

Project Description

1.0 INTRODUCTION

The Salinas Valley Solid Waste Authority (Authority), a Joint Powers Authority between the County of Monterey and the cities of Salinas, Gonzales, Soledad, Greenfield, and King, is a public agency and utility service that is responsible for providing long-term and cost-effective solid waste disposal and resources recovery services to its members.

The Authority is considering a new site for a permanent materials recovery and transfer station that would serve the existing and long-term needs of its members and satisfy State law mandates, described in Section 3, Background. They have proposed a project that could involve development of facilities at one or more locations within Monterey County (Project). Each location would have a combination of unique operations. These site alternatives and facility types are described in Section 5, Overview of Project Components.

This Project description provides information about the project objectives; project background; project location and project characteristics including facility and process details, construction details, and operational and maintenance details; and required permits and approvals.

2.0 PROJECT OBJECTIVES

The Authority's objectives for the Project are to:

- A) Construct and operate a permanent municipal solid waste materials recovery center. Depending on the alternative, this would allow for the closure of the existing Sun Street Transfer Station in the City of Salinas, or if operations are maintained at Sun Street, the current buildings would be replaced with the operations described in this section for the Sun Street location;
- B) Substantially reduce municipal solid waste (MSW) being disposed of at the Authority's landfill and long term dependence on this waste management practice;
- C) Increase the recycling and reuse of municipal solid waste by using an integrated waste recovery system involving use of the existing MRWMD materials recovery facility or a privately developed and owned autoclave, paper reclamation and anaerobic digestion system that can separate and process commercial and residential waste types not currently recycled and produce a high quality paper fiber and organic rich feedstock for anaerobic digestion energy production. Recovered paper fiber would be produced for sale to the California recycled paper industry, along with other traditional recycling commodities recovered in the process;

- D) Minimize haul distances for waste collection vehicles and outbound trucks destined for local recycling markets;
- E) Provide adequate and appropriately located public MSW facilities to avoid or minimize illegal dumping and provide easy access to the public;
- F) Provide for substantial reduction of greenhouse gases (GHG) associated with waste management practices in order to assist member agencies with AB 32 GHG reduction mandates;
- G) Minimize land use conflicts and environmental impacts; and
- H) Continue to provide municipal solid waste recovery and disposal services to the jurisdictions served by the Authority.

3.0 BACKGROUND

The Project is a proposed course of actions to enable the Authority to serve the existing and future needs of its members and meet increasingly exacting and challenging requirements of State law to achieve maximum diversion of waste from going to landfills. These requirements are described below.

Regulatory Framework and Requirements

In 1989, the State adopted the California Integrated Waste Management Act (AB 939), which requires local jurisdictions to implement a comprehensive solid waste management program to achieve 25 percent diversion of all solid waste from disposal by January 1, 1995, and 50 percent diversion by January 1, 2000.

In 2011, the Legislature enacted AB 341, a new broader approach to the management of solid waste, which requires mandatory commercial recycling, and establishes a new statewide goal of 75 percent recycling. The goal is to be accomplished through greater source reduction, recycling, and composting by 2020. AB 341 requires that recycling services are arranged for commercial waste generators of more than 4 cubic yards of waste per week, and multi-family residences of five or more units. The definition was later clarified in 2012 under SB 1018 to include all businesses that generated 4 cubic yards or more of waste a week, rather than more than 4 cubic yards a week.

In 2014, AB 1826 was signed into law, which requires businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. AB 1826 also requires local jurisdictions to implement organic waste recycling programs to divert this waste away from landfills beginning on January 1, 2016.

Beginning August of 2017, AB 876 requires counties and regional agencies to estimate of the amount of organic waste in their area over a 15-year period. AB 876 also requires an estimate of how much additional organic waste recycling facility capacity will be needed

to process that material, and for counties and regional agencies to identify locations for new or expanded facilities.

Timeline of Actions Taken by the Authority in Response to State Requirements

The Authority has been looking for a site for a permanent materials recovery and transfer station since 1998, when the Authority Board directed staff to study a number of locations for such a facility in both Salinas and King City. A 1999 Site Report identified fifteen possible sites, of which five Salinas area sites were selected for inclusion in the Regional Solid Waste Facilities Project Environmental Impact Report (SCH #2000021027) (Regional Facilities EIR). The sites evaluated in that EIR were: (1) northeast corner of South Sanborn Road and Abbott Street; (2) 1120 Madison Lane (the existing Salinas Transfer Station operated by Waste Management); (3) northeast corner of John Street and Abbott Street; (4) Boronda Road/Southern Pacific Railroad; and (5) Highway 101 and Somavia Road.

After the EIR was certified, a materials recovery and transfer station was pursued at 135 and 139 Sun Street following unsuccessful negotiations to purchase the Madison Lane site. The Sun Street properties were well suited to the Authority's needs because of its central location for the convenience of the City of Salinas franchise collector and the public, as well as Highway 101 access. The site had previously served as a produce cooling, packing and shipping site and the area had experienced the volume and type of truck traffic generated by a transfer station.

The Authority authorized the lease purchase of this property in 2002, contingent upon completion of CEQA compliance and permitting. An Initial Study/Mitigated Negative Declaration was adopted and the Sun Street Transfer Station/Materials Recovery Facility was approved in two phases by the Authority in 2003. Phase 1 work to establish for interim operations was completed in 2005 with permitted operations for 100 tons per day. While in pursuit of design and permitting work for the Phase II full-scale project at Sun Street, the City of Salinas began discussions and planning for redevelopment of the area, also known as the Alisal Market Place. The City of Salinas continues to consider long-range plans to redevelop the area for mixed uses including residential and commercial. As a result of this change in direction for the area, the City of Salinas requested the Authority considered re-locating again to another suitable site outside the proposed redevelopment area.

In 2008, a Memorandum of Understanding was executed between the City of Salinas and the Authority to relocate and a City owned site on Work Street was identified as the preferred relocation site for Authority operations. The Authority then initiated discussions with the City of Salinas to establish terms, conditions and needs associated with the relocation. Between 2008 and 2013, the focus of these discussions revolved solely around a City-owned site at 721 Work Street. The City and the Authority

investigated a possible property swap; the Authority would take the Work Street site in exchange for the Sun Street site. In 2013, the City ultimately determined that the Work Street sites current use as a leased property housing an asphalt batch plant was the highest and best use for the City.

In 2013-2014, a Citizens Advisory Group was formed to review past efforts to find a suitable location for a Salinas area materials recovery center. The various sites were studied, including additional locations identified in a Monterey County Juvenile Hall Site Study, were discussed and reduced to six potential sites, including sites at: 721 Work Street (Granite Batch Plant); 156 Hitchcock Road (City and County Animal Shelter); 1120 Madison Lane (Waste Management Transfer Station); 139 Sun Street (existing Authority Transfer Station); South Boronda at Highway 183; and 855 East Laurel Drive (adjacent to County Corporation Yard). The group identified 721 Work Street as the preferred site and the Hitchcock Road, Sun Street, and Madison Lane sites were identified as alternative sites.

The Authority Board considered the results of the Citizens Advisory Group study. However, as the City of Salinas had recently determined that they wanted the Work Street site to remain as an asphalt batch plant and therefore would not consider it a viable location for the Authority's public service facilities. The Board reviewed the alternative locations and determined that the Madison Lane site would be considered the next best option at that time for the Project, as it was currently permitted and operating as a transfer station since the early 1980s, and had sufficient space to accommodate the Authority's public service facilities and the Global Organics Energy (GOE) clean fiber and organics recovery system (CFORS). The County's zoning standards for this type of use changed in 1990, however the facility is allowed as a nonconforming use.

In order for the Madison Lane site to be viable, several major issues still needed to be addressed that existed the first time the Authority had considered the Madison Lane site in 1999-2001. An alternate commercial entrance (a.k.a. the Rossi Street extension) needed to be constructed to mitigate commercial traffic impacts to the adjacent Boronda community and impacted Laurel/Davis intersection. Funding for this commercial access road would need to be shared between all the befitting parties, the Authority, County of Monterey, City of Salinas and commercial businesses in the south Boronda area. City of Salinas agreed to take the lead in developing the roadway funding agreement. The Authority needed to purchase the property at a fair market price, which was the final issue that was not resolved in the original attempt to acquire this site in 2001. City of Salinas or its developer needed to purchase Sun Street properties at fair market value. No valid offer was ever made.

The Authority's staff ultimately confirmed through public comments that the City administration might no longer support any public service facility sites within the City limits, and that neither the County nor City of Salinas was capable of funding their share

of construction of the Rossi Street extension to the Madison Lane site, making successful completion of CEQA and permitting at these particular sites very difficult. Neither the City of Salinas nor its developer has entered into any agreement to purchase the Sun Street properties at a price acceptable to the Authority. Additionally, a study called “Evaluation and Analysis of Monterey County’s Solid Waste Management System” concluded that a materials recovery center/transfer station in the Salinas area may not be preferred and that waste from the City of Salinas and northern Authority service area could simply be direct hauled to the Marina Landfill for burial, in order to slightly reduce rates (R3 Consulting Group, Inc. July 7, 2015). Authority staff has raised a number of environmental, regulatory and economic concerns that were not addressed in this study or considered in arriving at the conclusion.

Given the above, the Authority Board at its November 19, 2015 meeting, directed staff to go forward with the preparation of an EIR, Economic Impact Analysis, and a Long-Range Financial/Rate Analysis evaluating multiple scenarios and sites for a materials recover center and/or a clean fiber recovery system, as well as one or more scenarios from the R3 study identified above. All options are to be studied at the full EIR analytical level, with no single project preference, in order to develop a set of fair and balanced facts for decision makers, community and stakeholders to consider. The project scenarios studied in this EIR are discussed in this project description section.

The Authority has also conducted preliminary planning with GOE based on Board direction, to include the CFORS fiber and organics recovery process within the project site and buildings, and the GOE operations would be an integrated process within the Authority’s waste operations. The GOE facilities would be included within three of the scenarios described in the following sections.

4.0 PROJECT SITE LOCATIONS AND EXISTING LAND USES

The proposed Project involves the construction and operation of a permanent municipal solid waste materials recovery center consisting of one or more facility locations, which would allow for the relocation and ultimate closure of the Authority’s Sun Street Transfer Station in the City of Salinas, or replace the operations at Sun Street with the originally planned enclosed facilities, if that option is chosen.

This EIR evaluates the scenarios that the Authority is considering at several sites, including Harrison Road, Sun Street, Crazy Horse Landfill, and Johnson Canyon Landfill (see Figure 1). As explained in subsequent sections, the scenarios being considered may involve one or more of these sites, with different options for waste handling and operations. Table 1 describes the facilities being considered at each location. Figures 2 through 5 show their locations.

Table 1 – Summary of Alternative/Scenario Sites and Overall Operations	
Location	Facility Type
Harrison Road	<ul style="list-style-type: none"> • Clean Fiber and Organics Recovery System • Transfer Station • Recycling Center • Household Hazardous Waste (HHW) facility • Maintenance Building • SVSWA Office Building
Sun Street	<ul style="list-style-type: none"> • Transfer Station • Recycling Center • HHW Facility • Maintenance Building
Crazy Horse Landfill	<ul style="list-style-type: none"> • Transfer Station • Recycling Center • HHW Facility
Johnson Canyon Landfill	<ul style="list-style-type: none"> • Clean Fiber and Organics Recovery System
No Salinas Facility	<ul style="list-style-type: none"> • No new facilities • All Salinas and North Monterey County franchise tonnage and self-haulers to MRWMD for burial or processing • Existing Sun Street facility closes with Authority staff reductions

Harrison Road

The Harrison Road property is on a 17.9-acre parcel in unincorporated Monterey County on Harrison Road (Figure 2). The site, located on Assessor's parcel #113-091-017-000, was previously used for agricultural production, though the parcel has been fallow of agricultural production for over 10 years. According to the Monterey County's land-use map, the site is designated for future commercial use, and is in the Light Commercial (LC) zoning district. The project site is directly bounded by United States (US) Highway 101 to the west, Harrison Road to the east, a towing and transport business to the north and Sala Road to the south. The surrounding area is mainly used for agricultural production. According to the USDA's Natural Resources Conservation Service (NRCS), most of the site is rated as prime farmland, if irrigated (NRCS, 2013).

Sun Street

The Authority's existing transfer facility is located at 139 Sun Street in the City of Salinas (Figure 3). The site, located on Assessor's parcels #003-051-086-000 and #003-051-087-000, is designated for commercial and industrial use, and is in Industrial-

General (IG) zoning district. It is less than a mile from the City's downtown area and is surrounded by properties being used for industrial and commercial purposes. Vehicular access to the site is from Sun Street to the west and Griffin Street to the east.

The Sun Street site was purchased in 2004, to provide waste drop off and transfer operations, recycling, HHW drop-off, and a material recovery center. Currently, up to 400 tons of solid and green waste from the Salinas franchise collector and general public is received at the Sun Street facilities. The HHW Collection facility is located within the property and is part of the transfer facility. The waste received at this site is transferred to Johnson Canyon Landfill for further processing or landfill burial.

Crazy Horse Landfill

The Crazy Horse Landfill (CHL) is located at 350 Crazy Horse Canyon Road on Assessor's parcels #125-271-063-000, 125-491-012-000 and 125-271-058-000, totaling approximately 180 acres (Figure 4). The site is about 9 miles north of the City of Salinas in northern Monterey County, surrounded by open space, grazing lands and low density single-family residences to the south and west. The property is owned by the Authority. Prior to formation of the Authority in 1997, the Crazy Horse Landfill was owned by the City of Salinas and was its primary waste disposal site. The site ceased to accept waste in 2009.

The main arterial road is Crazy Horse Canyon Road to the east of the site. A secondary road, Dump Road, is where vehicles enter the site via Crazy Horse Canyon Road. In the front of the property are the scales, scale house and existing flare station (which burns gases from the landfill). The rest of the property is comprised of the closed landfill, which is located towards the back of the property.

Johnson Canyon Landfill

The Johnson Canyon (JC) Landfill and Recycling Center is located at 31400 Johnson Canyon Road in Monterey County, 2-1/2 miles east of the City of Gonzales, about 15 miles south of Salinas (Figure 5). The site is located on Assessor's parcels #223-042-018-000 and 223-042-017-000, totaling approximately 160 acres. The Landfill is bounded by Johnson Canyon Road to the north, and agricultural lands to the south, east and west. Vehicular access is via Johnson Canyon Road, in which vehicles enter a drive-way that leads to the property's existing facilities and drop-off areas. The property is surrounded by land used for agricultural production.

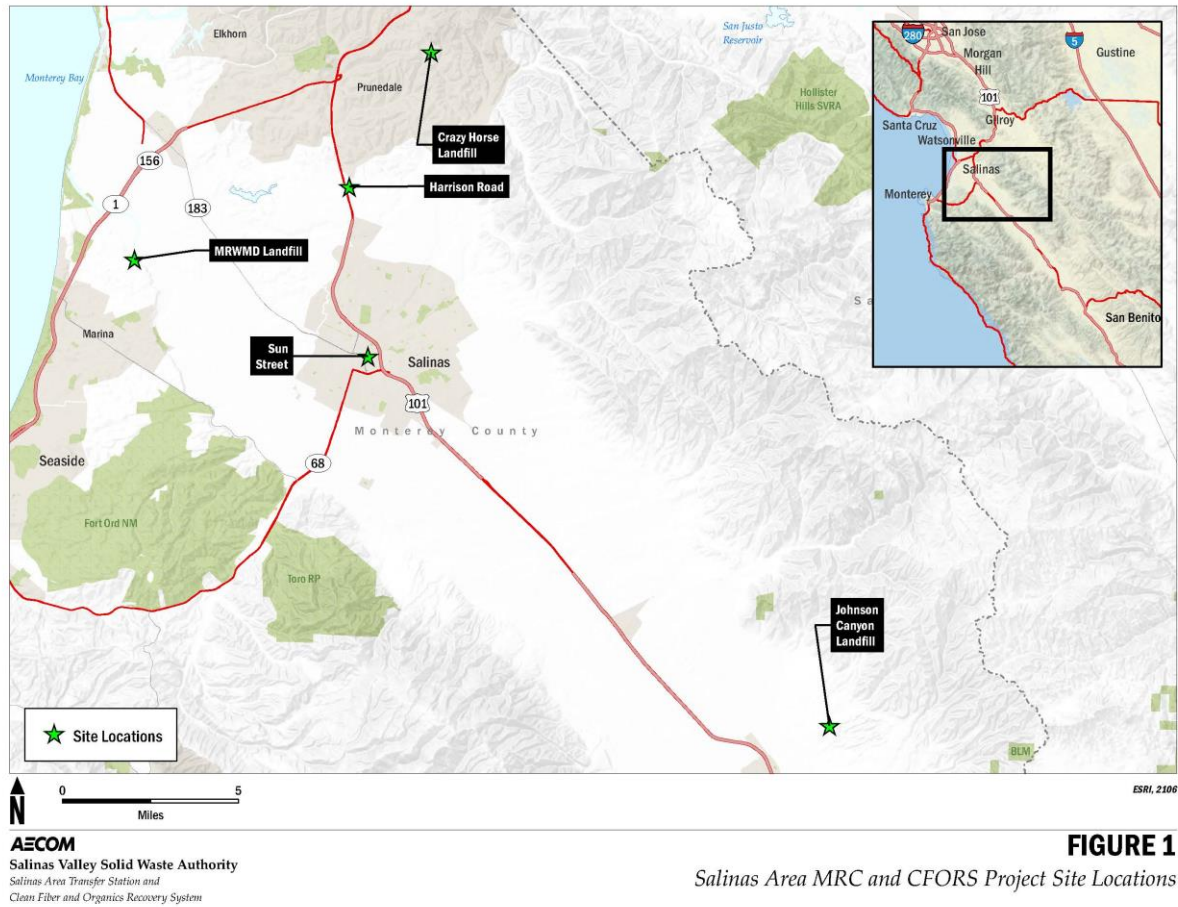
The JC Landfill is another one of the Authority's existing properties being utilized as a waste disposal and recycling site. According to the County zoning and land-use map, the site is in the public and quasi-public (PQP) zoning district and its land-use designation is public/quasi-public.

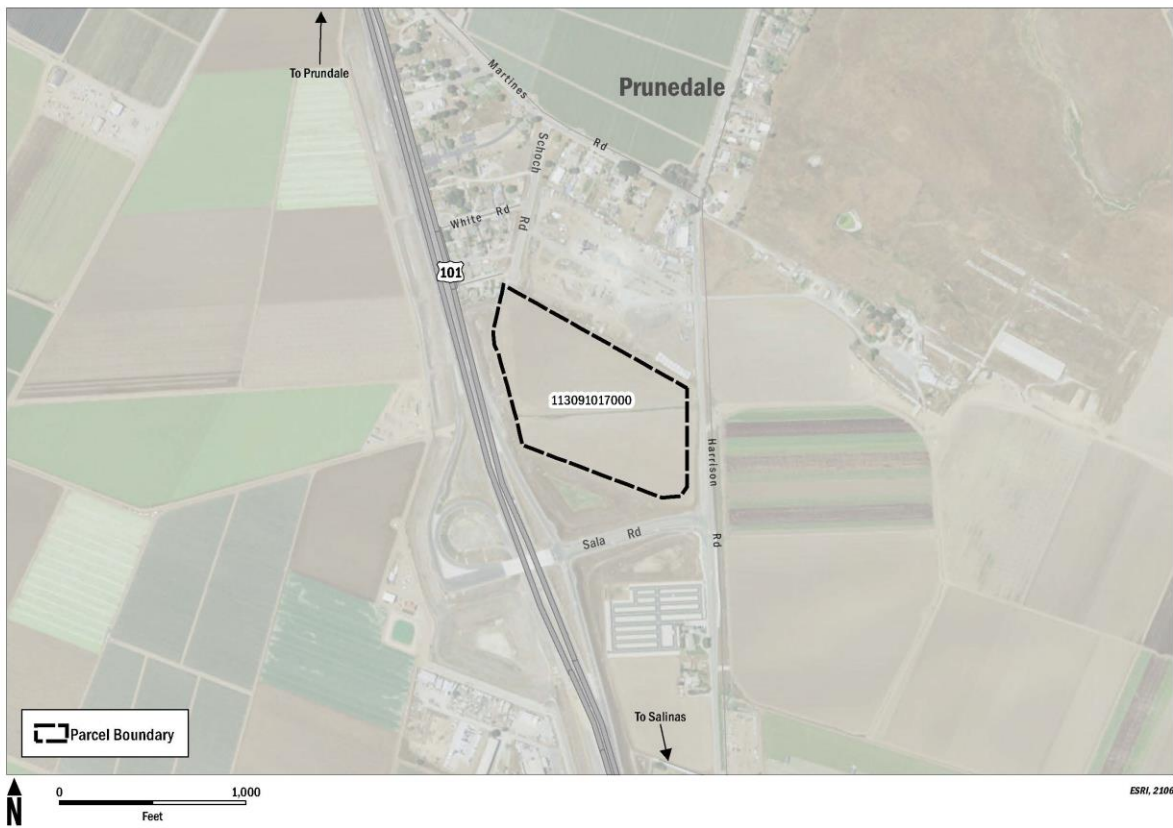
Monterey Regional Waste Management District

The Monterey Regional Waste Management District (MRWMD) is located at 14201 Del Monte Boulevard in unincorporated Monterey County, 2 miles north of the city of Marina (Figure 6). This site is located on a 475-acre property made up of several parcels including: 175-061-010-000; 175-061-006-000; 175-061-001-000; 175-061-002-000; 175-061-003-000; and 175-061-008-000. The site is bordered by the Salinas River to the northeast and the Monterey Regional Water Pollution Control Agency to the southwest. Vehicular access to property is via Del Monte Boulevard to Charles Benson Road, a private secondary road. The surrounding area is mainly used for agricultural production.

The property is currently being used as a landfill and recycling center that serves a population of about 150,000 in the Monterey Peninsula region. The property consists of a 315-acre permitted sanitary landfill site, a 126-acre buffer area and 20 acres for resource (MRWMD, 2014). The landfill's remaining capacity of approximately 69 million cubic yards, which is projected to be in excess of 100 years at present recycling and disposal rates (MRWMD, 2017). Impacts to MRWMD's and SVSWAs landfill life under each project scenario will be evaluated by others under separated study.

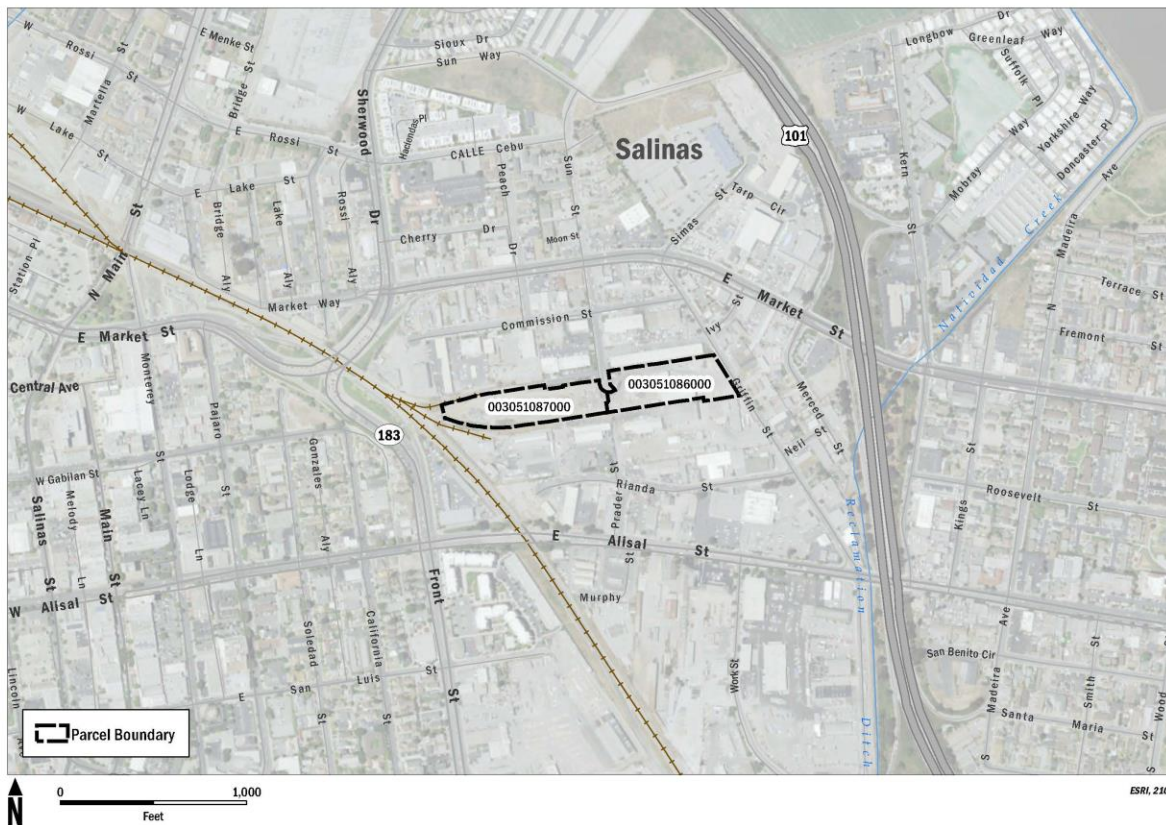
Figures 1 through 6





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Salinas Valley Solid Waste Authority
Salinas Area Transfer Station and Clean Fiber and
Organics Recovery System

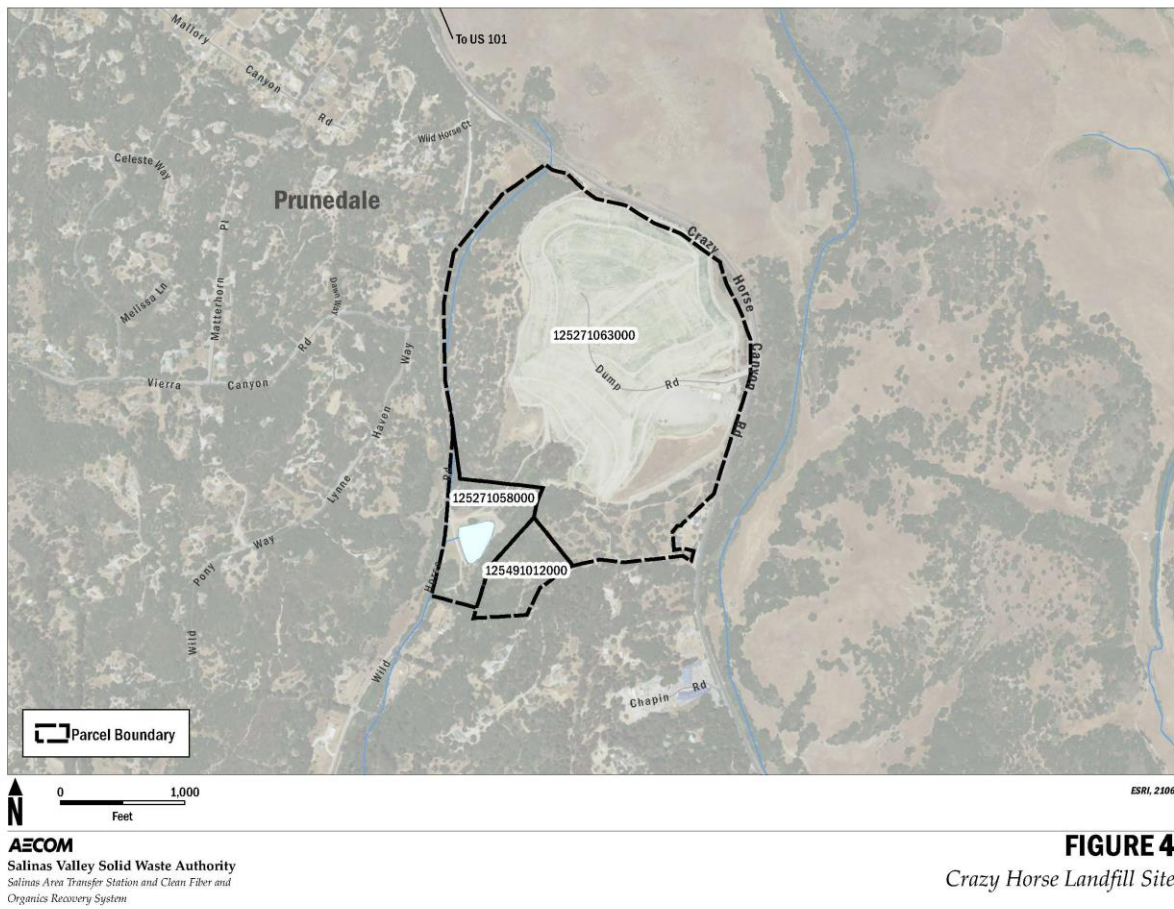
FIGURE 2
Proposed Harrison Road Site

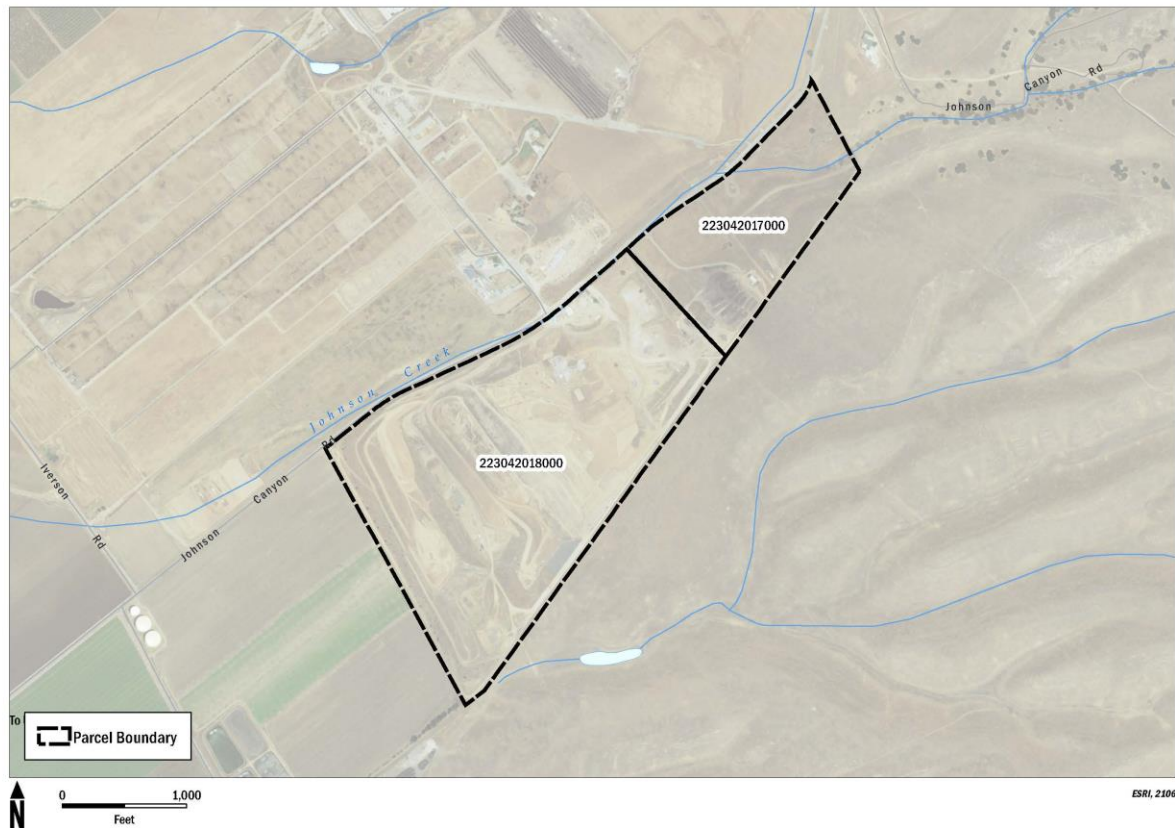


AECOM
 Salinas Valley Solid Waste Authority
 Salinas Area Transfer Station and Clean Fiber and
 Organics Recovery System

FIGURE 3

Existing Sun Street Site





AECOM
Salinas Valley Solid Waste Authority
Salinas Area Transfer Station and Clean Fiber and
Organics Recovery System

FIGURE 5
Johnson Canyon Landfill Site



5.0 PROJECT CHARACTERISTICS AND COMPONENTS

The project characteristics describe the project components in general detail and are not site specific. In general, these project characteristics are applicable in some form to each scenario planned for the different site alternatives.

Commercial and Public Scales and Scale House

The proposed transfer station and CFORC would have separate commercial and, in some cases public scale facilities at the entrance to the site, used for purposes of weighing the incoming materials, confirming contents, and directing the drivers to the appropriate facilities, or exit.

Transfer Station

The transfer station is where wastes are unloaded onto the tipping floor, may be initially hand sorted, and moved to the next processing step or loaded onto transfer trucks that deliver the materials to another location.

Materials Recovery Center

By initially “hand sorting” it is meant that some materials are removed that should not go to the Clean Fiber and Organics Recovery Center (CFORC) or, recyclables that should not be transferred to a transfer trailer for shipment to a landfill for disposal. As indicated in Section 6, a CFORC could be located at Johnson Canyon landfill and Harrison Road locations only, and Transfer Stations only at Sun Street and Crazy Horse Landfill sites. The CFORC includes a transfer station at the beginning of the processing. In the layout, it is referred to as a “Waste Receiving Tipping Floor.”

The transfer stations will vary in area based on the volume of wastes and vehicles to arrive. Within most stations, the use of steel or concrete push wall is common to increase the volume of wastes which can be stored before processing and improve the management of wastes on the tipping floor.

The transfer station will receive all wastes from commercial vehicles and, in some stations, the wastes from self-haul public vehicles. This would include wood, construction, and demolition (C&D) debris and green waste for stockpiling before daily transfer. The commercial and public vehicle would be segregated in the station for safety purpose. For this project, the self-haul public vehicles will come to the transfer at 3 of the sites (Sun Street, Crazy Horse Landfill, and Harrison Road), while the Johnson Canyon Landfill will not accept the self-haul public vehicles.

Household Hazardous Waste (HHW) and Recycling Drop-Off Area

HHW Building. This would consist of a collection facility that would receive, identify, store, and process HHW delivered by the public, businesses, and other waste generators. Shipment of processed and packaged material would be in accordance with California Department of Toxic Substances Control standards and would occur approximately every 30 days.

Recycling Drop-Off Area. The recycling drop-off area would offer an area for the self-haul public to bring their recyclables, unload, and separate them into boxes, bins and bunkers. Recyclable products include newspaper (ONP), corrugated containers or cartons (OCC), mixed papers, glass, aluminum and ferrous cans, and plastics.

Administration Offices/Staff Facilities

The administration offices would include business offices, washrooms, locker rooms, and a break room for the Owner's administration staff. It is also very common to have a staff facilities building on site for the operations staff built closer to the actual operations. Both of these structures would include HVAC systems.

Maintenance Building

The vehicle maintenance building would provide for the maintenance and repair of vehicles and other equipment on site. A maintenance building would provide for the maintenance and repair of vehicles and other equipment on site. This building or facility may also store maintenance equipment needed by the staff for operation and care of the facility.

Outdoor Areas

A large outdoor drop-off area would be used for the receiving, unloading, and storage of wastes not suitable for the autoclave process such as large steel materials, appliances, and compost for commercial sale. An outdoor area would provide the storage of lumber and compost for public resale or donation.

Clean Fiber and Organics Recovery System

Autoclave and Fiber Pulp Processing Unit

Autoclave Processing Area. The autoclave processing area would be housed at the materials recovery center area. This area would house two to four autoclave units, approximately 10-foot in diameter by 50-foot in length. Additional equipment to support the autoclave system includes hydraulic lifts, hydraulic fluid pumps, a boiler, and heat transfer system with a recirculation pump. Steam emissions would be collected at the opening of the autoclave units and piped to the systems generator set (or "gen set") for combustion, or further treated for odor reduction. The

mechanical equipment room for the autoclave units would have a hot oil heater with recirculation pump utilizing a heat transfer fluid and not oil. Steam from the generator set would be used to start the autoclave units from a cold condition. Both would be dual fired with natural gas and biogas from the high organics water treatment system processing area (also known as the Biothane system). In addition, the autoclave units would be raised and lowered with hydraulic lifts and hydraulic fluid pumps. The new building would be approximately 40,000 square feet and a maximum of 55 feet in height, to accommodate the articulation of the autoclaves.

After wastes are sorted in the material recovery center area, wastes suitable for the autoclave process would be conveyed to the autoclaves. Wastes loaded into the autoclave units would be treated with steam under low pressure so the fibers are softened and separated from other wastes such as food waste and plastics. This autoclave process would convert municipal solid waste into separated solids (see Table 2, Autoclave Input). Heat, steam, and water would be added to the autoclave units to aid in the process. Upon completion of the treatment process, the autoclave would produce separated solids such as large waste, plastic byproduct, glass, paper pulp product, and steam (see Table 3, Autoclave Output). The wastewater byproduct from the autoclave process would be sent to the high organics water treatment system processing area for treatment (anaerobic digestion) and recycling back into the pulp washing process.

Each autoclave unit would be able to process one batch of material within approximately two hours and have the capacity to process approximately 43 tons per batch. Each autoclave unit could process up to 300 tons per day of municipal solid waste for a total of up to 1,200 tons per day with four autoclaves.

Table 2. Autoclave Input

INPUT	TONS PER DAY	%
Municipal Solid Wastes *	1,200	96
Additional Process Water	46	4
Total Tons	1,246	100

* Municipal solid waste water content of approximately 25%

Table 3. Autoclave Output

OUTPUT	TONS PER DAY	SOLD / USED OFF SITE	LANDFILL	ENERGY RECOVERY	ALTERNATIVE DAILY COVER	CLEANING & DRYING
Paper / Fiber	264	251	13			
Food / Starch	169	9	1	159		
Textiles / Carpet	61		61			

Table 3. Autoclave Output

OUTPUT	TONS PER DAY	SOLD / USED OFF SITE	LANDFILL	ENERGY RECOVERY	ALTERNATIVE DAILY COVER	CLEANING & DRYING
Minerals / Inks	32	32				
Plastics / Film	173	105	68			
Metals	60	58	2			
Glass / other inorganic	68	35	19		14	
Water	419	258 **	96**		32**	33**
Totals Tons	1246	748	260	159	46	33
Percentage	100%	60%	28%	12%	0%	0%

* 373 Tons of water in the Municipal Solid Waste when received and 46Tons of water added

** Water retained in output materials

Upon completion of the autoclave process, the solids would be processed through trommel screens to separate the paper pulp from other waste solids. The raw paper pulp would be saturated with organic wastes (food) solubilized during the autoclave process. The trommel screens would have one-half-inch openings to separate large pieces, such as clothing, plastic, and metal, from the product pulp. Once the trommel screens filter the raw paper pulp, this product would be processed at the fiber pulp processing area. The remaining large pieces of waste solids would be further sorted for conventional recyclables and either sent to markets or transported to a landfill.

Fiber Pulp Processing Area. The fiber pulp processing area would be within the same new building as the autoclave processing area or within a separate new building and would require approximately 40,000 square feet of space. The fiber processing area would include a fiber pulp wet wash process and paper recovery system. The major processes are dilution, washing, and contaminant removal. The processing area would be located adjacent to the autoclave processing area. The fiber pulp processing area would receive paper pulp filtered by the trommel screens. The fiber filtered by the trommel screening is comprised of long brown fibers from packaging and other short paper fibers. The process would remove and clean some of the short fibers to produce a clean product pulp. After drying/ dewatering, the clean product pulp or “wet lap” would be ready for direct use by paper recycling companies located in the greater Bay area (see Table 2, Autoclave Output). The wastewater produced from cleaning the pulp would be sent to the high organics water treatment system processing area for anaerobic treatment and conversion to fuel (methane) for electricity production for the facility and possibly excess energy to the grid.

Building Standards

The new buildings would be designed and constructed in accordance with the most recent California Building Code and California Fire Code. In accordance with the California Fire Code,

the new building(s) would require a 20-foot wide fire access road that would extend to within 150 feet of all exterior walls. A firefighter access walkway from the fire access road around the building to the exterior doors and openings would be provided. Several systems would also likely be required, depending on the final design: (1) standpipe system; (2) fire sprinkler system; and a (3) fire alarm system. In addition, fire protection measures would be implemented in accordance with applicable National Fire Protection Agency (NFPA) and California Fire Code requirements. An additional fire hydrant may be necessary, depending upon final design of the fire access road.

High Organics Water Treatment System (Biothane)

Biothane is a subsidiary of Veolia Water Technologies. The high organics water treatment system (referred to in this sections as “treatment system”) processing area, of approximately 45,000 square feet, would house wastewater storage tanks, wastewater treatment tanks, biogas conditioning equipment, process pumps, miscellaneous support equipment, vent air odor and biogas scrubbers, and electrical generation equipment. The treatment system processing area would receive wastewater primarily from the fiber pulp processes and some from the autoclave process. This wastewater would be treated in the treatment system with the treated wastewater pumped to a storage tank along with up-to 11,000 gallons of fresh make-up water for reuse in the autoclave process and fiber wash areas.

Wastewater from the autoclave and fiber pulp process is stored at the treatment system processing area in an equalization tank prior to treatment in the anaerobic reactor. The conditioned wastewater is pumped from the equalization tank to the treatment system reactor, which utilizes upflow anaerobic sludge blanket (UASB) reactors. In the reactors, the conditioned wastewater flows in an upward direction through an anaerobic granular biosolid bed where a biological conversion process converts organic materials (primarily solubilized food waste), measured as Chemical Oxygen Demand (COD), into biogas. Biogas is primarily a mixture of methane gas and carbon dioxide.

The likely chemicals used during the treatment system process include chemicals for pH control in the UASB reactor (e.g., caustic soda or magnesium oxide). Nitrogen and/or phosphoric acid may also need to be added as a nutrient. Other chemicals that may need to be added in very small doses include micro-nutrient solutions, ferric chloride, and a defoamer chemical. The chemical requirements, chemical storage, and disposal of chemical residuals would be further defined as design proceeds.

Support systems to the UASB anaerobic reactors include odor vent processing and biogas processing. An odor air scrubber would be installed to treat the gases generated from various holding tanks in the treatment system. The odor scrubber is a biological packed tower where any odorous compounds in the vent air are biologically cleaned prior to use. The biogas processing equipment’s main function is to condition the biogas to provide fuel for electrical generation, boiler equipment, or backup flare system. The biogas

treatment train would consist of condensate traps, a hydrogen sulfide (H₂S) scrubbing system, a compressor, and a dryer. The discharge from the biogas handling system results in a clean, compressed biogas ready to be used by the on-site equipment, as further described below. The detailed design of these two systems and related emissions would be further defined as design proceeds.

The products of the treatment system would be biogas, treated wastewater, and biosolids. The treatment system would produce up to 1.95 million standard cubic feet per day of biogas (approximately 72% methane), with electricity production potential in excess of 4 MW. The biogas would serve as a source of energy for the heat transfer system and steam boiler supplying steam to the autoclave system and fiber pulp processes, used to fire a gas turbine providing electrical power and steam generation, or a backup flare. The exact usage of the biogas in each combustion device would be determined as design proceeds. The treated wastewater would be recycled back to the autoclave and fiber wash processing area for reuse. Additionally, some of the biosolids generated in the treatment system reactors, up to 50 tons per day of biosludge (5 tons of biosolids), may be sold for use by other facilities. If that option is not available, the biosolids would either be returned to the autoclave process or sent to a solids dewatering facility to dry the material out before transporting it to a landfill for use as daily cover or compost feedstock. The method for disposing of the biosolids would be further defined as design proceeds.

A flare unit will be a component of the treatment system. The flare will require an air pollution control permit, and is required in the event that gas production temporarily exceeds the capacity of the treatment system, or if shutdown conditions require the venting of gases that cannot be otherwise stored until normal operation resumes. Under such circumstances, the purpose of the flare is to temporarily burn and treat the vented gases, which would be predominantly methane and carbon dioxide, plus other trace carbon-based and organic components. The flare footprint would be approximately 20 feet by 40 feet and located inside the corner of the Biothane process area right next to the gen-set footprint.

6.0 ALTERNATIVE SCENARIOS

Table 4 lists the different scenarios and proposed project components. The following sections describe each of these scenarios, including the types of facilities and operations, and the location(s) involved.

Table 4 – Alternative Scenario Descriptions		
Scenario	Facility Description	Proposed Location(s)
1	All Alternative Scenario at Harrison Road <ul style="list-style-type: none"> Up to 1,500 tons per day facility Materials processed: municipal solid waste, yard waste, recyclables, HHW From Salinas and North County franchise haulers and self-haulers Clean Fiber and Organics Recovery System Materials Recovery Center HHW collection facility Transfer station Administrative offices Salvaged material sales Existing Sun Street facility closes 	<ul style="list-style-type: none"> Harrison Road
2	Transfer Station <ul style="list-style-type: none"> Up to 1,000 tons per day facility at one of 3 proposed sites Municipal solid waste, yard waste, recyclables, HHW From Salinas and North County franchise haulers and self-haulers Recycling Center HHW collection facility Transfer station to move consolidated materials to Clean Fiber Recovery System facility (Scenario 3) for processing and/or directing wastes to a landfill Sun Street facility closes if either of the other two sites are pursued 	<ul style="list-style-type: none"> Sun Street Crazy Horse Landfill Harrison Road
3	Clean Fiber and Organics Recovery System <ul style="list-style-type: none"> Up to 1,200 tons per day facility at one of 2 proposed sites Global Organics Energy clean fiber and organics recovery system Existing Sun Street facility closes if either of the other two sites under Scenario 2 above are pursued 	<ul style="list-style-type: none"> Harrison Road Johnson Canyon Landfill
4	No Salinas Facility <ul style="list-style-type: none"> No new facilities All Salinas and North Monterey County franchise tonnage direct hauled to Monterey Regional Waste Management District for burial or processing All self-haulers directed to MRWMD for public services Existing Sun Street facility closes with Authority staff reductions 	<ul style="list-style-type: none"> Monterey Regional Waste Management District (MRWMD)

Table 4 – Alternative Scenario Descriptions		
Scenario	Facility Description	Proposed Location(s)
5	<p>“No Project” – Minor expansion of Sun Street facility with or without MRWMD</p> <ul style="list-style-type: none"> Up to 600 tons per day (existing Sun Street facility is expanded to accommodate additional tonnage) Salinas franchise solid waste and green waste received at Sun Street North county franchise solid and green waste received at Madison Lane Self-haulers choose Sun Street or Madison Lane Recycling Center for self-haul customers HHW Collection facility Tonnage transferred to Johnson Canyon Landfill, or Select tonnage transferred to Monterey Peninsula Landfill for processing 	<ul style="list-style-type: none"> Sun Street MRWMD

Scenario 1 - Transfer Station/Materials Recovery Center/Clean Fiber and Organics Recovery System

This scenario would provide all of the waste sorting and treatment processes that were described earlier. The purpose would be to maximize the recovery, treatment, and reuse of the waste stream at one location; the Harrison Road site, to maximize public and collection franchise convenience. With the combined facilities, up to 1500 tons per day of materials could be processed. Scenario 1 would include the following uses:

Commercial and public scales and scale house

HHW operation

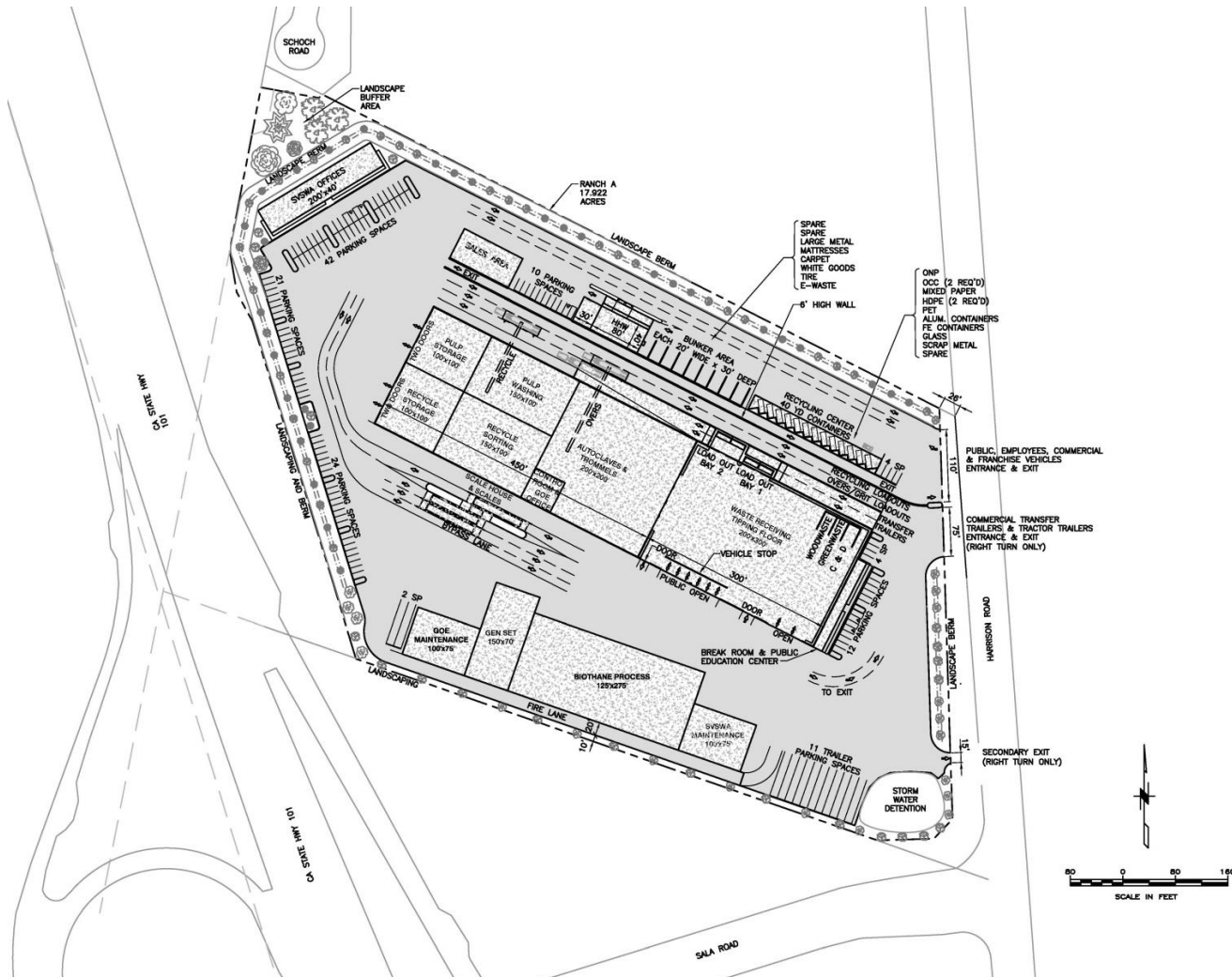
- Recycling and outdoor drop-off areas
- Lumber and compost area
- Authority Administrative offices
- Vehicle maintenance
- Reuse store
- Education Center
- Future space for additional materials recovery up to 1,500 tons per day capacity
- Green Space for public use, allotting a small amount for public space nearest the residential uses to the north.
- Clean Fiber and Organics Recovery Facility

- GOE Administrative Offices
- Autoclave processing area
- Fiber pulp processing area
- Generator Building
- Maintenance Building
- High Organics Water Treatment System

See Figure 6 for the Conceptual Site Plan. Below describes the site layout:

- **Site Entrance and Exit.** Public and commercial vehicles would enter and exit the site at Harrison Road on the northeast side of the site. There would be a combined entrance gate for public, employees, commercial and franchise vehicles. There would be a separate entrance for commercial transfer tractor/trailers. A secondary exit is located at Harrison Road, at the southeast portion of the site. Vehicles would enter the site between load out areas where sorted or separated wastes can be loaded onto transfer trucks for delivery to an offsite facility, and a large enclosed structure containing the autoclave and waste receiving tipping floor. Commercial vehicles would proceed around the autoclave facilities where the scale facilities are located. There will be exits onto Harrison Road for commercial and public vehicles, separate from the larger tractor trailers.
- **North Portion of Site.** The most northern portion of the site (from east to west) would consist of the following: recycling load out areas, 4 parking spaces, a recycling center, a bunker area, 10 additional parking spaces.
- **Central Portion of Site.** Centrally located, and south of the entrance and exit lanes, would be the large enclosed structure that contains space for: a waste receiving tipping floor, control room and GOE administrative offices, autoclaves, trommel screens, pulp washing, recycling sorting, recycling storage room and pulp storage room and breakroom and public education center. Scale house and scale is located south of the enclosed structure.
- **West Portion of Site.** The west part of the site would contain 42 parking spaces and 21 parking spaces adjacent to 24 parking spaces and SVSWA offices.
- **South Portion of Site.** The south portion of the site (from west to east) would contain a facility providing space for GOE maintenance power generators, the treatment system gas recovery process, a maintenance building, SVSWA maintenance, 11 parking spaces for trailers and a storm water detention pond.

The perimeter of the property would contain landscaping, including a landscape area/greenspace at the northwest corner of the property for public use.

Figure 7 – Harrison Road Conceptual Layout Plan

Scenario 2 – Transfer Station/Materials Recovery Center

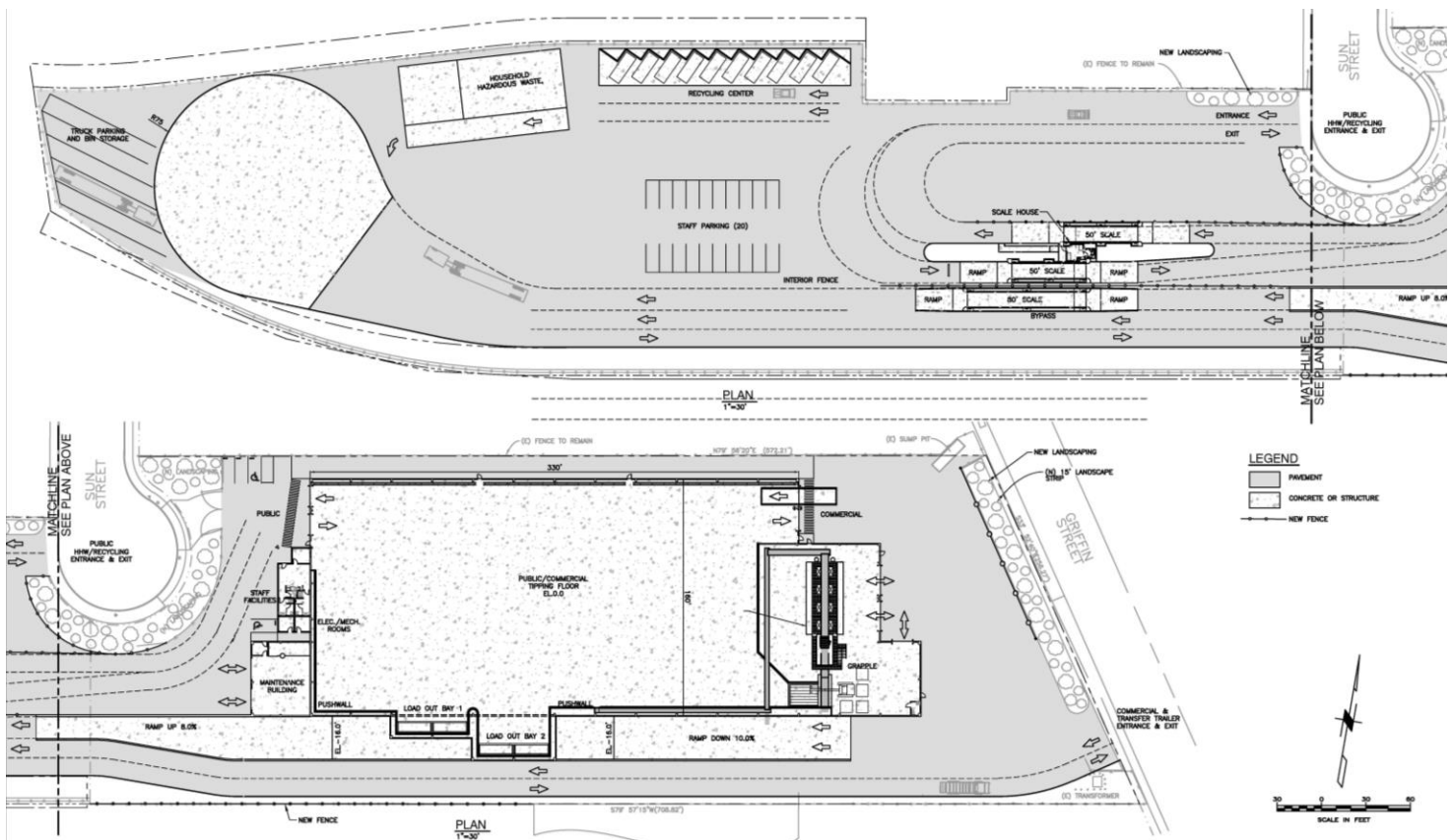
Scenario 2 focuses on providing the transfer station and Materials Recovery Center components. This scenario would not include the Clean Fiber and Organics Recovery System at the Project facility and that function would be independent (see Scenario 3). In Scenario 2, various components of the proposed Project would take place at Sun Street, Harrison Road, and/or Crazy Horse Landfill. If Harrison Road or Crazy Horse Landfill is

chosen for the Project location, Sun Street would permanently close. Scenario 2 could include the following uses:

- Commercial and public scales and scale house
- Transfer station Materials recovery center with a waste processing and recycling floor and transfer operations
- HHW operation
- Recycling and outdoor drop-off areas
- Wood wastes and compost area
- Vehicle maintenance
- Reuse storage

Sun Street. Sun Street is currently being operated as a transfer station and material recovery center. Under this scenario, the current site layout would be redesigned. See Figure 8 for the Conceptual Design. The site plan description is provided below:

Vehicle Entrance and Exit. Commercial and transfer trailers would enter and exit at Griffin Street to the Southeast of the property. Public vehicles would enter and exit the site at Sun Street, which is located at the north center of the property. The commercial vehicles would turn to the right and proceed to the Transfer Station, weigh and enter the building at the East wall. After unloading on the tipping floor, vehicles exit the transfer station at the East wall and proceed to the site exit at Griffin Street. The transfer trailers or any other large trailer would proceed West to the top-load access ramp (transfer trailers) or proceed along the roadway South of the transfer station. After these trailers are loaded, they proceed further to the West where they do a 180° turn and then proceed along the roadway South of the transfer station to the exit at Griffin Street. The self-haul public vehicles will enter the site from Sun Street and proceed West to the Recycling Center, HHW facility and storage facilities, or proceed to the entrance scale, if unloading wastes in the transfer station. After unloading, the public can directly exit the site at the Sun Street or proceed to the exit scale before exiting on Sun Street.

Figure 8 - Sun Street Transfer Facility Conceptual Layout

Crazy Horse Landfill. At Crazy Horse Landfill, a scale house, transfer station, household hazardous waste facility, recycling center and an area for open storage of a variety of materials would be provided. The layout plan is shown in Figure 9.

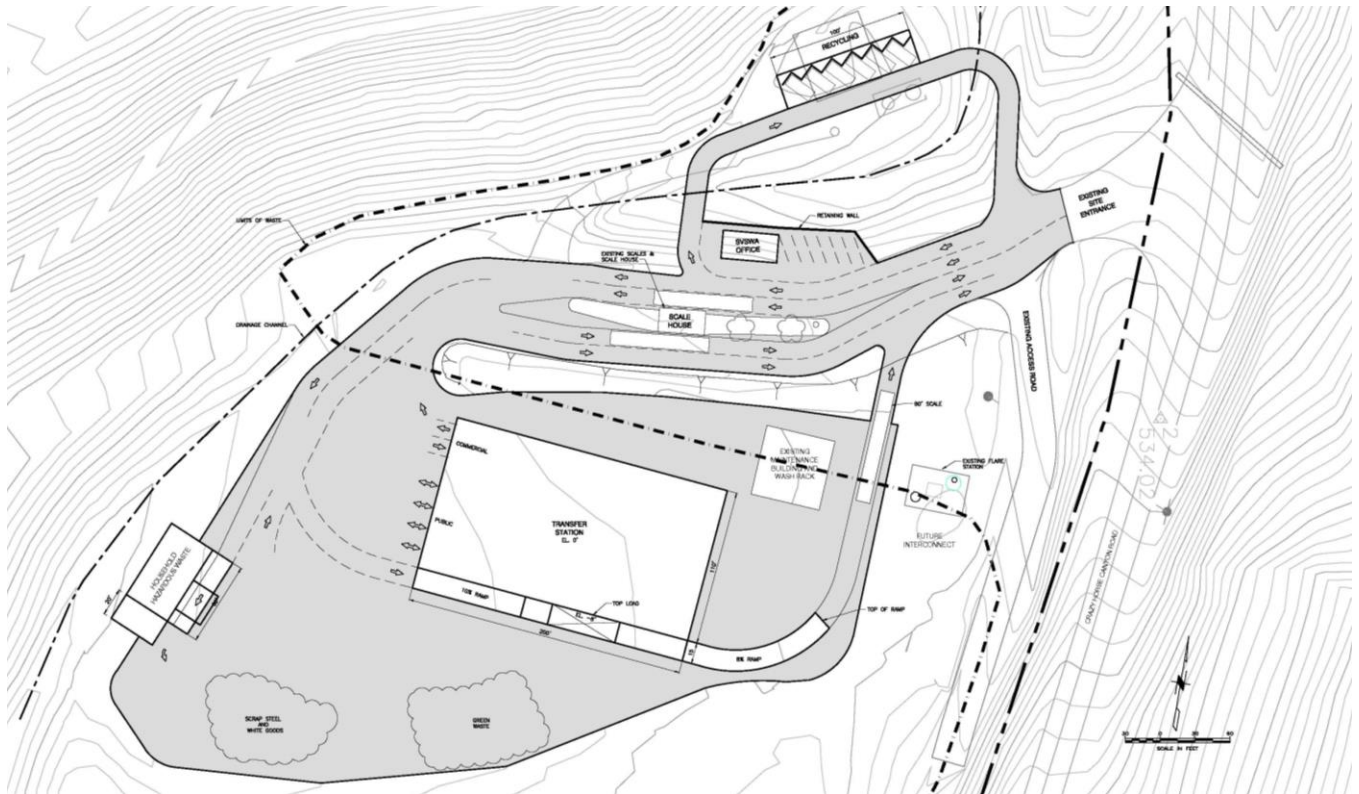
Vehicular access to the site is via driveway off of Crazy Horse Canyon Road to the east. There are 2 entrance and 2 exit lanes designated for commercial and public access and exit. An existing access road running parallel to Crazy Horse Canyon Road provides a secondary entrance and exit.

After passing over the entrance scale, both the commercial and public vehicle wastes proceed to the West wall of the transfer where the commercial vehicles enter the building, unload inside, then exit and proceed to the exit scale and then the site exit. The public vehicles reverse into the transfer building approximately 20 ft, unload and then exit the site over the exit scale and site exit. The public vehicles can, without going over the entrance, proceed the HHW facility to the recycling center and then exit the site without passing over the scale.

Other site facilities:

- HHW facility and Recycling Center, as previously mentioned
- A new SVSWA staff facility adjacent to the East wall of the transfer station building
- Existing maintenance building and wash rack Northeast of the transfer station
- An existing flare station pad at the East end of the site
- Storage area south of the transfer station for the green wastes, scrap iron, white goods etc.

Figure 9 – Crazy Horse Landfill Conceptual Layout



Scenario 3 – Clean Fiber and Organics Recovery Center

Scenario 3 would take place at either Harrison Road or Johnson Canyon Landfill and would include the following uses:

- Clean Fiber and Organics Recovery Facility
- GOE Administrative Offices
- Autoclave processing area
- Fiber pulp washing area
- Generator Building
- Maintenance Building
- High Organics Water Treatment System
- Process up to 1,200 tons per day facility
- The existing Sun Street operations would be closed.

Harrison Road

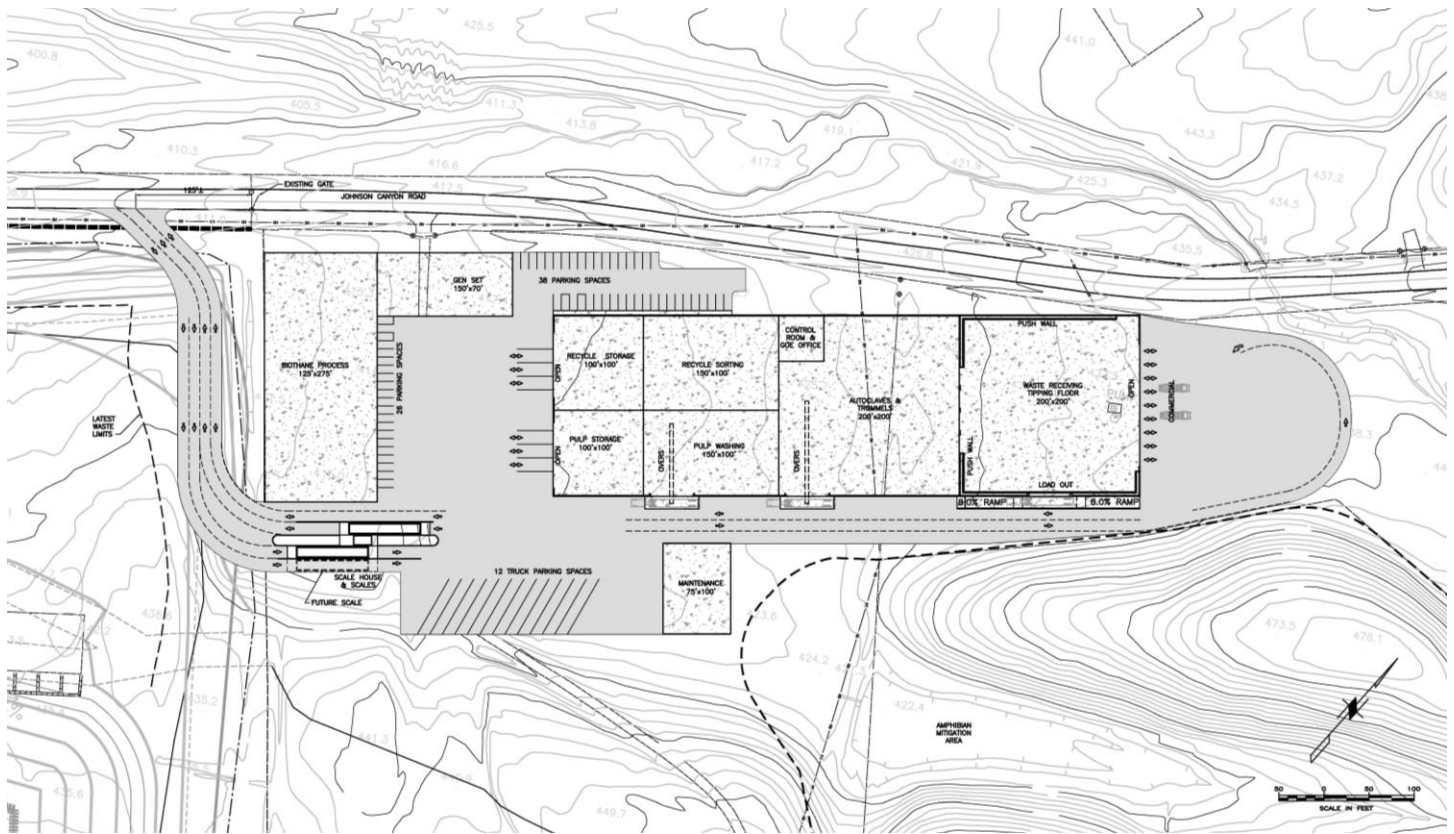
Similar to Scenario 2, the layout plan for the Harrison Road Transfer station would be essentially the same as shown and described for Scenario 1.

Johnson Canyon Landfill

The Johnson Canyon Landfill site will be similar to the Harrison Road site, except there would be no self-haul public vehicles coming, and thus no HHW building and no Recycling Center. Also, the waste receiving tipping floor would be 40,000 sq-ft at Johnson Canyon compared to a proposed 60,000 sq-ft at Harrison Road (due to the larger site size at Harrison Road). The layout plan is shown in Figure 10.

The commercial vehicles, including the transfer trailers, pulp and recyclables loadout trailers will enter the site at the West end of the site after exiting Johnson Canyon Road on a separate roadway inside the exiting landfill area, but at the East end of the landfill area and outside the existing waste limits.

New scales / scale house would be located immediately after the West side entrance. The commercial vehicles would proceed east to the East end of the CFORC and unload. The transfer trailers would proceed to the West for loadout areas along the South side of the CFORC building. The pulp and recyclables loadout trailers would proceed to the West end of the CFORC building for loading.

Figure 10 – Johnson Canyon Landfill Conceptual Layout

Scenario 4 – No Salinas Facility

This scenario represents a significant change in household and commercial waste collection and management in the Salinas area. The MRWMD would be responsible for managing Salinas area and North Monterey County waste. No new facilities would be constructed and the Sun Street facility in Salinas would be closed. The current permits (such as with Cal Recycle and the RWQCB) for the Sun Street site would have to be modified to allow for early closure and redirection of waste services, and removal of the existing facilities. For waste disposal, all trucks and personal vehicles would rely on the MRWMD facility located on Del Monte Boulevard in Marina. MRWMD currently provides services for recycling, waste disposal, organics composting, and HHW. This scenario would accelerate the use of the available capacity at MRWMD.

Scenario 5 – No Project – Minor Expansion of the Sun Street Facility with or without MRWMD

The No Project scenario would maintain the existing Salinas facility at Sun Street, and it would ultimately be expanded to accept 600 tons of solid waste per day to meet the needs of Salinas. Collection and disposal or treatment of wastes would be split between the Salinas and North County franchise service areas. People and businesses that self-haul wastes could go to either the Madison Lane or the Sun Street sites. Other services would continue such as the collection of HHW. Materials collected at the Sun Street station would ultimately be transferred to a landfill for processing such as Johnson Canyon and/or the Marina landfill.

7.0 OPERATIONS AND MAINTENANCE

The following operations and maintenance functions would apply to Scenarios 1, 2, and 3.

Utilities and Services

a. Sewer and Water Services

Sewer service would be provided by the Monterey Regional Water Pollution Control Agency Wastewater Treatment Plant via the existing service connection to the sewer system at the Sun Street and Harrison Road locations. Septic systems are in place at the Crazy Horse and Johnson Canyon Landfills, but new septic systems may need to be provided, depending upon final facility layout. Sewer service for the facility would need to handle flows from the on-site staff restrooms. Wastewater produced by the autoclave and fiber pulp processes would be treated in the high organics water treatment system process and reused in the autoclave process and would not be directed to the sewer system.

Potable water needs would be provided by California Water Service Company (CalAm) via the existing or extended service connection for Sun Street and Harrison Road. Crazy Horse Landfill and Johnson Canyon Landfill have no reliable potable water sources, and water would need to be imported or a well constructed. Potable water would be required for the administration building and other staff facilities. Additionally, up to 11,000 gallons per day of additional water would be required for the autoclave and fiber pulp processes in addition to the treated water from the recycled wastewater provided by the high organics water treatment system process, which would be reused onsite. When available, storm water collected on-site would be recovered, stored and utilized to displace CalAm supplied water for the CFORS system. If the CFORS system is located at Johnson Canyon, nearby waste water from a large winery is a potential source of water for the autoclave.

The Project would be subject to County of Monterey drainage and stormwater requirements. Potential applicable performance requirements for the stormwater facilities for the Project include: (1) site design and runoff reduction; (2) water quality treatment; (3) runoff retention; and (4) peak flow management. The site layouts indicate conceptual

drainage basins. The design and specifications for these facilities would be developed as the design process proceeds.

b. Security, Signs, and Lighting

Security, signs and lighting would be established and determined as design proceeds.

c. Personnel/Workforce

Staff would be needed for operations at the HHW building, reuse store, public drop off, commercial tipping floor, autoclave process, fiber pulp process, high organics water treatment system process, and general administration functions. The autoclave would operate 24-hours per day. To operate the CFORS at 1,200 tons per day, up to 102 employees would be necessary. To operate the waste receiving area and various materials recovery areas at up to 1,500 tons per day during normal daytime operating hours, up to 19 employees would be needed. Administrative personnel would include up to 17 employees.

d. Days and Hours of Operation

The preliminary estimate is that the autoclaves would operate up to 24-hours per day Monday through Friday and from 8:00 AM to 4:00 PM on Saturdays. During the week, the whole day would be split into three 8-hour shifts. The materials recovery center operations would operate Monday through Friday from 6:00 AM to 7:00 PM and from 8:00 AM to 5:00 PM on Saturdays. There would be periods when equipment would not be operating for maintenance. Ultimately, the facility operating hours will be defined during the permit application phase of the project.

e. Truck and Automobile Trip Generation

The Project would be similar to the existing Sun Street operations in terms of the type of truck and automobile trips generated. However, the Project includes an autoclave process, fiber pulp process, high organics water treatment system process, and an increased capacity to process municipal solid waste. The net increase in vehicle trips per day that would result with the Project would be determined as design proceeds. The proposed facility would be designed to accommodate the number and type of vehicles that would be expected to use the facility. Traffic to and from the site locations is evaluated in detail in the EIR.

f. Odor Control Procedures

The odor control systems for the Project are described above under the autoclave processing and high organics water treatment system processing areas. Additionally, the following odor control standards would be met with the Project:

- All State Minimum Standards for solid waste handling and disposal as specified in Title 14 and Title 27 of the California Code of Regulations would be adhered to.
- All green wastes would be removed or processed within 48 hours.
- No solid wastes would be allowed to be stored at the facility for longer than forty-eight (48) hours.
- Waste remaining onsite overnight would be either inside a facility building, or they would be covered with a geo-synthetic tarp to control litter, odors, and exclude vectors. This is in contrast to the primarily outdoor operations at the existing Sun Street location and temporary Phase I operation.
- All trucks that are used to transport solid waste that are parked or stored at the facility site would be empty; no solid waste would be allowed to be stored in any vehicle at the facility for longer than 24 hours.
- The transfer floor, loading pit, facility fences and recycling material piles would be cleaned of litter daily to prevent any accumulation of solid waste.
- Waste found mixed into recycling piles would be removed and taken to the waste tipping pad on a daily basis.

g. Chemical Use and Emergency Procedures

California law requires the Authority, as the operator of the facility, to submit a plan to the Monterey County Environmental Health Department that describes in detail the type and volume of chemicals to be used at any proposed facility. The plan must include a reporting and monitoring process for any spills that may occur. It also must include requirements for secondary containment, safety equipment, automatic shut-off valves, and other safety procedures that may be required, depending on the types and volumes of chemicals stored and used on site. The potential for spills would be minimized by careful design (with secondary containments sized to confine the entire contents of stored chemicals), proper training of operators, and having an emergency response plan in place that outlines procedures to quickly react in the event of an accident or spill. Chemicals would be present at the HHW facility, vehicle maintenance building, fiber pulp processing area, and the high organics water treatment system processing area. Estimated quantities to chemicals to be stored on site would be provided as design proceeds.

8.0 PROJECT CONSTRUCTION

Construction would occur over approximately 9 to 12 months. The construction workforce would include personnel primarily associated with the general contractor and subcontractors, owner, engineer, and construction manager. Visits to the construction site would occur from regulators, special inspectors, equipment vendors, and others. Anticipated construction equipment would be identified as design proceeds.

Upon construction completion of the Project, the Sun Street operations would be closed if the selected alternative scenario does not include continued operations at the existing site.

9.0 INTENDED USES OF THE ENVIRONMENTAL IMPACT REPORT

The Project would require a number of potential permits, authorizations, and consultations from federal, state, and local agencies. These approvals likely include those listed below in Table 5, Potential Permits, Authorizations, or Approvals. The list of approvals would be confirmed during the CEQA process.

Table 5. Potential Permits, Authorizations, or Approvals

Regulatory Agency		Potential Permit, Authorization, or Approval
STATE AGENCIES		
CalRecycle		Solid Waste Facility Permit
REGIONAL AGENCIES		
Salinas Valley Solid Waste Authority		Project approval
Regional Water Quality Control Board		General Permit for Storm Water Discharges Associated with Industrial Activities and Notice of Intent to Comply with NPDES Construction Permit, if disturbing more than 1 acre of land.
Monterey Bay Unified Air Pollution Control District		Authority to Construct and Permit to Operate
Monterey Regional Waste Management District		CEQA review of impacts and document approval Health and Safety Code, Sections 4100-4165 Authority
LOCAL AGENCIES		
Monterey County	Resource Management Agency (RMA)	Use Permit
		Possible rezone
		Site Plan and Design Review
		Construction Permits (e.g., grading, demolition, building)
		Drainage/Stormwater Review
	Environmental Health Bureau (EHB)	Solid Waste Facility Permit
		Hazardous Material Business Response Plan Permit

Table 5. Potential Permits, Authorizations, or Approvals

Regulatory Agency		Potential Permit, Authorization, or Approval
		Hazardous Waste Permit
		Aboveground Storage Tank Permit (if storage of petroleum is over 1,320 gallons)
		Underground Storage Tank Permit (if not removed)
		Underground Storage Tank (UST) Removal Permit (if removed)
		Waste Tires Permit
		Solid Waste Truck Yard Permit
		Solid Waste Truck Permit
		Large Volume Transfer Station Permit