

Environmental Services



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Environmental Services

The Environmental Services Department (ESD) ensures City of San Diego residents are provided with a clean and safe environment. The Department operates a full-service landfill and maintains eight active landfills and eight inactive burn sites. The landfill sites require sustained improvements related to landfill gas systems, groundwater monitoring networks, grading and slope work. ESD also manages the City's energy use and implements a variety of innovative programs focused on increasing energy efficiency at City facilities.

2017 CIP Accomplishments

The Department has continued to dedicate capital improvement resources towards its mission of providing reliable solid waste management, resource conservation, and environmental protection to preserve public health and ensure sustainable communities for future generations.

- Completed the first and second phase of a compressed natural gas (CNG) fueling station at the ESD Collections Yard, providing fueling infrastructure for new CNG-powered refuse and recycling trucks as they are phased in to replace the diesel fleet.
- Amended solar purchase agreement and begin installation of solar photovoltaic systems at 19 City sites.
- Awarded Multiple Award Construction Contract (MACC) for energy conservation measures and building retrofit projects such as lighting and air conditioning in order to reduce energy consumption and costs.
- Awarded MACC for outdoor lighting projects, including retrofitting approximately 14,000 street lights with energy efficient LED fixtures with adaptive controls.
- Began preliminary design for a consolidated blower/flare system and gas field improvements to facilitate the development of renewable energy utilization projects in conformance with the City's Climate Action Plan.

2018 CIP Goals

The Department will continue to promote sustainability and public health through its effective delivery of capital improvement projects. The following are ESD's goals for Fiscal Year 2018:

- Construct the final third and fourth phases of the CNG fueling station at the ESD Collections Yard to coincide with the ongoing procurement of the new CNG-powered refuse and recycling trucks.
- Complete the installation of solar photovoltaic systems at 19 City sites.
- Issue a Request for Proposal (RFP) for the design and construction of a Resource Recovery Facility (RRF) at the Miramar Landfill. The RRF will service existing self-haul customers and seek to increase the diversion of recyclable waste streams from the landfill in accordance with the Zero Waste Plan.
- Issue a Request for Expressions of Interest (RFEI) for the design and construction of an Organics Processing Facility (OPF) at the Miramar Landfill. The OPF will address the management of increasing streams of organics (greens and food waste) that are generated by mandatory regulations.
- Award and begin construction for a consolidated blower/flare system and gas field improvements to facilitate the development of renewable energy utilization projects.
- Award a contract to install solar photovoltaic systems which may include energy storage systems and electronic vehicle charging stations at various City sites.
- Begin retrofit for approximately 14,000 street lights with energy efficient LED fixtures with adaptive controls.

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- Complete ADA improvements and energy efficiency measures, funded by the Community Development Block Grant (CDBG), including retrofitting existing interior and exterior lights with LED alternatives, replacing HVAC units, and installing integrated controls at the City Heights Recreation Center; Martin Luther King Recreation Center; Mid-City Police Station and Southeastern Police Station.
- Award and construct tenant improvements and energy efficiency improvements to City facilities resulting in the installation of more efficient technologies for lighting and air condition systems.
- Award the design and construction of the Miramar Landfill storm water basin using best management practices for improvements to remain compliant with new National Pollutant Discharge Elimination System (NPDES) requirements.
- Award the design and construction of the infrastructure required to utilize aerated static piles at the Miramar Landfill Greenery and Composting Facility.

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Environmental Services: Capital Improvement Projects

Project	Prior Fiscal Years	FY2018 Proposed	Future Fiscal Years	Project Total
Aerated Static Pile System / S16053	\$ 500,000	\$ 4,500,000	\$ -	\$ 5,000,000
CNG Fueling Station for Refuse & Recycling / S15000	4,070,000	1,230,000	-	5,300,000
Citywide Energy Improvements / ABT00003	2,447,793	-	-	2,447,793
Minor Improvements to Landfills / AFA00001	1,634,975	200,000	800,000	2,634,975
Miramar Landfill Facility Improvements / L17000	19,600,000	2,000,000	8,000,000	29,600,000
Miramar Landfill Gas Recovery Improvemen / S16052	1,000,000	4,300,000	1,100,000	6,400,000
Miramar Landfill Storm Water Improvement / S16054	1,000,000	2,000,000	4,000,000	7,000,000
South Chollas Landfill Improvements / S00684	15,828,624	-	-	15,828,624
West Miramar Landfill - Phase 2 / S00774	3,060,000	-	-	3,060,000
Environmental Services Total	\$ 49,141,392	\$ 14,230,000	\$ 13,900,000	\$ 77,271,392



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Aerated Static Pile System / S16053

Council District: 1
Community Plan: University
Project Status: Continuing
Duration: 2017 - 2019
Improv Type: New

Landfills

Priority Score: 93
Priority Category: High
Contact Information: Thompson, Michael
 858-573-1275
 mthompson@sandiego.gov

Description: This project provides for the design and construction of infrastructure required to utilize aerated static piles at West Miramar Landfill's Greenery and composting facility. This methodology would be used to enhance production and throughput of clean source separated food scraps and yard waste being composted.

Justification: AB-1826 and the City's zero waste plan dictate significant increases in organic recycling. Stricter air emission and run-off water standards necessitate covered/in-door compost piles.

Operating Budget Impact: None.

Relationship to General and Community Plans: The West Miramar Landfill is located on federal property and there is no community planning area. This project is in conformance with the City's General Plan.

Schedule: Advertisement began in Fiscal Year 2017. Award and construction is anticipated in Fiscal Year 2018.

Summary of Project Changes: Total project cost increased \$4.5 million due to revised requirements and the annual project cost for Fiscal Year 2018 increased \$4.5 million. The project schedule has been updated for Fiscal Year 2018.

Expenditure by Funding Source

Fund Name	Fund No	Exp/Enc	Con Appn	FY 2018	FY 2018 Anticipated	FY 2019	FY 2020	FY 2021	FY 2022	Future FY	Unidentified Funding	Project Total
Refuse Disposal CIP Fund	700040	\$ -	\$ 500,000	\$ 4,500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,000,000
Total		\$ -	\$ 500,000	\$ 4,500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,000,000

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CNG Fueling Station for Refuse & Recycling / S15000

Landfills - Supporting Fac / Struct

Council District: 1	Priority Score: 55
Community Plan: University	Priority Category: Low
Project Status: Continuing	Contact Information: Fergusson, Craig
Duration: 2015 - 2021	858-627-3311
Improv Type: New	cfergusson@sandiego.gov

Description: This project provides for the design and construction of a compressed natural gas (CNG) fueling station at the Environmental Services Operations Station located at 8353 Miramar Place. In conjunction with the completion of the fueling station, the division plans to put into service refuse and recycling vehicles that run on CNG eventually replacing the entire fleet of low sulphur diesel refuse and recycling packers. The construction of CNG fueling infrastructure and the replacement of vehicles will be implemented in a phased approach.

Justification: This project provides for the necessary infrastructure to convert Environmental Services fleet refuse and recycling vehicles from low sulfur diesel to compressed natural gas.

Operating Budget Impact: Provides for a positive operating budget impact by saving fuel costs to the General Fund and Recycling Enterprise Fund.

Relationship to General and Community Plans: This project is in conformance with the Conservation Element of the City's General Plan.

Schedule: Phase I of construction was completed in Fiscal Year 2017 providing capacity for fueling 50 refuse and recycling packers. Phase II of construction is expected to begin in Fiscal Year 2018.

Summary of Project Changes: This project received \$250,000 in State grant funding in Fiscal Year 2017, via City Council Resolution R-310208 adopted January 19, 2016. The project schedule has been updated for Fiscal Year 2018.

Expenditure by Funding Source

Fund Name	Fund No	Exp/Enc	Con Appn	FY 2018	FY 2018 Anticipated	FY 2019	FY 2020	FY 2021	FY 2022	Future FY	Unidentified Funding	Project Total
CIP Contributions from General Fund	400265	\$ 1,769,074	\$ 30,926	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	1,800,000
Grant Fund - State	600001	249,452	548	-	-	-	-	-	-	-	-	250,000
Infrastructure Fund	100012	-	-	1,230,000	-	-	-	-	-	-	-	1,230,000
Recycling Fund CIP Fund	700049	1,448,730	571,270	-	-	-	-	-	-	-	-	2,020,000
Total		\$ 3,467,256	\$ 602,744	\$ 1,230,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	5,300,000

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Citywide Energy Improvements / ABT00003

Bldg - Other City Facility / Structures

Council District: Citywide	Priority Score: Annual
Community Plan: Citywide	Priority Category: Annual
Project Status: Continuing	Contact Information: Olson, Bryan
Duration: 2010 - 2024	858-492-5059
Improv Type: Betterment	olsonb@sandiego.gov

Description: This annual allocation will provide for energy efficiency improvements in City facilities. Projects typically address lighting, air conditioning, chiller, pumping and fan systems, invertors, and City-owned solar systems. Newer, more efficient technologies greatly reduce energy consumption.

Justification: Energy efficiency improvements repay capital costs in one to nine years, depending upon the project. The energy savings continue each year thereafter. Energy audits are performed in a variety of City-owned facilities to identify opportunities for energy savings.

Operating Budget Impact: There will be energy cost savings related to the energy efficiency projects for various City departments.

Relationship to General and Community Plans: These projects are consistent with applicable community plans and are in conformance with the City's General Plan.

Schedule: Projects will be scheduled on a priority basis.

Summary of Project Changes: No significant change has been made to this project for Fiscal Year 2018.

Expenditure by Funding Source

Fund Name	Fund No	Exp/Enc	Con Appn	FY 2018	FY 2018 Anticipated	FY 2019	FY 2020	FY 2021	FY 2022	Future FY	Unidentified Funding	Project Total
Energy Conservation Program CIP Fund	200225	\$ 61,117	\$ 761,129	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	822,246
Grant Fund - Federal	600000	-	1,625,547	-	-	-	-	-	-	-	-	1,625,547
Total		\$ 61,117	\$ 2,386,676	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2,447,793

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Minor Improvements to Landfills / AFA00001

Landfills

Council District:	Citywide	Priority Score:	Annual
Community Plan:	Citywide	Priority Category:	Annual
Project Status:	Continuing	Contact Information:	Fergusson, Craig
Duration:	2010 - 2024		858-627-3311
Improv Type:	New		cfergusson@sandiego.gov

Description: This annual allocation provides for minor improvements to existing sanitary landfills to comply with operating permits and regulatory requirements. Such improvements may include fencing, access roads, drains, small structures, and environmental protection projects. This project also provides for minor improvements to existing groundwater monitoring networks at all closed and operating landfills managed by the City. Improvements include new facilities as well as engineering reports and/or design specifications necessary to mitigate groundwater issues or modify groundwater monitoring programs.

Justification: This project provides the flexibility for timely initiation of minor improvements and construction needed to meet operational and solid waste regulatory mandates such as drainage, grading, and groundwater monitoring improvements.

Operating Budget Impact: None.

Relationship to General and Community Plans: This project is consistent with applicable community plans and is in conformance with the City's General Plan.

Schedule: Projects are scheduled on a priority basis to meet regulatory requirements.

Summary of Project Changes: The annual project cost for Fiscal Year 2018 increased by \$200,000. The total project cost increased by \$1.0 million due to anticipated future projects.

Expenditure by Funding Source

Fund Name	Fund No	Exp/Enc	Con Appn	FY 2018	FY 2018 Anticipated	FY 2019	FY 2020	FY 2021	FY 2022	Future FY	Unidentified Funding	Project Total
Refuse Disposal CIP Fund	700040	\$ -	\$ 1,634,975	\$ 200,000	\$ -	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ -	\$ -	\$ 2,634,975
Total		\$ -	\$ 1,634,975	\$ 200,000	\$ -	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ -	\$ -	\$ 2,634,975

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Miramar Landfill Facility Improvements / L17000

Landfills

Council District: 1	Priority Score: 77
Community Plan: University	Priority Category: Low
Project Status: Continuing	Contact Information: Fergusson, Craig
Duration: 2017 - 2025	858-627-3311
Improv Type: New	cfergusson@sandiego.gov

Description: This project provides CIP Facility Improvements at the West Miramar Landfill potentially including items such as landfill infrastructure (liners, covers, gas-collection and processing, and monitoring systems), materials handling and processing facilities, fee booth/scale facilities, administrative offices/facilities, etc.

Justification: The Environmental Services Department (ESD) is responsible for managing operations, maintenance, and compliance of the West Miramar Landfill. This CIP will allow for the most efficient execution of future facility improvement projects.

Operating Budget Impact: None.

Relationship to General and Community Plans: This project is located on federal property and there is no community planning area. This project is in conformance with the City's General Plan.

Schedule: This project is currently in the planning stage.

Summary of Project Changes: This is a newly published project for Fiscal Year 2018.

Expenditure by Funding Source

Fund Name	Fund No	Exp/Enc	Con Appn	FY 2018	FY 2018 Anticipated	FY 2019	FY 2020	FY 2021	FY 2022	Future FY	Unidentified Funding	Project Total
Refuse Disposal CIP Fund	700040	\$ -	\$ 19,600,000	\$ 2,000,000	\$ -	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ -	\$ -	\$ 29,600,000
Total		\$ -	\$ 19,600,000	\$ 2,000,000	\$ -	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ -	\$ -	\$ 29,600,000

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Miramar Landfill Gas Recovery Improvemen / S16052

Landfills

Council District: 1	Priority Score: 88
Community Plan: University	Priority Category: Medium
Project Status: Continuing	Contact Information: Purtee, Ray
Duration: 2017 - 2019	858-573-1208
Improv Type: New	rpurtee@sandiego.gov

Description: This project provides for a consolidated blower system and well field improvements to ensure all collectable landfill gas is extracted and distributable to energy utilization facilities. In 2019 the remaining privately owned portion of the well field will be purchased as the City takes back the gas rights.

Justification: This project is needed to ensure the landfill will meet regulatory requirements concerning gas emissions and greenhouse gas reduction measures.

Operating Budget Impact: None.

Relationship to General and Community Plans: This project is located on federal property and there is no community planning area. This project is in conformance with the City's General Plan.

Schedule: Design and permitting began in Fiscal Year 2017. Construction will begin in Fiscal Year 2018 and be completed by January 1, 2019.

Summary of Project Changes: The annual project cost for Fiscal Year 2018 increased by \$4.3 million. The total project cost increased by \$5.4 million for construction costs.

Expenditure by Funding Source

Fund Name	Fund No	Exp/Enc	Con Appn	FY 2018	FY 2018 Anticipated	FY 2019	FY 2020	FY 2021	FY 2022	Future FY	Unidentified Funding	Project Total
Refuse Disposal CIP Fund	700040	\$ -	\$ 1,000,000	\$ 4,300,000	\$ -	\$ 1,100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,400,000
Total		\$ -	\$ 1,000,000	\$ 4,300,000	\$ -	\$ 1,100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,400,000

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Miramar Landfill Storm Water Improvement / S16054

Landfills

Council District: 1	Priority Score: 90
Community Plan: University	Priority Category: High
Project Status: Continuing	Contact Information: Fergusson, Craig
Duration: 2017 - 2021	858-627-3311
Improv Type: New	cfergusson@sandiego.gov

Description: This project provides for the design and construction of Storm Water Basin and Best Management Practices (BMP) improvements. To remain in compliance with new Industrial National Pollutant Elimination System (NPDES) requirements.

Justification: The storm water basin and associated BMP engineered structures at the Miramar Landfill must be properly designed and constructed to ensure compliance with NPDES requirements and to avoid regulatory violations.

Operating Budget Impact: None.

Relationship to General and Community Plans: This project is located on federal property and there is no community planning area. This project is in conformance with the City's General Plan.

Schedule: This project is currently in the planning and design stage. Construction of basin and BMP improvements is expected to commence by Fiscal Year 2020.

Summary of Project Changes: The total project cost increased by \$6.0 million for construction costs.

Expenditure by Funding Source

Fund Name	Fund No	Exp/Enc	Con Appn	FY 2018	FY 2018 Anticipated	FY 2019	FY 2020	FY 2021	FY 2022	Future FY	Unidentified Funding	Project Total
Refuse Disposal CIP Fund	700040	\$ -	\$ 1,000,000	\$ 2,000,000	\$ -	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ -	\$ -	\$ 7,000,000
Total		\$ -	\$ 1,000,000	\$ 2,000,000	\$ -	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ -	\$ -	\$ 7,000,000

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South Chollas Landfill Improvements / S00684

Landfills - Supporting Fac / Struct

Council District: 4	Priority Score: 85
Community Plan: Mid-City: Eastern Area	Priority Category: Medium
Project Status: Continuing	Contact Information: Fergusson, Craig
Duration: 2000 - 2018	858-627-3311
Improv Type: Replacement	cfergusson@sandiego.gov

Description: This project provides for cover material, grading, drainage, and site improvements at the inactive South Chollas Landfill. The project will also result in improvements to the Chollas Operations Yard required by the Regional Water Quality Control Board in order to bring the site into compliance. A Corrective Action Plan has been developed to identify the corrective measures and timelines to mitigate the groundwater issues.

Justification: This project is required to maintain compliance with various State and federal regulatory requirements and to avoid code violations.

Operating Budget Impact: None.

Relationship to General and Community Plans: This project is consistent with the Mid-City: Eastern Area Community Plan and it is in conformance with the City's General Plan.

Schedule: Construction was completed in Fiscal Year 2017. Warranty period administration on project close out will take place in Fiscal Year 2018.

Summary of Project Changes: Project schedule was updated for Fiscal Year 2018

Expenditure by Funding Source

Fund Name	Fund No	Exp/Enc	Con Appn	FY 2018	FY 2018 Anticipated	FY 2019	FY 2020	FY 2021	FY 2022	Future FY	Unidentified Funding	Project Total
Fleet Services CIP Fund	400676	\$ 1,345,889	\$ 308,139	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	1,654,028
CIP Contributions from General Fund	400265	5,049,280	84,720	-	-	-	-	-	-	-	-	5,134,000
Refuse Disposal CIP Fund	700040	5,782,171	529,531	-	-	-	-	-	-	-	-	6,311,702
Water Utility - CIP Funding Source	700010	2,358,950	369,944	-	-	-	-	-	-	-	-	2,728,894
Total		\$ 14,536,290	\$ 1,292,334	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	15,828,624

Environmental Services

West Miramar Landfill - Phase 2 / S00774

Bldg - Other City Facility / Structures

Council District: Citywide	Priority Score: N/A
Community Plan: Citywide	Priority Category: N/A
Project Status: Continuing	Contact Information: Purtee, Ray
Duration: 1996 - 2024	858-573-1208
Improv Type: Betterment	rpurtee@sandiego.gov

Description: This project provides for a landfill gas collection system for the West Miramar Landfill - Phase 2. Bio-degradation of buried waste produces landfill gas. The landfill gas collection system consists of a network of gas extraction wells connected by piping.

Justification: This improvement is required to maintain compliance with various State and federal regulatory requirements. It will also prevent code violations and enhance public health and safety.

Operating Budget Impact: None.

Relationship to General and Community Plans: This project is located on federal property and there is no community planning area. This project is in conformance with the City's General Plan.

Schedule: Design and construction began in Fiscal Year 1996 and will continue through the life of the landfill which is anticipated to close in Fiscal Year 2024. The next scheduled major project is the design and construction of a horizontal landfill gas collection system. Construction began in Fiscal Year 2017 and is scheduled to be completed in Fiscal Year 2018.

Summary of Project Changes: Project schedule has been updated for Fiscal Year 2018.

Expenditure by Funding Source

Fund Name	Fund No	Exp/Enc	Con Appn	FY 2018	FY 2018 Anticipated	FY 2019	FY 2020	FY 2021	FY 2022	Future FY	Unidentified Funding	Project Total
Refuse Disposal CIP Fund	700040	\$ 1,183,261	\$ 1,876,739	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,060,000
Total		\$ 1,183,261	\$ 1,876,739	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,060,000



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