

Tajiguas Resource Recovery Project

July 12, 2016 Update

SANTA BARBARA COUNTY

**Resource Recovery &
Waste Management Division**

Innovative Environmental Solutions



Today's Presentation

- Community Need
- Proposed Project
- Waste Service Agreement
- Public Financing
- CEQA
- Next Steps & Recommendations

April 2016 Board Direction

- Conceptually approved the deal points for a Waste Service Agreement (WSA) with MSB Investors
- Approved a contract with HF&H Consultants to prepare and negotiate a WSA with the vendor and agreements between the County and participating jurisdictions to use the facility

April 2016 Board Direction

- Authorized Public Works to submit permit applications to CalRecycle, Regional Water Quality Control Board, and the Air Pollution Control District
- Directed Staff to return for today's hearing to:
 - Certify the Final Subsequent EIR
 - Receive the Debt Advisory Committee's recommendation re: public financing of the project
 - Approve a Waste Service Agreement with MSB Investors

Community Need for Project

- Current landfill capacity until 2026
- No local facility for processing all commingled recyclables
- No local facility for processing organics other than green waste
- **60%** of what is buried is reusable (30% recyclables & 30% organics)



Community Need for Project



- Solid Waste Regulations
 - Statewide diversion goal of 75%
 - Mandatory collection of business recyclables and organics
 - Mandatory plan for 15 years of organics processing capability and disposal capacity
 - Greenhouse gas reduction requirements

Community Need for Project

- Statewide need for waste processing infrastructure
- CalRecycle AD Strategic Initiative
 - 11 AD Facilities processing waste
 - 9 undergoing permitting or commissioning
- Over 150 MRFs
- Letter of support from CalRecycle for this project

Transparency & Outreach

- Project specific web site
 - All environmental documents are available
 - Presentations
 - FAQ sheets
 - Video (also shown on County TV)

www.ResourceRecoveryProject.com

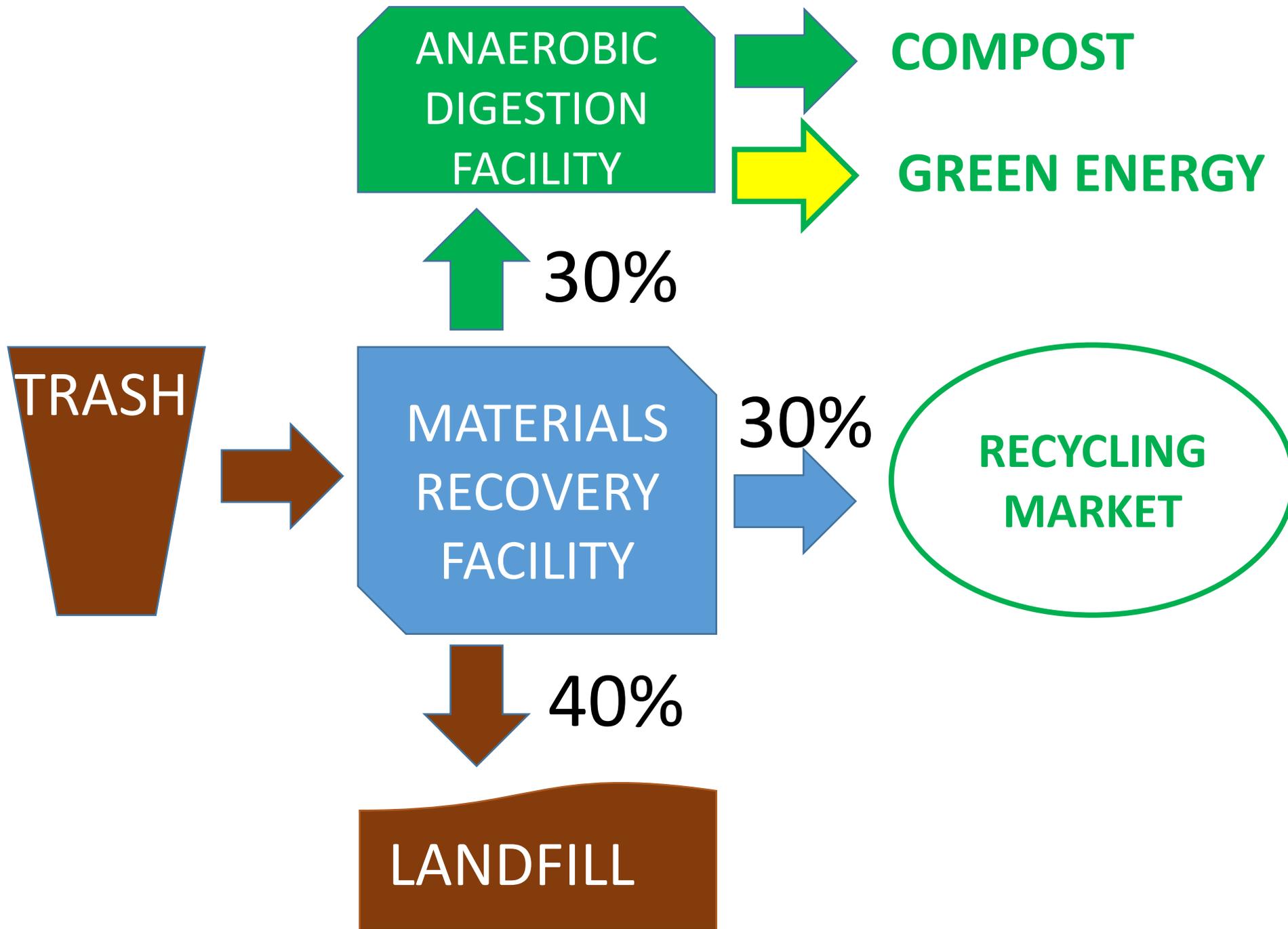
Transparency & Outreach

- Community dialog over the past 8 years has developed this project
 - Face-to-face meetings
 - Email
 - Phone
- Public Presentations since 2008:
Over 140



Resource Recovery Project

- Material Recovery Facility (MRF) to process mixed and source separated material (30% recovered for sale – up to ~125,000 tons)
- Anaerobic Digester (AD) to process organics from MRF and source separated material (30% processed for beneficial reuse – up to ~73,000 tons)
- Remaining material landfilled (40%)



Project Team

- Primary Contractor: MSB Investors, LLC
- Subcontractors:
 - Diani Construction to Build
 - VDRS Equipment Provider for MRF
 - MarBorg Industries to Operate MRF
 - BEKON Equipment Provider for AD Facility
 - Nursery Products to Operate AD Facility
- Collaboration of staff from:
 - County
 - Goleta
 - Santa Barbara
 - Buellton
 - Solvang
- Consultants:
 - HDR Engineering
 - DEI
 - HF&H Consultants

Benefits

- Provides 20-year regional waste management plan
- Cost-effective solution
- Provides necessary infrastructure for region to comply with regulations
- Allows region to meet higher recycling goals (at least 85% diversion)
- Significantly reduces greenhouse emissions and generates green energy

Tajiguas Resource Recovery Project

Waste Service Agreement

Waste Service Agreement

- 12 year agreement
 - 2 years of construction
 - 10 years of operation
- Need to procure for remaining 10 years of operation
- Tonnage
 - Minimum of 190,717 tons/year
 - Maximum of 233,018 tons/year
- CEQA analysis of worst case at 290,000 tons/year

Performance Guarantees

- Material Throughput – facility required to process up to a maximum annual capacity
- Diversion – facility must recover:
 - 60% of the waste in the trash can,
 - 85% of source separated recyclables, and
 - 98% of source separated organics
 - Overall facility diversion level of 64.8%

Performance Guarantees

- Others include:
 - minimum electric output,
 - net electric generation,
 - environmental performance, and
 - recyclables sales
- Liquidated damages may be assessed if guarantees are not met and Compliance Plan is developed to correct performance

Project Protections

- Bonds during construction
- Performance bonds during operation
- Equipment warranties



Project Protections: Variety of insurance policies during construction & operational periods

- Contractor

- Builders Risk
- Commercial General Liability
- Professional Liability
- Contractors' Pollution Liability
- Pollution Legal Liability

- County

- Property during operational period

Project Cost

- Cost to construct MRF, AD Facility and composting area \$110.53M (funded by County)
- Annual operating cost of \$13M
- Annual revenues of \$12M
 - Recyclables
 - Energy

Per Ton Project Cost

Cost Component	Per Ton Cost
Operations (paid to Contractor)	\$5.60
Disposal of Residual Waste	\$17.50
Debt Service	\$56.83
Environmental Compliance, Closure, and Other Facility Costs	\$25.07
Total	\$105.00

Per Ton No Project Cost

	Tajiguas Resource Recovery Project	Santa Maria Landfill	Simi Valley Landfill
Facility Cost	\$80 per ton	\$71 per ton	\$64 per ton
Fixed County Costs	\$25 per ton	\$25 per ton	\$25 per ton
Additional Transport Cost	Included	\$23 per ton	\$23 per ton
TOTAL COST	\$105 per ton	\$119 per ton	\$112 per ton

- Caveats:
- *Future cost of landfills unknown, SM landfill replacement not built
 - *Does not include cost to expand facilities to consolidate waste for transfer
 - *Does not meet State organics or recyclables diversion requirements
 - *Does not meet Greenhouse Gas Reduction requirements (project is in local ECAPs)

Ratepayer Impact



- Project is more cost-effective than alternatives
- Approximately \$5.00 month increase to a residential customer compared to today's rates

Financial Risk

- Flow: 20-year agreements to use facility with partner cities
- Change in recyclables value:
 - Made a conservative estimate
 - Creating a Rate Stability Fund to reduce volatility
 - If change exceeds fund value, tip fee adjustment
- Interest rate may change between now and when financed

Tajiguas Resource Recovery Project

Public Financing

Public Financing

- In July 2015, BOS directed staff to evaluate the potential use of public funds
 - Preliminary evaluation demonstrated up to 30% reduction in total tip fee through public financing of the project
- In March 2016, DAC directed staff to hire a Financial Advisor
- On June 24, 2016, DAC approved recommendation to use revenue bonds
- In Fall 2016, County Treasurer will present to your Board a financing package for final approval

Public Financing

- The preliminary finance plan is to use Solid Waste Revenue Certificates of Participation
- Resource Recovery & Waste Management Division would be responsible for debt service. The General Fund would not be responsible
- COPs align debt obligation with revenues generated from project through 22-year delivery commitments from facility users

Public Financing

- Establish Rate Stabilization and Operating Reserves
- Estimated cost of \$110.5M for project and additional \$11.5M for landfill closure requirements and land purchases

Tajiguas Resource Recovery Project

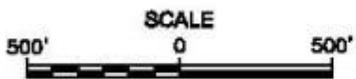
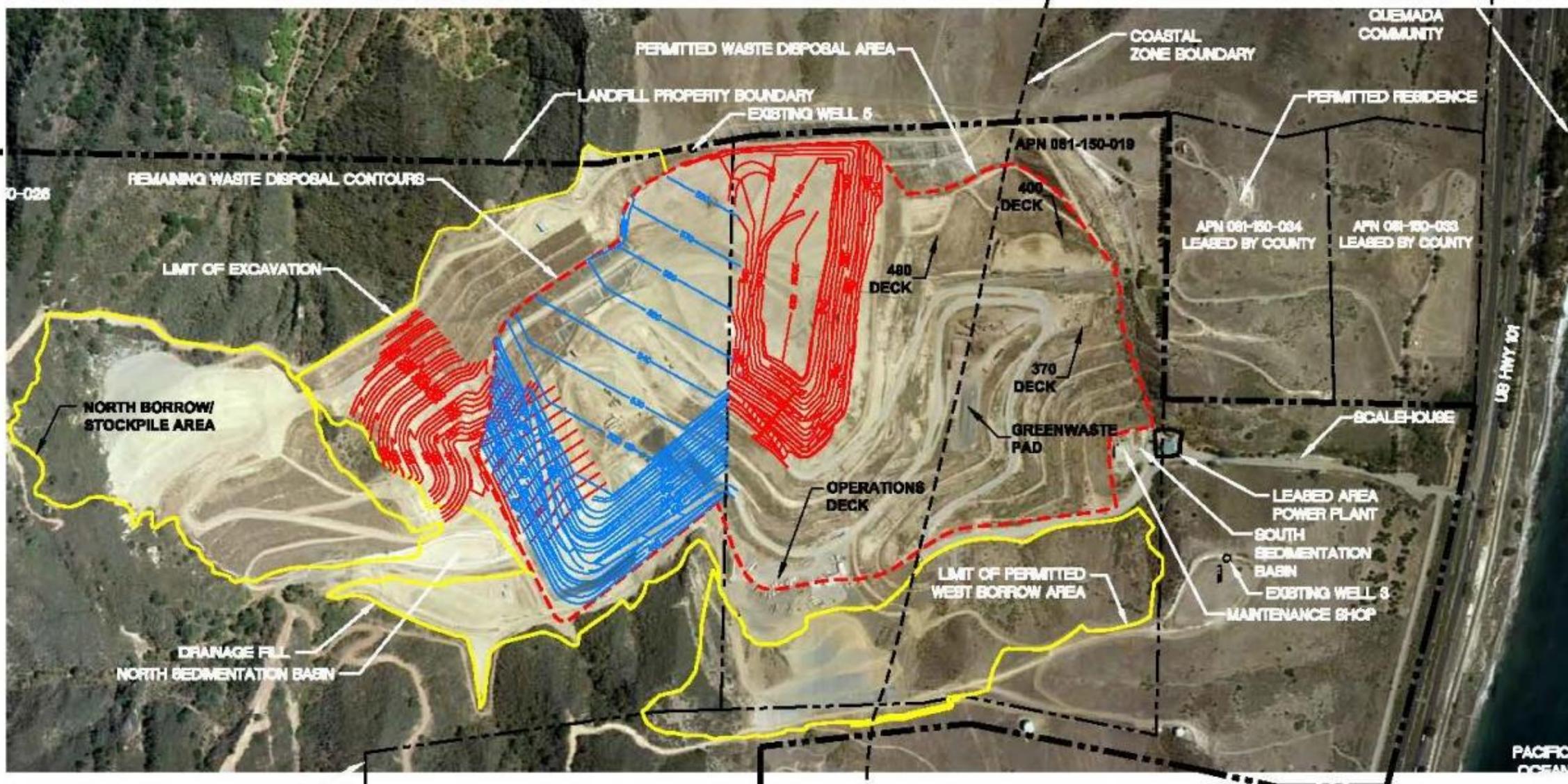
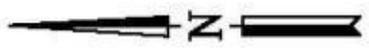
CEQA Review

Tajiguas Landfill Background

- In operation since 1967
- Expansion approved in 2002
- Reconfiguration approved in 2009

Tajiguas Landfill Background

- Landfill Property 497 acres, permitted footprint 118 acres
- Permitted capacity 23.1 million cubic yards (~2026)
- Comprehensive Plan Designation
 - A-II-100(inland)/Waste Disposal Facility Overlay
 - A-II-320(coastal)
- Zoning
 - Unlimited Ag (inland)
 - AG-II-320 (coastal)



APN 081-150-042

Legend

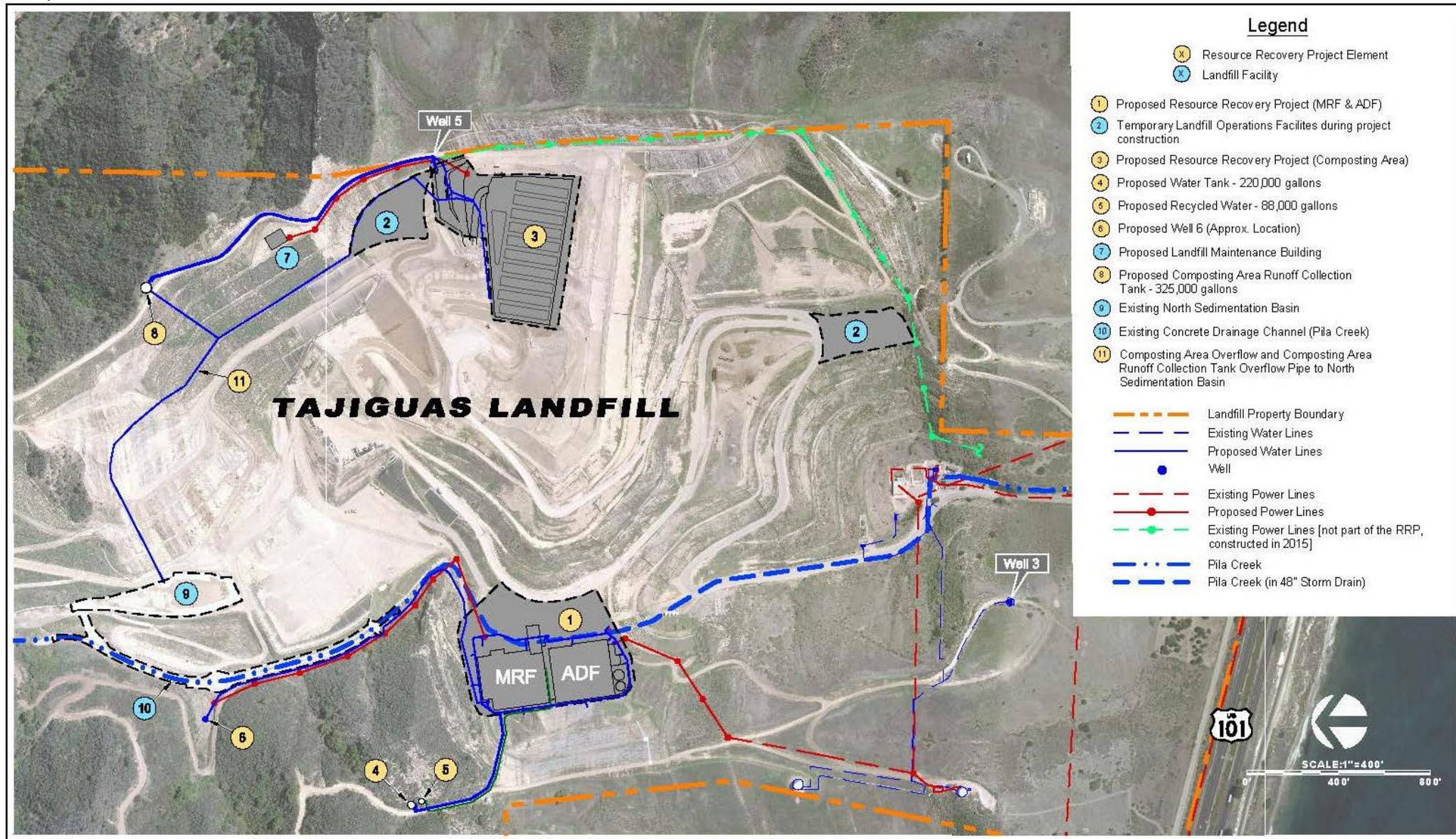
-  Waste Disposal Area
-  640 Topography at Project Initiation
-  540 Topography at Landfill Closure

Project Overview

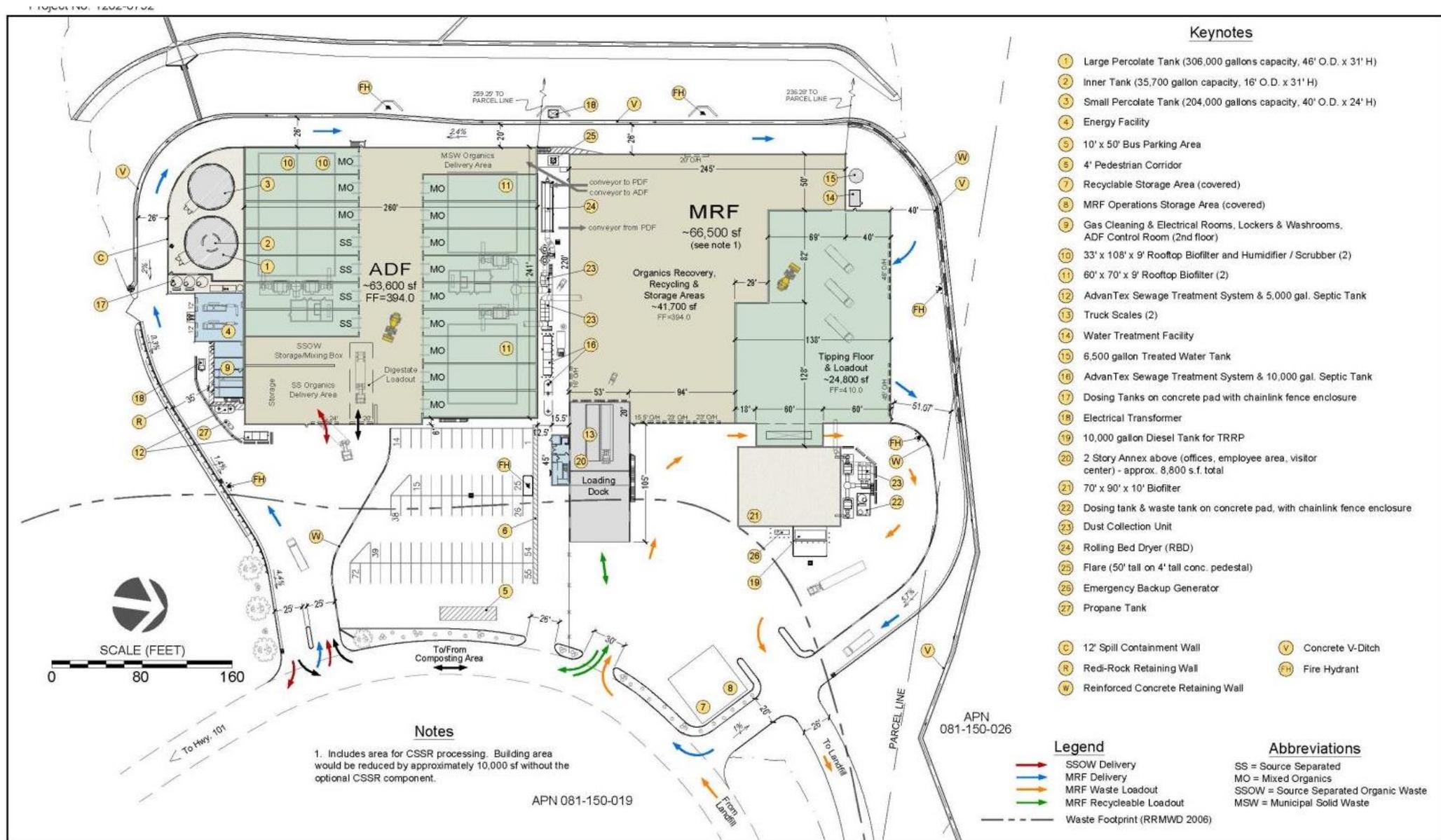
Modify Tajiguas Landfill Operations (outside the Coastal Zone) to add:

- Materials Recovery Facility
- Anaerobic Digestion Facility
- Composting Area
- Ancillary/supporting facilities and infrastructure

Project Description: Site Plan



Project Description: MRF & AD Facility



Project Description

The Materials Recovery Facility (MRF)

- 56,500 – 66,500 sf building footprint
- Additional space for office and visitor center
- Operating up to 311 days/year, processing up to 800 TPD or 250K TPY (290K TPY with source separated recyclables)

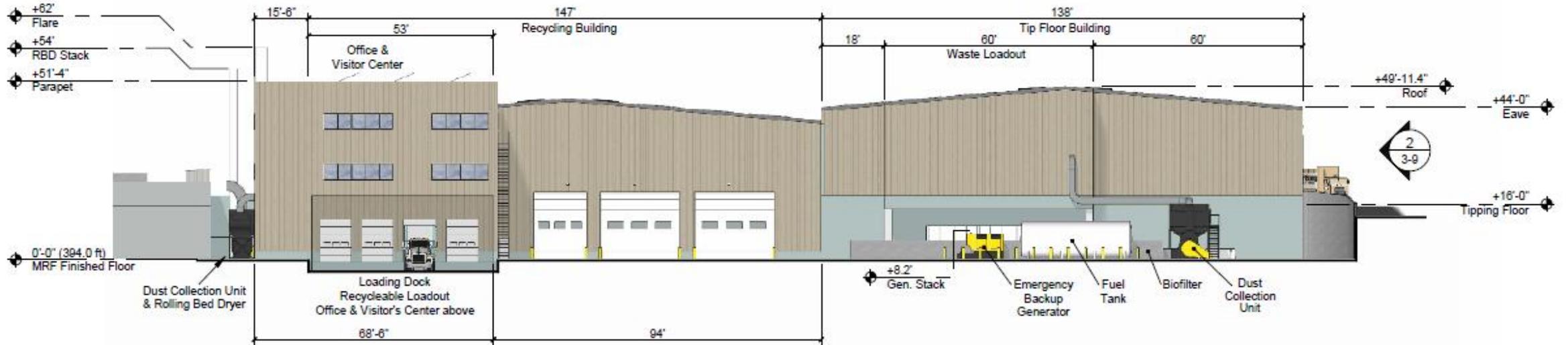
Project Description

The Materials Recovery Facility (MRF):

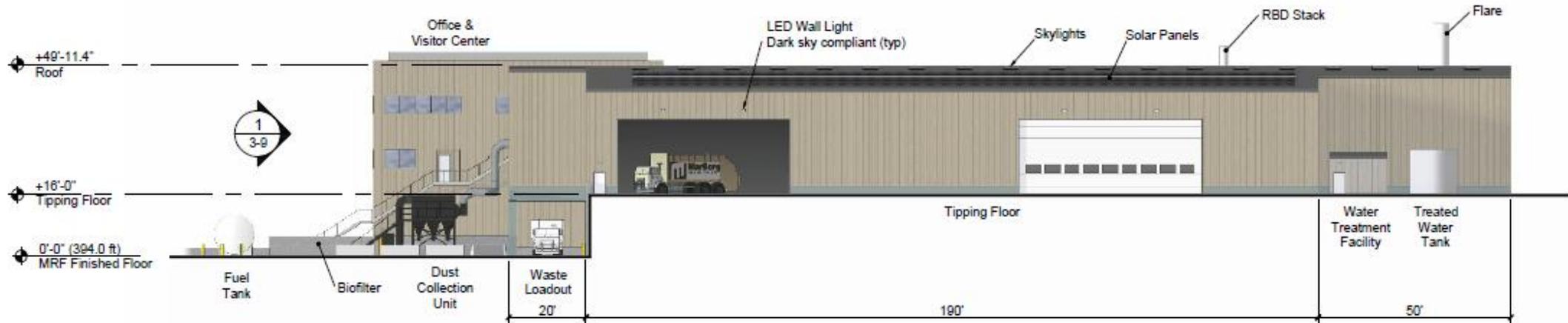
- Highlights include:

- Negative pressure building
- Dust collectors
- Bio-filters
- Internal misting system
- Solar panels
- External blinds and dark sky compliant lighting

Project Description: MRF



1 East Elevation
3.9 Scale: 1" = 30'



2 North Elevation
3.9 Scale: 1" = 30'

Abbreviations
RBD = Rolling Bed Dryer

Project Description

The Anaerobic Digestion (AD) Facility:

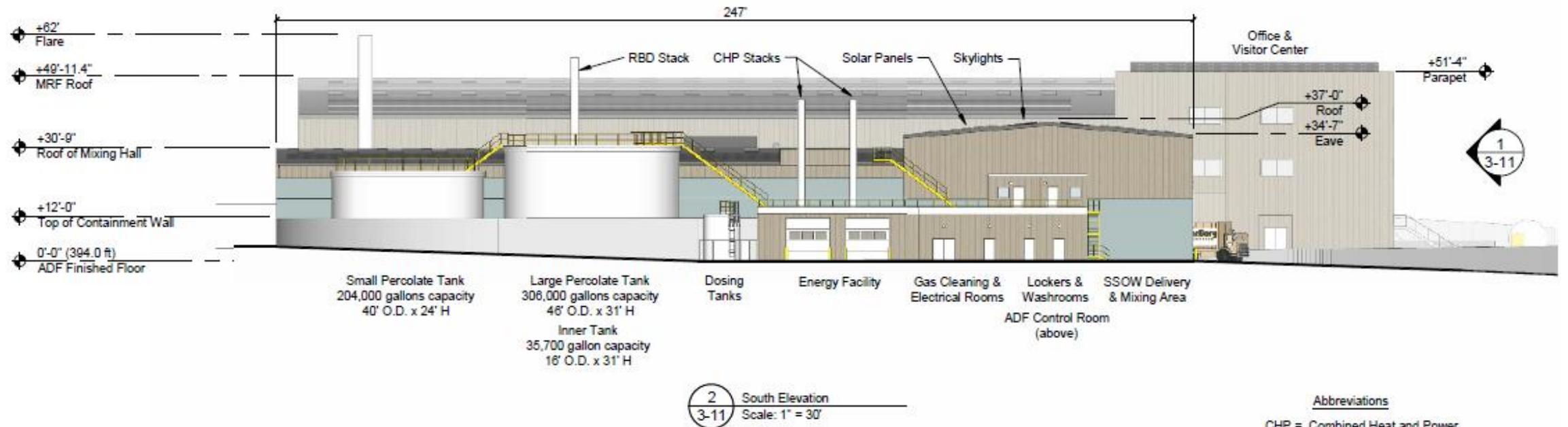
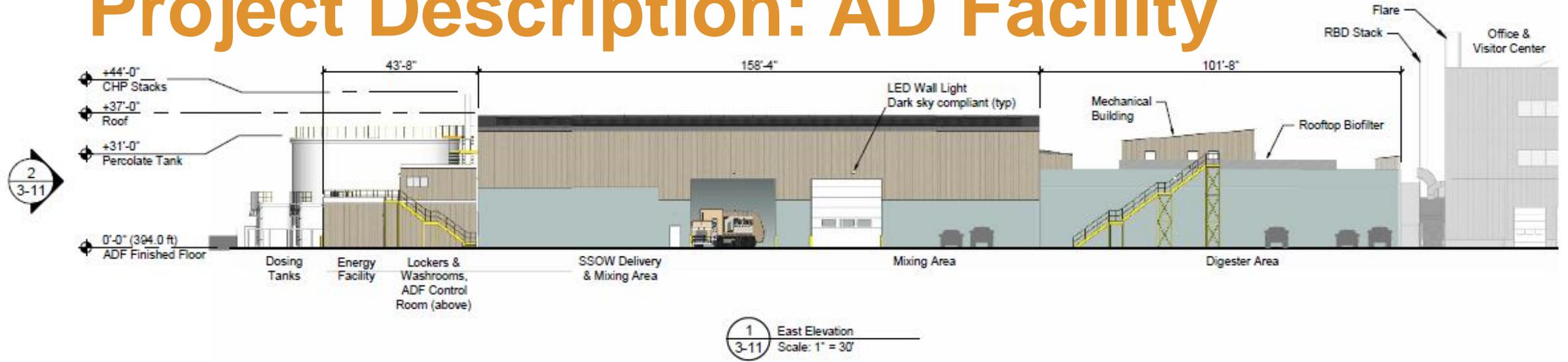
- ~63,600 sf building housing up to 16 digesters
- Processing up to 240 TPD and 73,600 TPY of organics
- Includes control room, water treatment unit, percolate tanks

Project Description

The Anaerobic Digestion (AD) Facility:

- Highlights include:
 - Dust collection system
 - Bio-filter
 - Solar panels
 - Flare to combust bio-gas released when digester doors opened

Project Description: AD Facility



Abbreviations

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

Project Description

Energy production at the AD Facility:

- Two 1,573 horsepower internal combustion engines
- Process up to 237 million ft³/year of bio-gas
- Engine-driven generators to produce up to 13,714 MW-hrs/year

Project Description

Composting area (~5 acres):

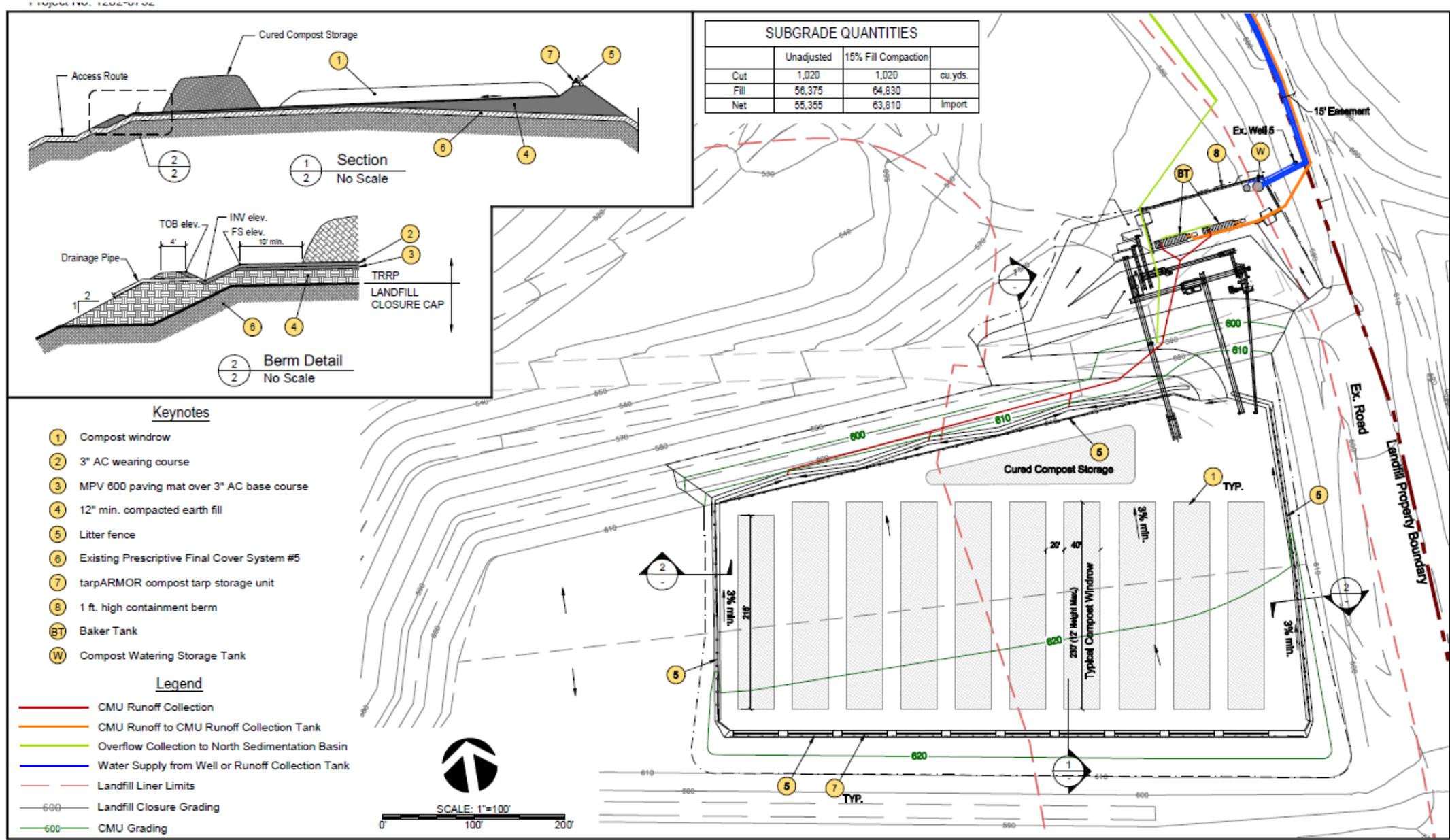
- Digestate cured in windrows for ~ 6 weeks, produces up to 26,000 TPY of compost
- Emissions and odors minimized through use of wood chips, irrigation, and finished compost
- Storm runoff contained on site, filtered and re-used

Project Description

Composting area (~5 acres):

- Emissions and odor from compost windrows minimized by blending with wood chips, irrigation after pile turning and application of finished compost to new compost piles as a pseudo bio-filter
- Storm runoff contained on site, filtered, stored and re-used on compost piles, other BMPs

Project Description: Composting Area



Environmental Review & Public Comment

- Subsequent Environmental Impact Report
 - Notice of Preparation - April 19, 2012
 - Public scoping meeting - May 14, 2012
 - Public Comment Period - August 11, 2014 to October 9, 2014
 - Planning Commission briefing - September 3, 2014
 - Public hearing on the Draft Subsequent EIR - September 4, 2014
 - Proposed Final SEIR - December 15, 2015
- Planning Commission 65402 determination - January 6, 2016

Project Impacts

- Class I (Significant and Unavoidable)
 - No Project-Specific
 - Significant Air Quality and Biological Impacts due to Extension of Landfill Life

Project Impacts

- Class II (Significant but mitigable impacts)
 - Extension of Landfill life (hazards, cultural resource, nuisances)
 - Visual Resources
 - Biological Resources
 - Hazards and Hazardous Materials/Fire
 - Geologic
 - Cultural Resources
 - Land Use
 - Water Resources/Quality

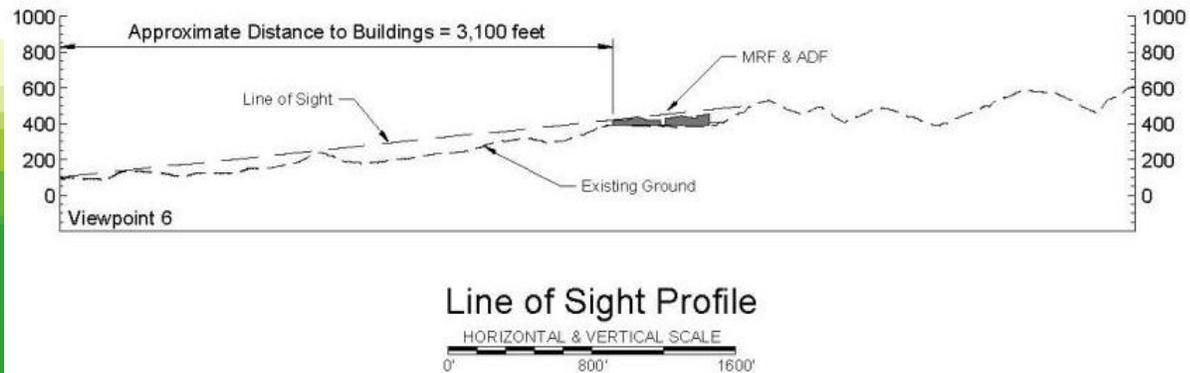
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EXISTING & PERMITTED CONDITIONS



PERMITTED + PROJECT CONDITIONS



Beneficial Impacts

- Significant Greenhouse Gas reductions
 - Diversion of organic waste
 - Enhanced recycling
- Reduced airborne litter

Alternatives Selection

- Required to look at alternatives that have the potential to reduce significant environmental impacts
- Some Alternatives are based on public input
- Alternative Technologies

Alternatives Considered in the SEIR

- A. No project: continued use of the Tajiguas Landfill until capacity reached in ~2026
- B. Urban Area MRF Alternative 1: MRF at 620 Quinientos Street, Santa Barbara (owned by MarBorg Industries), ADF and other facilities at the Landfill
- C. Urban Area MRF Alternative 2: MRF at South Coast Recycling & Transfer Station (SCRTS), ADF and other facilities at the Landfill

Alternatives Considered in the SEIR

- D. Off-Site Aerobic Composting: the MRF would be located at the Tajiguas Landfill, the AD Facility would be replaced with aerobic composting of organics at the Engel & Gray Composting Facility in Santa Maria

- E. No Project Alternative: expand capacity at the Tajiguas Landfill

Alternatives Considered in the SEIR

- F. No Project Alternative: export waste to the Simi Valley Landfill & Recycling Center

- G. No Project Alternative: export waste to the planned Santa Maria Integrated Waste Management Facility

Review of Alternatives

- CEQA requires identification of the environmentally superior alternative
- Of the alternatives studied, Alternative C (MRF at SCRTS) is environmentally superior however...
- The proposed project at Tajiguas Landfill is environmentally superior to all of the alternatives

Public Comments

- Reliability of the AD Technology
 - AD facilities are proven technology successfully operating in Europe and US (11 in CA processing waste material)
 - Failure not considered to be reasonably foreseeable

Public Comments

- Adequacy of Compost Quality
 - Represents less than 10% of total material being processed
 - Financial penalty to vendor for any material that does not meet state specifications
 - Extensive post processing screening expected to be effective in removing contamination
 - Proposed testing protocol of finished product

Public Comments

- Enhanced Source Separation Alternative
 - Diversion rate currently above 70 percent
 - Many zero waste communities supplementing their source-separated collection programs
 - No new programs that can approach the TRRP's expected diversion rate

Public Comments

- Alternative C (MRF at South Coast Recycling and Transfer Station)
 - Significant public opposition
 - Prior Board policy statement

Public Comments

- Extension of Life of Tajiguas Landfill and Industrialization
 - Continuation of waste management activities
 - Canyon setting limits visibility and design and mitigation measures further reduce visual impacts
 - Closure of most visible parts of landfill in progress

Other Permits

- Authority to Construct/Permit to Operate (APCD)
- Revised Industrial Storm Water Permit (RWQCB)
- Building and Infrastructure permits (P&D, EHS)
- Revised Solid Waste Facilities Permit (EHS, CalRecycle)

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Tajiguas Resource Recovery Project

Next Steps & Recommendations

Next Steps

- Today's items are the first steps in the project approval process
- Several **Conditions Precedent** in WSA that must be completed in 180 days before Agreement becomes effective, including:
 - Completion of the CEQA review process
 - Negotiation and approval of the Material Delivery Agreements with each of the cities proposing to use the facility
 - Securing public financing that meets County approval
 - Review and approval of Subcontractor agreements

Next Steps

- If these **Conditions Precedent** are not either met or waived by the Board, the Agreement will not become effective
- Revisions to the WSA may be necessary in the future including:
 - Revisions by the lender selected to provide public financing, or
 - Revisions necessary as a result of negotiations with the cities
 - If Contractor does not accept revisions, Agreement is void
- Staff would return to your Board for approval of these revisions

Recommendations

- Make the required CEQA findings for approval of the proposed project
- Certify the Final Subsequent Environmental Impact Report
- Receive the Debt Advisory Committee's recommendation concerning the potential use of public financing for this project

Recommendations

Direct the Public Works Department to:

- Negotiate proposed Material Delivery Agreements with the participating jurisdictions
 - Jurisdictions to consider approval of MDAs in September (including CEQA findings)
- Work with the Treasurer Tax Collector, Auditor-Controller, County Counsel, and County Executive Office to pursue public financing
- Seek grant funding, if available

Recommendations

- Obtain local, state and federal permits to the extent required by law
- Relocate existing operations facilities at the Tajiguas Landfill as identified in the project description to accommodate construction of the TRRP
- Return to the Board in the Fall for approval of:
 - Material Delivery Agreements with the cities
 - Public financing