Appendix M
Waste Management Plan

WASTE MANAGEMENT PLAN FOR THE PASEO MONTRIL PROJECT
SAN DIEGO, CALIFORNIA
PTS-658273

Prepared for:

Tri Pointe Homes
13400 Sabre Springs Parkway
San Diego, California 92128

Prepared by:

DUDEK
605 Third Street
Encinitas, California 92024

APRIL 2022
REVISED AUGUST 2022

Printed on 30% post-consumer recycled material.

Table of Contents

TABLES

1 Introduction

1.1 Plan Purpose

The purpose of this Waste Management Plan (WMP) is to identify the solid waste impacts of the proposed Paseo Montril Project (project) located on Paseo Montril, in the Rancho Peñasquitos community of the City of San Diego (City), California (Figure 1, Location) and discuss potential mitigation to reduce project impacts to solid waste services. The goal of this WMP is to provide a plan for the diversion of 75% of waste generated during the demolition and construction at the multifamily development project. The project involves construction of a 55-unit multifamily residential development within 4.90 acres of a 15.2-acre project site (Figure 2, Site Plan). The project would be required to provide adequate refuse, organic waste, recyclable material storage per San Diego Municipal Code Chapter 14, Article 2, Division 8 (Refuse, Organic Waste, and Recyclable Material Storage Regulations).

1.2 WMP Background

1.2.1 State Legislation

California Mandatory Commercial Organics Recycling – Assembly Bill 1826

In October 2014, Governor Brown signed AB 1826, requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses, including multi-family residential dwellings that consists of five or more units. Organic waste is defined as food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. However, multi-family dwellings are not required to have a food waste diversion program. This law phases in the mandatory recycling of commercial organics over time, while also offering an exemption process for rural counties. In particular, the minimum threshold of organic waste generation by businesses decreases over time, which means an increasingly greater proportion of the commercial sector will be required to comply.

California Solid Waste Reuse and Recycling Access Act of 1991 – Assembly Bill 1327

AB 1327, which was established in 1991, required CalRecycle to develop a model ordinance for the adoption of recyclable materials in development projects. Local agencies were then required to adopt the model, or an ordinance of their own, governing adequate areas for collection and loading of recyclable materials in development projects.

Disposal Measurement System Act of 2008 – Senate Bill 1016

SB 1016 maintains the 50% diversion rate requirement established by AB 939, and also established revised calculations for those entities that did not meet the 50% diversion rate. SB 1016 also established a per-capita disposal measurement system to make the process of goal measurement, as established by AB 939, simpler, timelier, and more accurate. The new disposal-based indicator—the per-capita disposal rate—uses only two factors, (1) a jurisdiction's population (or in some cases employment) and (2) its disposal rate as reported by disposal facilities.

Solid Waste Diversion – Assembly Bill 341

Effective July 1, 2012, AB 341 requires that commercial enterprises that generate four cubic yards or more of solid waste weekly participate in recycling programs. This requirement also includes multi-family housing complexes of five units or more, regardless of the amount of solid waste generated each week. The purpose of this requirement is to reduce greenhouse gas emissions by diverting commercial solid waste to recycling, and to expand recycling opportunities in California. As part of implementing AB 341, the California Legislature set an ambitious goal of 75% recycling, composting, or source reduction of solid waste by 2020. The law calls for the state and CalRecycle to take a statewide approach to decreasing California's reliance on landfills. CalRecycle is actively working to develop and implement programs to achieve the 75% target.

Organic Waste Disposal – Senate Bill 1383

In September 2016, the State Legislature brought forward SB 1383, to reduce greenhouse gasses and associated climate change. SB 1383 established statewide targets to reduce the amount of organic waste disposal in landfills. More specifically, it required a 50% reduction by 2020 and 75% by 2025. In addition, it established a State goal to reduce food waste by 20% by 2025 by donating it to people in need. To achieve these goals, the California Department of Resources, Recycling and Recovery (CalRecycle) adopted regulations in November 2020 that take effect January 2022. The City of San Diego plans to implement organic food waste collection and recycling in summer 2022.

1.2.2 San Diego Local Legislation

City of San Diego General Plan

The City's Public Facilities, Services, and Safety Element of the General Plan addresses facilities and services that are publicly managed and have a direct influence on the location of land uses. These include Fire-Rescue, Police, Wastewater, Storm Water, Water Infrastructure, Waste Management, Libraries, Schools, Information Infrastructure, Disaster Preparedness, and Seismic Safety. The purpose of this chapter is to provide the public facilities and services needed to serve the existing population and new growth.

Waste Management Policies

- PF-I.1. Provide efficient and effective waste collection services.
  a. Encourage waste reduction and recycling with source-separated collection of materials.
  b. Provide space for recycling containers and efficient collection.
- PF-I.2. Maximize waste reduction and diversion (see also Conservation Element, Policy CE.A.9).
  a. Conveniently locate facilities and informational guidelines to encourage waste reduction, diversion, and recycling practices.
  c. Support resource recovery programs that produce soil additives, mulch, or compost from yard debris and organic waste.
  d. Maximize the separation of recyclable and compostable materials.
  e. Reduce and recycle Construction and Demolition (C&D) debris. Strive for recycling of 100% of inert C&D materials and a minimum of 50 percent by weight of all other material.
  f. Encourage the private sector to build a mixed construction and demolition waste materials recycling facility.

City of San Diego Zero Waste Plan

The City's Zero Waste Plan, a component of the City's Climate Action Plan, was approved and adopted by the City Council on July 13, 2015. The Zero Waste Plan lays out strategies to be implemented by the City to accomplish the following goals:

- Target 75 percent diversion by 2020, 90 percent diversion by 2035, and "zero waste" by 2040 by identifying potential diversion strategies for future action. To increase the City's waste diversion rate to 75 percent will require an estimated additional 332,000 tons per year to be diverted from landfill disposal;
- Demonstrate continuous improvement towards a goal of zero waste to landfills;
- Emphasize education by renewing City public information efforts;
- Promote local policies and ordinances and legislation at the state level that encourage manufacturers, consumers, and waste producers to be responsible for waste;
- Investigate appropriate new technologies; and
- Re-emphasize market development at the local and state level.

The City's ESD estimates that compliance with existing City codes and ordinances alone (including the Refuse and Recyclable Materials Storage Regulations [Municipal Code Chapter 14, Article 2, Division 8], Recycling Ordinance [Municipal Code Chapter 6, Article 6, Division 7], and the Construction and Demolition (C&D) Debris Deposit Ordinance [Municipal Code Chapter 6, Article 6, Division 6]) would achieve only an approximate 40% diversion rate, which is substantially below the current 75% diversion level targeted by the state and the goals of the City's Zero Waste Plan.

The Recycling Ordinance requires all single-family, multi-family, and commercial uses to participate in a recycling program by separating recyclable materials from other solid waste and depositing the recyclable materials in the approved recycling containers. The C&D Debris Deposit Ordinance requires project applicants to submit a Waste Management Form with the building permit or demolition/removal permit, to provide a general estimate of the total waste generated by the project including how much will be recycled. The code requires a minimum diversion rate of 50% for building permits or demolition/removal permits issued within 180 calendar days of the effective date of the ordinance, and a minimum diversion rate of 75% for building permits or demolition/removal permits issued after 180 calendar days from the effective date of the ordinance, provided that a certified recycling facility which accepts mixed construction and demolition debris is operating within 25 miles of the City Administrative Building, located at 202 C Street, San Diego (City of San Diego 2015). The Preliminary Waste Management Plan identifies the certified Otay C&D/Inert Debris Processing Facility in Chula Vista.

San Diego Municipal Code

In compliance with AB 939 and AB 341, the City is currently at a waste diversion rate of 67%. The City has adopted programs and policies requiring individual developments to incorporate recycling and waste reduction measures, and waste reduction and recycling programs have been implemented to assist the City in reducing waste in compliance with state law.

The following sections of the Municipal Code target waste reduction:

Chapter 6, Article 6, Division 6. This section (and related ordinances) requires project applicants to submit a Waste Management Form with the building permit or demolition/removal permit, to provide a general estimate of total

project waste generation, including how much will be recycled. The code requires a minimum diversion rate of 50% for building permits or demolition/removal permits issued within 180 calendar days of the effective date of the ordinance. A minimum diversion rate of 75% is required for building permits or demolition/removal permits issued more than 180 calendar days after the effective date of the ordinance, provided that a certified recycling facility that accepts mixed construction and demolition debris operates within 25 miles of the City Administrative Building, which is the case here with the Otay C&D/Inert Debris Processing Facility in Chula Vista.

Chapter 6, Article 6, Division 7 (Recycling Ordinance). This section requires all single-family, multi-family, and commercial uses to participate in a recycling program by separating recyclable materials from other solid waste and depositing the recyclable materials in approved recycling containers.

Chapter 14, Article 2, Division 8 (Refuse, Organic Waste, and Recyclable Material Storage Regulations). This section is intended to encourage solid waste recycling through requirements to provide permanent, adequate, and convenient space for the storage and collection of refuse, organic waste, and recyclable material. Specific requirements for new residential development include the provision at least one exterior refuse and recyclable material storage area per building. In addition, each dwelling unit must include an interior refuse, organic waste, and recyclable material storage area. The exterior storage area is depending on the project size as detailed in San Diego Municipal Code Table 142-08B (included as Table 1 below), and is noted to be 144 sf for each refuse, organic waste and recyclable materials for residential projects between 51 and 75 units.

Table 1. Minimum Exterior Refuse, Organic Waste and Recyclable Material Storage Areas for Residential Development

Number of Dwelling Units per Development	Minimum Refuse Storage Area per Development (square feet)	Minimum Organic Waste Storage Area per Development (square feet)	Minimum Recyclable Material Storage Area per Development (square feet)	Total Minimum Storage Area per Development (square feet)
2-6	12	12	12	36
7-15	24	24	24	72
16-25	48	48	48	144
26-50	96	96	96	288
51-75	144	144	144	432
76-100	192	192	192	576
101-125	240	240	240	720
126-150	288	288	288	864
151-175	336	336	336	1,008
176-200	384	384	384	1,152
201+	384 plus 48 square feet for every 25 dwelling units above 201	384 plus 48 square feet for every 25 dwelling units above 201	384 plus 48 square feet for every 25 dwelling units above 201	1,152 plus 96 square feet for every 25 dwelling units above 201

Source: San Diego Municipal Code Chapter 14, Article 2, Division 8

City of San Diego Significance Thresholds

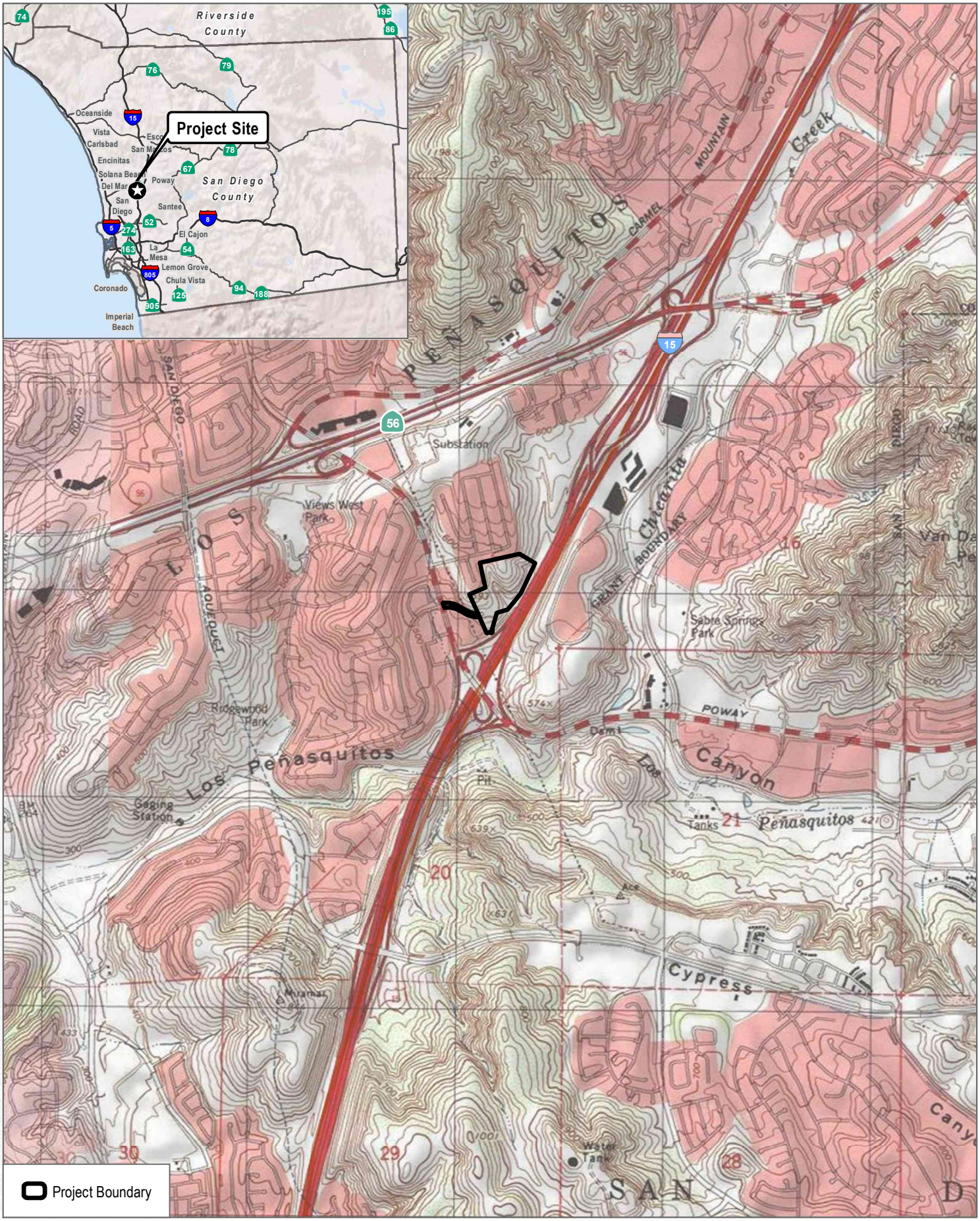
The California Environmental Quality Act (CEQA) considers potential impacts from projects. The City of San Diego's Significance Thresholds, as provided in Table 2, indicate that projects that include the following features are considered to have a potentially significant solid waste impact. Because the site exceeds the thresholds, this WMP identifies mitigation measures to reduce this potential impact to below a significant level.

Table 2. City of San Diego Waste Significance Thresholds

Development Feature (construction, demolition, and/or renovation)	Solid Waste (per year)	Impact
40,000 square feet	60 tons	Cumulative
> 1,000,000 square feet	1,500 tons	Direct

Source: City of San Diego, 2020

INTENTIONALLY LEFT BLANK



SOURCE: USGS 7.5-Minute Series Poway Quadrangle

DUDEK

0 250 500 Meters

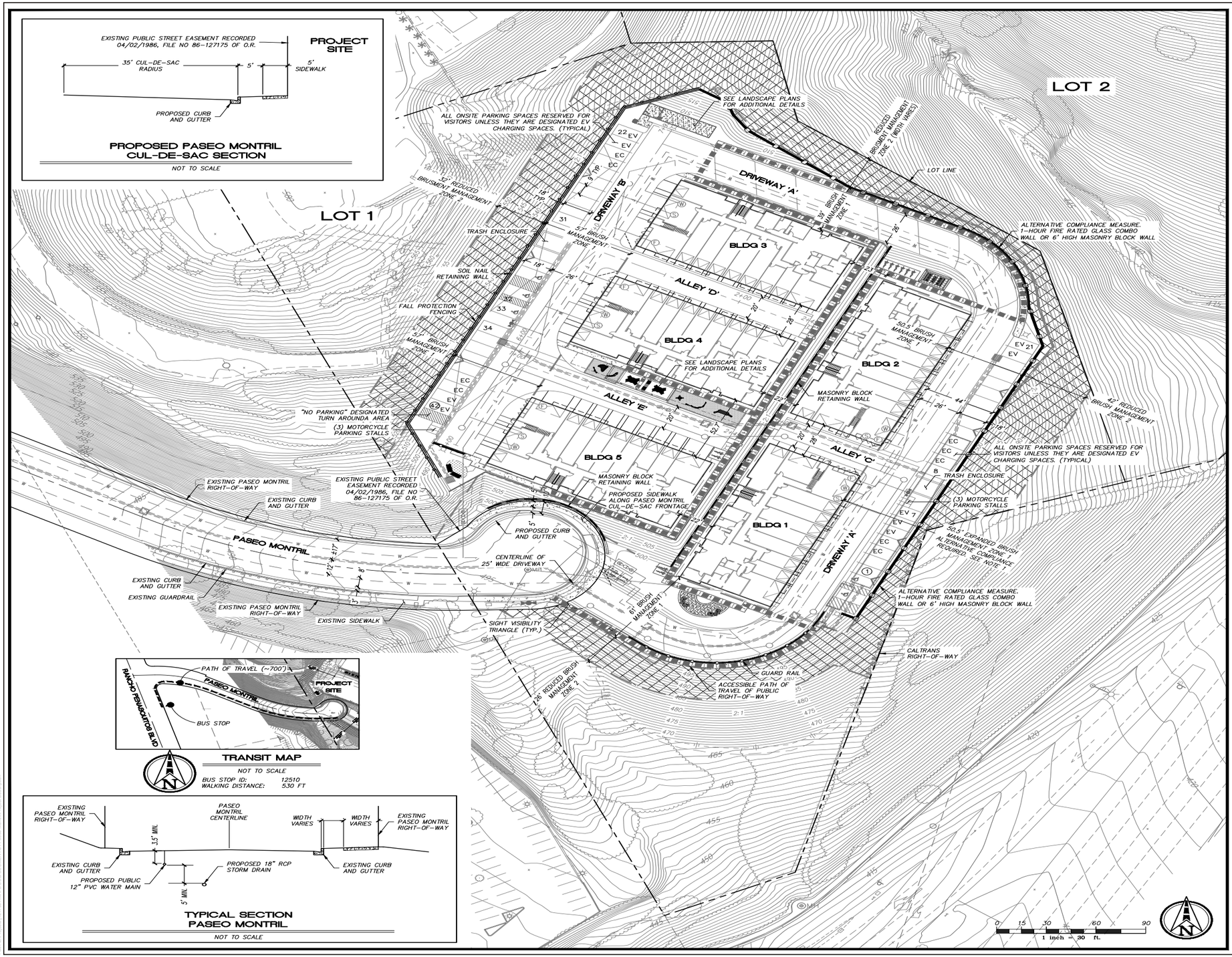
0 1,000 2,000 Feet

FIGURE 1

Project Location

Paseo Montril Development Project

INTENTIONALLY LEFT BLANK



LEGEND

- SLOPES 2:1 MAX
- VTM BOUNDARY
- PROPOSED LOT LINE
- PROPOSED DAYLIGHT LINE
- PROPOSED 6" CURB AND GUTTER
- PROPOSED 6" CURB
- PROPOSED SIDEWALK
- PROPOSED STORM DRAIN
- PROPOSED SD CATCH BASIN INLET
- PRPOSED SD CLEANOUT
- PROPOSED POTABLE WATER (PRIVATE)
- PROPOSED FIRE MAIN (PRIVATE)
- PROPOSED SEWER MAIN (PRIVATE)
- PROPOSED WATER SERVICE
- PROPOSED FIRE SERVICE
- PROPOSED SEWER SERVICE
- PROPOSED IRRIGATION SERVICE
- PROPOSED WATER METER AND BACKFLOW
- PROPOSED FIRE BACKFLOW
- PROPOSED FIRE HYDRANT
- PROPOSED STREET LIGHT
- PROPOSED COMBO WALL W/FIRE RATED GLASS
- PROPOSED WROUGHT IRON FENCE
- PROPOSED FALL PROTECTION FENCE
- PROPOSED RETAINING WALL/COMBO WALL
- PROPOSED GUARDRAIL
- BRUSH MANAGEMENT ZONES
- ADA PATH OF TRAVEL
- MOTORCYCLE PARKING STALL (6 TOTAL) — 8' TYP., 3' TYP., 9' TYP.
- PARKING STALL (44 NON-ADA STALLS) — 18' TYP., 9' TYP.
- PARKING ADA STALL AND LOADING AREA (5 ADA STALLS) — 9' TYP., 9' TYP., 18' TYP.
- VISIBILITY TRIANGLE. NO OBSTRUCTION INCLUDING LANDSCAPING OR SOLID WALLS IN THE VISIBILITY AREA SHALL EXCEED 24 INCHES IN HEIGHT. — 10' TYP., 10' TYP., VISIBILITY TRIANGLE
- EV — ELECTRIC VEHICLE CHARGING SPACE
- EC — ELECTRIC VEHICLE CHARGING CAPABLE SPACE (FOR FUTURE CONNECTION)

SOURCE: Civil Sense 2021

FIGURE 2

Site Plan

Paseo Montril Development Project

DUDEK

INTENTIONALLY LEFT BLANK

2 Site Conditions

2.1 Site Location

The site is located at the eastern terminus of Paseo Montril (APN 315-020-55), within the Rancho Peñasquitos Community Planning Area in the City of San Diego. The subject property is bounded by Interstate 15 (I-15) to the east, single-family residential to the north and north west, and commercial development to the west and south (Figure 1, Location). The project site is located within the RM (Residential-Multiple Unit) zone per the City of San Diego Zoning Map. The project site is zoned as RM-2-5. The site is currently designated as Park, Open Space, and Recreation in the City's General Plan.

2.2 Project Description

The project proposes a Vesting Tentative Map, Site Development Permit, Planned Development Permit and Community Plan Amendment to construct a 55-unit multi-family residential development with supporting utility improvements (Figure 2, Site Plan). The project would split the 15.2-acre lot into two separate lots; Lot 1 (4.90 acres) would consist of the residential development; Lot 2 (10.30 acres) would consist of open space area.

Residential land uses would be developed within five separate buildings within Lot 1. The project site would be graded into three terraces to support the residential development, with the lower terrace containing two residential buildings (Buildings 1 and 2), the middle terrace containing one building (Building 5), and the upper terrace containing two residential buildings (Buildings 3 and 4). Buildings 1 and 2 would be located on the lower terrace within the eastern half of Lot 1, bound by project "Driveway A" to the east and a graded slope to the west, separating these buildings from the upper terrace. Building 5 would be located nearest to the Paseo Montril cul-de-sac. Buildings 3 and 4 would be located on the upper terrace. Each building would contain 11 dwelling units.

The entirety of the project site consists of 15.2 acres, while the area of disturbance would be limited to 3.27 acres in order to accommodate the proposed development. The total livable square footage within the buildings would be 66,220 square feet (sf), within an overall building footprint within the project site of 36,750 sf. The total paved area within the project site would be approximately 37,783 sf. The total landscaped and open space area within the project site is proposed to be 13.4 acres. The project would require the installation of a new water main within Paseo Montril, and other connections to existing public utility lines.

2.3 Current Site Conditions

The 15.2-acre site is primarily characterized by a vacant hillside, ranging from approximately 431 feet to 586 feet above mean sea level, consisting of native/non-native and disturbed habitat.

INTENTIONALLY LEFT BLANK

3 Demolition and Construction Waste

Waste will be generated during the demolition and construction phases of the project. All waste will be segregated into appropriate containers or storage areas pending reuse, recycling or disposal. Segregation and containerization will facilitate the efficiency of materials removal from the project site. The types of demolition and construction waste generation anticipated include:

- Asphalt
- Concrete
- Wood
- Carpet
- Metal
- Soil
- Plant materials/landscaping debris
- Miscellaneous Trash

Because the project site consists of a vacant hillside containing native/non-native and disturbed habitat, no demolition of existing structures would occur. The only required demolition activity associated with the project would be the demolition of asphalt within Paseo Montril in order to accommodate the new water main to be installed within the existing roadway. The project would require the demolition of approximately 4,000 square feet of asphalt in order to accommodate the proposed off-site water main.

The project would include site preparation, grading, paving, trenching for utilities, building construction, and architectural coasting. The analysis contained herein is based on the following assumptions regarding construction phasing (duration of phases is approximate):

- Site Preparation – 20 days
- Grading – 98 days
- Paving – 109 days
- Utility Trenching – 109 days
- Building Construction – 86 days
- Application of Architectural Coating – 21 days

Approximately 3.27 acres of the project site would be graded in order to accommodate construction of the project. Grading is anticipated to require 59,500 cubic yards (cy) of cut, and 12,800 cy of fill, requiring a net export of 46,700 cy of soil. A specific disposal site has not been identified; however, export is anticipated to be taken to either Hanson Aggregates West – Miramar, Moody's, Terra Bella Nursery, or another local construction site. The City would ultimately have approval of the export disposal site as a permit condition.

3.1 Construction and Demolition Permit

All persons applying for a construction or demolition permit in the city will be required to follow the City of San Diego Construction and Demolition Debris Recycling Ordinance. The permit requires applicants to estimate the waste volume to be generated and post a deposit. The required deposit for this project is noted in Section 1.2.2.

3.2 Construction and Demolition Oversight and Waste Reduction Measures

The project management will name one person as the Solid Waste Management Coordinator (SWMC). The SWMC will be responsible for ensuring that the site construction and demolition procedures are followed per the WMP. Examples of the SWMC duties and responsibilities include, but are not limited to, the following:

- Review and Implementation of the WMP.
- Coordinate with contractors and subcontractors: Provide a copy of the WMP and review key points with the contractors and subcontractors.
- Ensure that recycling areas are clearly identified and accessible and placed in areas that will minimize misuse by employees and contractors.
- Coordinate and oversee salvage operations. Obtain documentation for the salvage, recycling, and disposal of wastes. Regularly check the operations and documentation versus the plan to make sure the work is being conducted according to the WMP. Ensure that the project address and permit number are on the recycling facility receipts. Make corrections to update the waste segregation and transportation procedures for on-going work as needed.
- Review and update procedures for materials separation containers. Arrange for daily inspection of the containers to check for contaminants/inappropriate materials, proper labeling, keep track of the number of containers and how long they have been on-site, and identify needs for additional containers for future work. Ensure that bins contain less than 10% contamination by weight.
- Coordinate placement of materials and containers with the project storm water requirements.
- Coordinate a buy recycled program, which could include using mulch and compost for soil amendments and ground covers for erosion control and weed suppression.
- Contact the City Environmental Services Department prior to the start of work for a preconstruction site visit to discuss and review waste management procedures and possible further inspections during demolition and construction. At the preconstruction visit, the SWMC will request the following of the Environmental Services Department:
    - Approval of the contractor education approach
    - Approval of the written specifications for waste and materials management
    - Approval of the containers, signage, and disposal/recycling/reuse facilities
- Stop work authority if proper procedures aren't being met.

3.3 Grading and Demolition Phase

The project site currently consists of a vacant, sloped hillside consisting of native/non-native and disturbed habitat. No demolition of structures would occur as part of the proposed project. However, the project would require the demolition of approximately 4,000 square feet of asphalt in order to accommodate the proposed off-site water main. Site preparation would require the grading of approximately 3.27 acres, which requires the export of an estimated 46,700 cy of site soils. The final disposition of the soil export will depend on several factors including near-by construction sites that could accept fill soil at the time of the excavation as well as any required environmental sampling of the fill soils to identify potential contaminants in the undocumented fill. Alternatively, if

near-by construction sites cannot accept the fill soil for reuse at the time of the excavation, assuming the fill soil meets reuse requirements of recycling facilities (uncontaminated, no organics, no clay, no rocks, no debris, etc.), the recycling facilities noted in the table below will be used. Table 3 below presents a summary of the anticipated demolition waste estimates. As shown, it is estimated the grading and demolition phase waste recycling and reuse would result in a 75% diversion rate.

Table 3. Grading and Demolition Waste Generation Estimates

Waste Material	Waste Source	Estimated Generation Quantity (tons)	Proposed Recycling and/or Disposal Facility	Estimated Diversion Quantity (tons)	Estimated Disposal Quantity (tons)
Asphalt	Roadway	26	**Hanson Aggregates** 9229 Harris Plant Road San Diego, California 92126 **Vulcan Carol Canyon Landfill and Recycle Site** 10051 Black Mountain Road San Diego, California 92126 (100% diversion)	26	—
Soil	Grading	60,710	**Hanson Aggregates West - Miramar** 9229 Harris Plant Rd. San Diego California 92126 **Moody's** 3210 Oceanside Blvd Oceanside, California 92056 **Terra Bella Nursery** 302 Hollister St. San Diego California 92154 **Or local construction sites** (75% diversion)	45,533	15,177
			Total (75% diversion)	**45,559**	**15,177**

Sources: City of San Diego. 2016; EPA. 2009; EPA. 2016; WasteCap Resource Solutions, Inc. 2011, Attachment A

3.4 Construction Phase

The proposed project involves construction of a new multifamily residential development. The proposed development would include 66,220 square feet of multifamily residential living space within the five residential buildings. The construction phase of the proposed project would include waste types as provided in Table 4. As shown, it is estimated the construction phase waste recycling and reuse would result in an 80% diversion rate.

Table 4. Construction Waste Generation Estimates

Waste Material	Estimated Generation Quantity (tons)	Proposed Recycling and/or Disposal Facility	Estimated Diversion Quantity (tons)	Estimated Disposal Quantity (tons)
Concrete and Asphalt	24	**Hanson Aggregates West - Miramar** 9229 Harris Plant Road San Diego, California 92126 **Vulcan Carol Canyon Landfill and Recycle Site** 10051 Black Mountain Road San Diego, California 92126 (100% diversion)	24	—
Scrap Metal	11	**Allan Company** 6733 Consolidated Way San Diego, California 92121 (100% diversion)	11	—
Drywall	20	**EDCO Recovery & Transfer** 3660 Dalbergia Street San Diego, California 92113 (100% diversion)	20	—
Carpet	7	**DFS Flooring** 10178 Willow Creek Road San Diego, California 92131 (100% diversion)	7	—
Cardboard	13	**Allan Company** 6733 Consolidated Way San Diego, California 92121 (100% diversion)	13	—
Unpainted, Clean Wood	32	**Miramar Greenery** 5180 Convoy Street San Diego, California 92111 (100% diversion)	32	—
Miscellaneous Garbage/trash	26	**Miramar Landfill** 5180 Convoy Street San Diego, California 92111 (0% diversion)	—	26
		Total (80% diversion)	**107**	**26**

Sources: City of San Diego. 2016; City of San Diego 2022 – Attachment B. EPA. 2009; EPA. 2016; WasteCap Resource Solutions, Inc. 2011

4 Occupancy

Occupancy of the multifamily residential development will result in the generation of waste. The facility will implement recycling and composting programs, education, and other waste reduction methods in order to reduce the quantity of waste reaching landfills.

The City of San Diego has implemented waste reduction and recycling programs to assist in reducing waste in compliance with state law. According to the San Diego Municipal Code, "The City has met, and continues to make progress in maintaining, the waste diversion requirements imposed by AB 939…" AB 939 requires a 50% or higher waste diversion rate. The estimated solid waste generation during occupancy was estimated using the California Emissions Estimator Model (CalEEMod), updated March 2016, which included ~~This~~ the 50% waste diversion rate associated with AB 939. Further waste diversion is anticipated due to implementation of SB 1383, which requires organics waste diversion (SB 1383 organics waste diversion was not in effect at the time of the March 2016 CalEEMod solid waste generation rate estimates).

As shown in Table 5 below, occupancy of the project is expected to generate approximately 25 tons of waste per year without SB 1383 waste reduction considerations and with AB 939 waste reduction considerations. ~~The estimated solid waste generation during occupancy was estimated using the California Emissions Estimator Model (CalEEMod), updated October 2017.~~ The CalEEMod uses annual waste disposal rates from CalRecycle data for individual land uses. The waste generation rates used for this estimate included the rate of 0.46 tons per year per dwelling unit for apartments. This estimated waste generation rate incorporates a 50% waste diversion rate due to waste diversion and recycling programs that were in place as of 2016 in accordance with AB 939. Therefore, the estimated waste generation from the multifamily residential development prior to any waste reduction or diversion is 0.92 tons per year per dwelling unit. If waste disposal information was not available, waste generation data was used. CalEEMod uses the overall California Waste Stream composition to generate the necessary types of different waste disposed into landfills. See Attachment A for more details.

Table 5. Occupancy Waste Generation Estimate (Without SB1383)

Land Use	Number of Units or Square Footage	Waste Generation Rate Without Consideration of Organics Composting per SB 1383	Estimated Waste Generated Without Consideration of Organics Composting per SB 1383 (tons/year)*
Multifamily Residential	55 units	0.46 tons/year/dwelling unit	25.3

Note:

* Estimated using the California Emissions Estimator Model (CalEEMod) (Breeze ~~2017~~2016). Note this is without the SB1383 additional organic waste recycling requirements recently enacted. However, this includes a 50% diversion rate associated with AB 939 and the estimated waste generation from the multifamily residential development prior to any waste reduction or diversion is 0.92 tons per year per dwelling unit and 50.6 tons per year for the entire project.

Operation of the proposed project will involve on-going waste generation from the multifamily development. The project will be required to provide sufficient refuse and recyclables storage to comply with the San Diego Municipal Code Section 142.0820, which states that each dwelling unit and each structure that contains dwelling units shall be equipped with interior and exterior refuse, organic waste, and recycling storage areas, respectively. Table 6 outlines the refuse and recycling storage requirements based on the San Diego Municipal Code Table 142-08B.

Table 6. Minimum Exterior Refuse, Organic Waste and Recyclable Material Storage Areas for the Project

Land Use	Number of Units or Square Footage	Minimum Refuse Storage Area (square feet)	Minimum Organic Waste Storage Area (square feet)	Minimum Recyclable Material Storage Area (square feet)	Total Minimum Storage Area (square feet)
Multifamily Residential	55 units	144	144	144	432

A minimum of 144 square feet of refuse storage area, 144 square-feet of organic waste storage area, and 144 square feet of recyclable material storage area, for a total of at least 432 square feet of exterior refuse and recyclable material storage area would need to be provided for the residential areas of the project.

Pursuant to San Diego Municipal Code (SDMC) Article 6, Division 7 (Recycling Ordinance) and SDMC Chapter 14, Article 2, Division 8 (Refuse, Organic Waste, and Recyclable Material Storage Regulations), the site shall provide on-site recycling services and associated storage space for the multifamily residential development. The recycling services shall include, at a minimum, the following:

- Collection of recyclable materials at least twice monthly;
- Collection of plastic bottles, plastic and glass jars, paper and newspaper, metal containers, and cardboard;
- Designated recycling collection and storage areas, with proper recycling receptacles, organic waste receptacles, and signage that comply with the Environmental Services Department's Container and Signage Guidelines; and
- Collection of organic waste materials for recycling. AB 1826 and ~~AB~~ SB 1383 require multifamily properties to arrange for organic materials recycling. Organic waste materials include yard clippings, landscape materials, and food waste. The site will provide food waste bins for residents to collect food waste. The food waste, yard clippings, and landscape materials will be composted through a private hauler.

In accordance with SDMC Section 66.0706 (f), the site shall educate occupants about the recycling services by providing the following:

- Information shall be provided to all occupants annually, to new occupants upon move-in, and to all occupants upon any change in the recycling service at the site including:
  - Information on the types of recyclable materials accepted,
  - the occupants' responsibility to recycle, and
  - the location of recycling containers.

Further waste reduction methods and environmentally-preferable practices during occupancy relate to plant selection, use of reclaimed water and low-yield drip irrigation where appropriate, use of efficient lighting and plumbing, as well as collection of green waste for management and recycling by a local facility. Additional waste reduction methods could include mulching, grass-cycling, reducing lawn size, and proper pruning.

SB 1383 and San Diego Municipal Code Chapter 14, Article 2, Division 8 (Refuse, Organic Waste, and Recyclable Material Storage Regulations) provides for a reduction in organic waste. As these regulations and

associated requirements were not in effect at the time the 2014 CalRecycle data was collected or included in the ~~2017~~ 2016 CalEEMod waste generation assumptions, this additional organic waste reduction has been adjusted separately. Note that AB 939 reductions in waste due to recycling and other waste diversion methods, resulting in a 50% waste diversion rate, have been accounted for in the CalEEMod waste generation assumptions provided in Table 5. Based on Calrecycle data that identifies waste generated by multi-family homes in the City of San Diego by waste type (Calrecycle 2014; Attachment C), ~~waste generated by multi-family homes in the City of San Diego by waste type is identified in Table 6 below.~~ organic wastes typically account for approximately 44% of total wastes for multifamily residential developments. Therefore, organic wastes generated by the project ~~are~~ is anticipated to be approximately 44% of 0.46 tons per year per dwelling unit, or approximately 0.2 tons per year per dwelling unit. Considering the 75% organic waste diversion expected through compliance with these regulations, organic waste generated by the project that would be deposited in the landfill would be reduced from 0.2~~0~~ tons per year per dwelling unit to 0.05 tons per year per dwelling unit. Based on this anticipated organics reduction of 0.15 tons per year per dwelling unit, the anticipated waste generation rate is expected to be reduced to 0.31 tons per dwelling unit per year (see Table 7).

Overall, the total project operational waste deposited in a landfill is expected to be reduced from an initial waste generation rate of 0.92 tons per dwelling unit per year (or 50.6 tons/year) to 0.~~32~~ 31 tons per dwelling unit per year (or 17.1 tons/year) (Table 7). Therefore, there is an anticipated 66% total waste reduction rate associated with the project. With the proposed 55 units, the project is expected to deposit 17.~~6~~1 tons of total waste per year in a landfill.

Table 7. ~~Occupancy Waste by Waste Type~~Total Project Operations Waste Generation Estimate

~~Waste Type~~Land Use	~~Typical San Diego Multi-family Household Percent based on CalRecycle Data~~Initial Estimated Waste Generation Rate per CalEEMod with No Waste Reduction	~~Amount Generated by the Project Without SB 1383 Reductions (tons per year per dwelling unit)~~Estimated Waste Generation Rate per CalEEMod Accounting for a 50% Waste Reduction per AB 939	~~Project Waste with SB 1383 (75%) Diversion (tons per year per dwelling unit)~~Estimated Waste Generation Rate Accounting for a 75% Organics Reduction per SB 1383	Overall Percent Reduction
~~Paper~~Multifamily Residential	0.92 tons/year/dwelling unit~~23.51%~~	0.46 tons/year/dwelling unit~~0.10~~	0.31 tons/year/dwelling unit[1] ~~0.11~~[1]	66%
	50.6 tons/year	25.3 tons/year	17.1 tons/year	
~~Glass~~	~~2.59%~~	~~0.01~~	~~0.01~~	
~~Metal~~	~~3.93%~~	~~0.02~~	~~0.02~~	
~~Electronics~~	~~1.57%~~	~~0.01~~	~~0.01~~	
~~Plastic~~	~~11.01%~~	~~0.05~~	~~0.05~~	
~~Organic Waste~~	~~44.09%~~	~~0.20~~	~~0.05~~	
~~Inerts and Other~~	~~6.09%~~	~~0.03~~	~~0.03~~	
~~Household Hazardous Wastes~~	~~0.08%~~	~~0.00~~	~~0.00~~	

Table 7. ~~Occupancy Waste by Waste Type~~Total Project Operations Waste Generation Estimate

~~Waste Type~~Land Use	~~Typical San Diego Multi-family Household Percent based on CalRecycle Data~~Initial Estimated Waste Generation Rate per CalEEMod with No Waste Reduction	~~Amount Generated by the Project Without SB 1383 Reductions (tons per year per dwelling unit)~~Estimated Waste Generation Rate per CalEEMod Accounting for a 50% Waste Reduction per AB 939	~~Project Waste with SB 1383 (75%) Diversion (tons per year per dwelling unit)~~Estimated Waste Generation Rate Accounting for a 75% Organics Reduction per SB 1383	Overall Percent Reduction
~~Special Wastes~~	~~3.67%~~	~~0.02~~	~~0.02~~	
~~Mixed Residue~~	~~3.46%~~	~~0.02~~	~~0.02~~	
~~Total~~	~~100.00%~~	~~0.46~~	~~0.32~~	

Sources: CalRecycle 2014, Attachment C; Breeze ~~2017~~2016

Notes: [1] Organic waste makes up approximately 44% of total waste associated with multifamily residential developments in the City. Based on this, the project would generated approximately 0.2 tons of organic waste per year per dwelling unit (44% of 0.46 tons per year per dwelling unit, or approximately 0.2 tons per year per dwelling unit). Considering the 75% organic waste diversion required under SB 1383, organic waste generated by the project that would be deposited in the landfill would be reduced from 0.2 tons per year per dwelling unit to 0.05 tons per year per dwelling unit, resulting in an anticipated organics reduction of 0.15 tons per year per dwelling unit, and therefore a total estimated waste generation of 0.31 tons per dwelling unit per year.

INTENTIONALLY LEFT BLANK

5 Conclusions

A waste management plan must be prepared and submitted to the City of San Diego Environmental Services Department when a project would exceed the City's Significance Thresholds related to solid waste. This WMP is a preliminary plan that identifies the intent of the applicant to meet the City's solid waste Significance Thresholds. A final WMP will be submitted to the Environmental Services Department for review and approval prior to the start of demolition activities.

This WMP includes a timeline for the demolition and construction phases; estimates of wastes that may be generated during the demolition, construction, and occupancy of the project and where such wastes may be taken for disposal, reuse, or recycling; discussion of waste reduction measures and education, and details of operational refuse and recyclables storage. Additionally, this WMP discusses how the project will comply with City ordinances and State regulations. Complying with the WMP and these ordinances and regulations will ensure that the project impacts related to solid wastes would be at a level that is less than significant.

Implementation of this WMP involves a 75% diversion rate for grading and demolition waste, and a 80% diversion rate for construction waste. The majority of waste generated during the demolition, grading, and construction phase would consist of export soil. At least 75% of the soil exported from the site will be sent to facilities for reuse. The occupancy of 55 units would result in the generation of waste. The property will provide sufficient refuse, organic waste and recycling containers and education to comply with City ordinances and provide sufficient waste diversion. The total waste generated (with no waste reductions applied) would be 0.92 tons of waste per year per dwelling unit or 50.6 tons of waste per year. With the incorporation of additional organic waste recycling per recent SCMC requirements and AB 939 requirements, waste deposited at the landfill would be reduced to 17.6~~-~~1 tons of waste annually (or 0.31 tons of waste per year per dwelling unit). These operational waste diversion measures, along with the construction and demolition waste reduction measures noted in Section 3.2, will reduce the project impacts related to solid wastes to a less-than-significant level.

INTENTIONALLY LEFT BLANK

6 References

CalRecycle. 2014. Residential Waste Stream by Material Type. https://www2.calrecycle.ca.gov/WasteCharacterization/ResidentialStreams

City of San Diego. 2016. Construction & Demolition (C&D) Debris Conversion Rate Table. June 6. https://www.sandiego.gov/sites/default/files/legacy/environmental-services/recycling/pdf/cdmaterialconversiontable.pdf?msclkid=6bce23ddbac011ec9928af6cdaaada48

City of San Diego. 2020. California Environmental Quality Act Significance Determination Thresholds.

City of San Diego 2022. 2022 Certified Construction & Demolition (C & D) Recycling Facility Directory. March 7. https://www.sandiego.gov/sites/default/files/certified-cd-recycling-facility-directory.pdf

EPA. 2009. Estimating 2003 Building-Related Construction and Demolition Materials Amounts. March. https://www.epa.gov/sites/default/files/2017-09/documents/estimating2003buildingrelatedcanddmaterialsamounts.pdf?msclkid=b3703234bac111ec9bd5afe8250b64f9

EPA. 2016. Standard Volume-to-Weight Conversion Factors. https://www.epa.gov/sites/default/files/2016-04/documents/volume_to_weight_conversion_factors_memorandum_04192016_508fnl.pdf

Breeze. 2017. California Emissions Estimator Model (CalEEMod). Solid Waste Generation Rates. http://caleemod.com/

WasteCap Resource Solutions, Inc. 2011. Construction and Demolition Waste Management Toolkit. http://syracuselandbank.org/wp-content/uploads/2014/07/CD-weight-to-volume-calculation-Waste-Cap-from-other-sources.pdf?msclkid=1f027a03bac211ec860338e69f1efb42

INTENTIONALLY LEFT BLANK

Appendix A

Waste Assumptions

Waste Management Plan - Waste Assumptions

Demolition:

Material Type	Area (sf)	Thickness (ft)	Volume (cf)	Volume (cy)	Density (tons/cy)	Mass (tons)	Source of Area or Volume	Notes on Mass Calculation
Asphalt	4,000	0.25	1000	37.04	0.7	26	SF provided by Fuscoe	City C&D debris conversion rate table
Concrete Paving	0	0.33	0	0.00	1.3	0	Estimate of concrete provided by Fuscoe	City C&D debris conversion rate table
Concrete Foundation	0	0.5	0	0.00	1.3	0	Existing building square footage per PD	City C&D debris conversion rate table
Landscaping	0	varies - assumed avg 1.5 ft	0	0.00	0.15	0	SF provided by Fuscoe, assume average thickness of 1.5 ft	City C&D debris conversion rate table
Carpet	0				0.0005 tons/sf	0	Assume 1/2 of interior sf	City C&D debris conversion rate table
Carpet Padding	0				0.000125 tons/sf	0	Assume 1/2 of interior sf	City C&D debris conversion rate table
Floor Tile	0				0.00175 tons/sf	0	Assume 1/3 of interior sf	City C&D debris conversion rate table
Ceiling Tiles	0				0.0003 tons/sf	0	Assume 1/2 of interior sf	City C&D debris conversion rate table
Dry Wall					0.25	0	SF of drywall unknown, therefore assume 6 % of total demo waste per C&D Toolkit*	City C&D debris conversion rate table
Roofing Shingles (asphalt)	0				240 lb/100sf	0	Assume equal to building square footage	Roofing; Fine Homebuilding, 1997
Garbage/Trash						0	Assume 12% of total demo waste per C&D Toolkit*	
Brick/masonry						0	Assumed 2% of total demo waste per C&D Toolkit*	
Unpainted wood						0	Assumed 20% of total demo waste per C&D Toolkit*	
Scrap Metal						0	Assumed 4% of total demo waste per C&D Toolkit*	

Total tons waste 26 Includes landscaping, where the C&D Toolkit estimates do not

Total tons demo waste estimated based on C&D Toolkit that assumes 115 lbs/sf for multifamily demo waste (for comparison) 0 Construction and Demolition Waste Management Toolkit, WasteCAp Resource Solutions, Inc. 2011

Construction:

Material Type	Area (sf)	Thickness (ft)	Volume (cf)	Volume (cy)	Density (tons/cy)	Mass (tons)	Source of Area or Volume
Soil Export				46,700	1.3	60710	per PD
Asphalt and Concrete/Masonry						24	Assumed 18% of total Construction waste by weight per C&D Toolkit*
Wood						32	Assumed 24% of total Construction waste by weight per C&D Toolkit*
Carpet, Padding, Foam						7	Assumed 5% of total Construction waste by weight (estimated)
Drywall						20	Assumed 15% of total Construction waste by weight per C&D Toolkit*
Cardboard						13	Assumed 10% of total Construction waste by weight per C&D Toolkit*
Metals						11	Assumed 8% of total Construction waste by weight per C&D Toolkit*
Garbage/Trash						26	Assumed 20% of total Construction waste by weight per C&D Toolkit*
Total tons waste excluding soil export						132	
Total Construction Waste Estimate	66220				4 lbs/sf	132	Total waste based on USEPA 2009 generation rate of 4 lbs per sf for a multi-family residential development

U.S. Environmental Protection Agency (U.S. EPA)

Amounts. March. https://www.epa.gov/sites/production/files/2017-09/documents/estimating2003buildingrelatedcanddmaterialsamounts.pdf.

Occupancy

Material Type	Units	Thickness (ft)	Volume (cf)	Volume (cy)	Density (tons/cy)	Mass (tons/year)	Source of Area or Volume
Residential Waste	55					25	0.46 tons/year/unit
Residential Waste with Organic Waste Recycling	55					17.6	0.32 tons/year/unit (see Attachment B)

Notes:

Existing bldg footprint sf per PD	0	per project
Existing Number of existing units	0	description
		assumed to be 175% of the building footprint,
Exisitng interior sf	0	to account for
Planned interior sf	66,220	

* Construction and Demolition Waste Management Toolkit, WasteCap Resource Solutions, Inc. 2011 provides estimates of percentages by weight for single family homes and commercial buildings. Dudek used a number in between the SFH and commerical estimates.

Appendix B

2022 Certified Recycling Facility Directory

Environmental Services

2022 Certified Construction & Demolition (C&D) Recycling Facility Directory

- **Material taken to a landfill is DISPOSAL. NO diversion credit is given for any material taken to a landfill.**
- You must use one of these facilities to receive diversion credit.
- Please call ahead to confirm details such as accepted materials, days and hours of operation, limitations on vehicle types, and cost.
- Ensure the project address and permit number are on the receipt.

The facilities marked below with an asterisk are transfer stations

IMPORTANT DRIVER INSTRUCTIONS - If you deliver to a transfer station, you must have your driver:
- State that your load is Construction and Demolition (C&D) debris, and ensure it is coded correctly on the receipt.
- Tickets coded as "**MSW, trash, or refuse**" will receive 0% credit.

	Asphalt/Concrete	Brick/Block/Rock	Building Materials for Reuse	Cardboard	Carpet	Carpet Padding	Ceiling Tile	Ceramic Tile/Porcelain	Clean Fill Dirt	Clean Wood/Green Waste	Drywall	Industrial Plastics	Lamps/Light Fixtures	Metal	Mixed Inerts	Styrofoam Blocks	Trash	Mixed C & D Debris
EDCO Recovery & Transfer 3660 Dalbergia St, San Diego, CA 92113 619-234-7774 | www.edcodisposal.com	•									•							•	**73%**
EDCO Station Transfer Station & Buy Back Center 8184 Commercial St, La Mesa, CA 91942 619-466-3355 | www.edcodisposal.com	•			•						•			•				•	**73%**
EDCO CDI Recycling & Buy Back Center 224 S. Las Posas Rd, San Marcos, CA 92078 760-744-2700 | www.edcodisposal.com				•	•	•							•				•	**80%**
Escondido Resource Recovery 1044 W. Washington Ave, Escondido 760-745-3203 | www.edcodisposal.com																		**73%**
Fallbrook Transfer Station & Buy Back Center 550 W. Aviation Rd, Fallbrook, CA 92028 760-728-6114 | www.edcodisposal.com				•									•				•	**73%**
Otay C&D/Inert Debris Processing Facility 1700 Maxwell Rd, Chula Vista, CA 91913 619-421-3773 | www.sd.disposal.com																		**90%**
Ramona Transfer Station & Buy Back Center 324 Maple St, Ramona, CA 92065 760-789-0516 | www.edcodisposal.com				•									•				•	**73%**
SANCO Resource Recovery & Buy Back Center 6750 Federal Blvd, Lemon Grove, CA 91945 619-287-5696 | www.edcodisposal.com				•	•	•							•					**73%**
Allan Company 6733 Consolidated Wy, San Diego, CA 92121 858-578-9300 | www.allancompany.com/facilities				•									•					
Allan Company Miramar Recycling 5165 Convoy St, San Diego, CA 92111 858-268-8971 | www.allancompany.com/facilities				•									•					
Alpine Asphalt & Concrete Recycling 5690 Willows Rd, Alpine, CA 91901 760-451-6481 | www.alpineasphaltandconcrete.com	•	•	•					•										
Alpine Asphalt & Concrete Recycling 0 Duro Rd, Escondido, CA 92028 760-451-6481 | www.alpineasphaltandconcrete.com	•	•	•					•										
Aquafil Carpet Collection 187 Mace St, Chula Vista, CA 91911 619-816-0787 | www.aquafil.com					•	•												

Last updated 3/7/2022

Environmental Services

2022 Certified Construction & Demolition (C&D) Recycling Facility Directory

- **Material taken to a landfill is DISPOSAL. NO diversion credit is given for any material taken to a landfill.**
- You must use one of these facilities to receive diversion credit.
- Please call ahead to confirm details such as accepted materials, days and hours of operation, limitations on vehicle types, and cost.
- Ensure the project address and permit number are on the receipt.

***If using a transfer station, you must:**
- State that your load is Construction and Demolition (C&D) debris, and ensure it is coded correctly on the receipt.
- Tickets coded as "**MSW, trash, or refuse**" will receive 0% credit.

	Asphalt/Concrete	Brick/Block/Rock	Building Materials for Reuse	Cardboard	Carpet	Carpet Padding	Ceiling Tile	Ceramic Tile/Porcelain	Clean Fill Dirt	Clean Wood/Green Waste	Drywall	Industrial Plastics	Lamps/Light Fixtures	Metal	Mixed Inerts	Styrofoam Blocks	Trash	Mixed C & D Debris
Aquafil Carpet Collection 7720 Formula Pl, San Diego , CA 92126 602-562-0444 | www.aquafil.com					•	•												
Armstrong World Industries, Inc. 300 S. Myrida St, Pensacola, FL 32505 877-276-7876 (Press 1, Then 8) www.armstrong.com/commceilingsna							•											
CMS Recycling Inc. 1428 West Mission Rd, Escondido, CA 92029 760-741-6300 | www.cmsmetals.com				•									•					
DFS Flooring 10178 Willow Creek Rd, San Diego, CA 92131 858-630-5200 | www.dfsflooring.com					•	•												
Duco Metals 220 Bingham Drive Suite 100, San Marcos, CA 92069 760-747-6330 I www.ducometals.com													•					
Escondido Materials 500 N. Tulip St, Escondido, CA 92025 760-432-4690 | www.weirasphalt.com	•																	
F.J. Willert Contracting 2385 Cactus Rd, San Diego, CA 92154 619-421-1980 | www.fjwillert.com	•																	
Habitat for Humanity ReStore 8101 Mercury Ct, San Diego, CA 92108 619-516-5267 | www.sandiegohabitat.org			•															
Hanson Aggregates – Hollister St 389 Hollister St, San Diego, CA 92154 858-974-3849	•																	
Hanson Aggregates West – Lakeside Plant 12560 Highway 67, Lakeside, CA 92040 858-547-2141	•																	
Hanson Aggregates West – Miramar 9229 Harris Plant Rd, San Diego, CA 92126 858-974-3849	•							•										
HVAC Exchange 2675 Faivre St, Chula Vista, CA 91911 619-423-1564 | www.hvacx.com													•					

Last updated 3/7/2022

Environmental Services

2022 Certified Construction & Demolition (C&D) Recycling Facility Directory

- **Material taken to a landfill is DISPOSAL. NO diversion credit is given for any material taken to a landfill.**
- You must use one of these facilities to receive diversion credit.
- Please call ahead to confirm details such as accepted materials, days and hours of operation, limitations on vehicle types, and cost.
- Ensure the project address and permit number are on the receipt.

***If using a transfer station, you must:**
- State that your load is Construction and Demolition (C&D) debris, and ensure it is coded correctly on the receipt.
- Tickets coded as "**MSW, trash, or refuse**" will receive 0% credit.

	Asphalt/Concrete	Brick/Block/Rock	Building Materials for Reuse	Cardboard	Carpet	Carpet Padding	Ceiling Tile	Ceramic Tile/Porcelain	Clean Fill Dirt	Clean Wood/Green Waste	Drywall	Industrial Plastics	Lamps/Light Fixtures	Metal	Mixed Inerts	Styrofoam Blocks	Trash	Mixed C & D Debris
Inland Pacific Resource Recovery 12650 Slaughterhouse Canyon Rd, Lakeside, CA 92040 619-390-1418 | www.iprrgreen.com								•										
Los Angeles Fiber Company 4920 S. Boyle Ave, Vernon, CA 90058 323-589-5637 | www.lafiber.com					•	•												
Miramar Greenery, City of San Diego 5180 Convoy St, San Diego, CA 92111 858-694-7000 | www.miramargreenery.com								•										
Moody's 3210 Oceanside Blvd, Oceanside, CA 92056 760-433-3316 | www.moodyselcorazonrecycling.com	•							•						•				
RAMCO 8354 Nelson Way, Escondido, CA 92026 760-205-1797 | www.ramco.us.com	•																	
Reclaimed Aggregates Chula Vista 855 Energy Way, Chula Vista, CA 91913 619-656-1836	•													•				
Robertson's Ready Mix 2094 Willow Glen Dr, El Cajon, CA 92019 619-593-1856 | www.rrmca.com	•							•						•				
Rockridge Crushing 12485 Highway 67, Lakeside, CA 92040 619-324-7065	•																	
SA Recycling 3055 Commercial St, San Diego, CA 92113 619-238-6740 | www.sarecycling.com													•					
SA Recycling 1211 S. 32nd St, San Diego, CA 92113 619-234-6691 | www.sarecycling.com													•					
SCOR Industries 2321 South Willow Ave, Bloomington, CA 92316 909-820-5046 | www.scorindustries.com	•	•		•			•		•	•	•		•	•				
Terra Bella Nursery 302 Hollister St, San Diego, CA 92154 619-585-1118 | www.terrabellanursery.com								•	•									

Last updated 3/7/2022

Environmental Services

2022 Certified Construction & Demolition (C&D) Recycling Facility Directory

- **Material taken to a landfill is DISPOSAL. NO diversion credit is given for any material taken to a landfill.**
- You must use one of these facilities to receive diversion credit.
- Please call ahead to confirm details such as accepted materials, days and hours of operation, limitations on vehicle types, and cost.
- Ensure the project address and permit number are on the receipt.

***If using a transfer station, you must:**
- State that your load is Construction and Demolition (C&D) debris, and ensure it is coded correctly on the receipt.
- Tickets coded as "**MSW, trash, or refuse**" will receive 0% credit.

	Asphalt/Concrete	Brick/Block/Rock	Building Materials for Reuse	Cardboard	Carpet	Carpet Padding	Ceiling Tile	Ceramic Tile/Porcelain	Clean Fill Dirt	Clean Wood/Green Waste	Drywall	Industrial Plastics	Lamps/Light Fixtures	Metal	Mixed Inerts	Styrofoam Blocks	Trash	Mixed C & D Debris
Vulcan Carol Canyon Landfill and Recycle Site 10051 Black Mountain Rd, San Diego, CA 92126 858-530-9465 | www.vulcanmaterials.com	•	•						•						•				
Vulcan Materials Company 2275 Hard Rock Rd, Chula Vista, CA 91913 858-530-9472| www.vulcanmaterials.com	•																	
Vulcan Otay Asphalt Recycle Center 7522 Paseo de la Fuente, San Diego, CA 92154 619-571-1945| www.vulcanmaterials.com	•																	

Last updated 3/7/2022

Appendix C

CalRecycle Data and Project Operational Calculations

Cal Recycle Waste Generation Composition Data - Residential (2014)								
Material Category	Material Type	Jurisdiction(s)	Single Family Tons	Regional Single Family Composition	Multi Family Tons	Statewide Multi Family Composition	Total Residential Tons	Total Residential Composition
Paper	Uncoated Corrugated Cardboard	San Diego	2397	1.2%	4975	3.6%	7373	2.2%
Paper	Paper Bags	San Diego	328	0.2%	736	0.5%	1063	0.3%
Paper	Newspaper	San Diego	2483	1.2%	6475	4.6%	8958	2.6%
Paper	White Ledger Paper	San Diego	454	0.2%	737	0.5%	1191	0.3%
Paper	Other Office Paper	San Diego	977	0.5%	821	0.6%	1798	0.5%
Paper	Magazines and Catalogs	San Diego	1357	0.7%	1043	0.7%	2400	0.7%
Paper	Phone Books and Directories	San Diego	105	0.1%	43	0.0%	148	0.0%
Paper	Other Miscellaneous Paper - Compostable	San Diego	263	0.1%	413	0.3%	676	0.2%
Paper	Other Miscellaneous Paper - Other	San Diego	7952	3.9%	6581	4.7%	14533	4.3%
Paper	Remainder / Composite Paper - Compostable	San Diego	15706	7.8%	9440	6.8%	25146	7.4%
Paper	Remainder / Composite Paper - Other	San Diego	1207	0.6%	1523	1.1%	2730	0.8%
Glass	Clear Glass Bottles and Containers	San Diego	1780	0.9%	2290	1.6%	4069	1.2%
Glass	Green Glass Bottles and Containers	San Diego	872	0.4%	207	0.1%	1079	0.3%
Glass	Brown Glass Bottles and Containers	San Diego	718	0.4%	951	0.7%	1669	0.5%
Glass	Other Glass Colored Bottles and Containers	San Diego	80	0.0%	86	0.1%	166	0.0%
Glass	Flat Glass	San Diego	0	0.0%	81	0.1%	81	0.0%
Glass	Remainder / Composite Glass	San Diego	121	0.1%	555	0.4%	676	0.2%
Metal	Tin/Steel Cans	San Diego	1393	0.7%	1296	0.9%	2689	0.8%
Metal	Major Appliances	San Diego	1050	0.5%	2	0.0%	1052	0.3%
Metal	Used Oil Filters	San Diego	14	0.0%	0	0.0%	14	0.0%
Metal	Other Ferrous	San Diego	1066	0.5%	1055	0.8%	2121	0.6%
Metal	Aluminum Cans	San Diego	267	0.1%	318	0.2%	585	0.2%
Metal	Other Non-Ferrous	San Diego	737	0.4%	1072	0.8%	1809	0.5%
Metal	Remainder / Composite Metal	San Diego	811	0.4%	1189	0.9%	2000	0.6%
Electronics	Brown Goods	San Diego	727	0.4%	632	0.5%	1360	0.4%
Electronics	Computer-related Electronics	San Diego	259	0.1%	281	0.2%	540	0.2%
Electronics	Other Small Consumer Electronics	San Diego	686	0.3%	365	0.3%	1051	0.3%
Electronics	Video Display Devices	San Diego	259	0.1%	911	0.7%	1170	0.3%
Plastic	PETE Plastic Containers	San Diego	1252	0.6%	1291	0.9%	2543	0.7%
Plastic	HDPE Plastic Containers	San Diego	805	0.4%	650	0.5%	1455	0.4%
Plastic	Miscellaneous Plastic Containers	San Diego	1038	0.5%	890	0.6%	1928	0.6%
Plastic	Plastic Trash Bags	San Diego	1977	1.0%	1572	1.1%	3549	1.0%
Plastic	Plastic Grocery and Other Merchandise Bags	San Diego	1288	0.6%	1225	0.9%	2513	0.7%
Plastic	Non-Bag Commercial and Industrial Packaging Film	San Diego	187	0.1%	235	0.2%	422	0.1%
Plastic	Film Products	San Diego	0	0.0%	2	0.0%	2	0.0%
Plastic	Other Film - Other	San Diego	3010	1.5%	2997	2.1%	6007	1.8%
Plastic	Durable Plastic Items - #2 and #5 Bulky Rigids	San Diego	745	0.4%	234	0.2%	979	0.3%
Plastic	Durable Plastic Items - Other	San Diego	3607	1.8%	1570	1.1%	5178	1.5%
Plastic	Remainder / Composite Plastic	San Diego	3945	2.0%	4694	3.4%	8639	2.5%
Other Organic	Food	San Diego	35494	17.6%	34544	24.8%	70038	20.5%

Other Organic	Leaves and Grass	San Diego	14409	7.1%	4166	3.0%	18576	5.4%
Other Organic	Prunings and Trimmings	San Diego	13849	6.9%	1084	0.8%	14933	4.4%
Other Organic	Branches and Stumps	San Diego	5745	2.8%	0	0.0%	5745	1.7%
Other Organic	Manures	San Diego	0	0.0%	0	0.0%	0	0.0%
Other Organic	Textiles	San Diego	7808	3.9%	10389	7.4%	18196	5.3%
Other Organic	Carpet	San Diego	3958	2.0%	873	0.6%	4831	1.4%
Other Organic	Remainder / Composite Organic	San Diego	9694	4.8%	10425	7.5%	20119	5.9%
Inerts and Other	Concrete	San Diego	2355	1.2%	530	0.4%	2885	0.8%
Inerts and Other	Asphalt Paving	San Diego	0	0.0%	0	0.0%	0	0.0%
Inerts and Other	Asphalt Roofing	San Diego	1824	0.9%	0	0.0%	1824	0.5%
Inerts and Other	Clean Dimensional Lumber	San Diego	5702	2.8%	726	0.5%	6428	1.9%
Inerts and Other	Clean Engineered Wood	San Diego	3395	1.7%	184	0.1%	3579	1.0%
Inerts and Other	Clean Pallets & Crates	San Diego	802	0.4%	2777	2.0%	3578	1.0%
Inerts and Other	Other Wood Waste	San Diego	9283	4.6%	2943	2.1%	12226	3.6%
Inerts and Other	Gypsum Board	San Diego	485	0.2%	578	0.4%	1063	0.3%
Inerts and Other	Rock, Soil and Fines	San Diego	6090	3.0%	411	0.3%	6501	1.9%
Inerts and Other	Remainder / Composite Inerts and Other	San Diego	1979	1.0%	350	0.3%	2330	0.7%
Household Hazardous Waste (HHW)	Paint	San Diego	773	0.4%	1	0.0%	774	0.2%
Household Hazardous Waste (HHW)	Vehicle and Equipment Fluids	San Diego	7	0.0%	0	0.0%	7	0.0%
Household Hazardous Waste (HHW)	Used Oil	San Diego	22	0.0%	0	0.0%	22	0.0%
Household Hazardous Waste (HHW)	Batteries	San Diego	46	0.0%	50	0.0%	96	0.0%
Household Hazardous Waste (HHW)	Remainder / Composite Household Hazardous	San Diego	544	0.3%	64	0.0%	608	0.2%
Special Waste	Ash	San Diego	37	0.0%	130	0.1%	167	0.0%
Special Waste	Treated Medical Waste	San Diego	0	0.0%	1030	0.7%	1030	0.3%
Special Waste	Bulky Items	San Diego	6690	3.3%	3924	2.8%	10614	3.1%
Special Waste	Tires	San Diego	0	0.0%	0	0.0%	0	0.0%
Special Waste	Remainder / Composite Special Waste	San Diego	88	0.0%	28	0.0%	116	0.0%
Mixed Residue	Mixed Residue	San Diego	8749	4.3%	4807	3.4%	13555	4.0%
Occupied Single Family Units (< 5 units per site)								
313,174								
Household Population								
1,338,020								
Occupied Multi-Family Units (5+ units per site)								
188,583								

Project Generation (based on CalRecycle Waste Generation Composition and Project-Specific CalEEMod)

Material Category	Material Type	Multi Family Tons	Totals by Category	Percent of Total	Project Waste (Based on CaleeMod) (Tons per year per unit)	Reduced Project Waste (Tons per year per unit)
Paper	Uncoated Corrugated Cardboard	4975				
Paper	Paper Bags	736				
Paper	Newspaper	6475				
Paper	White Ledger Paper	737				
Paper	Other Office Paper	821				
Paper	Magazines and Catalogs	1043				
Paper	Phone Books and Directories	43				
Paper	Other Miscellaneous Paper - Compostable	413				
Paper	Other Miscellaneous Paper - Other	6581				
Paper	Remainder / Composite Paper - Compostable	9440				
Paper	Remainder / Composite Paper - Other	1523	32787	23.51%	0.10	0.10
Glass	Clear Glass Bottles and Containers	2290				
Glass	Green Glass Bottles and Containers	207				
Glass	Brown Glass Bottles and Containers	951				
Glass	Other Glass Colored Bottles and Containers	86				
Glass	Flat Glass	81	3615	2.59%	0.01	0.01
Glass	Remainder / Composite Glass	555				
Metal	Tin/Steel Cans	1296				
Metal	Major Appliances	2				
Metal	Used Oil Filters	0				
Metal	Other Ferrous	1055				
Metal	Aluminum Cans	318				
Metal	Other Non-Ferrous	1072				
Metal	Remainder / Composite Metal	1189	5487	3.93%	0.02	0.02
Electronics	Brown Goods	632				
Electronics	Computer-related Electronics	281				

Electronics	Other Small Consumer Electronics	365				
Electronics	Video Display Devices	911	2189	1.57%	0.01	0.01
Plastic	PETE Plastic Containers	1291				
Plastic	HDPE Plastic Containers	650				
Plastic	Miscellaneous Plastic Containers	890				
Plastic	Plastic Trash Bags	1572				
Plastic	Plastic Grocery and Other Merchandise Bags	1225				
Plastic	Non-Bag Commercial and Industrial Packaging Film	235				
Plastic	Film Products	2				
Plastic	Other Film - Other	2997				
Plastic	Durable Plastic Items - #2 and #5 Bulky Rigids	234				
Plastic	Durable Plastic Items - Other	1570				
Plastic	Remainder / Composite Plastic	4694	15360	11.01%	0.05	0.05
Other Organic	Food	34544				
Other Organic	Leaves and Grass	4166				
Other Organic	Prunings and Trimmings	1084				
Other Organic	Branches and Stumps	0				
Other Organic	Manures	0				
Other Organic	Textiles	10389				
Other Organic	Carpet	873				
Other Organic	Remainder / Composite Organic	10425	61481	44.09%	0.20	0.05
Inerts and Other	Concrete	530				
Inerts and Other	Asphalt Paving	0				
Inerts and Other	Asphalt Roofing	0				
Inerts and Other	Clean Dimensional Lumber	726				
Inerts and Other	Clean Engineered Wood	184				
Inerts and Other	Clean Pallets & Crates	2777				
Inerts and Other	Other Wood Waste	2943				
Inerts and Other	Gypsum Board	578				
Inerts and Other	Rock, Soil and Fines	411				
Inerts and Other	Remainder / Composite Inerts and Other	350	8499	6.09%	0.03	0.03
Household Hazardous Waste (HHW)	Paint	1				

Household Hazardous Waste (HHW)	Vehicle and Equipment Fluids	0				
Household Hazardous Waste (HHW)	Used Oil	0				
Household Hazardous Waste (HHW)	Batteries	50				
Household Hazardous Waste (HHW)	Remainder / Composite Household Hazardous	64	115	0.08%	0.00	0.00
Special Waste	Ash	130				
Special Waste	Treated Medical Waste	1030				
Special Waste	Bulky Items	3924				
Special Waste	Tires	0				
Special Waste	Remainder / Composite Special Waste	28	5112	3.67%	0.02	0.02
Mixed Residue	Mixed Residue	4807	4807	3.45%	0.02	0.02
Total			**139452**		**0.46**	**0.32**

Project Total (tons per year per unit) (Estimated using the California Emissions Estimator Model; Breeze 2017)	**0.46**