

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 closed 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.

2016 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.

- Awarded contract to begin construction of a compressed natural gas fueling station.
- Awarded a solar power purchase agreement to install solar photovoltaic systems at 25 City sites.
- Constructed landfill improvements at the Chollas Operations Yard. The project included the replacement of light poles, storage containers, and permanent staging areas.

2017 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 2017:

- Awarded contract to begin construction of a compressed natural gas fueling station. Complete construction Phase 1 and 2 of 4 for a compressed natural gas fueling station. This project will provide the necessary fueling infrastructure to begin converting the City's refuse and recycling fleet from diesel to compressed natural gas.
- Award Multiple Award Construction Contract (MACC) to continue energy efficiency upgrades at City facilities such as lighting and air conditioning in order to reduce energy consumption and costs.
- Complete the installation of solar photovoltaic systems at 25 City sites.
- Award a power purchase agreement to install solar photovoltaic systems which may include energy storage systems at various City sites and landfills.
- Award contract to retrofit approximately 15,000 street lights with energy efficient LED fixtures with adaptive controls.
- Award contract using Community Development Block Grant (CDBG) funding for Americans with Disabilities Act (ADA) improvements and energy efficiency measures, including retrofitting existing interior and exterior lights with LED alternatives, replacing heating, ventilating, and air conditioning (HVAC) units, and installing integrated controls at the City Heights Recreation Center; Martin Luther King Recreation Center; Mid-City Police Station and South-eastern Police Station.
- 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 West Miramar Landfill Greenery and Composting Facility. Assembly Bill 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/indoor compost piles.

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- Award the design for a consolidated blower/flare system and well field improvements to facilitate the development of energy utilization projects and help the City obtain the highest and best value for the Miramar Landfill gas.

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Environmental Services: Capital Improvement Projects

| Project | Prior Fiscal Years | FY2017 Proposed | Future Fiscal Years | Project Total |
|--|-----------------------|---------------------|------------------------|----------------------|
| CNG Fueling Station for Refuse & Recycling / S15000 | \$ 2,100,000 | \$ 1,720,000 | \$ 1,230,000 | \$ 5,050,000 |
| Citywide Energy Improvements / ABT00003 | 522,246 | 300,000 | - | 822,246 |
| Future Waste Mgmt Disposal & Pro Fac / S01088 | 13,626,920 | - | - | 13,626,920 |
| Minor Improvements to Landfills / AFA00001 | 1,634,975 | - | - | 1,634,975 |
| Miramar Landfill Greenery Expansion / S00975 | 397,858 | - | - | 397,858 |
| South Chollas Landfill Improvements / S00684 | 15,828,624 | - | - | 15,828,624 |
| Underground Tank Program / AFA00002 | 407,565 | - | - | 407,565 |
| West Miramar Landfill - Phase 2 / S00774 | 3,060,000 | - | - | 3,060,000 |
| Environmental Services Total | \$ 37,578,188 | \$ 2,020,000 | \$ 1,230,000 | \$ 40,828,188 |



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CNG Fueling Station for Refuse & Recycling / S15000

Council District: 1
Community Plan: University
Project Status: Continuing
Duration: 2015 - 2021
Improv Type: New

Landfills - Supporting Fac / Struct

Priority Score: 55
Priority Category: Low
Contact Information: Fergusson, Craig
 858-627-3311
 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. It is estimated that CNG infrastructure will be constructed to allow for the replacement of approximately 20 vehicles on an annual basis until all vehicles have been replaced.

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: Design and construction are scheduled to continue in Fiscal Year 2017 and will continue through each phase of the project which is scheduled to be completed in Fiscal Year 2021.

Summary of Project Changes: A total of \$1.7 million has been added to this project of which \$900,000 from General Fund CIP and \$820,000 from Recycling Fund CIP in Fiscal Year 2017. In Fiscal Year 2018 total project cost increased by \$300,000 to \$1.2 million from the General Fund CIP.

Expenditure by Funding Source

| Fund Name | Fund No | Exp/Enc | Con Appn | FY 2017 | FY 2017 Anticipated | FY 2018 | FY 2019 | FY 2020 | FY 2021 | Future FY | Unidentified Funding | Project Total |
|-------------------------------------|---------|-------------------|---------------------|---------------------|---------------------|---------------------|-------------|-------------|-------------|-------------|----------------------|---------------------|
| CIP Contributions from General Fund | 400265 | \$ 455,700 | \$ 444,300 | \$ 900,000 | \$ - | \$ 1,230,000 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 3,030,000 |
| Recycling Fund CIP Fund | 700049 | 406,963 | 793,037 | 820,000 | - | - | - | - | - | - | - | 2,020,000 |
| Total | | \$ 862,663 | \$ 1,237,337 | \$ 1,720,000 | \$ - | \$ 1,230,000 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 5,050,000 |

Environmental Services

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: \$300,000 of Energy Conservation funding was added in Fiscal Year 2017 due to San Diego Gas & Electric rebates and incentives.

Expenditure by Funding Source

| Fund Name | Fund No | Exp/Enc | Con Appn | FY 2017 | FY 2017 Anticipated | FY 2018 | FY 2019 | FY 2020 | FY 2021 | Future FY | Unidentified Funding | Project Total |
|--------------------------------------|---------|-------------|-------------------|-------------------|---------------------|-------------|-------------|-------------|-------------|-------------|----------------------|-------------------|
| Energy Conservation Program CIP Fund | 200225 | \$ - | \$ 522,246 | \$ 300,000 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 822,246 |
| Total | | \$ - | \$ 522,246 | \$ 300,000 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 822,246 |

Environmental Services

Future Waste Mgmt Disposal & Pro Fac / S01088

Landfills - Supporting Fac / Struct

| | |
|-----------------------------------|--|
| Council District: Citywide | Priority Score: 92 |
| Community Plan: Citywide | Priority Category: High |
| Project Status: Continuing | Contact Information: Fergusson, Craig |
| Duration: 1989 - 2018 | 858-627-3311 |
| Improv Type: New | cfergusson@sandiego.gov |

Description: This project provides for the development and construction of solid waste disposal and processing facilities. Strategic planning, design, construction, environmental review, and potential purchase of mitigation property are all within the scope of the project.

Justification: The City must continue to have adequate disposal or processing facilities for the solid waste it generates each year. Technology to recover and/or convert portions of refuse material is being explored and developed. It appears that there will always be a need for landfilling part of the generated waste stream and residue from other solid waste disposal facilities.

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: Ongoing efforts are being made to identify solid waste processing and disposal options. The project is scheduled to continue through Fiscal Year 2018.

Summary of Project Changes: No significant changes were made to this project in Fiscal Year 2017.

Expenditure by Funding Source

| Fund Name | Fund No | Exp/Enc | Con Appn | FY 2017 | FY 2017 Anticipated | FY 2018 | FY 2019 | FY 2020 | FY 2021 | Future FY | Unidentified Funding | Project Total |
|--------------------------|---------|---------------------|---------------------|-------------|------------------------|-------------|-------------|-------------|-------------|-------------|-------------------------|----------------------|
| Refuse Disposal CIP Fund | 700040 | \$ 3,676,522 | \$ 9,950,398 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 13,626,920 |
| Total | | \$ 3,676,522 | \$ 9,950,398 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 13,626,920 |

Environmental Services

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: No significant change has been made to this project for Fiscal Year 2017.

Expenditure by Funding Source

| Fund Name | Fund No | Exp/Enc | Con Appn | FY 2017 | FY 2017 Anticipated | FY 2018 | FY 2019 | FY 2020 | FY 2021 | Future FY | Unidentified Funding | Project Total |
|--------------------------|---------|-------------|---------------------|-------------|------------------------|-------------|-------------|-------------|-------------|-------------|-------------------------|---------------------|
| Refuse Disposal CIP Fund | 700040 | \$ - | \$ 1,634,975 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 1,634,975 |
| Total | | \$ - | \$ 1,634,975 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 1,634,975 |

Environmental Services

Miramar Landfill Greenery Expansion / S00975

| | |
|-----------------------------------|--|
| Council District: Citywide | Priority Score: 53 |
| Community Plan: Citywide | Priority Category: Low |
| Project Status: Continuing | Contact Information: Fergusson, Craig |
| Duration: 2009 - 2018 | 858-292-6477 |
| Improv Type: Betterment | cfergusson@sandiego.gov |

Description: This project provides for the expansion of the existing Miramar Greenery currently located at the Miramar Landfill. The expansion of curbside greens collection to additional neighborhoods in the City will increase the tonnage coming into the facility, requiring additional acreage and equipment.

Justification: Expansion of curbside greens collection will increase the diversion of solid waste required by the State of California. A larger facility is required to process the increased tonnage expected as a result of expanded curbside pickup.

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: The remaining balance in this project will be used to conduct a feasibility study and potentially the preliminary design of an anaerobic digestion facility at the Miramar Greenery in Fiscal Year 2017. An anaerobic digestion facility will allow the Miramar Greenery to intake and process food waste into commodities such as compost.

Summary of Project Changes: No significant change has been made to this project for Fiscal Year 2017.

Expenditure by Funding Source

| Fund Name | Fund No | Exp/Enc | Con Appn | FY 2017 | FY 2017 Anticipated | FY 2018 | FY 2019 | FY 2020 | FY 2021 | Future FY | Unidentified Funding | Project Total |
|--------------------------|---------|-------------|-------------------|-------------|------------------------|-------------|-------------|-------------|-------------|-------------|-------------------------|-------------------|
| Refuse Disposal CIP Fund | 700040 | \$ - | \$ 397,858 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 397,858 |
| Total | | \$ - | \$ 397,858 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 397,858 |

Environmental Services

South Chollas Landfill Improvements / S00684

Landfills - Supporting Fac / Struct

| | |
|--|--|
| Council District: 4 | Priority Score: 85 |
| Community Plan: Eastern Area (Mid-City) | Priority Category: Medium |
| Project Status: Continuing | Contact Information: Fergusson, Craig |
| Duration: 2000 - 2017 | 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 is expected to be completed in Fiscal Year 2016.

Summary of Project Changes: Project schedule was updated for Fiscal Year 2017.

Expenditure by Funding Source

| Fund Name | Fund No | Exp/Enc | Con Appn | FY 2017 | FY 2017 Anticipated | FY 2018 | FY 2019 | FY 2020 | FY 2021 | Future FY | Unidentified Funding | Project Total |
|-------------------------------------|---------|----------------------|---------------------|-------------|------------------------|-------------|-------------|-------------|-------------|-------------|-------------------------|-------------------|
| Fleet Services CIP Fund | 400676 | \$ 748,941 | \$ 905,087 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | 1,654,028 |
| CIP Contributions from General Fund | 400265 | 4,658,719 | 475,281 | - | - | - | - | - | - | - | - | 5,134,000 |
| Refuse Disposal CIP Fund | 700040 | 6,201,012 | 110,690 | - | - | - | - | - | - | - | - | 6,311,702 |
| Water Utility - CIP Funding Source | 700010 | 1,964,289 | 764,605 | - | - | - | - | - | - | - | - | 2,728,894 |
| Total | | \$ 13,572,961 | \$ 2,255,663 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | 15,828,624 |

Environmental Services

Underground Tank Program / AFA00002

| | |
|-----------------------------------|--|
| 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 project provides for implementation of the Citywide Underground Hazardous Materials Storage Tank Master Plan. The plan addresses the removal, installation, closure, site assessment and mitigation, replacement, testing, and rehabilitation of the 69 City-owned underground storage tanks (USTs). Site assessment and mitigation activities related to 6 unauthorized releases are ongoing to maintain regulatory compliance, eligibility for State reimbursement, protection of groundwater, and public health and safety.

Justification: Title 23, California Code of Regulations, Chapter 16 and the California Health and Safety Code, Chapter 6.7 establish guidelines and regulations for the design, installation, rehabilitation, testing and maintenance, and monthly facility inspections by a Designated UST Operator. Non-compliance with UST laws or site assessment and mitigation (SA/M) requirements would expose the City to civil penalties of up to \$10,000 per day per UST.

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: There are no regulatory mandate-driven projects foreseen in Fiscal Year 2017. Future funding needs will be identified as new regulatory mandates arise.

Summary of Project Changes: No significant change has been made to this project for Fiscal Year 2017.

Expenditure by Funding Source

| Fund Name | Fund No | Exp/Enc | Con Appn | FY 2017 | FY 2017 Anticipated | FY 2018 | FY 2019 | FY 2020 | FY 2021 | Future FY | Unidentified Funding | Project Total |
|-----------------------|---------|-------------|-------------------|-------------|---------------------|-------------|-------------|-------------|-------------|-------------|----------------------|----------------|
| Gen Serv - Maint/Impr | 400179 | \$ - | \$ 368,961 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | 368,961 |
| UST Cleanup Fd | 400629 | - | 38,603 | - | - | - | - | - | - | - | - | 38,603 |
| Total | | \$ - | \$ 407,565 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | 407,565 |

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 consolidated landfill gas blower flare station. The station will mitigate landfill gas surface emissions and migration. Design was completed and permitting is in progress. Construction will begin in Fiscal Year 2017 and is scheduled to be completed in Fiscal Year 2019.

Summary of Project Changes: Project schedule has been updated for Fiscal Year 2017.

Expenditure by Funding Source

| Fund Name | Fund No | Exp/Enc | Con Appn | FY 2017 | FY 2017 Anticipated | FY 2018 | FY 2019 | FY 2020 | FY 2021 | 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 |