODUCTION

Section 21081.6 of the Public Resources Code and Section 15097 of the CEQA Guidelines require adoption of a Mitigation Monitoring or Reporting Program (MMRP) for all projects for which an Environmental Impact Report (EIR) or Mitigated Negative Declaration (MND) has been prepared. This requirement was originally mandated by Assembly Bill (AB) 3180 which was enacted on January 1, 1989 to ensure the implementation of all mitigation measures adopted through the California Environmental Quality Act (CEQA) process. Specifically, Section 21081.6 of the Public Resources Code states that "...the agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment...[and that the program]...shall be designed to ensure compliance during project implementation."

AB 3180 provided general guidelines for implementing monitoring and reporting programs, which are enumerated in more detail in Section 15097 of the CEQA Guidelines. Specific reporting and/or monitoring requirements to be enforced during project implementation are defined prior to final approval of the project. Although the lead agency may delegate reporting or monitoring responsibilities to other agencies or entities, it "...remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program."

PRIOR ENVIRONMENTAL DOCUMENTS AND MITIGATION MONITORING AND REPORTING PROGRAMS

The Tajiguas Resource Recovery Project constitutes a modification of the approved Tajiguas Landfill Expansion Project to increase recycling opportunities, generate green energy, reduce greenhouse gas emissions and extend the life of the Tajiguas Landfill by reducing the amount of waste that would be buried each year. The prior Environmental Documents prepared for the current landfill construction and operations include: the Tajiguas Landfill Expansion Project EIR (01-EIR-05) certified by the Board of Supervisors on August 13, 2002, the November 8, 2006 Addendum accepted by the Board of Supervisors on December 5, 2006, and the Tajiguas Landfill Reconfiguration and Baron Ranch Restoration Project Subsequent EIR (08EIR-00000-00007) certified by the Board of Supervisors on May 5, 2009. Except as modified by the Tajiguas Resource Recovery Project Subsequent EIR (12EIR-00000-00002), these Environmental Documents and their corresponding mitigation measures remain in place and applicable to ongoing landfill construction, operation and extension of life.

PROJECT DESCRIPTION

Approval of the Tajiguas Resource Recovery Project is based upon compliance with the project description including mitigation measures (Table A) and project design measures (Attachment A) included in 12EIR-00000-00002. The project, as approved, includes the *optional element* of constructing and operating the additional infrastructure to process currently collected commingled source separated recyclables (CSSR). Deviations from the project description, exhibits or mitigation measures must be reviewed and approved by Santa Barbara County Public Works Department, Resource Recovery & Waste Management Division (RRWMD), for conformity with this approval and environmental review. The project description (as taken from 12EIR-00000-00002) is as follows:

PROJECT TITLE

Tajiguas Resource Recovery Project (Resource Recovery Project).

PROJECT PROPONENT AND LEAD AGENCY

The project proponent and Lead Agency is the Santa Barbara County Public Works Department, Resource Recovery & Waste Management Division (RRWMD), located at 130 E. Victoria Street, Suite 100, Santa Barbara, California 93101.

PROJECT LOCATION AND SURROUNDING LAND USES

The Resource Recovery Project would be located at the Tajiguas Landfill. The Tajiguas Landfill is located in a coastal canyon known as Cañada de la Pila, approximately 26 miles west of the City of Santa Barbara. The Tajiguas Landfill is approximately 1,600 feet north of U.S. Highway 101. The street address for the Tajiguas Landfill is 14470 Calle Real, Santa Barbara, California 93117. The landfill property encompasses approximately 497 acres on Assessor Parcel Numbers (APN) 081-150-019, -026 and -042. The Resource Recovery Project facilities would be located on approximately 6 acres on APN 081-150-019. The composting area would occupy approximately 5 acres on APN 081-150-019 and APN 051-150-026, while water storage facilities would be located on APN 081-150-042.

PROJECT OVERVIEW

The County of Santa Barbara proposes to modify the operation of the Tajiguas Landfill Project to add a Resource Recovery Project that would process municipal solid waste (MSW) from the communities currently served by the Tajiguas Landfill. A summary of project components is provided in Table 1 and a comparison between existing and proposed operations is provided in Table 2. Final SEIR Figure 3-4 identifies the locations of Resource Recovery Project facilities at the landfill site. The Resource Recovery Project, described below, would be designed and constructed to modify the processing of MSW that is currently being delivered to the Tajiguas Landfill for burial from unincorporated areas of the south coast of Santa Barbara, Santa Ynez and New Cuyama Valleys and, the cities of Santa Barbara, Goleta, Buellton and Solvang. The County of Santa Barbara, the cities of Santa Barbara, Goleta, Buellton and Solvang are collectively the "Public Participants". The facility would also be designed to process source separated organic (food and green) waste (SSOW) from the region's existing and future recycling programs[1]. Additionally, as an *optional project element*, the Resource Recovery Project could include the infrastructure to process currently collected commingled source separated recyclables (CSSR).

The Tajiguas Landfill has been in operation since 1967. The County has modified operations in the past to respond to updated requirements for solid waste disposal and to incorporate advancements in technology. The Resource Recovery Project would further modify current waste management operations at the Tajiguas Landfill by the addition of a Materials Recovery Facility (MRF) and Dry Fermentation Anaerobic Digestion (AD) Facility. A preliminary site plan for these facilities is provided as Final SEIR Figure 3-5.

The MRF processing area would be comprised of an approximate 56,500 square foot (sf) facility (66,500 sf[2] if CSSR [*optional element*] is included as described above) that would sort MSW into three streams:

- Recyclables (i.e., glass, metal, paper, plastic, wood) - recovered and processed for sale;

[1] SSOW is currently collected as green-waste only and is processed into mulch at the Tajiguas Landfill. Future programs may include food waste collected separately or included with green-waste. Any program that would increase the amount of SSOW would decrease the amount of organics in the MSW, and in turn, reduce the amount of MSW processed by the MRF by the same amount.

[2] The square footage listed represents the MRF processing area (tipping floor, processing and storage, load-out) building footprint.

- Organics – recovered for processing in the Anaerobic Digestion Facility; and
- Residue – materials left over after all recyclables and organics are recovered that would be disposed of at the existing landfill.

The AD Facility would be housed within an approximate 63,600 sf building, and include an associated energy facility and percolate storage tanks that would convert all organics recovered from the MSW and SSOW into:

- Bio-gas (primarily composed of methane and CO_2) – that would be used to power two (2) 1,573 horsepower onsite combined heat and power (CHP) engines driving electric power generators that would generate approximately 1+ net megawatts (MW) of renewable power continuously. The Energy Facility would be located on the south side of the AD Facility; and
- Digestate - that can then be cured into compost and/or soil amendments. The curing would require an approximately 5 acre area (located at one or more sites on the landfill's permitted operations and/or waste disposal footprint). The compost and/or soil amendments would be marketed for agricultural or landscape use or used for reclamation projects.

Construction of the facility (MRF, AD Facility and Composting Area) would require approximately 143,625 cubic yards of cut and 167,595 cubic yards of fill. A preliminary grading plan for the MRF and AD Facility site is provided as Final SEIR Figure 3-6.

The MRF would have a design capacity of up to 800 tons/day of MSW or up to approximately 250,000 tons/per year (up to 311 operating days per year[3]). Up to 90,000 tons/year (290 tons/day) of recyclable material would be recovered and sold for reuse. The AD facility would have a design capacity of up to 73,600 tons/year, made up of organics recovered from the MRF and/or brought to the project site as SSOW.

Up to 100,000 tons/year (320 tons/day) of residue from the MRF and residue from the AD Facility which is not suitable for composting would be landfilled. Residue ineligible for disposal in the landfill (i.e., hazardous waste or e-waste), would be transported to an appropriate recycling or disposal facility. A simplified process flow diagram illustrating the flow of materials through the proposed MRF and AD Facility is provided as SEIR Figure 3-7.

As an *optional element*, the project could also process up to 130 tons/day of CSSR or 40,000 tons/year (see Table 1). With the inclusion of this *optional element,* the total maximum processing capacity of the MRF would be approximately 290,000 tons/year (250,000 tons/year MSW + 40,000 tons/year CSSR). Processing of CSSR would increase the production of marketable recyclables by up to 36,000 tons/year (126,000 tons/year overall), producing up to an additional 4,000 tons/year (13 tons/day) of residue which would be disposed of in the landfill.

Based on current waste disposal rates the Tajiguas Landfill may reach its permitted disposal capacity (23.3 million cubic yards) in approximately year 2026. With the additional diversion provided by the proposed Tajiguas Landfill Project modification (operation of the Resource Recovery Project), the permitted disposal capacity (which would not be modified as a part of the project) would not be expected to be reached until approximately year 2036, extending the landfill life by approximately 10 years.

[3] Assumes operation up to a maximum of 6 days per week (6 * 52 = 312) and accounting for one holiday (312-1=311 operating days).

Table 1. Project Element Summary

Project Element	Associated Facilities	Project Element Capacity (max)	Operational Parameters*
MRF			
Base Project MRF	Processing building – 56,500 sf building footprint includes 24,800 sf tipping floor (including 1,200 sf load-out/waste transfer area), 31,700 sf waste processing and recyclable storage. Office/administration - 4,700 sf footprint, includes office/administration/employee/control room areas, and 1,500 sf visitors center (two-story) Total building footprint – 61,200 sf Total floor area – 66,700	MSW – 800 tons/day 250,000 tons/year	24 hours/day, 6 days/week, up to 311 days/year; (2 shift with 24 employees /shift and 1 shift with 7 employees/shift
	Storage buildings (detached) – 6,400 sf		
	Bio-filter – 6,300 sf		
	Wastewater treatment facility – 150 sf		
	Two dust collection systems, rolling bed dryer		
MRF with Optional CSSR Processing	Additional waste processing area – ~10,000 sf	CSSR – 130 tons/day 40,000 tons/year	7 am – 1:30 pm, 6.5 hours/day, 6 days/week, up to 311 days/year; 20 employees/shift
AD Facility			
AD Facility	Processing building: 63,600 sf building footprint including 16 digesters and 545,700 gallon percolate storage	Organic waste from MSW and SSOW: 240 tons/day, 73,600 tons/year	Days receiving material: up to 311 Days of AD facility Operation: 24 hours/day, 365 days/year; 3 employees/shift (employees present 6 days/week)
	Two roof top bio-filters		
	Dust collection system		
	Composting area: 5 acres	Digestate: 200 tons/day, 60,000 tons/year	Days receiving material: 208; days of operation: 7 am – 4:00 pm, 6 days/week; 1 employee/shift
Energy Facility & AD Control Room	Building attached to AD Facility: 2,900 sf housing two 1,573 hp CHP engines	7.6-10.4 million KW: hours/year	24 hours/day, 365 days/year

* Waste receipt would occur during the currently permitted operating hours of 7:00 a.m. to 5:00 p.m., Monday and Tuesday and 7:00 a.m. to 4:00 p.m., Wednesday through Saturday

Table 2. Comparison of Permitted and Proposed Project Components

Project Element	2009 Solid Waste Facility Permit	Proposed[4]
Total Permitted Area	357 acres total/118 acres for disposal	All project facilities would be located within the 2009 permitted area, except a 0.2 acre water tank site located just northwest of the West Borrow Area
Waste Type	MSW, Construction & Demolition, Recyclables, Green-waste	MSW, Construction & Demolition, Commingled & Source Separated Recyclables, Source Separated Organic Waste (green-waste, food-waste or mixed green and food-waste)
Hours of Operations at the Landfill	Waste Receipt and Disposal Operations: Monday-Tuesday: 7:00 a.m. – 5:00 p.m.; Wednesday-Saturday: 7:00 a.m. – 4:00 p.m. Cover, Compaction, Construction & Maintenance: Monday-Saturday: 6:00 a.m. – 6:00 p.m. Construction Only: Monday-Saturday: 6:00 a.m. – 8:00 p.m.; Sunday: 7:00 a.m. – 6:00 p.m. Special Occurrences: Open a total of 20 Sundays per year. Closed New Year's day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day.	Permitted hours: No change; however, the landfill may operate within a subset of the permitted hours depending on the volume of residual and bypass waste requiring disposal
Hours of Operations at the MRF	N/A	Handling and Processing of Waste: 24 hours/day, up to 311 days/year, 6 days/week Waste Receipt: Monday-Tuesday: 7 a.m. – 5 p.m.; Wednesday-Saturday: 7 a.m.– 4 p.m. Transport of Recyclables: 24 hours/day, 6 days/week (Monday – Saturday)
Hours of Operations at the AD & Energy Facility	N/A	Days Receiving Material: up to 311 days/year Operation of the AD Facility: 24 hours/day, 365 days/year
Hours of Operations at the Composting Area	N/A	Composting Operations: 7:00 a.m. – 4:00 p.m., 6 days/week Transport of Finished Compost: 7 a.m. to 5 p.m., 6 days/week

[4] Note: The Tajiguas Resource Recovery Project facilities may be permitted through a modification to the Landfill's existing solid waste facility permit or under a new separate solid waste facility permit.

Table 2. Continued

Project Element	2009 Solid Waste Facility Permit	Proposed
Hours of Operations at the Chipping and Grinding Operation	Monday-Tuesday: 7 a.m. – 5 p.m. Wednesday-Saturday: 7 a.m. – 4 p.m.	No Change
Maximum/Peak Daily Tonnage (at landfill entry scale)	1500 tons/day, includes 145 tons/day green-waste	1,500 tons/day, includes up to 210 tons/day SSOW (green-waste, food-waste or combined food- and green-waste
Facility Design Capacity	23,300,000 cubic yards (landfill)	Landfill: 23,300,000 cubic yards (no change) MRF: 800 to 930* tons/day AD Facility: 240 tons/day Composting Area: 200 tons/day Chipping/Grinding Operations: 145 tons/day (no change)
Maximum/Peak Traffic	184 waste haul vehicles/day (does not include an additional 50 vehicle/day miscellaneous traffic)	No change to maximum/peak traffic of 234 vehicles per day. Vehicle composition to include waste haul trucks, recyclable and compost transport vehicles, and miscellaneous traffic.
Maximum Permitted Elevation of Landfill	620 feet above mean sea level	No Change
Total Permitted Disposal Footprint of Landfill	118 acres	No Change
Estimated Landfill Closure Year	2023[a]	2036
Site Activities & Operations	Landfill, Chipping and Grinding Operation	Landfill, MRF, Chipping/Grinding Operation, Composting area, Anaerobic Digestion Facility, and Energy Facility

*Optional project element

[a] Estimated closure year listed in the 2009 Solid Waste Facility Permit, Based on current waste disposal rates and revised calculations regarding remaining capacity, the landfill is now expected to be at capacity in 2026 and not 2023.

The Resource Recovery Project facilities would be located approximately 3,200 feet north of U.S. Highway 101 on the existing Tajiguas Landfill operations deck, an approximately 6-acre site that currently houses the landfill administrative office, two crew trailers, engineering trailer, hazardous material storage, electronic-waste storage, equipment storage and parking, employee parking, maintenance facility and three fuel storage tanks.

In addition to the facilities listed above, a new groundwater well would be constructed to provide water to the project and two new advanced, self-contained commercial wastewater package treatment units would be constructed to treat the project's domestic wastewater. The treated wastewater would be used for landscape irrigation on the slopes (non-landfill) adjacent to the MRF and AD Facility. A new 220,000 gallon fire suppression water storage tank would be installed to provide water for the building sprinkler systems, domestic and process/equipment wash-down uses, landscape irrigation needs and fire hydrants. Parking would be provided for Resource Recovery Project staff, landfill operations staff and visitors.

The MRF and AD Facility buildings would also accommodate an array of solar photo-voltaic panels on the roofs. During construction of the Resource Recovery Project, landfill administrative and engineering offices, maintenance, and equipment storage would be temporarily relocated to an existing disturbed area northeast of the landfill top deck. Three landfill fuel tanks (red diesel, diesel, gasoline) currently located on the operations deck would be relocated to the landfill top deck near the proposed location of the new maintenance facility (north of the top deck, see Final SEIR Figure 3-4).

The Resource Recovery Project's waste processing activity is anticipated to result in the recovery and beneficial reuse of 60 percent or more (by weight) of the waste stream by diverting such amount from disposal at the landfill. Thus, the Resource Recovery Project would create a 20-year waste management solution for the community's waste (extending the life of the Tajiguas Landfill by approximately 10 years).

PROJECT COMPONENTS

Materials Recovery Facility

Site Location and Description

The MRF would be located in the northerly portion of the existing operations deck and would be accessible via the landfill's primary access road from U.S. Highway 101. A simplified layout diagram is provided as Final SEIR Figure 3-8, and preliminary elevation drawings are provided as Final SEIR Figure 3-9. The MRF would be comprised of a single approximately 56,500 square foot building that would include:

1. Tipping floor/waste delivery area (24,800 sf) to receive an estimated maximum delivery volume of 800 tons of MSW per day (250,000 tons/year);
2. MRF waste processing and recyclable storage area (31,700 sf);
3. Load-out waste transfer area (1,200 sf within the 24,800 sf tipping floor/waste delivery area) where the mixed MSW residual waste fraction (residue) would be top loaded in a partially enclosed loading bay area into County transfer trailers for delivery to the working face of the landfill for disposal. The load out area would also include a scale to measure the tonnage of the residual waste material sent to the landfill for disposal;
4. Loading dock area with dock-high capacity for container trailers and/or enclosed trucks to receive baled recyclable material for transport to markets; and

5. Additional waste processing area (10,000 sf) would be added to the MRF building if the *optional CSSR* material were processed at the MRF facility.

At the southeastern corner of the MRF there would be:

- Office/administration/employee/control room areas (6,400 sf); and
- Visitor/education/viewing area (1,500 sf).

The average building height of the MRF waste processing area would be approximately 47 feet with a maximum building height of approximately 51 feet in the southeastern corner at the office parapet (see Final SEIR Figure 3-9). The MRF gable roof peak would run from west to east and would include a series of translucent sky lights. The sky lights would include built-in blinds or external adjustable blinds to prevent light from escaping from the building at night.

The building would also be designed to accommodate a south facing solar panel array that would generate approximately 500 kilowatts (KW) per hour during daytime hours. The MRF would be housed in a prefabricated metal building with a panelized, color coated, exterior. The building would be constructed with a landfill gas barrier under the concrete floor with a venting system and landfill gas monitoring system.

The MRF would include a high capacity, negative pressure air handling system that would be designed to capture the dust and odor emissions that are anticipated to be produced from processing the mixed MSW. The building air volume would be replaced an estimated 3 to 6 times (changes) per hour by air handling equipment and processed through high capacity bio-filter systems. Two dust collection systems would be provided at the MRF (see Final SEIR Figure 3-8), one serving the tipping floor and another serving the sorting area. Air would be drawn out of the building, passed through a series of cartridge dust collectors and exhausted to two bio-filters.

One bio-filter would be located near the waste load-out area and serve the tipping floor, while the other would be located on the AD Facility roof and serve the MRF's organics recovery area and recycling sorting and storage areas. In addition, a misting system charged with flocculent and deodorizers would be provided within the MRF building to reduce dust and odors.

Office/Administration

The MRF building would include approximately 6,400 sf of space for Resource Recovery Project and landfill employees and administration offices and the MRF process control room.

Visitor/Education Center

The MRF building would include approximately 1,500 sf of visitor/education center space with live camera coverage of each processing/separation component. The building would include a handicap accessible (elevator served) conference area overlooking the processing floor, and may include an enclosed viewing gallery to observe the MRF waste processing equipment.

Components of the sorting process would be described in each window. Interactive displays would be included to educate visitors on how waste and recyclable materials have historically been processed and current and future processing opportunities, the economics of recycling, how and where end products are used, energy costs, as well as latent energy potential in various waste components, lifecycle greenhouse gas analysis, and benefits of the Resource Recovery Project.

Material Types

Municipal Solid Waste. MSW received at the landfill would be processed through the MRF. The MRF waste processing area would include a series of specialized equipment as described above. The end products produced from the MRF would include:

1. Ready for market, baled recyclables of mixed paper, cardboard, various grades of plastic containers, film plastic and ferrous/non-ferrous metals;
2. 3-inch or smaller organic waste material for processing by the AD Facility;
3. Bulk loose materials for sale to recycling markets including inerts, wood and other construction & demolition debris, oversize metals, large rigid plastics, carpet & padding; and
4. A residual waste fraction appropriate for disposal at the landfill.

Commingled Source Separated Recyclables (*optional project element*). In addition to MSW, CSSR could also be processed through the MRF as an *optional project element*. This material is currently collected by the County's franchise waste haulers, brought to the South Coast Recycling and Transfer Station (SCRTS), transferred into County tractor trailers, and brought to Gold Coast in Ventura County. Under this *optional element*, the CSSR would continue to be collected by the franchise waste haulers and brought to the SCRTS. The material would then be transferred to County tractor trailers and brought to the Resource Recovery Project for processing and bailed and sold to recycling markets.

Inclusion of the processing of CSSR as a part of the Resource Recovery Project would consolidate the County's processing of recyclable materials providing operational, economic and environmental efficiencies.

Design/Permitted Capacity

The MRF would include up to two processing lines. The primary line would be designed to process approximately 40 tons/hour of MSW for an overall processing capacity of up to a maximum of approximately 250,000 tons of MSW per year (6 days/week at 20 operating hours/day).

If processing of CSSR is consolidated at the site (*optional element*), the secondary line would be designed to process approximately 20 tons/hour of CSSR for an overall processing capacity of up to a maximum of approximately 40,000 tons of CSSR per year and the total design capacity would be up to 290,000 tons/year (930 tons/day).

Pre-Processing Waste Storage

In the event of unanticipated MRF waste processing equipment maintenance, initially approximately 2-3 days of MSW (and CSSR if included in the project) waste stream delivery volume (approximately 800 tons per day) could be accommodated in the MRF tip floor area. In the event of an extended facility shutdown or a community disaster, all, or a portion of the waste stream could bypass the MRF and be delivered directly to the landfill for disposal.

Operations and Maintenance

The MRF would be operated by approximately 24 full-time employees per 8 hour operating shift (2 shifts) up to 6 days/week, 52 weeks per year. A third shift comprised of approximately seven (7) personnel would conduct cleaning and maintenance activities during the night. Shift hours of operation are anticipated to be 7:00 am – 3:30 pm; 3:00 pm – 11:30 PM; and, 11:00 pm – 7:30 am (cleaning and maintenance). Operating employees are estimated to include: 1 MRF manager; 1 processing line manager; 1 mechanic; 4 loader/equipment operators; 14 sorters; and, 3 laborers for the mixed MSW line.

Processing CSSR at the MRF would require 20 additional employees, consisting of 1 processing line manager, 1 mechanic, 14 sorters and 4 laborers for a total of 44 full-time employees per 8 hour operating shift. If the optional CSSR were processed at the MRF, it would be processed during one 6.5 hour shift (7:00 am – 1:30 pm) up to 6 days per week.

The MRF processing lines would be highly automated and the MRF waste processing equipment generally achieves 75 to 95 percent waste stream sorting, separation and recovery rates for the various recyclable materials. A tip floor sorter would inspect all waste upon arrival to identify larger bulk and loose materials and to segregate any visible hazardous materials for shipment to authorized disposal facilities. Additional sorters stationed throughout the MRF processing lines would facilitate increased levels of sorting, separation and recovery rates of recyclable materials and decreased levels of contamination to the organic waste material forwarded to the AD Facility.

MRF equipment preventive maintenance would be performed daily in accordance with the MRF equipment vendor's detailed maintenance and replacement specifications. The MRF would have a corrective maintenance and equipment replacement contract with the MRF equipment vendor that would provide for on-call, same day maintenance of any non-operational equipment. The MRF equipment vendor would also maintain a dedicated replacement parts inventory for the MRF equipment. MRF equipment would be replaced or overhauled on a schedule provided by the MRF equipment vendor.

Post-Processing Material Storage

Up to 90,000 tons/year (290 tons/day) of the MSW stream and up to 36,000 tons/year (120 tons/day) of the CSSR waste stream (if this *optional element* is implemented) would be recovered as recyclable materials to be exported to market. Initially, an estimated 2-3 days of post-processing baled recyclable material storage would be provided on-site within the MRF waste processing area. An additional 5-6 days of post-processing recyclable material storage could be accommodated in an outside enclosed storage area (approximately 40' length x 80' width x 20' height) east of the MRF building, if such a need arose.

MRF Equipment

The MRF waste processing area would include a series of specialized equipment (i.e. size reducer, bag openers, shredders, trommel screens, conveyors, volumetric/density air separators, ballistic separators, magnetic eddy current, optical sorting separators and a rolling bed dryer [RBD][5]) each designed to size, reduce, sort, separate and recover the maximum quantity of available recyclable material from the MSW, while also recovering and cleaning organic waste (food, green and other compostable) material for delivery to the AD Facility. All MRF sorting and separation equipment would be electrically powered. Mobile equipment would be used to load MSW into the MRF equipment and residue into load out trucks and recyclables into export trucks. Table 3 provides a list of mobile equipment proposed to be used at the MRF.

Table 3. MRF On-site Mobile Equipment

Equipment Type	Engine Size – Emissions Design Criteria	Fuel	Number
Caterpillar 980M wheeled loader	386 BHP - Tier 4	Diesel	2
Caterpillar 938K wheeled loader	169 BHP - Tier 4	Diesel	1
Caterpillar M322D material handler	173 BHP – Tier 4	Diesel	1
Caterpillar 2P-6000 forklift	61 BHP – Tier 4	Diesel	3
Heavy-duty truck (residual to landfill)	-	Compressed natural gas	1
Utility truck (Ford F350)	-	On-road diesel	1
Pick-up Trucks (Ford F250)	-	On-road diesel	2
Tennant 800 Sweeper	65 BHP – Tier 4	Diesel	1

Post-Processing Material Transportation

Bailed recyclable materials would be transported from the Resource Recovery Project site to off-site markets. The export trucks (22 ton capacity, compressed natural gas powered [CNG]) would be contracted from a third party company with their home base at the Port of Los Angeles or Santa Maria. It is anticipated the majority of the recyclables would be transported to markets in the Los Angeles area or delivered to the Port of Long Beach for distribution to other markets. Trucks exporting material from the site would likely depart at approximately 9:30 a.m., 6:00 p.m., and 3:30 a.m. When not transporting material, the trucks would be parked at the MRF loading docks or in the project parking area east of the MRF building.

[5] The RBD is a part of the MRF processing equipment, but would be located in the alleyway between the MRF and AD Facility. The RBD would use CHP engine exhaust heat to dry fiber/paper recovered in the MRF allowing for its highest and best use. The RBD would be equipped with a baghouse filter to remove particulates generated during the drying process.

Dry Fermentation Anaerobic Digestion Facility

Site Location and Description

The AD Facility would be located in the southerly portion of the existing operations deck and would be accessible via the landfill's primary access road from U.S. Highway 101. A simplified layout diagram is provided as Final SEIR Figure 3-10, and preliminary elevation drawings are provided as Final SEIR Figure 3-11. The proposed AD Facility includes approximately 63,600 sf of enclosed building space including the following components:

- Sixteen digesters totaling approximately 38,000 sf;
- Mixing area of approximately 16,600 sf;
- MSW organic waste delivery area of approximately 2,300 sf;
- Compost load out area of approximately 7,000 sf (the compost load out area would also serve as a SSOW delivery area);
- One engine room of approximately 1,800 sf housing the two CHP engines; and
- Control room, office, bio-gas cleanup, maintenance and employee rooms totaling approximately 1,500 sf.

The AD Facility building would be constructed of concrete with a metal frame gable roof peak running east to west. The building roof height would be 37 feet (see Final SEIR Figure 3-11). However, the CHP engine stack would be higher, about 44 feet. The AD Facility roof would slope gently from west to east, would include a series of sky lights shielded with built-in or external blinds to prevent light from escaping from the building at night over the mixing area and is anticipated to accommodate a south facing solar photo-voltaic panel array that would generate 500 KW per hour (approximately 30 percent of the power required to operate the AD Facility and the MRF waste processing equipment).

The building would be constructed with a landfill gas barrier and venting system and landfill gas monitoring system. The building air volume would be replaced an estimated 3 to 6 times (changes) per hour by air handling equipment. Air would be drawn out of the building and passed through a series of cartridge dust collectors, and exhausted to a high capacity bio-filter mounted on the roof to control odors (see Final SEIR Figure 3-10).

Best available emission control technology in the form of a selective catalytic reduction system would be provided with the CHP engines to reduce the criteria pollutant levels below the requirements of the Santa Barbara County Air Pollution Control District.

In addition to the bio-filter, a dust collection system would be provided at the AD Facility (see Final SEIR Figure 3-10), serving the digester building. Air would be drawn out of the building and passed through a series of cartridge dust collectors.

Waste Material Types

The AD Facility would utilize a proprietary technology to convert organic waste recovered from the MSW in the MRF and SSOW into a bio-gas containing 50 to 60 percent methane. The bio-gas would be used to power two (2) on-site combined heat and power (CHP) engines. The organic waste would be recovered from the MSW by the MRF, or arrive at the site as SSOW from current and future commercial, institutional and residential food scraps collection programs. SSOW would be trucked directly to the proposed AD Facility and delivered to a SSOW Delivery Area or transferred from the adjacent MRF via an automated conveyor belt system directly to a MSW organics delivery area.

The SSOW would originate from the same wasteshed as the MSW but would be collected separately at the point of origin (e.g., schools, restaurants, public institutions) and transported to the Resource Recovery Facility in separate trucks. Any program that would increase the amount of SSOW delivered to the AD Facility would decrease the amount of organic waste received in the MSW and processed by the MRF. Ultimately, four of the 16 digesters would be dedicated to SSOW (see SS Digesters on Final SEIR Figure 3-10). When feasible, SSOW would remain separate from organic waste derived from MSW during delivery, processing and composting.

Percolate Storage

The AD Facility would include two percolate storage tanks; one approximately 204,000 gallon tank (24 feet tall) to support the anaerobic digestion of organic waste recovered from the MSW and one approximately 341,700 gallon tank (31 feet tall) to support the anaerobic digestion of SSOW. The percolate tanks would be filled once at the inception of the AD Facility's operations and do not need to be refilled. The percolate system for the AD Facility is a closed loop system and does not produce any wastewater discharge.

Percolate tank containment systems would be provided in accordance with Regional Water Quality Control Board regulations. Organic waste material has a high moisture content, typically in excess of 60 to 70 percent water. Consequently, the dry-fermentation anaerobic digestion process does not consume process water.

Anaerobic Digestion Process and Bio-Gas Generation

Anaerobic digestion is a technology commonly used in wastewater treatment plants to treat organic matter and has been endorsed by CalRecycle as a method to reduce landfilling of organic waste. Controlled composting of organic materials in large airtight containers produces carbon dioxide and methane, which are captured as bio-gas.

Bio-gas would be harvested within enclosed process structures (digesters), which are large concrete vessels. These digesters would be filled with organic waste feedstock and the waste processed using an anaerobic digestion procedure. A liquid percolate material would be sprayed over the organic waste material 3 to 4 times per day to accelerate the anaerobic digestion process. The percolate is a mixture of water and microorganisms that metabolize the organic waste during the anaerobic digestion process converting the organic waste material to a methane rich bio-gas.

Bio-gas is continuously generated during the anaerobic digestion process and extracted from the digesters. The bio-gas is estimated to be comprised of approximately 50 to 60 percent methane with the balance comprised predominantly of carbon dioxide. Bio-gas generated by the anaerobic digestion of the organic waste would power two 1,573 horsepower onsite CHP engines driving electric power generators. Heat extracted from the hot combustion exhaust of each engine would be used to warm the anaerobic digesters to a temperature of 131 to 140 °F (55-60 °C) specified as the ideal temperature to support a thermophilic anaerobic digestion process.

After an initial anaerobic digestion phase is complete (up to 28 days), the remaining material is removed from the digesters and mixed with up to 60 percent fresh organic waste material in an enclosed mixing area located within the AD Facility. The mixed organic waste material is then placed back into the digesters for a final anaerobic digestion phase (also up to 28 days).

The anaerobically digested organic waste material, also known as digestate, would then be removed from the digesters and transported via truck to the composting area for outdoor windrow aerobic compost finishing or curing phase and screening as described below. The mass of the digestate would be reduced by approximately 10 percent from the mass of the organic material loaded into the digesters due to the bio-gas that is produced and captured.

Prior to opening each active digester, the bio-gas in the digester would be purged to a flare using exhaust from the CHP engines, to prevent the formation of a bio-gas/air mixture that may become combustible. The flare would extend approximately 11 feet above the roof parapet, or 62 feet above the MRF floor elevation, and would be installed on the western side of the alley between the AD Facility building and the MRF and would burn the purged bio-gas, minimizing odors associated with opening the digesters. Residual odors following purging would be controlled through bio-filter treatment of air within the building.

Composting/Finishing Operations

The digestate would be removed from the AD Facility following the anaerobic digestion phase and transferred to the composting area by truck for a 6 to 8 week aerobic curing phase to produce compost and/or soil amendments. A preliminary site plan of the composting area is provided as Final SEIR Figure 3-12. Digestate derived from SSOW would be stockpiled and composted separately from MSW-derived digestate, due to the potential for MSW-derived digestate to contain contaminants not suitable for all compost end users.

The composting area would receive material and operate up to 6 days per week. Since the 16 digesters would be loaded/unloaded once every 28 days (208 total digester cycles per year), material would be transferred to the composting area approximately 17 days per month (an average of 4 days per week). The approximate 5 acre composting area would be located on the closed top deck area[6] of the landfill waste footprint outside of the Coastal Zone. The composting area would be asphalt paved to facilitate access, drainage, run-off collection and storage, equipment operations, and compost pile management.

[6] Closure of this top deck area is expected to occur in 2016/2017.

The anaerobic digestion process is expected to generate up to 60,000 tons/year of digestate from 73,600 tons/year of organic waste. During the composting phase, a further mass reduction of approximately 50 percent (biodegradation, evaporation) typically occurs. The digestate would leave the AD Facility with 50 to 60 percent moisture content. Through aeration and manipulation of the windrows, the compost piles would lose some moisture. To complete the composting process, supplementary water may be added during the drier months of the year to keep the compost in the optimal 40 to 60 percent moisture content range. Composting would require up to 2,200 gallons per day to maintain moisture levels. Supplementary water would be provided through collection and reuse of water collected in the composting area as discussed below and from an existing landfill groundwater well (Tajiguas Landfill Well no. 5). Up to 0.6 acre-feet/year of well water may be required for the compost curing process. Well water would be stored in a small tank located adjacent to the composting area and used to supplement flows from the compost area run-off collection tank.

The digestate would be converted into compost or soil amendment through an extended aeration process, averaging about six weeks in duration. Wood chips may be used as a bulking agent depending on pH and carbon/nitrogen (C/N) ratio of the digestate, which is dependent on percent food waste and organic waste stream processed at the AD Facility. The wood waste used for the bulking agent would be recovered from the MRF and would be chipped at the composting area using an electric-powered grinder. The digestate would be stored in windrows (approximately 12 feet-high x 40 feet-wide x 228 feet-long) and would be aerated weekly using a windrow turner.

The final curing is an aerobic, thermophilic process that occurs at temperatures of 131 to 140 °F (55-60 °C). The aerobic curing phase results in a nearly complete reduction or total elimination of all pathogens and weed seeds. At the end of the curing process, the compost and/or soil amendments would be screened for inert contaminant removal with a 2" screen, a 3/8" screen and a densimetric table (or comparable process) which removes higher density glass and stones in the 1/8"- 3/8" size fraction and any small amount of residual or contaminant material would be recovered as recyclable material (glass, metal, plastic) or would be back hauled to the tip floor load out area for weight check and then transported to the landfill for disposal. The screening equipment would be on the composting area deck and on a small deck north of, and below, the elevation of the composting area.

The compost quality would be tested on a regular basis in accordance with the U.S. Composting Council (USCC) Seal of Testing Assurance (STA) suite. The USCC STA suite of tests evaluates moisture content, organic matter, total nitrogen, nitrate nitrogen, ammonia nitrogen, total phosphorus, total potassium, total calcium, total magnesium, total sodium, total iron, total copper, total manganese, total zinc, sulfate as SO_4, boron, chloride, conductivity, pH, C:N Ratio, germination, compost maturity/stability index, particle size, fecal coliform and metals (arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, selenium, zinc). The USCC STA test results would determine the quality of compost in accordance with composting operations regulatory requirements (California Code of Regulations Title 14, Division 7, Chapter 3.1) and any end-user standards (e.g., Caltrans).

The finished compost product would be stockpiled in the composting area, in a pile approximately 20' high x 155' wide x 160' long. The stockpile has been designed to store one month of finished compost. The compost may be sold in bulk or bagged on-site and then trucked away for re-sale.

The composting area would be regulated by both CalRecycle and the Regional Water Quality Control Board and managed in accordance with best management practices for outdoor windrow composting operations. The composting area would be graded at a minimum slope of three percent toward collection points around the perimeter of the area. A berm would also be constructed around the perimeter of the composting area to prevent run-off from leaving the area and to prevent storm water run-on. In addition, the compost piles would be covered with tarps during sequential rain events following initial optimum pile rainwater absorption and to limit storm water contact.

In accordance with the State Water Resources Control Board Draft Compost Regulations, 25-year, 24-hour storm event flows would be captured in onsite storage facilities. Wastewater generated by manipulating the compost windrows, as well as storm water run-off from the pad, would be collected and directed through sediment removal device into two portable tanks (Baker, or equivalent). Each tank would be equipped with a level indicator to assist the operators in managing the water storage system. A 5000 gallon tank would be installed beside the Baker tank to provide water to a 500 gallon trailer-mounted tank with sprayer to provide water to the compost piles. The trailer-mounted tank would be pulled by the windrow turner or small garden tractor. Using the trailer-mounted tank, the procedure would be to spray a windrow, turn the windrow and spray again to achieve the desired compost pile moisture level and as a best management practice to limit the formation of odors. A maximum combined water storage of 216,000 gallons is anticipated to be required to maximize the use of collected run-off.

Storm water storage would be provided by a 325,000 gallon run-off collection tank (26 feet tall) to accommodate the design storm (25-year, 24-hour), and to provide additional storage for back-to-back storm events. The tank would be located approximately 1,500 feet north of the composting area (see Final SEIR Figures 3-4 and 3-12). A small section of the pipeline connecting the tank to the composting area would be located along property line between the landfill and Baron Ranch.

To maintain capacity in the tank and to meet the compost area water demand, the collected water would be filtered and reused on the compost piles. On occasions when the tank is full due to multiple, sequential storm events, the compost would be covered with tarpaulins and the aisles between windrows would be swept to minimize the contact with storm water. The run-off will be directed through a dedicated pipeline to the landfill's north sedimentation basin.

Run-off from rainfall events exceeding the 25-year, 24-hour storm would also be diverted through an overflow system to the north sedimentation basin, which discharges to Pila Creek.

Windrow turning, compost/soil amendment screening and transportation operations would occur between the hours of 7:00 am - 4:00 pm, 6 days/week. As noted above, the windrows would have a moisture content of 40 to 60 percent and as such would not typically generate airborne dust particles; however, litter fences would be installed around the curing area to collect any windborne debris.

The end product from the recovered organic fraction of the MSW is anticipated to be marketed as a moderate quality soil amendment for non-food agricultural applications, landscape material and/or general fill to customers located throughout the County. The end product from the SSOW is anticipated to be marketed as compost and/or a high quality soil amendment suitable for various agricultural applications to customers located throughout the County.

Design Capacity

Each digester would have an effective fill capacity of approximately 29,250 cubic feet (approximately 354 tons). Considering a retention time of 28 days, an inoculation ratio of 40 percent (in other words, every 28 days, 60 percent of fresh organic waste material is combined with 40 percent organic waste material that has been digesting for up to 28 days) and an average input density of 0.65, the annual treatment capacity of one digester is approximately 4,600 tons/year. Thus, the annual treatment capacity of 16 digesters is approximately 73,600 tons. The estimated mass reduction that occurs during the AD process is approximately 10 percent (equal to the mass of produced bio-gas).

Organic waste from the MRF may contain some contaminants such as glass and plastic. These materials are inert and would not impede the anaerobic digestion process. The contaminants take up space in the digesters and provide structure to the organics so that the percolate can adequately infuse the organic waste material. At least 90 percent of these contaminants would be removed during the compost screening process.

In addition to the MSW organic waste transferred to the AD Facility from the MRF, the AD Facility would process SSOW. Initially, the SSOW would be combined with the organic waste recovered from the MSW after processing in the MRF. Subsequently, when sufficient SSOW is available to fill a digester to capacity in a reasonable period of time, the SSOW would be digested and cured separately from the organic waste recovered in the MRF from the MSW.

At the MRF's maximum design capacity of 250,000 tons/per year of MSW, up to 73,600 tons/year (240 tons/day) of MSW organic waste could be conveyed to the AD Facility. Over time, if additional food waste collection programs are implemented (e.g., a residential food waste collection), there could be an increase in the SSOW delivered to the AD Facility that would be offset by a corresponding decrease of organic waste recovered from the MSW and conveyed from the MRF. From the 73,600 tons/year of organics processed in the AD Facility, up to 25,760 tons/year of compost/soil amendment would be produced.

Operations and Maintenance

The AD Facility is anticipated to be operated by approximately four (4) full-time employees per eight (8) hour operating shift. The employees are estimated to include: one (1) supervisor/system monitor; one (1) loader/equipment operator; (1) compost windrow specialist; and, one (1) laborer. No additional employees would be required if some of the material is received as SSOW.

The AD Facility would operate 24 hours per day, 365 days per year; however, organic waste recovered from the MSW would only be transferred to the AD Facility while the MRF is operating (up to 311 days/year). If some of the material is received as SSOW, it would generally be received between the hours of 7:00 am and 4:00 pm, 5 days per week. Digesters are anticipated to be filled or unloaded between the hours of 7:00 and 4:00 pm. Digestate transferred to, and cured compost and/or soil amendment transport from the composting area would occur between the hours of 7:00 am – 4:00 pm, 6 days/week.

AD Facility equipment preventive maintenance would be performed daily in accordance with the AD Facility equipment vendor's detailed maintenance and replacement specifications. The AD Facility would have a corrective maintenance and equipment replacement contract with the AD Facility equipment vendor that would provide for on-call, same day maintenance of any non-working equipment. The AD Facility equipment vendor would also maintain a dedicated replacement parts inventory for the AD Facility equipment. AD Facility equipment would be replaced or overhauled on a schedule provided by the AD Facility equipment vendor.

AD Facility and Composting Area Equipment

Table 4 provides a list of mobile equipment proposed to be used at the AD Facility and composting area.

Post-Processing Material Transportation

The finished compost or soil amendment (up to 25,760 tons/year) would be transported from storage piles at the composting area to off-site markets. It is anticipated the majority of the compost/soil amendment would be transported to markets in northern Santa Barbara County. The export trucks would be contracted from a third party company or County-owned with their home base at SCRTS. The material would be transported in a dedicated fleet of compressed natural gas-powered heavy-duty trucks with an approximate 22 ton capacity. Trucks exporting material from the site would likely depart two times per day (at approximately 9:00 a.m. and 1:00 p.m.), up to six days per week. The trucks would park inside the AD Facility loading area and in the parking area east of the MRF building.

Table 4. AD Facility and Composting Area On-site Mobile Equipment

Equipment Type	Engine Size – Emissions Design Criteria	Fuel	Number
Caterpillar 938M wheeled loader	169 BHP - Tier 4	Diesel	2
Caterpillar 938K wheeled loader	169 BHP – Tier 4	Diesel	1
Post AD screening (Titech)	Electric	-	1
Trommel screen	Electric	-	1
Wind-sifter, plastic film sorter (Komptech Hurrikan)	Electric	-	1
Windrow turner (Vermeer CT 1010)	215 BHP – Tier 4	Diesel	1
Tub grinder (Morbark 3800)	Electric	-	1
Tennant M30 Scrubber-Sweeper	41 BHP – Tier 4	Diesel	1

Energy Facility

Processing of up to 73,600 tons/year of organic waste would produce up to 237 million standard cubic feet of bio-gas per year, to be combusted in the Energy Facility to produce electricity. The Energy Facility is an integral component of the AD Facility, and would be comprised of two Jenbacher/General Electric 1573 horsepower CHP engines driving electric power generators rated to produce a total of approximately 2.2 MW, or an estimated 13,714 MW-hours of base load (continuous) power per year. As noted above, heat extracted from the combustion exhaust of each engine would be used to warm the anaerobic digesters.

The Energy Facility would be located in the AD Facility's CHP engine room attached to the south side of the AD Facility (see Final SEIR Figure 3-10 and 3-11). The Energy Facility would operate 24 hours per day, 365 days per year. A 200-gallon propane storage tank to be located west of the Energy Facility would be provided to provide supplemental fuel flows to the CHP engines to ensure continuous CHP engine operation within manufacturer's specifications during start-up, shut-down and any periods of irregular, below specification bio-gas production from the digesters.

Best available emission control technology in the form of a selective catalytic reduction system would be installed to control CHP engine exhaust emissions as required by the Santa Barbara County Air Pollution Control District. The operations and maintenance of the CHP Engines would be in accordance with the CHP engine manufacturer's specifications. As the AD Facility includes two CHP Engines, it is possible, depending upon the level of bio-gas production from the digesters that a single engine may be capable of processing all of the bio-gas being produced by the digesters allowing for the other CHP engine to go down for regularly scheduled major maintenance of component replacement.

Ancillary Facilities (Solar Panels, Power Lines)

Approximately 39,000 sf of solar panels are planned to be located on the roof of the AD Facility (~9,600 sf), the MRF processing area (~17,400 sf) and the MRF tip floor area (~12,000 sf). The solar panel array is estimated to have a power generation capacity of approximately 500 KW. The solar panel array is estimated to produce approximately 800,000 KW-hours/year. The MRF processing equipment is estimated to consume approximately 500-750 KW-hours of electricity or 2,600,000 KW-hours/year initially.

The solar power generation is estimated to produce approximately 500 KW of rated power, 100 percent of the MRF's rated consumption, however, the solar panels' effective generation, based on National Renewable Energy Laboratory modeling for the Resource Recovery Project location at the Tajiguas Landfill, would provide approximately 31 percent of the MRF equipment's power consumption.

The Energy Facility would be connected to the Southern California Edison (SCE) high voltage power transmission lines located immediately south of the landfill through a 480 volt transformer and local transmission lines as specified by the CHP Engine manufacturer. Existing transmission poles to the landfill site would provide a suitable transmission line routing to SCE transmission lines running parallel to U.S. Highway 101; however, it is likely that upgraded lines would be restrung on the existing poles to provide adequate power required by the MRF processing lines equipment and to provide sufficient AD Facility power transmission capacity.

Electrical service is currently available to various areas of the existing landfill. Extensions from these existing lines may need to be constructed to provide service to the composting area, the relocated landfill maintenance facility, and to provide power to proposed Well no. 6. To the extent feasible, new lines/poles would be placed within the existing disturbed areas of the landfill (see Final SEIR Figure 3-4).

Hours of Operation and Number of Employees

Waste would be delivered by truck to the Resource Recovery Project consistent with the landfill's permitted hours of operation, Monday-Tuesday 7:00 am to 5:00 pm and Wednesday – Saturday 7:00 am to 4:00 pm. The MRF would operate up to 6 days per week (up to 311 days/year) and export of recyclables recovered from the MRF would generally occur every day the MRF is operating. Occasionally, maintenance of the MRF may be performed on weekends, including Sunday.

The AD Facility would receive material the same days that the MRF is operating. The AD Facility and Energy Facility would operate 24 hours/day, 365 days per week but employees would only be on site up to 6 days/week. The composting area would receive material and operate 6 days per week. Considering that the 16 digesters would only be loaded/unloaded once every 28 days (approximately 208 times per year), material would only be transferred to the composting area approximately 17 days/month (an average of approximately 4 days/week). Export of finished compost would occur up to 6 days per week.

The project would include three employee working shifts: 7:00 am to 3:30 pm, 3:00 pm to 11:30 pm and 11:00 pm to 7:30 am. In addition to the anticipated MRF and AD Facility employees described above, the Resource Recovery Project would also include management and administrative staff operating from offices located within the MRF. The management and administrative staff would likely include the following: one (1) general manager; one (1) controller; one (1) office manager/marketing director; one (1) human resources manager; and three (3) administrative accounts receivables/payables staff (see Table 5). The maximum number of MRF, AD Facility, and management/administration staff on-site would be 35, during the day shift. The maximum number of employees on-site would be increased to 55, with the inclusion of CSSR (*optional element*).

It should be noted that the number of existing landfill staff associated with waste disposal would be reduced by six in the long-term, due to the reduction in disposal rates associated with the project.

Table 5. Project Staffing Summary

Classification	Number	Hours
Administration	7	7:00 am – 3:30 pm
MRF operations	24	7:00 am – 3:30 pm
MRF operations	24	3:00 pm - 11:30 pm
MRF maintenance	7	11:00 pm – 7:30 am
AD Facility & composting area operations	4	7:00 am – 3:30 pm
Total	**66**	-
CSSR option	20	7:00 am – 1:30 pm
Total + CSSR option	**86**	-

Site Access, Parking and Transportation Demand Management

The Resource Recovery Project site would be accessed from U.S. Highway 101 via an approximately 1,600 foot long, paved, 24 foot wide private driveway through a gated entrance. Trucks arriving to the Resource Recovery Project site would be required to pass through the landfill's existing manned scale house. Once on the landfill property, the existing paved landfill roads would be used to access the Resource Recovery Project site. Education and community outreach would be an important element of the project and access to the facility or landfill by the general public would be provided by tours and/or site visits scheduled through RRWMD.

Circulation at the Resource Recovery Project site would consist of a 26 foot-wide one-way driveway that would loop around the AD Facility and the MRF in a clockwise direction allowing MSW delivery trucks to deliver waste material directly to the MRF tip floor area (See Final SEIR Figure 3-5). The loop driveway would include fire hydrants and would provide 360° fire vehicle access around the AD Facility and MRF buildings such that all building faces are accessible. Efficient operation of the MRF and ADF Facility is dependent on the efficient circulation of trucks in and out of these facilities. The site layout, driveways and parking areas would be designed with adequate horizontal clearance using American Association of State Highway & Transportation Officials (AASHTO) vehicle templates.

Trucks delivering SSOW to the AD Facility would enter a one-way drive through the delivery area via truck access on the southeast corner of the AD Facility. Trucks receiving digestate following the anaerobic digestion phase for transport to the composting area would access the AD Facility via this same one-way driveway through the AD Facility. Trucks receiving residual waste from the MRF load-out area for transport to the landfill working face would access the load out area via one-way drive through loop driveway immediately east of the MRF building. Trucks to transport finished baled recyclable material to market would access the MRF building via the four dock-high loading bays on the southeast corner of the MRF building. Recyclable material truck transport loads would be weighed on the scale house at the entrance to the Tajiguas Landfill near U.S. Highway 101 or at the scale in the MRF load-out area.

A vanpool program would be implemented for the new employees working at the MRF and AD Facility to reduce traffic generation as well as provide an employment incentive. The location of the site is well suited for ridesharing, given its isolation and distance from the population centers where employees live. Employee surveys were taken at the existing landfill to ascertain the current level of ridesharing and where employees commute from. The surveys show that most employees currently carpool to and from work; and that most employees live north of the site (Buellton, Lompoc, Santa Maria). The average vehicle occupancy was measured at 1.6, indicating an average of 1.6 employees per vehicle when commuting to and from work. The surveys also show that most employees do not leave the site during the day, whereas employees in work places within population centers typically leave during their shift to run errands, or visit the doctor, etc. Thus, the existing employee commute information shows that a successful vanpool program could be implemented for the new employees working at the MRF and AD. The Project's vanpool program is anticipated to result in an average vehicle occupancy of 2.5 (average of 2.5 employees per vehicle) for operations staff and 1.6 for administration staff.

Approximately 72 spaces would be provided for employee and visitor parking (including parking for school and tour buses), mostly located east of the AD Facility.

Utilities

Domestic Water

The MRF, AD Facility and associated administrative offices would use approximately 1,745 gallons of water per day for hand-washing, toilet flushing and wash-down of work areas. This value is based on the use of water saving devices such as low volume toilets and aerating faucets. Water for project facilities would be provided by installation of a new groundwater well (Well No. 6) to be completed in the Sespe-Alegria geologic formation. The well would in a be located in a previously disturbed site in the back canyon area of the landfill property, approximately 1200 feet north of the MRF/AD Facility site adjacent to an existing landfill access road (see Final SEIR Figure 3-4). The well would be setback a minimum of 150 feet from the edge of the lined landfill disposal area.

Water lines and electrical transmission lines from proposed Well no. 6 to the MRF/AD Facility site would be located along the toe of the slope west of the Pila Creek concrete channel (see Final SEIR Figure 3-4). Storage for this new water system would be provided by a 220,000 gallon tank shared with the fire protection system. Based on water quality data from wells in these formations, total dissolved solid levels should be within required drinking water standards; therefore, a water treatment system is not expected to be required. Chlorine disinfection may be required to keep the treated water potable and to inhibit algae growth within the storage tank and water mains. If needed, the chlorination unit would be located near the MRF tipping floor. Bottled water would continue to be brought to the site for drinking water.

The AD Facility percolate tanks would require an initial fill of approximately 300,000 gallons of domestic water. The percolate systems are closed loop and would not require any additional water following their initial fill.

Domestic Wastewater

The proposed project includes the installation and operation of an advanced septic treatment system to replace the existing small septic system and portable toilets currently in use. Two advanced, self-contained commercial wastewater treatment units would be installed to treat and disinfect the wastewater so it can be used for spray or drip irrigation of approximately 2.5 acres of landscaped areas adjacent to the MRF and AD Facility.

A treatment unit with a rated capacity of 500 gallons/day would be installed adjacent to the north side of the AD Facility building and a unit with a rated capacity of 3,500 gallons/day would be installed adjacent to the loading dock at the MRF building (see Final SEIR Figures 3-10 and 3-11). These commercial wastewater treatment units would utilize a concrete storage tank, aerobic oxidation and digestion by micro-organisms, advanced filtration technology and ultraviolet light treatment for disinfection.

Following treatment and disinfection, the effluent would be pumped to a 88,000 gallon recycled water storage tank, to be located adjacent to the proposed water supply tank (see Final SEIR Figure 3-4). The purpose of the storage tank is to store sufficient treated effluent to serve irrigation needs throughout the year and to ensure sufficient storage to avoid effluent discharge during periods of prolonged wet weather. Treated wastewater would be used to drip irrigate a 2.5 acre area located west of the MRF/AD Facility site. The irrigation rates would be controlled automatically by a system that incorporates data received by soil moisture sensors and an on-site weather station. Once the new wastewater systems are installed, the existing septic system would be abandoned. Portable toilets may continue to be used at different locations of the landfill as needed.

Composting Process Water Supply

Supplementary water (up to 2,200 gallons per day) would be required to maintain the optimum moisture content of the compost during the curing process. This water would be provided by existing Well no. 5, located approximately 250 feet northeast of the proposed composting area (see Final SEIR Figure 3-4). Water would be applied using a trailer-mounted spray tank, with excess water collected, treated and re-used.

Fire Protection

A 220,000 gallon above-ground water supply tank (approximately 33 feet in diameter, 33 feet tall) would be constructed on the ridge northwest of the MRF/AD Facility site to supply both fire flows (1,750 gpm, 2 hour fire duration) and domestic flows (see Final SEIR Figure 3-4). A dedicated fire protection water distribution system would convey the fire flow to the site fire hydrants and to the building sprinkler systems.

Electricity

The MRF waste processing equipment, management and administrative office, AD Facility offices and site lighting needs are entirely electric and would be served by a dedicated service meter from SCE. The Resource Recovery Project's electrical demand is estimated to be approximately 500 KW per hour. Approximately 30 percent of the MRF's electrical needs are anticipated to be served by an on-site 500 KW solar panel array located on the roof of the MRF and AD Facility buildings.

Approximately 2 percent of the power generated by the Energy Facility (combusting bio-gas) would be consumed by the AD Facility operations. The on-site rooftop solar panels are estimated to produce approximately 873 MW-hours per year (or approximately 15 percent of the MRF's estimated consumption of 5,918 MW-hours per year). It is estimated that the net power generated by the AD Facility (13,714 MW-hours) would be sold to SCE via a 20-year Power Purchase Agreement. The estimated overall annual net energy balance for the proposed project is summarized below:

Facility	Electricity Generated (MW-hours)	Electricity Consumed (MW-hours)	Net (Electricity Generated less Consumed, MW-hours)
AD, with energy facility	14,032	318	13,714
MRF, with solar panels	873	5,918	-5,045
Other		359	-359
Overall	14,905	6,595	8,310

Supplemental Fuel/Propane

The MRF and AD Facility mobile equipment would be fueled from a single 10,000 gallon above ground diesel storage tank. The tank would be approximately 8 feet in diameter and 27 feet long and would include secondary containment. The tank would be approximately 3 feet high, 9 feet wide and 36 feet long and would include secondary containment. The AD Facility would include an on-site 200 gallon propane storage tank (see Final SEIR Figure 3-10) to provide supplemental fuel flows to the CHP engines to ensure continuous CHP engine operation within manufacturer's specifications during start-up, shut-down and any periods of irregular, below specification bio-gas production from the digesters.

Emergency Generator

A 150 KW/hour diesel-fueled electrical generator would be installed to the east of the MRF tipping floor bio-filter to provide emergency power. A fuel storage tank would be provided within the generator skid.

Exterior Lighting

Exterior lighting would be provided on the Resource Recovery Project buildings and in the parking areas to allow continued operations after dark, accommodate safe traffic flow, and employee safety. No lighting is proposed along the site access roads, and unmanned facilities. The proposed lighting would be dark sky compliant, full cut-off lighting fixtures (as defined by the Illuminating Engineering Society of North America) and positioned to minimize off-site impacts to U.S. Highway 101, Baron Ranch and nearby habitat areas.

Project Construction

Construction of the MRF is projected to take approximately twelve months to complete following 4 months of grading and site preparation. Construction of the AD Facility is projected to take approximately twelve months to complete and would be completed concurrently with the MRF. Construction work would generally be conducted during daylight hours, in compliance with the County permitted landfill construction hours of 6:00 am to 8:00 pm, Monday through Saturday, and 7:00 am to 6:00 pm on Sunday[7]. Non-daylight work hours on weekdays or daytime work on Saturdays and holidays may occur to minimize conflicts with ongoing landfill waste disposal operations, make up schedule deficiencies and/or to complete critical construction activities safely, such as MRF equipment installation and testing. If necessary to meet the specific construction requirements for the Resource Recovery Project, two 8-hour shifts, Monday through Friday between the hours of 6 a.m. and 10 p.m., and potentially on Saturdays and holidays may be implemented.

As noted previously, during construction, landfill operations facilities, equipment and fuel storage would be relocated to other areas of the landfill property. As is currently required for landfill construction projects pursuant to 01-EIR-05 measures AQ-1 and AQ-3, standard APCD fugitive dust control and diesel particulate and NO_x emissions measures would be implemented during project construction.

Site Design and Grading

The MRF/AD Facility site would be located at the existing landfill operations deck, which is partially underlain by a closed portion of the landfill, including buried waste. The current operations deck would be enlarged by grading into the adjacent West Borrow Area to create building pads large enough to accommodate the MRF and AD Facility, and avoid the waste footprint. The MRF and AD Facility building locations and building floor elevations were carefully designed to meet the goals of balancing the site grading and to get as much of the building footprint onto cut as possible, thus minimizing pile foundation system costs required for portions of the heavy structures on fill adjacent to a closed landfill cell.

[7] Sunday construction limited to maximum of 20 days/yr.

The tipping floor/waste delivery area was designed to be 16 feet above the waste processing and storage floor (see Final SEIR Figure 3-6) to shorten the conveyor belts that feed the waste and recyclable sorting system. The tipping floor elevation was also selected to minimize retaining wall heights relative to the adjacent hillside as well as to minimize export of excess fill from the MRF/AD Facility site to the landfill for use as daily cover. Thus, the selected floor elevations would maximize the efficiency of the MRF layout and minimize the size of the MRF building, minimize the size and cost of retaining walls, minimize earth moving costs and minimize emissions of earth-moving vehicles during construction.

Construction of the MRF/AD Facility site would require approximately 142,600 cubic yards of cut and 89,400 (102,765 with 15% compaction) cubic yards of fill to increase the pad height of the operations deck by up to 20 feet for a maximum finished pad elevation of 394 feet above msl. Grading would be balanced at the landfill site. Finished slopes in the West Borrow Area would not exceed 2:1 (see Final SEIR Figure 3-6).

The composting area would also be located on the closed landfill waste footprint and would likely experience future settlement. No permanent structures are proposed in this area. Asphalt paving, piping, other support facilities in this area and operational procedures would be designed to account for differential settlement and to address landfill post-closure maintenance and monitoring requirements. A monitoring and maintenance program would be implemented to ensure that project facilities located over the closed landfill would not be damaged by differential settlement and that Resource Recovery Project operations would not damage the landfill cover system.

Drainage

Drainage from the Resource Recovery Project site would be conveyed to planned or existing storm drain inlets which drain into existing storm drains. These storm drains are located beneath the operations deck (west of the landfill waste footprint) and discharge into the natural channel of Pila Creek at the southern end of the landfill property. The MRF/AD Facility site would be provided with drainage facilities (v-ditch, storm drains, filtration unit) as shown on Final SEIR Figure 3-6.

Nuisance Management

Vector Management

Similar to existing landfill operations, waste processing activities at the Resource Recovery Project site could attract wildlife species such as gulls, common ravens and American crows, and nuisance mammals such as rats, opossums, raccoons, skunks, red foxes, and feral cats which would not be normally found at the site and could become nuisances. Therefore, the Resource Recovery Project would include development and implementation of a Vector Management Plan (VMP).

The VMP would focus on good housekeeping, minimizing accessibility of organic waste to nuisance species so that these species are not attracted to the facility, and for insects and rodents, on minimizing features that would support breeding by and refugia for these species. Because completely eliminating access to food waste and refugia for nuisance species may not be feasible, the VMP would also include measures to capture and remove individual nuisance mammals and treat areas with nuisance insects. The VMP would be designed to be adaptive, and include some monitoring of the presence and/or abundance of individual nuisance animals and increasingly more stringent measures to limit accessibility of wastes to these animals.

Litter Management

Tipping of the MSW within the MRF building will limit the potential for plastic and paper waste to be carried by the wind. However, similar to existing landfill operations, the Resource Recovery Project would include development of a litter control program (LCP). The LCP would include measures to prevent fugitive waste from leaving the Resource Recovery Project site, or escaping from delivery trucks arriving or departing from the MRF, AD Facility buildings and the Composting Area. As is currently required for landfill operations, all trucks delivering waste to the MRF and AD Facility would be required to have their loads covered with tarps or the loads must be in enclosed trucks[8].

Waste delivery (tipping) areas at the MRF and AD Facility would be completely enclosed and access doors would be shut except during peak delivery hours. Drainage inlets installed around the project site would be screened[9]. Trucks transporting residual waste from the MRF to the working face of the landfill disposal area would also be covered or screened to prevent wind-blown litter and manual litter pickup would occur along the route from the MRF to the landfill working face. Landfill staff would continue to be responsible for monitoring and picking up litter along U.S. Highway 101 near the landfill entrance.

Odor, Dust and VOC Management

Similar to the existing landfill operations, waste processing activities in the MRF and AD Facility have the potential to generate odor due to the potential presence of decomposing organic waste (putrescible waste) and as required under the Solid Waste Facility Permit, the Resource Recovery Project would include development and implementation of an Odor Impact Mitigation Program (OIMP). To limit off-site odors, mixed MSW and SSOW would be tipped inside the enclosed negative pressure MRF building and AD Facility, respectively. Air within the buildings would be filtered through high volume, bio-filter[10] based air filtration systems to control odors and dust collection units to collect dust and particulates.

The organic waste would be anaerobically digested in the enclosed air-tight digesters for approximately 42 to 56 days. At the conclusion of the anaerobic process, after the high quality bio-gas has been extracted for beneficial use (energy production), a controlled purging process would direct the residual gases in the digestion chamber to a flare. The flare would function as an odor control device to destruct the potentially odorous residual gases in the chamber prior to opening the chamber doors and removing the digestate.

Following the enclosed anaerobic digestion phase and bio-gas extraction, the digestate would be transferred to the open air composting site. The digestate would have significantly reduced putrescible/odor generating material present as compared to a traditional aerobic windrow composting operation.

[8] Section 17-4(b), Chapter 17, Santa Barbara County Code requires that all incoming loads to the landfill be covered with tarps or other secure materials. Trucks that arrive at the landfill without their loads covered are assessed an additional fee. The CHP can also ticket vehicles that are transporting material to the Landfill uncovered.

[9] In addition to controlling litter at the source, trash racks are currently present within lower Pila Creek to prevent material from being transported off-site.

[10] Bio-filters lend themselves to all waste gas cleaning applications involving air pollutants that are readily biodegradable. Biodegradation of the pollutants is accomplished by micro-organisms colonizing on solid support media (such as chopped wood and wood bark, root wood, lava or other structure-giving materials). As the waste gas passes through the bed of media, the pollutants are absorbed onto the surface of the filter media where they are degraded by micro-organisms.

In addition, odor emissions during final curing would be minimized through proper management of an aerobic environment in the compost windrows, compost windrows would be watered immediately after turning events to minimize odors generated by exposure of the interior of the windrows, turning of the compost windrows would be avoided when the predominant wind direction is from the north (towards populated areas), and other odor management best management practices such as application of mulch layers, application of deodorants and proper moisture control would be implemented.

Due to the intermittent nature of nuisance odors, and adaptive approach would be implemented in the OIMP. The OIMP would include standard procedures for monitoring and recording periods of unusual odors, responding to odors, logging any complaints, responding to complaints, and documentation of complaint response and any follow-up measures.

Best Available Control Technology (BACT) for digestate composting would be implemented, consisting of:

- Blending digestate with 20 percent inert dry wood chips;
- Interactive pile management (compost pile turning);
- 20 minutes irrigation after pile turning;
- Large pile size; and
- Application of finished compost to the new compost piles to act as a pseudo bio-filter.

Implementation of these BACT measures is anticipated to achieve a further reduction in VOC emissions of 90 percent.

Tajiguas Landfill Operations

Continued operation of the Tajiguas Landfill is an integral component of the Resource Recovery Project. Up to 120,000 tons/year (391 tons/day) or 124,000 tons/year (404 tons/day) with inclusion of the CSSR [*optional element*][11] of non-processable/bypass waste, and residue from the MRF and AD Facility would be disposed of at the Tajiguas Landfill, including:

- 90,000 tons/year processed MSW residue recovered from the MRF;
- 10,000 tons/year non-compostable residue from the AD Facility;
- 20,000 tons/year non-processable/bypass waste (MSW); and
- 4,000 tons/year residue from CSSR processing (optional element).

However, the currently permitted disposal capacity of 1,500 tons/day would be retained to provide flexibility in the event of a natural or man-made disaster or in the event of a prolonged facility shutdown where additional waste may need to be bypassed. Under the proposed project, the total incoming material entering the landfill site and processed or buried at the site would not exceed 1,500 tons per day.

The Tajiguas Landfill currently receives waste from the Public Participants and is fully permitted and operational. The landfill operates under the following permits[12]:

[11] Assuming the landfill operates 307 days/year.
[12] The Landfill also operates under permits from the California Department of Fish and Wildlife, Regional Water Quality Control Board, Army Corps of Engineers and a Section 7 Biological Opinion from the U.S. Fish and Wildlife Services for construction activities involving Pila Creek.

- Solid Waste Facility Permit 42-AA-0015 issued February 10, 2014;
- Waste Discharge Requirements Order Number R3-2010-0006 adopted February 4, 2010;
- Permit to Operate No. 9788-R3 and Part 70 Operating Permit No. 9788-R3 issued December 22, 2010; and
- Industrial Storm Water Permit No. 3 42S000451 issued October 23, 1992.

Landfill operations would remain similar to existing operations, but reduced in scope due to the reduced volume of waste being buried. Waste collected from the communities served by the landfill would continue to be delivered to the landfill. Waste trucks would access the site and landfilling of residual waste would occur during the currently permitted operating hours[13] of 7:00 a.m. to 5:00 p.m., Monday and Tuesday and 7:00 a.m. to 4:00 p.m., Wednesday through Saturday. The trucks would be weighed and assessed at the existing scale house at the entrance to the landfill. After being weighed, the waste would either be sent to the Resource Recovery Project site for further processing or, if unsuitable for processing, sent to the landfill for burial. Residue from the MRF processing activities would be weighed again and loaded onto landfill transfer trucks and brought to the landfill working face for burial.

Landfill operations would include processing of SSOW, which currently arrives at the site as green-waste and the landfill's existing solid waste facility permit allows up to 145 tons/day of green-waste processing (grinding into mulch). Under the proposed project, and with the potential implementation of additional recycling programs, up to 240 tons/day of SSOW (green-waste, food waste, or mixed green and food waste) would be processed. Depending on the composition of the SSOW it would either be ground into mulch, processed in the AD Facility or a combination of the two.

Construction of the Resource Recovery Project would not modify the following operational components of the landfill's existing Solid Waste Facility Permit (see Table 2): landfill hours of operation, permitted maximum tonnage (1,500 tons/day), refuse design capacity (23.3 million cubic yards), permitted waste disposal footprint (118 acres), maximum elevation (620 feet above msl), environmental protection and monitoring systems, green-waste processing, and closure and post closure maintenance activities. However, the Solid Waste Facility Permit would need to be revised to include the Resource Recovery Project facilities and operations or a new permit issued for the facilities. It is anticipated that the majority of the remaining landfill groundwater protection systems (liners) for the remaining permitted waste disposal areas would be installed prior to operations beginning at the Resource Recovery Project.

Landfill-related documents such as the Joint Technical Document and the Closure and Post Closure Maintenance Plans may need to be amended to reflect the operation of the Resource Recovery Project facilities, to identify post closure uses of the landfill, reflect changes in the landfilling activities due to the reduced waste volume and to address the changes in the timing of closure activities due to the extension of the landfill's life. New documents, such as a Transfer Processing Report and Report of Composting Site Information, would need to be prepared as a part of the Solid Waste Facility Permit. While the life of the landfill would be extended, portions of the existing landfill would continue to undergo phased closure as capacity is reached.

RRWMD employs a full-time staff of approximately 18 employees at the landfill. In addition, the County typically engages a crew of four contracted employees for litter removal and special projects such as winter preparedness. It is estimated that following implementation of the Resource Recovery Project,

[13] Cover, compaction, construction, maintenance and special occurrences are permitted to occur outside of these hours.

landfill staff would be reduced to the equivalent of 14 full-time employees and 2 contract employees. During construction of the Resource Recovery Project facilities, the landfill would continue to operate and landfill administrative offices, fuel storage and equipment storage and all other facilities currently located on operation's deck would need to be temporarily relocated to another area of the landfill property (see Final SEIR Figure 3-4).

It is anticipated that landfill operations trailers, fuel tanks, hazardous material storage and equipment storage would be temporarily relocated to an area northeast of the top deck (see Final SEIR Figure 3-4) during the project construction period. Following completion of project construction, the temporary landfill operations trailers would be removed from the site. Landfill operations offices would be included in the new Resource Recovery Project facilities and storage for landfill equipment and supplies would be provided back on the operations deck.

The landfill maintenance shop, which is currently located in the southern portion of the site (within the coastal zone), and was planned to be relocated to the operations deck as a part of the phased landfill closure, would now be relocated to an area north of the top deck (see maintenance building on Figure 3-4), outside of the waste footprint[14]. A small water tank (approximately 10,000 gallons) would also be installed to provide fire protection/water supply for the maintenance building. The tank would be placed in an existing disturbed area, below the ridgeline in the vicinity of the proposed composting area run-off collection tank. During and following construction, large equipment associated with landfill operations would be parked adjacent to the landfill working face.

Recycling and Transfer Station Operations

RRWMD manages four recycling and transfer stations in different areas of the County; South Coast, Santa Ynez Valley, New Cuyama and Ventucopa. Recycling and transfer stations are facilities where solid waste is sorted, when appropriate, and solid waste and CSSR is stored temporarily before being sent to its final destination. Commercial waste haulers and individuals who self-haul their waste can take their waste to these locations.

Self-haul MSW and green-waste is currently transferred from the SCRTS and the SYVRTS to the Tajiguas Landfill. At the transfer stations, MSW and green-waste is consolidated separately into County waste transfer trucks with an approximate 20 ton capacity for transport to the Tajiguas Landfill. The MSW is buried at the landfill and the green-waste is processed into mulch and sold for agricultural, landscaping and other uses. MSW from New Cuyama and Ventucopa is brought to MarBorg Industries' transfer facility in the City of Santa Barbara for sorting and trash is transferred to the Tajiguas Landfill.

On the south coast of Santa Barbara County, CSSR from the County's existing collection programs is also brought to the SCRTS, loaded into County transfer trucks and transported for off-site processing. Currently, the CSSR are transferred from the SCRTS to the Gold Coast facility in Ventura for processing. Operation of the County transfer stations would continue as currently conducted with the addition of the Resource Recovery Project at the Tajiguas Landfill. However, as a part of the *optional element* of the proposed project, CSSR collected at SCRTS would be transferred to the Resource Recovery Project at Tajiguas for processing. Only a small amount of CSSR is collected at the SYVRTS and this material is not proposed to be processed at the Resource Recovery Project. No changes to the Solid Waste Facility permits for these facilities are anticipated in association with the Resource Recovery Project.

[14] The maintenance facility is a part of the historic landfill operations.

Resource Recovery Project Administration and Contractual Agreements

The Resource Recovery Project would be designed, permitted, financed[15], built, owned, and operated by the project vendor via a public-private partnership structure, pursuant to Government Code Section 5956.4 et seq. and other provisions of law. The term of the contract(s) would commence on the contract date and would remain in effect until the completion of twenty (20) years of operation. If the project vendor ultimately finances and owns the facility, the contract(s) between the Public Participants and the vendor would include an option for the Public Participants to purchase the Facility from the vendor at the end of the contract term or earlier in order to provide long term financial stability to the public rate payers. If the Public Participants do not exercise their option to purchase the Facility, the County would have the right to require the vendor to remove the Facility from the Tajiguas Landfill site and restore the site. If the facility is publicly financed and owned, the objective for long-term rate stability is expected to be met and the Public Participants can evaluate the best use of the facility after 20 years of operation. The Resource Recovery Project operational areas at the Tajiguas Landfill would be leased to the vendor under a site lease agreement (or equivalent) between the County and the vendor.

The vendor would be responsible for the cost associated with transporting residue and bypassed waste from the Resource Recovery Project for disposal at the Tajiguas Landfill. Landfill service to the Resource Recovery Project would be provided by the County (RRWMD) under a Landfill Disposal Agreement or equivalent agreement. The vendor would be responsible for marketing all products and materials generated, recovered or beneficially used. The vendor would be responsible for the cost associated with transporting and disposing of, at the Tajiguas Landfill, any such materials that are not successfully marketed.

As previously discussed, the Public Participants are the County of Santa Barbara and the cities of Santa Barbara, Buellton, Goleta and Solvang. It is anticipated that the administrative and contractual agreements may be administered through a legal arrangement such as a Joint Powers Authority (JPA) or directly with the County who would have a single waste services agreement with the vendor. The individual participating jurisdictions would have separate waste supply agreements with either the JPA or the County. If a single jurisdiction chooses not to participate in the JPA, or contract with the County, it will have a waste service agreement directly with the vendor. It is anticipated that the JPA would designate the County (RRWMD) to provide Contract administration and day-to-day operational oversight of the facility. The final structure for the administration and contractual agreements will be determined at a later date[16].

Resource Recovery Project Decommissioning

Continued use of the Resource Recovery Project facilities beyond the initial 20-year contract term is speculative and not reasonably foreseeable at this time. Waste management technologies are rapidly evolving and technologies that are infeasible today may be feasible at the end of the 20-year project term and may be considered for implementation at that time. Prior to the end of the contract term, the County would need to identify future waste management options/plans for the solid waste disposal needs currently served by the Tajiguas Landfill and to be served by the Tajiguas Resource Recovery Project in compliance with CalRecycle requirements and complete additional CEQA review for those plans. At the end of the end of 20 years of operation (approximately 2036), the Resource Recovery Project facilities would be decommissioned

[15] Financing includes a combination of mechanisms such as private equity, debt service, or public funding, potentially affecting ownership.
[16] The financing, administration and contractual agreements are administrative items that do not have an effect on the environment.

and removed or, alternatively, reused for some form of continued waste management or for some other use based on further discretionary review and approval by the County, JPA and any necessary associated State approvals.

If the project is privately financed, as a part of the lease agreement, the vendor would be required to establish and maintain a financial assurance that is adequate to assure the Public Participants that it would be, at all times, financially capable of complying with the requirement to demolish and remove the Resource Recovery Project facilities, and restore the project site to a condition reasonably equivalent to its condition before construction of the project.

For purposes of the EIR analysis the facilities are assumed to be removed; however, given the project's distant time frame for decommissioning activities, it is too speculative to provide details describing specific decommissioning activities and potential impacts that could occur far into the future. As such, the description and evaluation of decommissioning is limited by what decommissioning activities can reasonably be expected at the time of the writing of this EIR. It is assumed that environmental impacts generated during future decommissioning would be similar to (but less than) the environmental impacts generated during the construction phase of the proposed project.

Specific issues related to decommissioning that are not known at this time include the future physical conditions of the area surrounding the landfill property, future air basin characteristics with regard to air quality and GHG emissions, the location of future sensitive receptors, future traffic patterns and roadway conditions, future public service levels, and future regulations that may govern environmental resources.

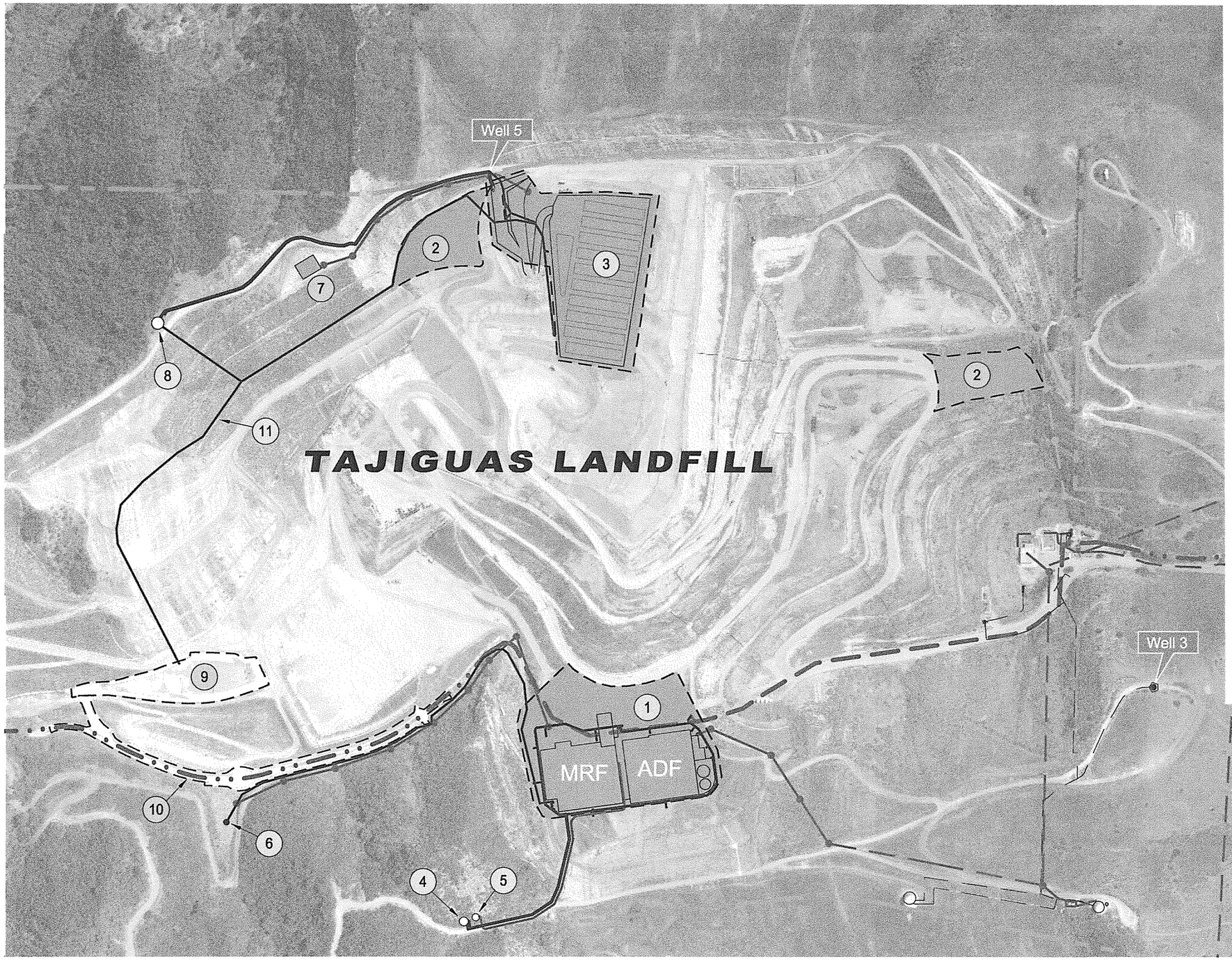
Prior to decommissioning, waste disposal would have terminated at the Landfill and any residual waste would be buried in preparation for final closure of the Landfill and any remaining recyclable material or compost would be transferred to off-site markets. The decommissioning is expected to primarily involve the dismantling, re-purposing, salvaging/recycling, or disposal of the above-ground Resource Recovery Project buildings and facilities (e.g., percolate tanks, bio-filters, etc.) on the Operations Deck.

The percolate storage tanks, fuel tanks and wastewater tanks would be emptied and the contents disposed of in accordance with applicable regulations and the tanks salvaged. Containment systems associated with these tanks would remain in place while the tanks are emptied to prevent any off-site release. The concrete building pads would remain. The equipment within the buildings would likely be salvaged and resold. Generally, the asphalt paving would not be removed as the deck would continue be used for landfill post-closure activities and possibly landfill equipment storage. The underground utilities may be removed and/or properly abandoned in place. The subsurface building foundation system would be abandoned in place. The recycled water tank, the water tank, and Well 6 would likely be retained for closure and post-closure landfill use.

At the Composting Area, the litter fence, tarp storage unit, the baker and other tanks would be salvaged/recycled or disposed of. The composting area runoff collection tank would be left in place and used for landfill post closure water storage needs. Above-ground pipelines would be removed and recycled or disposed of. Below-ground lines would be properly abandoned in place, or removed and recycled or disposed of. The pavement system in the composting area would be retained and the area may be used for landfill closure and post-closure equipment and materials storage.

All work would be completed in compliance with storm water quality, air quality and other regulatory agency permit requirements in effect at the time decommissioning. It is assumed these regulations would at a minimum include current requirements such as dust and criteria air pollutant emissions control

measures (as listed in the Final SEIR Section 4.2.2.4) and implementation of construction-related water quality BMPs, preparation of SWPPPs and monitoring and reporting storm water quality (as listed in Final SEIR Section 4.10.2.4). All areas located above the landfill would be inspected to ensure that the decommissioning activities did not damage the landfill's final cover system, and if damaged, the cover system would be restored/repaired pursuant to the requirements of CalRecycle and the State Water Resources Control Board.



Legend

- (X) Resource Recovery Project Element
- (X) Landfill Facility

1. Proposed Resource Recovery Project (MRF & ADF)
2. Temporary Landfill Operations Facilites during project construction
3. Proposed Resource Recovery Project (Composting Area)
4. Proposed Water Tank - 220,000 gallons
5. Proposed Recycled Water - 88,000 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

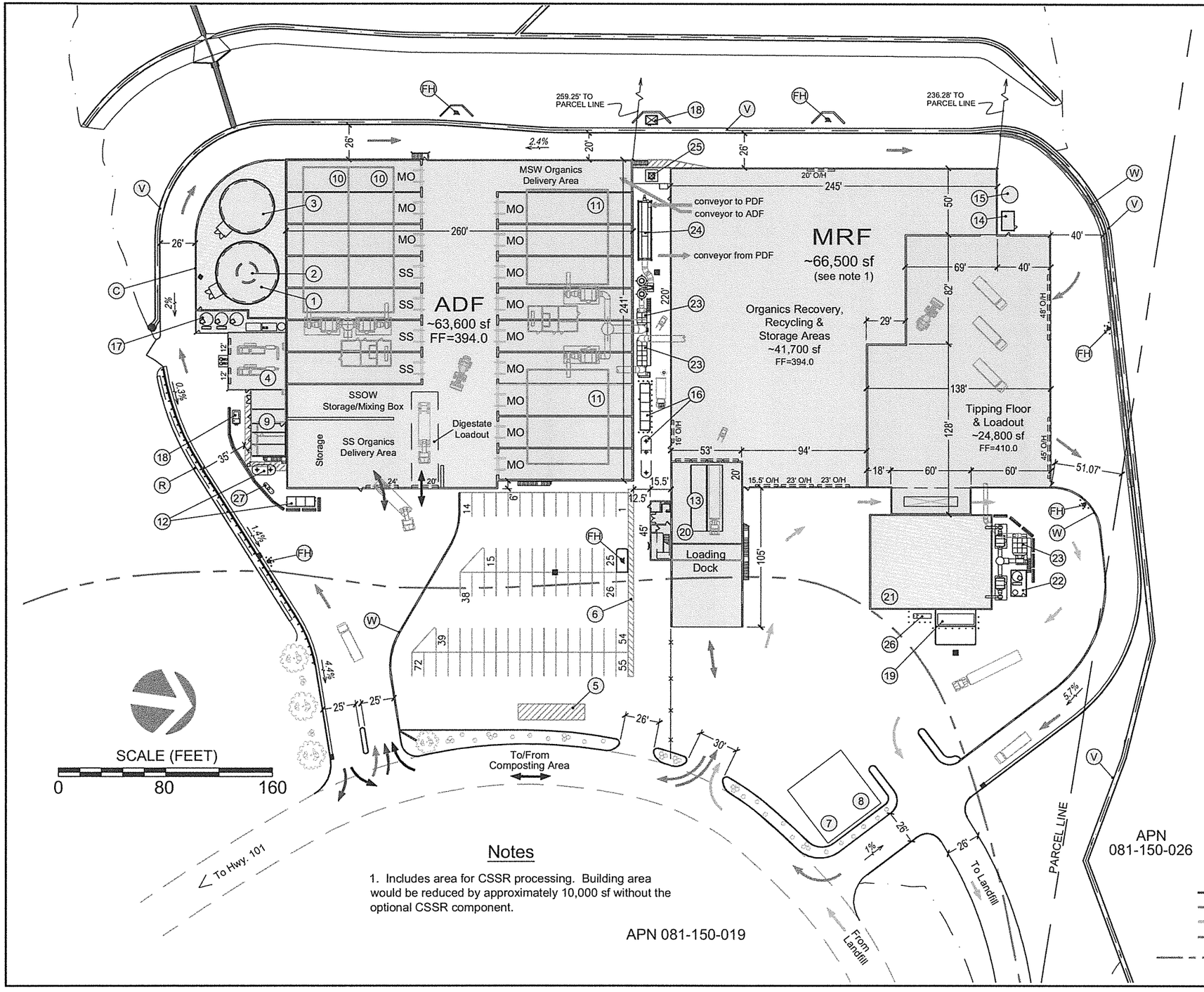
- Landfill Property Boundary
- Existing Water Lines
- Proposed Water Lines
- Well
- Existing Power Lines
- Proposed Power Lines
- Existing Power Lines [not part of the RRP, constructed in 2015]
- Pila Creek
- Pila Creek (in 48" Storm Drain)

US 101

SCALE:1"=400'
0' 400' 800'

SOURCE: Aerial Photograph Dated September 2014

PROJECT FACILITIES PLAN
UPDATED FIGURE 3-4



Keynotes

1. Large Percolate Tank (306,000 gallons capacity, 46' O.D. x 31' H)
2. Inner Tank (35,700 gallon capacity, 16' O.D. x 31' H)
3. Small Percolate Tank (204,000 gallons capacity, 40' O.D. x 24' H)
4. Energy Facility
5. 10' x 50' Bus Parking Area
6. 4' Pedestrian Corridor
7. Recyclable Storage Area (covered)
8. MRF Operations Storage Area (covered)
9. Gas Cleaning & Electrical Rooms, Lockers & Washrooms, ADF Control Room (2nd floor)
10. 33' x 108' x 9' Rooftop Biofilter and Humidifier / Scrubber (2)
11. 60' x 70' x 9' Rooftop Biofilter (2)
12. AdvanTex Sewage Treatment System & 5,000 gal. Septic Tank
13. Truck Scales (2)
14. Water Treatment Facility
15. 6,500 gallon Treated Water Tank
16. AdvanTex Sewage Treatment System & 10,000 gal. Septic Tank
17. Dosing Tanks on concrete pad with chainlink fence enclosure
18. Electrical Transformer
19. 10,000 gallon Diesel Tank for TRRP
20. 2 Story Annex above (offices, employee area, visitor center) - approx. 8,800 s.f. total
21. 70' x 90' x 10' Biofilter
22. Dosing tank & waste tank on concrete pad, with chainlink fence enclosure
23. Dust Collection Unit
24. Rolling Bed Dryer (RBD)
25. Flare (50' tall on 4' tall conc. pedestal)
26. Emergency Backup Generator
27. Propane Tank

- (C) 12' Spill Containment Wall
- (R) Redi-Rock Retaining Wall
- (W) Reinforced Concrete Retaining Wall
- (V) Concrete V-Ditch
- (FH) Fire Hydrant

Notes

1. Includes area for CSSR processing. Building area would be reduced by approximately 10,000 sf without the optional CSSR component.

Legend

- SSOW Delivery
- MRF Delivery
- MRF Waste Loadout
- MRF Recycleable Loadout
- Waste Footprint (RRMWD 2006)

Abbreviations

SS = Source Separated
MO = Mixed Organics
SSOW = Source Separated Organic Waste
MSW = Municipal Solid Waste

RESOURCE RECOVERY PROJECT SITE PLAN
UPDATED FIGURE 3-5

Keynotes

- (D) Underground HDPE Storm Drain
- (F) Filtration Unit
- (R) Redi-Rock Retaining Wall
- (S) Surface HDPE Storm Drain
- (V) Concrete V-Ditch
- (W) Reinforced Concrete Retaining Wall
- (T) 8" Trench Drain

Legend

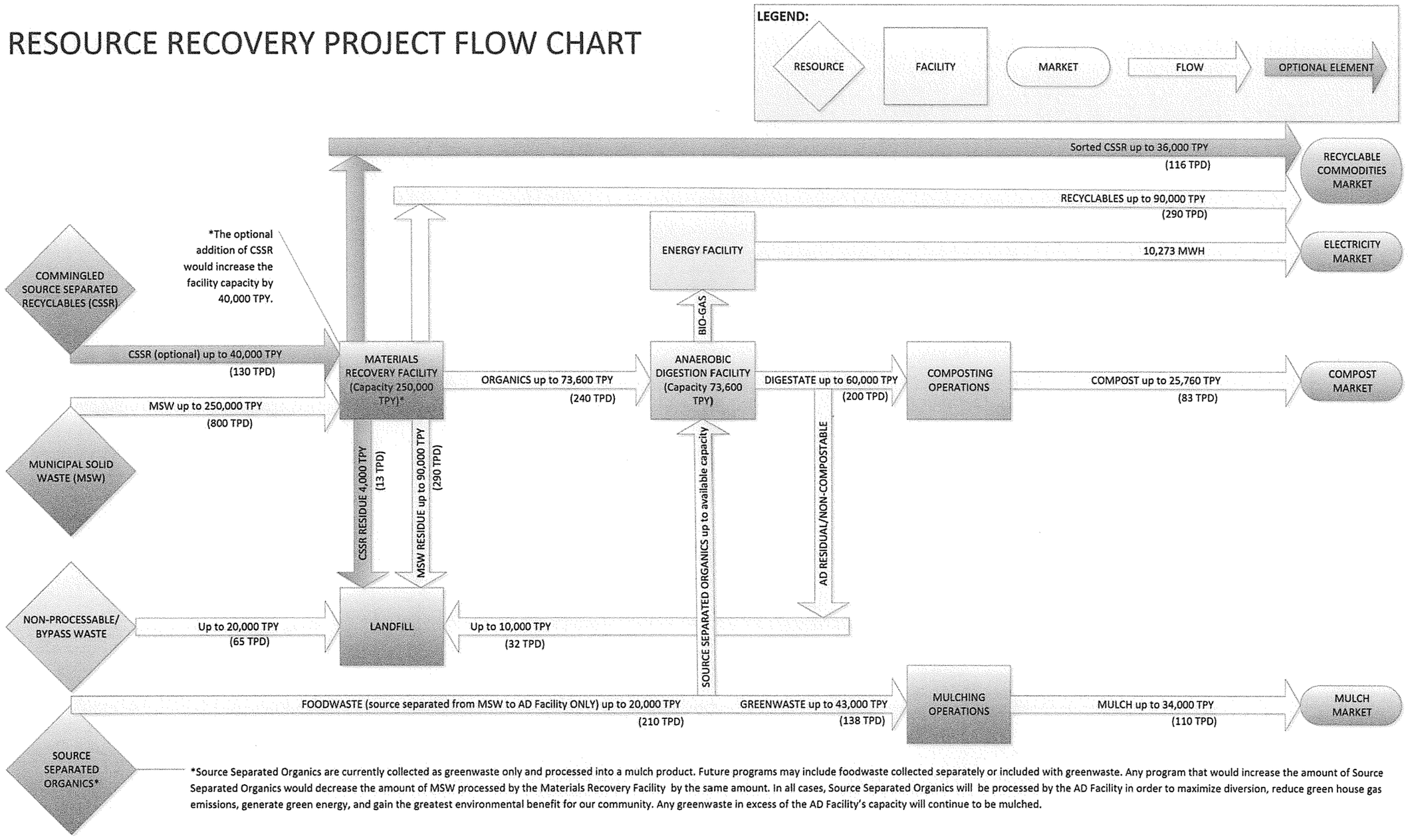
- Limit of Permitted West Borrow Area
- Waste Footprint (RRMWD 2006)
- Cut/Fill Line

SUBGRADE QUANTITIES			
	Unadjusted	15% Fill Compaction	
Cut	142,605	142,605	cu.yds.
Fill	89,360	102,765	
Net	53,245	39,840	Export

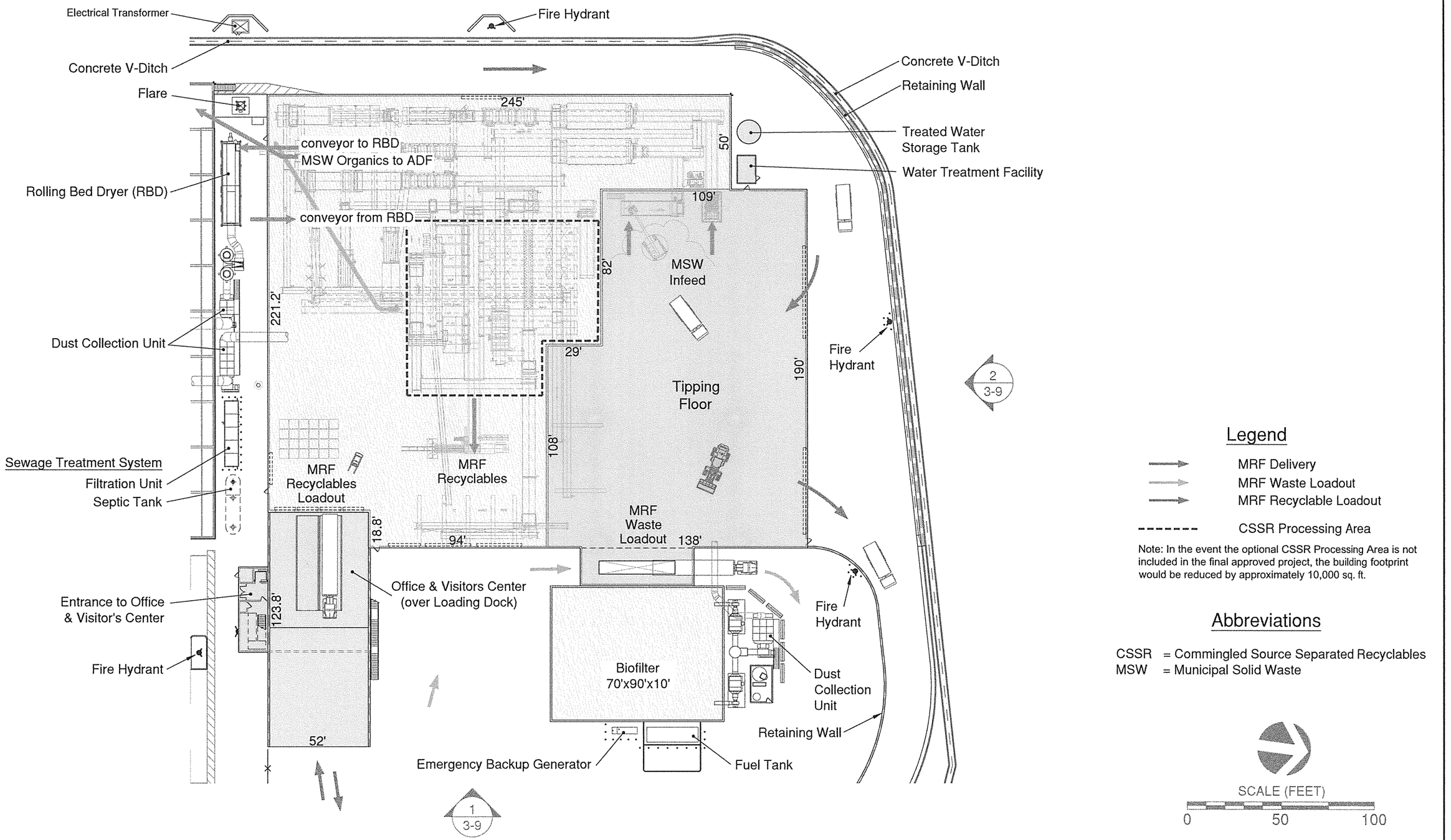
SCALE (FEET)
0 100 200

PRELIMINARY GRADING PLAN
UPDATED FIGURE 3-6

RESOURCE RECOVERY PROJECT FLOW CHART



*Source Separated Organics are currently collected as greenwaste only and processed into a mulch product. Future programs may include foodwaste collected separately or included with greenwaste. Any program that would increase the amount of Source Separated Organics would decrease the amount of MSW processed by the Materials Recovery Facility by the same amount. In all cases, Source Separated Organics will be processed by the AD Facility in order to maximize diversion, reduce green house gas emissions, generate green energy, and gain the greatest environmental benefit for our community. Any greenwaste in excess of the AD Facility's capacity will continue to be mulched.



Legend

- MRF Delivery
- MRF Waste Loadout
- MRF Recyclable Loadout
- CSSR Processing Area

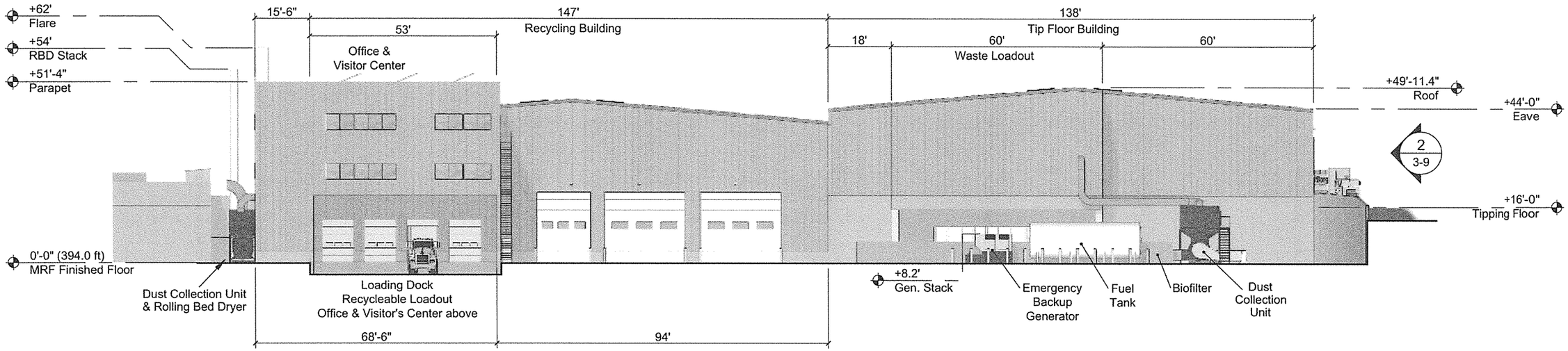
Note: In the event the optional CSSR Processing Area is not included in the final approved project, the building footprint would be reduced by approximately 10,000 sq. ft.

Abbreviations

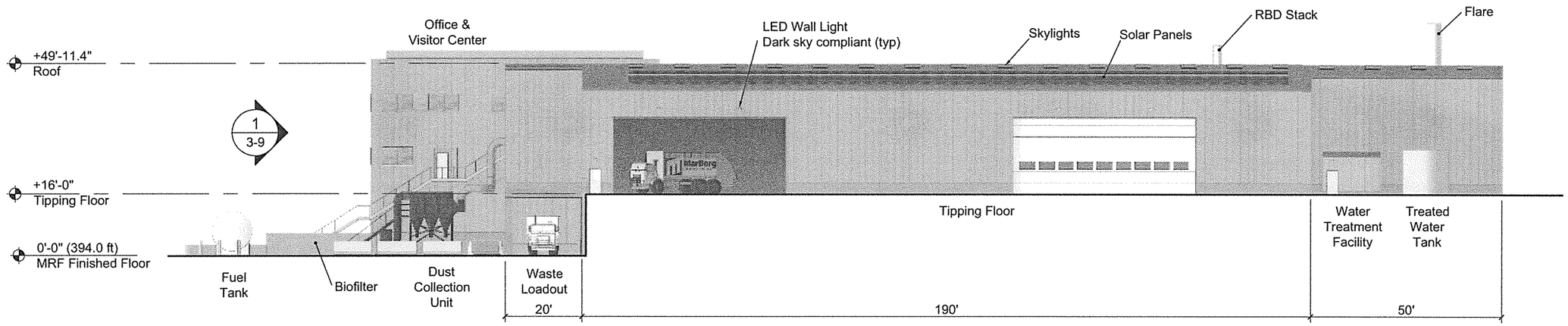
CSSR = Commingled Source Separated Recyclables
MSW = Municipal Solid Waste

SCALE (FEET)
0 50 100

PRELIMINARY MRF LAYOUT
UPDATED FIGURE 3-8



1 / 3.9 East Elevation
Scale: 1" = 30'

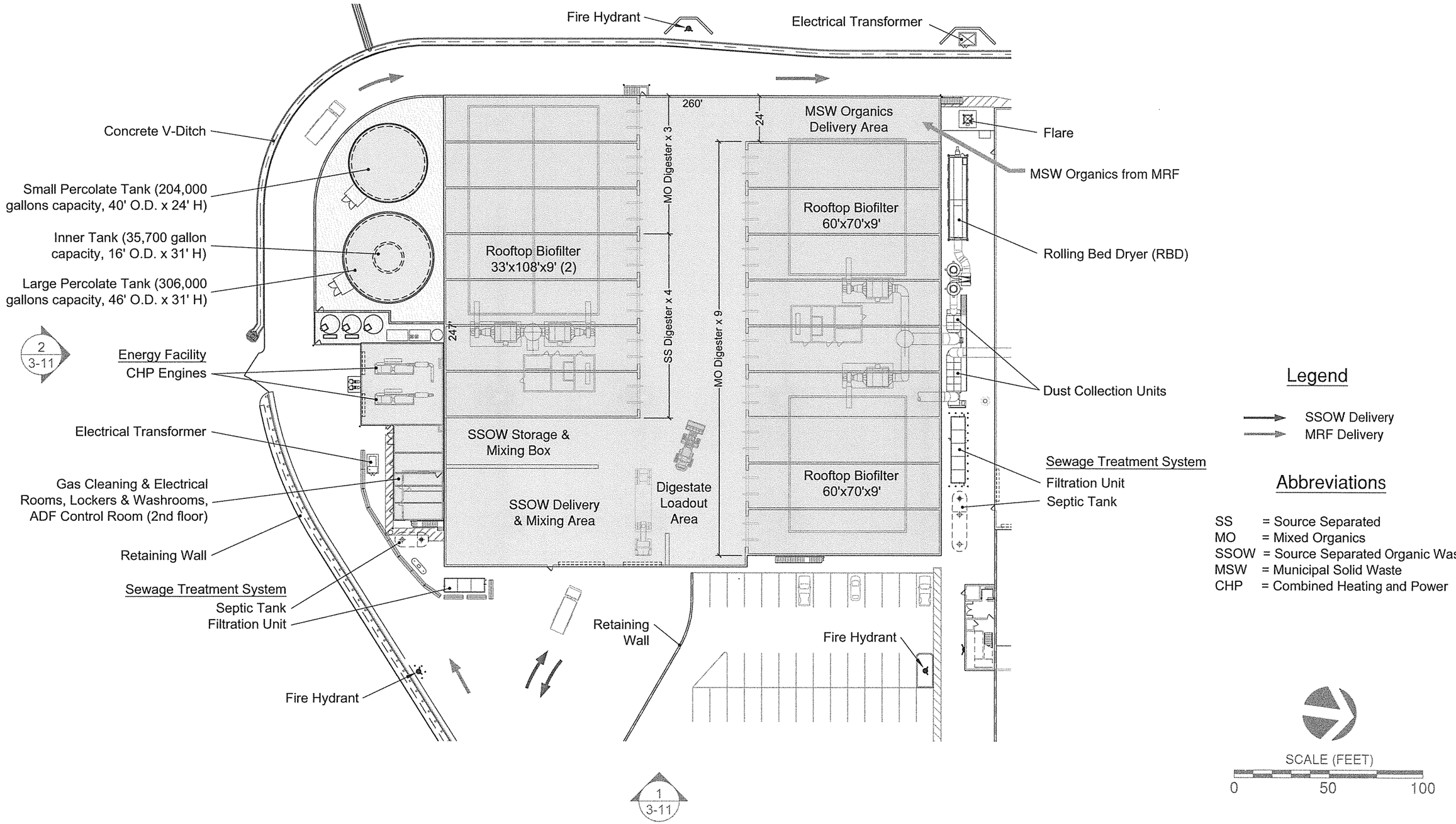


2 / 3.9 North Elevation
Scale: 1" = 30'

Abbreviations

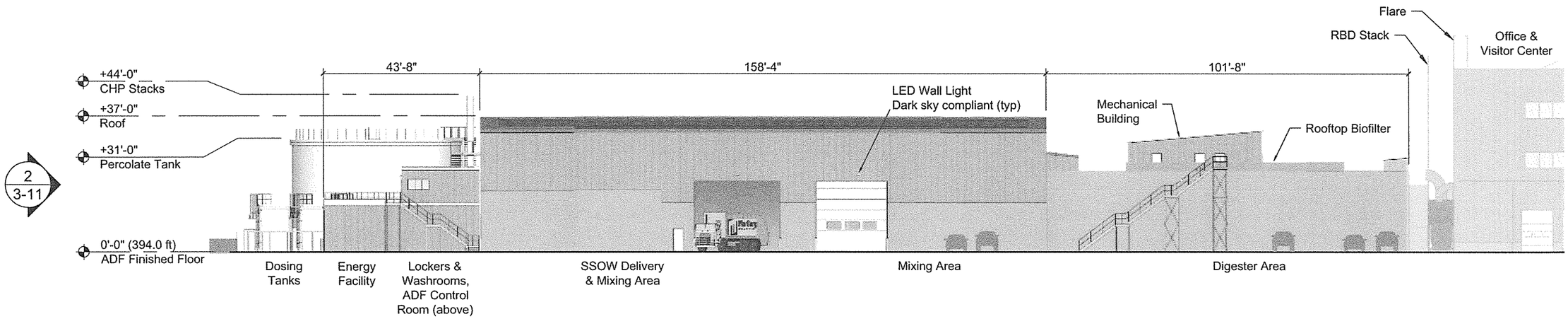
RBD = Rolling Bed Dryer

PRELIMINARY MRF ELEVATIONS
UPDATED FIGURE 3-9

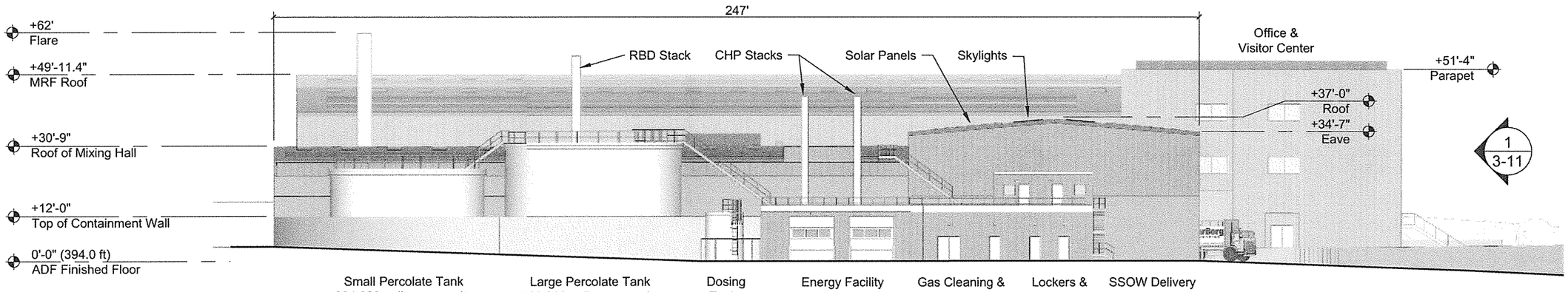


padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS
Tajiguas Resource Recovery Project

PRELIMINARY AD FACILITY LAYOUT
UPDATED FIGURE 3-10



1 3-11 East Elevation
Scale: 1" = 30'



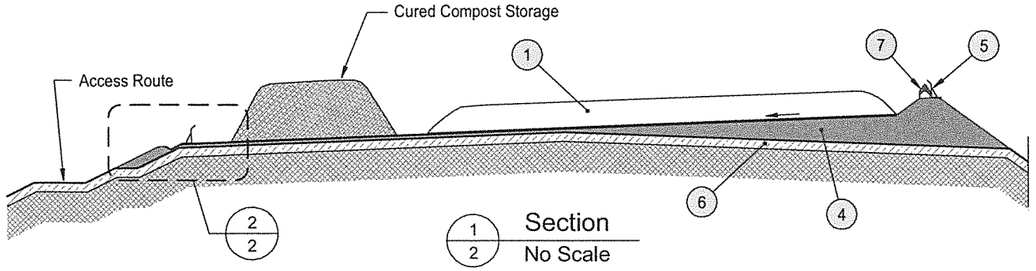
2 3-11 South Elevation
Scale: 1" = 30'

Abbreviations

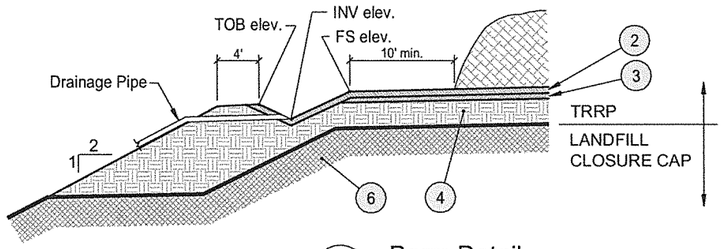
CHP = Combined Heat and Power
SSOW = Source Separated Organic Waste
RBD = Rolling Bed Dryer

PRELIMINARY AD FACILITY ELEVATIONS
UPDATED FIGURE 3-11

October 2015
Project No. 1202-0792



1/2 Section
No Scale



2/2 Berm Detail
No Scale

SUBGRADE QUANTITIES			
	Unadjusted	15% Fill Compaction	
Cut	1,020	1,020	cu.yds.
Fill	56,375	64,830	
Net	55,355	63,810	Import

Keynotes

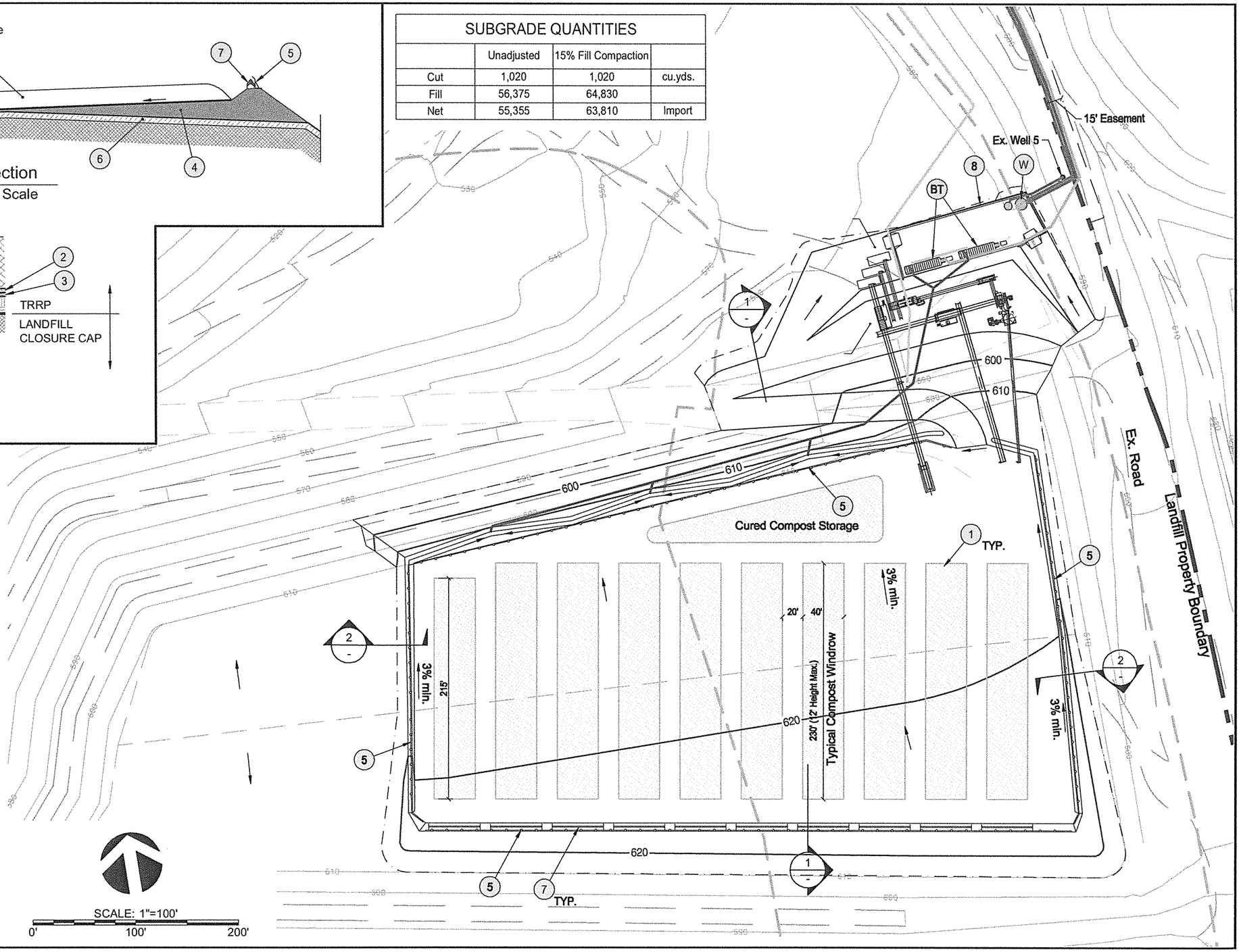
1. Compost windrow
2. 3" AC wearing course
3. MPV 600 paving mat over 3" AC base course
4. 12" min. compacted earth fill
5. Litter fence
6. Existing Prescriptive Final Cover System #5
7. tarpARMOR compost tarp storage unit
8. 1 ft. high containment berm

BT Baker Tank

W Compost Watering Storage Tank

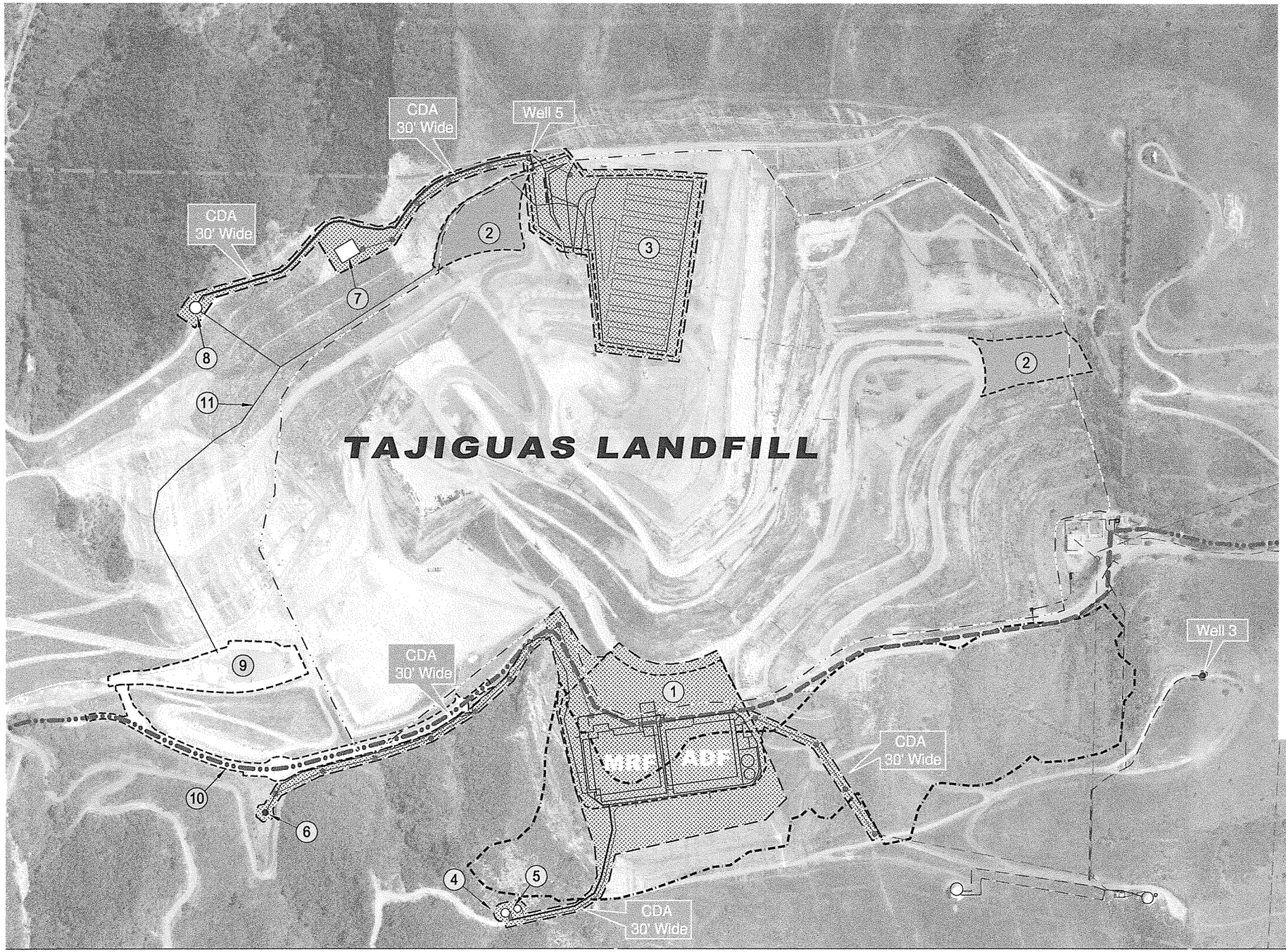
Legend

- CMU Runoff Collection
- CMU Runoff to CMU Runoff Collection Tank
- Overflow Collection to North Sedimentation Basin
- Water Supply from Well or Runoff Collection Tank
- Landfill Liner Limits
- 600 Landfill Closure Grading
- 600 CMU Grading



PRELIMINARY COMPOSTING AREA SITE PLAN
UPDATED FIGURE 3-12

Tajiguas Resource Recovery Project



Legend

- (X) Resource Recovery Project Element
- (X) Landfill Facility
- (1) Proposed Resource Recovery Project (MRF & ADF)
- (2) Temporary Landfill Operations Facilites during project construction
- (3) Proposed Resource Recovery Project (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

- Landfill Property Boundary
- Existing Water Lines
- Proposed Water Lines
- Pila Creek
- Pila Creek (in 48" Storm Drain)
- Permitted Waste Disposal Area
- Existing Power Lines
- Proposed Power Lines
- Existing Power Lines [not part of the RRP, constructed in 2015]
- Limit of Permitted West Borrow Area
- Construction Disturbance Area (CDA)

US 101

SCALE: 1"=400'
0' 400' 800'

SOURCE: Aerial Photograph Dated September 2014

CONSTRUCTION DISTURBANCE AND STAGING AREAS
UPDATED FIGURE 3-14

TABLE A - TAJIGUAS RESOURCE RECOVERY PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION REQUIREMENTS AND TIMING	METHOD OF MONITORING[17]	TIMING OF MONITORING	RESPONSIBLE PARTY IMPLEMENTATION/ MONITORING
VISUAL RESOURCES/AESTHETICS			
MM TRRP VIS-1a: Building Exterior Color. The exterior of the MRF, AD Facility and other readily visible structures (such as retaining walls, containment walls and tanks) shall be an earth tone color selected to visually blend with the surrounding landscape. Plan Requirements and Timing: The above measure shall be reflected in the project plans and contract specifications for the Resource Recovery Project and shall be implemented during construction. Monitoring: RRWMD shall monitor for compliance.	Review of project plans and specifications, field inspection	Prior to construction, following building coating	VENDOR/ RRWMD
MM TRRP VIS-1b: Landscape Screening. A landscape architect shall be retained to develop a landscape plan for the project that includes vegetative plantings that would break up the massing of the MRF, AD Facility and other readily visible structures (such as retaining walls, containment walls and tanks) as viewed from the south. Native plants shall be used to the extent feasible to maximize visual compatibility with the surrounding vegetation communities, minimize irrigation requirements, minimize spread of invasive species, and augment nearby wildlife habitat. Landscape screening shall be maintained and replaced as needed over the life of the project. Plan Requirements and Timing: The landscape plan shall be developed prior to project construction and implemented during construction and prior to operation of project facilities. Monitoring: RRWMD shall monitor for compliance.	Review of landscape plan, field inspection	Plan review prior to construction, field inspection following planting and periodically thereafter	VENDOR/ RRWMD

[17] Monitoring would be conducted by RRWMD's Environmental Engineering Planner, Project Engineer, landfill operations personnel, construction inspectors and/or qualified specialists under contract to RRWMD or the Vendor, as appropriate

TABLE A - TAJIGUAS RESOURCE RECOVERY PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION REQUIREMENTS AND TIMING	METHOD OF MONITORING	TIMING OF MONITORING	RESPONSIBLE PARTY IMPLEMENTATION/ MONITORING
BIOLOGICAL RESOURCES ***MM TRRP BIO-1: Construction Requirements.*** • To prevent inadvertent damage to sensitive vegetation adjacent to work areas, the construction disturbance area shall be clearly delineated on the project construction plans and in the field by staking, fencing, or equivalent methods. Field delineation shall occur prior to beginning ground-disturbing activities or vegetation removal. • RRWMD shall monitor the project area and, where feasible, control infestations of plants identified as highly invasive by the California Invasive Plant Council. Invasive plants shall not be planted at project facility sites for erosion control or other uses. • Throughout construction, exposed soil within active construction areas shall be periodically wetted to prevent excessive fugitive dust from drifting into adjacent areas. • In construction areas where excessive erosion may occur, soil shall be stabilized through the use of appropriate measures such as silt fencing, straw wattles, and/or hydroseeding. Plan Requirements and Timing: These measures shall be included in the project's plans and specifications, and implemented during the entire construction period for each proposed facility. Monitoring: RRWMD shall ensure these measures are fully implemented during the construction period.	Review of project plans and specifications, field inspection during construction	Prior to any ground disturbance and periodically during the construction period	VENDOR & CONTRACTOR/ RRWMD

MITIGATION REQUIREMENTS AND TIMING	METHOD OF MONITORING	TIMING OF MONITORING	RESPONSIBLE PARTY IMPLEMENTATION/ MONITORING
BIOLOGICAL RESOURCES (Continued) ***MM TRRP BIO-2: Breeding Bird Protection.*** • Clearing and grubbing of areas of native habitat or areas immediately adjacent to native habitat shall avoid the migratory bird and raptor breeding season (February 1 to August 15). • If construction in these areas cannot be avoided during this period, a nest survey within the area of impact and a 200 foot buffer for passerines and any available raptor nesting areas within 500 feet shall be conducted by a qualified biologist no earlier than 14 days and no later than 5 days prior to any native habitat removal or ground disturbance to determine if any nests are present. • If an active nest is discovered during the survey, a buffer of 200 feet for migratory birds or 500 feet for raptors (or as determined by the biologist based on a field assessment) would be established around the nest. No construction activity may occur within this buffer area until a biologist determines that the nest is abandoned or fledglings are adequately independent from the adults. Plan Requirements and Timing: The survey shall be conducted by a qualified biologist and the measures shall be included in the project's plans and specifications, and implemented during the entire construction period for each proposed facility. Monitoring: RRWMD shall ensure these measures are fully implemented during the construction period.	Review of project plans and specifications, field inspection during construction	Prior to any ground disturbance, during bird breeding season (nest surveys & monitoring), and periodically during the construction period	VENDOR & CONTRACTOR/ RRWMD

MITIGATION REQUIREMENTS AND TIMING	METHOD OF MONITORING	TIMING OF MONITORING	RESPONSIBLE PARTY IMPLEMENTATION/ MONITORING
BIOLOGICAL RESOURCES (Continued) ***MM TRRP BIO-3: American Badger and Ringtail Surveys***. Prior to any ground disturbing construction activities within the badger or ringtail natal denning period (February to August), the area scheduled for clearing and grubbing shall be surveyed for American badger and ringtail. If a badger or ringtail den is observed a qualified biologist shall monitor the den to determine if it is an active or an abandoned den. If the biologist determines that the den is not active, the biologist shall dismantle the den immediately and the construction activity can be initiated. If the biologist determines that the den is an active natal den, the biologist shall mark the den and establish a buffer (300 feet or as determined appropriate by the biologist based on field conditions) surrounding the active den. No ground disturbing work shall take place within this buffer. The biologist shall monitor the active den until the den is abandoned. Once abandoned, the den shall be filled/dismantled and construction activities can commence. Plan Requirements and Timing: These measures shall be included in the project's plans and specifications. Surveys shall be conducted by a qualified biologist familiar with American badger and ringtail prior to clearing of native vegetation, if the clearing occurs during the period from February to August. Monitoring: RRWMD shall monitor for compliance. The biologist shall submit a report to RRWMD regarding the result of the pre-disturbance surveys and the relocation efforts following destruction of the den.	Review of project plans and specifications, review of survey reports and relocation efforts, field inspection of active dens following surveys	Prior to clearing native vegetation during February to August, upon den discovery	VENDOR/ RRWMD

MITIGATION REQUIREMENTS AND TIMING	METHOD OF MONITORING	TIMING OF MONITORING	RESPONSIBLE PARTY IMPLEMENTATION/ MONITORING
BIOLOGICAL RESOURCES (Continued) ***MM TRRP BIO-4: San Diego Desert Woodrat Relocation.*** • Prior to initial clearing and grubbing in areas of previously-undisturbed native habitat, the area shall be surveyed for the San Diego desert woodrat. • Prior to initiation of construction, any woodrat nests considered active would be dismantled to entice occupants to leave the area and build new nests outside of the project impact area. Dismantling is recommended during the fall, following the breeding season to minimize the potential to affect reproduction and/or cause increased mortality to the species. Plan Requirements and Timing: These measures shall be included in the project's plans and specifications. Surveys and nest dismantling (if needed) shall be conducted immediately prior to clearing of native vegetation. Monitoring: The biologist shall submit a report to RRWMD regarding the result of the pre-disturbance surveys and of the relocation efforts following dismantling of the nest.	Review of project plans and specifications, review of survey reports and relocation efforts, field inspection of woodrat nests following surveys	Prior to clearing native vegetation, upon discovery of woodrat nests	VENDOR/ RRWMD

MITIGATION REQUIREMENTS AND TIMING	METHOD OF MONITORING	TIMING OF MONITORING	RESPONSIBLE PARTY IMPLEMENTATION/ MONITORING
BIOLOGICAL RESOURCES (Continued) *MM TRRP BIO-5: Avoidance of Bat Maternity Colonies.* • Removal of rock outcrops and construction of project-related facilities in the vicinity of potential bat habitat such as trees and rock outcrops shall avoid the peak breeding season (May 1 to August 15), unless a bat survey by a qualified biologist is completed to determine presence or absence of maternity colonies. Bat surveys shall be conducted no longer than a week prior to any construction in the vicinity of such habitat. • If no maternity colonies are observed, construction can proceed without restriction. • If active bat maternity colonies are discovered during the survey, a buffer of 500 feet shall be established around the bat maternity colonies. No construction activity may occur within this buffer area until a biologist determines that the young are independent of the adults. Plan Requirements and Timing: These measures shall be included in the project's plans and specifications. Surveys shall be conducted prior to the removal of rock outcrops or construction work in bat habitat, when construction work is planned for the peak bat breeding period. Monitoring: RRWMD shall monitor compliance with the measure.	Review of project plans and specifications, review of bat survey reports, field inspection following bat surveys	Prior to removal of rock outcrops or construction work adjacent to bat habitat, upon discovery of bat colonies	VENDOR/ RRWMD

MITIGATION REQUIREMENTS AND TIMING	METHOD OF MONITORING	TIMING OF MONITORING	RESPONSIBLE PARTY IMPLEMENTATION/ MONITORING
BIOLOGICAL RESOURCES (Continued) ***MM TRRP BIO-6: Avoidance and Minimization Measures for California Red-legged Frog and Sensitive Mammal Species.*** • Lighting used on the project facilities shall be of low intensity, low glare design and shall be hooded to direct the light downward and prevent spill-over onto adjacent undisturbed habitat areas. • Use of artificial lighting shall be minimized and used on an as needed basis. • To reduce hazards to wildlife that may ingest or become trapped by debris, portable fences shall continue to be used to limit the spread of litter on the working face of the landfill and around project facilities. • Litter shall be collected on a regular basis (Litter Control Program). • Vehicles travelling on the landfill shall observe posted speed limits at all times. • Nighttime motor vehicle travel within the landfill shall be limited to established paved roads and parking areas. • Nighttime vehicle access and operational activities shall be limited to paved areas surrounding and south of the MRF and AD Facility. Access to back canyon area of the landfill property shall be restricted to daylight hours, unless access is required by landfill personnel in response to an emergency. • Worker environmental awareness training shall be provided to all personnel prior to project implementation, including information on potential sensitive biological resources at the landfill site. • Prior to project implementation in previously undisturbed areas, the area scheduled for clearing shall be surveyed by a qualified biologist familiar with all of the sensitive species with the potential to occur at the landfill site. In the event that sensitive species are identified, a buffer around the individual shall be established and the individual shall be monitored until it leaves the construction area.	Review of project plans and specifications, field inspection prior to and during construction, periodic inspection during operation	Prior to construction (plan review, biological surveys, worker training), during construction and operation as indicated	VENDOR & CONTRACTOR/ RRWMD

MITIGATION REQUIREMENTS AND TIMING	METHOD OF MONITORING	TIMING OF MONITORING	RESPONSIBLE PARTY IMPLEMENTATION/ MONITORING
BIOLOGICAL RESOURCES (Continued) ***MM TRRP BIO-6: Avoidance and Minimization Measures for California Red-legged Frog and Sensitive Mammal Species (Continued).*** • Project-related construction in undisturbed areas and in the back canyon area (e.g., for installation of Well 6) shall be limited to daylight hours. • A biologist shall monitor construction activities during initial ground disturbance in previously undisturbed native plant communities. The biologist shall have the authority to stop work and shall immediately contact the RRWMD if unintended effects to sensitive species occur. Plan Requirements and Timing: These measures shall be included in the project's plans and specifications, and in the contractual agreements with the project vendor. Surveys shall be conducted prior to or during construction, or during project operation, as indicated. Monitoring: RRWMD shall monitor compliance with the measures.	Review of project plans and specifications, field inspection prior to and during construction, periodic inspection during operation	Prior to construction (plan review, biological surveys, worker training), during construction and operation as indicated	VENDOR & CONTRACTOR/ RRWMD

MITIGATION REQUIREMENTS AND TIMING	METHOD OF MONITORING	TIMING OF MONITORING	RESPONSIBLE PARTY IMPLEMENTATION / MONITORING
HAZARDS & HAZARDOUS MATERIALS			
MM TRRP HAZ-1: Hazardous Materials Assessment and Remediation. Prior to earth disturbing activities, a preliminary assessment of areas within the project footprint where historical hazardous materials use occurred shall be conducted to identify the potential presence of contaminated soil. If contaminated soil is identified, additional assessment including collection of soil samples and a work plan to determine the lateral and vertical extent of impacts shall be prepared. If the results of the soil assessment identify contaminants that exceed threshold levels, affected soils shall be remediated to the satisfaction of the Santa Barbara County, Public Health Department Environmental Health Services Division (EHS), Site Mitigation Unit (SMU). Screening levels for environmental media such as soil, groundwater and soil vapor have been published by the U.S. Environmental Protection Agencies (known as Regional Screening Levels or RSLs) and California EPA (known as Environmental Screening Levels or ESLs). These screening levels will be used as threshold levels for determining the need for soil remediation. If multiple chemicals of concern are detected the published screening levels will be adjusted as appropriate to account for potential cumulative health effects. The final remediation goal may be the RSL, ESL or alternative goals that may be based on potential cumulative health effects and/or site-specific conditions. A Soil Management Plan shall be developed and implemented, to provide guidance for the proper identification, handling, on-site management, and disposal of contaminated soil that may be encountered during construction activities. Depending on the type and extent of impacted material, remediation may include excavation and offsite disposal, onsite aeration, on or offsite treatment and backfilling. The EHS will grant closure of an impacted site when confirmatory samples of soil taken demonstrate that levels of contaminants are below the standards described above.	Review of project plans and specifications, review of the results of the preliminary assessment, review of the soil management plan, field inspection during plan implementation	Prior to construction (preliminary assessment, soil management plan review), during construction (plan implementation) as indicated	VENDOR/ RRWMD, EHS

MITIGATION REQUIREMENTS AND TIMING	METHOD OF MONITORING	TIMING OF MONITORING	RESPONSIBLE PARTY IMPLEMENTATION/ MONITORING
HAZARDS & HAZARDOUS MATERIALS (Continued)			
MM TRRP HAZ-1: Hazardous Materials Assessment and Remediation (Continued). Plan Requirements and Timing: These measures shall be included in the project's plans and specifications, and implemented prior to ground disturbance. If contamination is observed, prior to initiating work on the soil management plan, the site shall be enrolled in the Voluntary Remedial Oversight Program per California H&S Code Section 101480 et seq. Monitoring: RRWMD shall ensure these measures are implemented and review the results of the preliminary assessment, the work plan and Soil Management Plan. If contaminated soil is identified, RRWMD shall verify that soil remediation is completed as per EHS requirements.	Review of project plans and specifications, review of the results of the preliminary assessment, review of the soil management plan, field inspection during plan implementation	Prior to construction (preliminary assessment, soil management plan review), during construction (plan implementation) as indicated	VENDOR/ RRWMD, EHS

MITIGATION REQUIREMENTS AND TIMING	METHOD OF MONITORING	TIMING OF MONITORING	RESPONSIBLE PARTY IMPLEMENTATION/ MONITORING
HAZARDS & HAZARDOUS MATERIALS (Continued) ***MM TRRP HAZ-2: Fire Protection and Prevention Plan.*** To reduce potential fire hazards, a Fire Protection and Prevention Plan shall be prepared prior to operation of the proposed project. The Plan shall identify fire hazards, describe facility operations, procedures to prevent ignition of fires, include regular inspection of fire suppression systems, and provide for worker training in safety procedures as well as protocols for responding to fire incidents. In addition, the Plan shall identify firefighting equipment and systems at the landfill and methods to safely store flammable and combustible materials. Fire protection equipment shall be installed and maintained in accordance with all applicable NFPA standards and recommendations. Fire reporting protocols (based on the size of the fire) and investigation protocols shall be detailed in the Plan. The Fire Protection and Prevention Plan shall include the following information (as a minimum): • Names and/or job titles responsible for maintaining equipment and monitoring flammable or combustible materials. • Procedures to be followed in the event of fire. • Fire alarms and fire protection equipment and facilities. • System and equipment maintenance. • Monthly and annual inspections. • Firefighting demonstrations. • Housekeeping practices. • Training. Plan Requirements and Timing: The plan shall be submitted to the County Fire Department and County EHS for review and approval, and implemented prior to operation of project facilities. Monitoring: RRWMD, County EHS and the County Fire Department shall monitor and inspect the facility operations to ensure compliance with the Fire Protection and Prevention Plan.	Review of the fire protection and prevention plan, periodic review and inspection to ensure the plan is fully implemented	Prior to operation (plan review), during operation (plan implementation)	VENDOR/ RRWMD, County Fire Department, EHS

TABLE A - TAJIGUAS RESOURCE RECOVERY PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION REQUIREMENTS AND TIMING	METHOD OF MONITORING	TIMING OF MONITORING	RESPONSIBLE PARTY IMPLEMENTATION/ MONITORING
GEOLOGIC PROCESSES ***MM TRRP G-1: Slope Stability Control.*** The following measures shall be implemented to facilitate stability of cut slopes: • Excess free water shall not be allowed to pond on the slopes. Surface grades shall be maintained such that collected water is diverted and discharged away from the slope face. • Concentrated over-slope drainage is to be strictly prevented. All water above the slope shall be maintained in secure pipelines or other approved erosion resistant structures. • An engineer or engineering geologist shall observe the slope at the time construction is performed to verify subsurface conditions. • Vegetation shall be established and maintained on cut and fill slopes. Plan Requirements and Timing: The above drainage control measures shall be reflected in the construction plans and contract specifications for construction of the Resource Recovery Project. Grading and drainage plans shall be reviewed and approved by RRWMD and Planning & Development, Building and Safety. Monitoring: During the excavation phase of the construction an approved engineer or engineering geologist shall be on-site to monitor conditions. A RRWMD approved construction manager shall monitor construction activities to ensure compliance with the plan and specifications. Drainage control devices shall be inspected for function and maintained as necessary.	Review of project plans and specifications including grading & drainage plans, periodic field inspection to ensure earthwork is conducted properly and vegetation is maintained, inspection of drainage control devices for proper function and maintenance	Prior to and during construction, during operation as indicated	VENDOR & CONTRACTOR/ Approved Engineer or Engineering Geologist, to monitor excavation RRWMD approved construction monitor to monitor construction and RRWMD to monitor operation and maintenance of drainage devices

MITIGATION REQUIREMENTS AND TIMING	METHOD OF MONITORING	TIMING OF MONITORING	RESPONSIBLE PARTY IMPLEMENTATION/ MONITORING
GEOLOGIC PROCESSES (Continued)			
MM TRRP G-2: Expansive Soils. Placement of fill at the operations deck shall be conducted per the recommendation of the Soils Engineering Report and Engineering Geology Investigation[18], including the top 3 feet of fill placed under the MRF and AD Facility shall consist of a non-expansive material such as aggregate base or decomposed granite, which extends a minimum of 5 feet beyond the perimeter foundation. Alternatively, a foundation system designed for expansive soils may be utilized. The maintenance building pad shall be over-excavated at least 24 inches and extend a minimum of 5 feet beyond the perimeter foundation. The exposed surface shall be scarified to a depth of 12 inches, moisture conditioned and compacted to a relative density of 90 percent. Plan Requirements and Timing: The above measure shall be incorporated into the grading and building design plans and included in the construction plans and contract specifications for the Resource Recovery Project. The design measures shall be implemented during construction. The grading and building design plans shall be reviewed and approved by RRWMD and Planning and Development, Building and Safety. Monitoring: A RRWMD approved construction manager/construction quality assurance manager shall monitor for compliance.	Review of project plans and specifications including grading plans, periodic field inspection during earthwork	Prior to and during construction as indicated	VENDOR & CONTRACTOR/ RRWMD approved construction manager/quality assurance manager

[18] GeoSolutions, Inc., October 4, 2013, Soils Engineering Report and Engineering Geology Investigation, Tajiguas Resource Recovery Project (TRRP), Tajiguas Landfill, Santa Barbara, California, by GeoSolutions, Inc, Project SB00314-1, dated October 4, 2013. Earth Systems Southern California, December 10, 2014, Engineering Geology and Geotechnical Engineering Report for Tajiguas Landfill Resource Recovery Project, 14770 Calle Real, Santa Barbara County, California, Project VT-24980-01, dated December 10, 2014.

MITIGATION REQUIREMENTS AND TIMING	METHOD OF MONITORING	TIMING OF MONITORING	RESPONSIBLE PARTY IMPLEMENTATION/ MONITORING
GEOLOGIC PROCESSES (Continued)			
MM TRRP G-3: Differential Settlement Control – MRF/AD Facility Site. The MRF and AD Facility shall be constructed consistent with the design specifications contained in the Soils Engineering Report and Engineering Geology Investigation, Tajiguas Resource Recovery Project. The MRF and AD Facility shall be constructed with drilled cast-in-place caissons joined with grade beams, founded a minimum of 24 inches below the lowest adjacent grade. Alternatively, a system of end-bearing helical pier anchors shall be used instead of the concrete caissons. Additional detail concerning geotechnical foundation requirements is provided in the Soils Engineering Report and Engineering Geology Investigation[19]. Plan Requirements and Timing: The above foundation design measures shall be reflected in the grading and building and construction design plans and included in the contract specifications for the Resource Recovery Project and shall be implemented during construction. The plans shall be subject to review and approval by RRWMD and Planning and Development, Building and Safety. Monitoring: RRWMD and Planning & Development, Building and Safety shall review the construction design plans to confirm inclusion of the required foundation design measures. A RRWMD approved construction manager/construction quality assurance manager shall monitor for compliance during construction.	Review of project plans and specifications, periodic field inspection during earthwork	Prior to and during construction as indicated	VENDOR & CONTRACTOR/ RRWMD and County Building & Safety to review construction design plans for inclusion of required foundation design measures. RRWMD approved construction manager/quality assurance manager to monitor during construction

[19]GeoSolutions, Inc., October 4, 2013, Soils Engineering Report and Engineering Geology Investigation, Tajiguas Resource Recovery Project (TRRP), Tajiguas Landfill, Santa Barbara, California, by GeoSolutions, Inc, Project SB00314-1, dated October 4, 2013. Earth Systems Southern California, December 10, 2014, Engineering Geology and Geotechnical Engineering Report for Tajiguas Landfill Resource Recovery Project, 14770 Calle Real, Santa Barbara County, California, Project VT-24980-01, dated December 10, 2014.

MITIGATION REQUIREMENTS AND TIMING	METHOD OF MONITORING	TIMING OF MONITORING	RESPONSIBLE PARTY IMPLEMENTATION/ MONITORING
GEOLOGIC PROCESSES (Continued) ***MM TRRP G-4: Settlement Control – Composting Area.*** The composting area shall be constructed consistent with the design specifications contained in the Soils Engineering Report and Engineering Geology Investigation, Tajiguas Resource Recovery Project. The composting area pad shall not be developed for a minimum of 6 months after final waste placement is complete in this section of the landfill to allow for primary settlement to occur. The structure pavement section for the composting area shall consist of a minimum of 3 inches of asphalt concrete over 12 inches of Class II aggregate base moisture conditioned to 3-5 percent over optimum moisture content. Additional detail concerning geotechnical foundation requirements is provided in Soils Engineering Report and Engineering Geology Investigation[20]. Plan Requirements and Timing: The above measures shall be reflected in the plans and contract specifications for the Resource Recovery Project, and shall be implemented during construction. Plans shall be reviewed and approved by RRWMD and RWQCB. Monitoring: A RRWMD approved construction manager/construction quality assurance manager shall monitor for compliance during construction.	Review of project plans and specifications, periodic field inspection during earthwork	Prior to and during construction as indicated	VENDOR & CONTRACTOR/ RRWMD approved construction manager/quality assurance manager

[20] GeoSolutions, Inc., October 4, 2013, Soils Engineering Report and Engineering Geology Investigation, Tajiguas Resource Recovery Project (TRRP), Tajiguas Landfill, Santa Barbara, California, by GeoSolutions, Inc, Project SB00314-1, dated October 4, 2013. Earth Systems Southern California, December 10, 2014, Engineering Geology and Geotechnical Engineering Report for Tajiguas Landfill Resource Recovery Project, 14770 Calle Real, Santa Barbara County, California, Project VT-24980-01, dated December 10, 2014.

MITIGATION REQUIREMENTS AND TIMING	METHOD OF MONITORING	TIMING OF MONITORING	RESPONSIBLE PARTY IMPLEMENTATION/ MONITORING
CULTURAL RESOURCES			
MM TRRP CR-1: Evaluation and Protection of Discovered Resources. In the event that archaeological resources are exposed during construction, all earth disturbing work within the vicinity of the find shall be temporarily suspended or redirected until a professional archaeologist has been retained to evaluate the nature and significance of the find pursuant to a Phase 2 investigation. The RRWMD shall be notified immediately of any such find. The find shall be appropriately documented through a Phase 3 data recovery program and/or avoided if deemed necessary by a qualified archaeologist. If human remains are unearthed, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission. Plan Requirements and Timing: The above measures shall be reflected in the contract specification for the Resource Recovery Project and shall be implemented if evidence of cultural resources are observed during project-related earth disturbing activities. Monitoring: RRWMD shall monitor for compliance.	Field inspection during earthwork, review of archeological reports and field inspection if resources or remains found	Prior to and during construction as indicated	VENDOR & CONTRACTOR/ RRWMD

TABLE A - TAJIGUAS RESOURCE RECOVERY PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION REQUIREMENTS AND TIMING	METHOD OF MONITORING	TIMING OF MONITORING	RESPONSIBLE PARTY IMPLEMENTATION/ MONITORING
WATER RESOURCES			
MM TRRP WR-1: Compliance with Well Construction Standards. The following measure shall be implemented to avoid groundwater contamination from well construction and operation. The screened portion of the well shall be installed below the top of the groundwater table, and below the base of the landfill liner system adjacent to the well. The well screen shall be installed to a depth sufficiently below the top of the groundwater table so that the well screen is not exposed if water levels decline from pumping. In addition, the well sanitary seal (which is required per California Well Standards) shall be installed so it extends through the unsaturated portion of the formation (vadose zone) and to at least the top of the static groundwater table. Plan Requirements and Timing: The well design shall be submitted and approved to the RWQCB and LEA prior to well construction. Monitoring: RRWMD shall review and approve the well design, well completion and development reports, and review groundwater monitoring reports.	Review of the well design, and well completion and development reports	Prior to and during well construction as indicated	VENDOR & CONTRACTOR/ RRWMD, well design to be reviewed by EHS and RWQCB
MM TRRP WR-2: Construction Storm Water Quality BMPs. The following measures shall be fully implemented to ensure that project construction activities are in compliance with RWQCB storm water quality standards: 1. 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. 2. An Erosion and Sediment Control Plan (ESCP) shall be prepared as a part of the SWPPP and designed to control erosion and sedimentation during construction. The ESCP 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. 3. Water contamination shall be prevented during construction by implementing the following construction site measures:	Review of the NOI, storm water pollution prevention plan and erosion control and sediment control plan, implementation of the monitoring requirements of the General Construction Storm Water Permit	Prior to construction, and as required by the General Construction Storm Water Permit	VENDOR & CONTRACTOR/ RRWMD, RWQCB

MITIGATION REQUIREMENTS AND TIMING	METHOD OF MONITORING	TIMING OF MONITORING	RESPONSIBLE PARTY IMPLEMENTATION/ MONITORING
WATER RESOURCES (Continued)			
MM TRRP WR-2 (Continued) • 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. • Apply concrete, asphalt, and seal coat only during dry weather. • Cover storm drains and manholes within the construction area when paving or applying seal coat, slurry and fog seal. • Store, handle and dispose of construction materials and waste such as paint, mortar, concrete slurry, and fuels in a manner which minimizes the potential for storm water contamination. • Designate a washout area(s) for the washing of concrete trucks, paint, equipment, or similar activities to prevent wash water from discharging to storm drains, streets, drainage ditches, creeks, or wetlands. 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. • Straw wattles (or equivalent measures) shall be used to trap suspended sediment around work areas containing disturbed soils. • Construction materials and soil piles shall be placed in designated areas to prevent spillage or erosion into Pila Creek or storm drains. • 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.	Review of the NOI, storm water pollution prevention plan and erosion control and sediment control plan, implementation of the monitoring requirements of the General Construction Storm Water Permit	Prior to construction, and as required by the General Construction Storm Water Permit	VENDOR & CONTRACTOR/ RRWMD, RWQCB

MITIGATION REQUIREMENTS AND TIMING	METHOD OF MONITORING	TIMING OF MONITORING	RESPONSIBLE PARTY IMPLEMENTATION/ MONITORING
WATER RESOURCES (Continued) ***MM TRRP WR-2 (Continued)*** • 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. • 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. • 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 and Timing: The NOI shall be submitted, and the SWPPP prepared prior to the start of construction and BMPs contained in the SWPPP and ECSP shall be in place prior to and throughout construction. The ESCP including BMPs to stabilize the site, protect natural watercourses/creeks, prevent erosion, convey storm water run-off to existing drainage systems keeping contamination and sediments onsite shall be a part of the SWPPP required for compliance with the General Construction Storm Water Permit. A copy of the SWPPP shall be kept at the project site during grading and construction activities. Monitoring: RRWMD shall regularly inspect each project facility site during construction for compliance with the SWPPP and ESCP.	Review of the NOI, storm water pollution prevention plan and erosion control and sediment control plan, implementation of the monitoring requirements of the General Construction Storm Water Permit	Prior to construction, and as required by the General Construction Storm Water Permit	VENDOR & CONTRACTOR/ RRWMD, RWQCB

MITIGATION REQUIREMENTS AND TIMING	METHOD OF MONITORING	TIMING OF MONITORING	RESPONSIBLE PARTY IMPLEMENTATION/ MONITORING
WATER RESOURCES (Continued)			
MM TRRP WR-3: Industrial Storm Water Permit Compliance and Spill Prevention. The following measures shall be fully implemented to minimize surface water contamination associated with waste handling, processing and related activities. • The project facilities shall obtain coverage under the General Industrial Storm Water Permit and an Industrial SWPPP shall be prepared (either a new SWPPP or a modification to the existing Tajiguas Landfill SWPPP). 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. Records of maintenance of the BMPs shall be kept onsite. • A Spill Prevention, Control, and Countermeasure (SPCC) Plan shall be prepared to minimize water quality degradation associated with accidental spills. 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 shall adhere to the requirements and recommendations of Waste Discharge Requirements (WDRs) identified in the Industrial Storm Water Permit.	Review of the industrial storm water pollution prevention plan and spill prevention, control and countermeasure plan, field inspection to ensure plans are fully implemented, implementation of the monitoring requirements of the General Industrial Storm Water Permit, SPCC Plan and WDRs	Prior to and following construction, and as required by the General Industrial Storm Water Permit and SPCC Plan, including annual training and SPCC plan updates	VENDOR/ RRWMD, RWQCB

MITIGATION REQUIREMENTS AND TIMING	METHOD OF MONITORING	TIMING OF MONITORING	RESPONSIBLE PARTY IMPLEMENTATION/ MONITORING
WATER RESOURCES (Continued)			
MM TRRP WR-3 (Continued) Plan Requirements and Timing: The Notice of Intent (NOI) shall be submitted to the RWQCB, 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 Industrial SWPPP shall be constructed and in place prior to operations. Annual training on the SWPPP and BMP implementation shall be provided to staff operating project facilities. Training shall occur prior to the start of the rainy season (October 1st). Maintenance records shall be kept on site. The SPCC Plan shall be prepared prior to initiating operations at the project facilities, and updated annually at a minimum to address any changes in operations that may affect the type or nature of spills that could occur from the facilities. Monitoring: RRWMD shall inspect each facility following completion of construction to ensure measures are constructed in accordance with the approved Industrial SWPPP and SPCC Plan. Operating staff shall conduct regular inspections and prepare annual monitoring reports over the life of the project.	Review of the industrial storm water pollution prevention plan and spill prevention, control and countermeasure plan, field inspection to ensure plans are fully implemented, implementation of the monitoring requirements of the General Industrial Storm Water Permit, SPCC Plan and WDRs	Prior to and following construction, and as required by the General Industrial Storm Water Permit and SPCC Plan, including annual training and SPCC plan updates	VENDOR/ RRWMD, RWQCB

MITIGATION REQUIREMENTS AND TIMING	METHOD OF MONITORING	TIMING OF MONITORING	RESPONSIBLE PARTY IMPLEMENTATION/ MONITORING
WATER RESOURCES (Continued)			
MM TRRP WR-4: Water Quality Monitoring and Corrective Action Plan. The composting area shall be included in the SWPPP prepared for the Tajiguas Resource Recovery Project facilities. The SWPPP shall include identification of potential pollutant sources at the composting area 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; employee training, method for ensuring maintenance of all BMPs over the life of the project and monitoring and reporting procedures. Records of maintenance of the BMPs shall be kept onsite. Annual training on the SWPPP and BMP implementation shall be provided to project employees. Training shall occur prior to the start of the rainy season (October 1st). In addition, a water quality monitoring program shall be developed for the composting area. Each runoff discharge event shall be monitored at the point of discharge of the composting area overflow (greater than 25 year event) (location CW-1).	Review SWPPP for inclusion of the Composting Area, review BMP maintenance records, review annual BMP training logs, ensure water quality sampling and analysis is conducted, review testing results, and ensure corrective actions are taken (if necessary), additional monitoring as required by the WDRs or SWPPP	Prior to construction and operations, and as required by the General Industrial Storm Water Permit, water quality monitoring and corrective action plan and WDRs	VENDOR/ RRWMD, RWQCB

MITIGATION REQUIREMENTS AND TIMING	METHOD OF MONITORING	TIMING OF MONITORING	RESPONSIBLE PARTY IMPLEMENTATION/ MONITORING
WATER RESOURCES (Continued) ***MM TRRP W-4 (Continued)*** Consistent with the landfill's existing monitoring requirements, the discharge shall be tested for pH, specific conductance, total suspended solids, ammonia, BOD, total organic carbon, oil & grease, nitrate and nitrite as nitrogen, aluminum, arsenic, copper, iron, nickel, zinc, alpha-terpineol, benzoic acid, p-cresol, and phenol. Other sampling locations and constituents 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 location CW-1 are found to exceed these levels, the following action shall 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, use of filters on the composting area storm drain inlets, and/or more frequent sweeping of aisles between stock piles. Plan Requirements and Timing: The Water Quality Monitoring and Corrective Action Plan shall be prepared prior to initiating operations at the composting area. Monitoring: Operating staff shall ensure water quality sampling and analysis is conducted, review testing results, and ensure corrective actions are taken if necessary to protect water quality. Additional monitoring and reporting shall be conducted as required by the WDRs issued under the Industrial Storm Water Program.	Review SWPPP for inclusion of the Composting Area, review BMP maintenance records, review annual BMP training logs, ensure water quality sampling and analysis is conducted, review testing results, and ensure corrective actions are taken (if necessary), additional monitoring as required by the WDRs or SWPPP	Prior to construction and operations, and as required by the General Industrial Storm Water Permit, water quality monitoring and corrective action plan and WDRs	VENDOR/ RRWMD, RWQCB

ATTACHMENT A

Measures Incorporated into the Project Design to Avoid/Reduce Environmental Impacts

AESTHETICS

- The MRF and AD Facility building roofs would include a series of translucent sky lights, with built-in blinds or external adjustable blinds to prevent light from escaping from the building at night.
- Proposed exterior lighting would consist of energy efficient, dark sky compliant, full cut-off lighting fixtures positioned to minimize off-site impacts by being directed inward and downward and away from U.S. Highway 101, Baron Ranch and nearby habitat areas.
- The MRF and AD Facility would include south-facing rooftop solar panels with anti-reflective coatings that have a reflectivity or albedo of 30 percent or less.

AIR QUALITY/GREENHOUSE GAS EMISSIONS

- Bailed recyclable materials and finished compost would be transported from the Resource Recovery Project site to off-site markets in export trucks (~22 ton capacity, compressed natural gas powered [CNG]).
- The following standard emissions reduction measures recommended by the SBCAPCD would be implemented during project construction:
    - During construction, use water trucks or sprinkler systems to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this should include wetting down such areas in the late morning and after work is completed for the day. Increased watering frequency should be required whenever the wind speed exceeds 15 mph. Reclaimed water should be used whenever possible.
    - Minimize the amount of disturbed area and reduce on-site vehicle speed to 15 mph or less.
    - If importation, exportation and stockpiling of fill material is involved, soil stockpiled for more than two days shall be covered, kept moist, or treated with soil binders to prevent dust generation. Trucks transporting fill material to and from the site shall be tarped from the point of origin.
    - Gravel pads shall be installed at all access points to prevent tracking of mud onto public roads.
    - After clearing, grading, earthmoving or excavation is completed, treat the disturbed area by watering, or revegetating, or by spreading soil binders until the area is paved or otherwise developed so that dust generation does not occur.
    - The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering as necessary, to prevent transport of dust off-site. Their duties shall include holiday and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the Air Pollution Control District prior to the initiation of construction.
    - All portable diesel-powered construction equipment shall be registered with the State's portable equipment registration program or shall obtain an APCD permit.
    - Fleet owners of mobile construction equipment are subject to the California Air Resources Board (CARB) Regulation for In-use Off-Road Diesel Vehicles, which regulates diesel particulate matter and criteria pollutant emissions from existing off-road diesel-fueled vehicles.
    - All commercial diesel vehicles are subject to State regulations limiting engine idling time. Idling of heavy-duty diesel construction equipment and trucks during loading and unloading

shall be limited to five minutes; electric auxiliary power units should be used whenever possible.
    - Diesel construction equipment meeting CARB Tier 1 emission standards for off-road heavy-duty diesel engines shall be used. Equipment meeting CARB Tier 2 or higher emission standards should be used to the maximum extent feasible.
    - Diesel-powered equipment should be replaced by electric equipment whenever feasible.
    - If feasible, diesel construction equipment shall be equipped with selective catalytic reduction systems, diesel oxidation catalysts and diesel particulate filters certified and/or verified by USEPA or CARB.
    - Catalytic convertors shall be installed on gasoline-powered equipment, if feasible.
    - All construction equipment shall be maintained in tune per the manufacturer's specifications.
    - The engine size of construction equipment shall be the minimum practical size.
    - The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure the smallest practical number are operating at any one time.
    - Construction worker trips should be minimize by requiring carpooling and by providing lunch on-site.
- Odor reduction measures:
    - Establish time limits for on-site retention of undigested substrates: MSW and SSOW would be placed in the MRF building where liquid discharge and air emissions can be controlled.
    - Utilize enclosed, negative pressure buildings for indoor receiving and pre-processing, and bio-filters or an air scrubbing system: the MRF and AD Facility would be enclosed in negative air pressure buildings with bio-filter odor control systems. A misting system charged with flocculent and deodorizers would be provided within the MRF building to reduce dust and odors. Air within the buildings would be filtered through high volume, bio-filter based air filtration systems to control odors and dust collection units to collect dust and particulates.
    - Establish contingency plans for operating downtime (e.g. equipment malfunction, power outage): the project includes staffing for scheduled maintenance and an on-site emergency generator to avoid power outages during processing.
    - Manage delivery schedule to facilitate prompt handling of odorous substrates: MSW and SSOW would be tipped and stored in the MRF building to control odors prior to processing.
    - Handle fresh unstable digestate within enclosed building, or mix with green-waste and incorporate into a composting operation within the same business day: digestate would be mixed with green-waste and composted.
    - Establish a protocol for monitoring and recording odor events: an Odor Impact Mitigation Program (OIMP) would be developed and implemented as part of the project.
    - Establish a protocol for reporting and responding to odor events: the facility would develop and implement an OIMP.
    - Compost windrows would be watered immediately after turning events to minimize odors generated by exposure of the interior of the windrows.
    - Avoid turning compost windrows when the predominant wind direction is from the north (towards populated areas)
    - Implementation of other odor management best management practices such as application of mulch layers, application of deodorants and proper moisture control.

- Compost ROC emissions reduction measures:

- Blending digestate with 20 percent inert dry wood chips;
- Interactive pile management (compost pile turning);
- 20 minutes irrigation after pile turning;
- Large pile size; and
- Application of finished compost to the new compost piles to act as a pseudo bio-filter.

TRANSPORTATION/AIR QUALITY

- A vanpool program would be implemented for the new employees working at the MRF and AD Facility to reduce traffic generation as well as provide an employment incentive. The Project's vanpool program is anticipated to result in an average vehicle occupancy of 2.5 (average of 2.5 employees per vehicle) for operations staff and 1.6 for administration staff.

WATER RESOURCES

- Drainage inlets installed around the project site would be screened.
- Trench drains at MRF and AD Facility door thresholds to intercept liquids found in waste and direct them to the domestic wastewater treatment system.
- Chain link fence around MRF and AD Facility to collect wind-blown plastic and paper that may escape from delivery vehicles or the MRF.
- Pavement sweeping and vacuum clean-up to remove dust, heavy metals in parking lots, driveways and composting area.
- Treatment of wastewater from employee domestic use and facility wash down in an advanced septic treatment system to reduce BOD, ultra-violet treatment of the effluent to kill pathogens and controlled discharge to the irrigation system during dry periods to maximize evapotranspiration and nutrient uptake in the landscaped disposal areas.
- Double walled tanks and spill containment asphalt dike to contain potential spills or leaks at re-fueling areas.
- Spill containment wall with manual release valve around the percolate tanks to contain potential spills or leaks.
- Hydrodynamic separators on storm drain system to trap oily residue, floatable trash, coarse sediment and fine sediment down to the 10 micron particle size.
- Continuous, fused high-density polyethylene pipe on storm drainage and sanitary sewer systems to prevent storm water and sewage leakage.
- Sediment traps in concrete swales to intercept sediment from slopes and driveways surrounding the MRF and AD Facility.

NUISANCE

- Litter fences would be installed around the composting area to collect any windborne debris.

BIOLOGICAL RESOURCES

- To the extent feasible, new power lines and poles would be placed within existing disturbed areas of the landfill.