

# WASTE MANAGEMENT & RECYCLING

## EXECUTIVE SUMMARY

The Department of Waste Management and Recycling (DWMR) Five-Year Capital Improvement Plan (CIP) includes department-wide equipment replacements and projects at the Kiefer Landfill and North Area Recovery Station. Kiefer Landfill projects are required for ongoing landfill operations and are prescribed by various state regulations and permit conditions. Ongoing Kiefer Landfill projects include expansion of the landfill gas collection system and construction of final cover. North Area Recovery Station capital projects will improve and repair the site as mandated by state regulations and permit conditions. The DWMR continues to replace fully-depreciated equipment for solid waste and recycling collection, recovery, and disposal operations. All DWMR capital projects are funded through the Solid Waste Enterprise Fund without any contributions from the County General Fund. The projects proposed to be completed in the 2017-18 Fiscal Year Capital Budget include an "Operating Budget Impact" statement.

The following is a representative sample of the Kiefer Landfill and the North Area Recovery Station projects in the DWMR five-year CIP.

- **Kiefer Landfill – Gas and Leachate Management Systems Improvements** – This project involves the expansion of the landfill gas collection system into current and planned modules. This will allow the landfill operation to remain in compliance with regulatory requirements. Work will include the replacement of various flare station and energy plant items. – **Estimated Total Cost: \$11,549,683**
- **North Area Recovery Station – Equipment Maintenance Facility** – This project involves the design and construction to replace the existing Equipment Maintenance and Repair facility. The existing facility is undersized and would require extensive improvements for ongoing use. – **Estimated Total Cost: \$6,000,000**

# WASTE MANAGEMENT & RECYCLING

## PROJECT SUMMARY

Projects Not Appearing on Previous 5-Year CIP are Highlighted								
PROJ #	PROJECT	PRIOR YEARS	FISCAL YEAR 2017-18	FISCAL YEAR 2018-19	FISCAL YEAR 2019-20	FISCAL YEAR 2020-21	FISCAL YEAR 2021-22	TOTAL
1	Collections - Automated Collections Truck 2-Axle	0	412,000	0	0	0	0	\$412,000
2	Collections - Automated Collections Trucks 2-Axle with Tag	0	865,200	0	0	0	0	\$865,200
3	Collections - Automated Collections Trucks 3-Axle with Tag	0	2,163,000	0	0	0	0	\$2,163,000
4	Collections - RFID Readers for Collections Trucks	0	250,000	0	0	0	0	\$250,000
5	Equipment Replacements	0	0	6,374,948	5,015,617	5,590,402	5,510,030	\$22,490,997
6	Facility Improvements - Capital Renewal Forecast	0	200,000	76,723	62,457	394,096	319,907	\$1,053,183
7	Kiefer Landfill - ABOP Facility Improvements	0	200,000	0	0	0	0	\$200,000
8	Kiefer Landfill - Eastside Electrical Supply	0	386,000	0	0	0	0	\$386,000
9	Kiefer Landfill - Fuel Truck	0	360,500	0	0	0	0	\$360,500
10	Kiefer Landfill - Gas and Leachate Management Systems Improvements	6,821,398	842,259	726,020	1,142,815	1,298,498	718,693	\$11,549,683
11	Kiefer Landfill - Groundwater Treatment Plant Wireless Communications System	0	150,000	0	0	0	0	\$150,000
12	Kiefer Landfill - Liner and Ancillary Features	0	220,000	5,590,351	21,679,690	6,052,637	110,000	\$33,652,678
13	Kiefer Landfill - Regenerative Air Sweeper	0	206,000	0	0	0	0	\$206,000
14	North Area Recovery Station - Equipment Maintenance Facility	0	6,000,000	0	0	0	0	\$6,000,000
15	North Area Recovery Station - Land Transfer	2,251,947	250,278	250,278	250,278	0	0	\$3,002,781
16	North Area Recovery Station - Loaded Trailer Parking Rehabilitation	0	886,800	0	0	0	0	\$886,800
17	North Area Recovery Station - Transfer Tractors	0	364,620	0	0	0	0	\$364,620
18	North Area Recovery Station - Transfer Trailers	0	253,380	0	0	0	0	\$253,380
	<b>TOTAL</b>	<b>\$9,073,345</b>	<b>\$14,010,037</b>	<b>\$13,018,320</b>	<b>\$28,150,857</b>	<b>\$13,335,633</b>	<b>\$6,658,630</b>	<b>\$84,246,822</b>

# WASTE MANAGEMENT & RECYCLING

## PRIOR-YEAR COMPLETED/CANCELLED PROJECTS SUMMARY

PROJ #	PROJECT	PRIOR YEARS	FISCAL YEAR 2016-17	FISCAL YEAR 2017-18	FISCAL YEAR 2018-19	FISCAL YEAR 2019-20	FISCAL YEAR 2020-21	TOTAL	REASON DROPPED
1	Collections - Automated Collections Trucks 2-Axle with Tag (1)	0	404,309	0	0	0	0	\$404,309	Completed
2	Collections - Automated Collections Trucks 3-Axle with Tag (8)	0	3,398,352	0	0	0	0	\$3,398,352	Completed
3	Collections - Knuckle Boom Truck	0	250,000	0	0	0	0	\$250,000	Completed
4	Equipment Replacements	0	0	6,989,644	7,691,750	6,405,220	5,415,454	\$26,502,068	Project Continues FY 18
5	Kiefer Landfill - Asphalt Pavement Rehabilitation	13,000	578,893	0	38,500	553,245	0	\$1,183,638	Project Continues FY 18
6	Kiefer Landfill - Customer Rest Area	15,000	200,000	0	0	0	0	\$215,000	Completed
7	Kiefer Landfill - Final Cover	1,008,200	2,566,831	121,708	2,677,571	129,120	2,840,636	\$9,344,066	Project Continues FY 18
8	Kiefer Landfill - Gas and Leachate Management Systems Improvements	6,186,869	1,276,566	927,609	1,073,084	1,442,793	999,335	\$11,906,256	Project Continues FY 18
9	Kiefer Landfill - Water Treatment Plant Infiltration Basin	0	100,000	0	0	0	0	\$100,000	Cancelled
10	North Area Recovery Station - Equipment Maintenance Facility	0	5,000,000	0	0	0	0	\$5,000,000	Project Continues FY 18
11	North Area Recovery Station - Kiefer Landfill - Camera Projects	0	100,000	0	0	0	0	\$100,000	Completed
12	North Area Recovery Station - Land Transfer	2,001,669	250,278	250,278	250,278	250,278	0	\$3,002,781	Project Continues FY 18
13	North Area Recovery Station - On Board Scales (15)	0	150,000	0	0	0	0	\$150,000	Completed
14	North Area Recovery Station - Sedimentation Basin Mechanical Systems Improvements	0	390,000	0	0	0	0	\$390,000	Completed
15	North Area Recovery Station - Stationary Compactor Replacement	0	1,400,000	0	0	0	0	\$1,400,000	Completed
16	North Area Recovery Station - Transfer Tractor	0	177,170	0	0	0	0	\$177,170	Completed
17	North Area Recovery Station - Transfer Trailer (5)	0	408,975	0	0	0	0	\$408,975	Completed
	<b>TOTAL</b>	<b>\$9,224,738</b>	<b>\$16,651,374</b>	<b>\$8,289,239</b>	<b>\$11,731,183</b>	<b>\$8,780,656</b>	<b>\$9,255,425</b>	<b>\$63,932,615</b>	

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## Collections – Automated Collection Truck 2 – Axle

9611 Conservation Road, Sacramento, 95827

Project #1

**Department:** Waste Management and Recycling    **Estimated Project Cost:** \$412,000

**Expected Completion Date:** 2017

**Funding Sources:** Solid Waste Enterprise  
Fund Capital Outlay



**Project Description:**

This project is for the purchase of one fully-automated side-loading collection truck. This will be a 2-axle truck, powered by compressed natural gas fuel with right hand drive. This vehicle will be used primarily for dead-end street routes and as a backup vehicle.

# WASTE MANAGEMENT & RECYCLING

## Collections – Automated Collection Truck 2-Axle

Estimated Project Costs	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Construction Costs	0	0	0	0	0	0	0
Project Management/ Design (In-House)	0	0	0	0	0	0	0
Project Management/ Design (Consultant)	0	0	0	0	0	0	0
Construction Fees and Services	0	0	0	0	0	0	0
Right-of-way/ Land Acquisition	0	0	0	0	0	0	0
Purchase Cost (Equip/Vehicle)	0	412,000	0	0	0	0	412,000
Other	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>412,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>412,000</b>

  

Funding Sources	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Solid Waste Enterprise Fund Capital Outlay	0	412,000	0	0	0	0	412,000
<b>TOTAL</b>	<b>0</b>	<b>412,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>412,000</b>

**Project Analysis:**

Analysis Done	Analysis Results
Operating budget impact analyzed	Project will result in a decrease in operating costs due to less maintenance for new equipment.

## Collections – Automated Collection Trucks 2–Axle with Tag

9611 Conservation Road, Sacramento, 95827

Project #2

**Department:** Waste Management and Recycling    **Estimated Project Cost:** \$865,200

**Expected Completion Date:** 2017

**Funding Sources:** Solid Waste Enterprise  
Fund Capital Outlay



### Project Description:

This project is for the purchase of two fully-automated side-loading collection trucks. These trucks will be 2-axle trucks with tag, powered by compressed natural gas fuel with right hand drive. These vehicles will be used primarily for dead-end street routes and as backup vehicles.

# WASTE MANAGEMENT & RECYCLING

## Collections – Automated Collection Trucks 2-Axle with Tag

Estimated Project Costs	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Construction Costs	0	0	0	0	0	0	0
Project Management/ Design (In-House)	0	0	0	0	0	0	0
Project Management/ Design (Consultant)	0	0	0	0	0	0	0
Construction Fees and Services	0	0	0	0	0	0	0
Right-of-way/ Land Acquisition	0	0	0	0	0	0	0
Purchase Cost (Equip/Vehicle)	0	865,200	0	0	0	0	865,200
Other	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>865,200</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>865,200</b>

  

Funding Sources	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Solid Waste Enterprise Fund Capital Outlay	0	865,200	0	0	0	0	865,200
<b>TOTAL</b>	<b>0</b>	<b>865,200</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>865,200</b>

**Project Analysis:**

Analysis Done	Analysis Results
Operating budget impact analyzed	Project will result in a decrease in operating costs due to less maintenance for new equipment.

## Collections – Automated Collection Trucks 3 – Axle with Tag

9611 Conservation Road, Sacramento, 95827

Project #3

**Department:** Waste Management and Recycling **Estimated Project Cost:** \$2,163,000

**Expected Completion Date:** 2018

**Funding Sources:** Solid Waste Enterprise Fund Capital Outlay



### **Project Description:**

This project is for the purchase of five fully-automated side-loading collection trucks. These will be 3-axle with tag trucks, powered by compressed natural gas fuel with right hand drive. These vehicles will be used primarily for prime routes.

# WASTE MANAGEMENT & RECYCLING

## Collections – Automated Collection Trucks 3-Axle with Tag

Estimated Project Costs	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Construction Costs	0	0	0	0	0	0	0
Project Management/ Design (In-House)	0	0	0	0	0	0	0
Project Management/ Design (Consultant)	0	0	0	0	0	0	0
Construction Fees and Services	0	0	0	0	0	0	0
Right-of-way/Land Acquisition	0	0	0	0	0	0	0
Purchase Cost (Equip/Vehicle)	0	2,163,000	0	0	0	0	2,163,000
Other	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>2,163,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,163,000</b>

Funding Sources	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Solid Waste Enterprise Fund Capital Outlay	0	2,163,000	0	0	0	0	2,163,000
<b>TOTAL</b>	<b>0</b>	<b>2,163,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,163,000</b>

**Project Analysis:**

Analysis Done	Analysis Results
Operating budget impact analyzed	Project will result in a decrease in operating costs due to less maintenance for new equipment.

# WASTE MANAGEMENT & RECYCLING

## Collections – RFID Readers for Collections Trucks

9611 Conservation Road, Sacramento, 95827

Project #4

**Department:** Waste Management and Recycling    **Estimated Project Cost:** \$250,000

**Expected Completion Date:** 2017

**Funding Sources:** Solid Waste Enterprise Fund Capital Outlay

**Project Description:**

This project is for the purchase of 33 radio frequency identification readers. These readers will be used to read the Radio Frequency Identification (RFID) tags assembled in the trash containers. This will allow the department to manage the individual containers and the customer accounts.

### Collections – RFID Readers for Collections Trucks

Estimated Project Costs	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Construction Costs	0	0	0	0	0	0	0
Project Management/ Design (In-House)	0	0	0	0	0	0	0
Project Management/ Design (Consultant)	0	0	0	0	0	0	0
Construction Fees and Services	0	0	0	0	0	0	0
Right-of-way/ Land Acquisition	0	0	0	0	0	0	0
Purchase Cost (Equip/Vehicle)	0	250,000	0	0	0	0	250,000
Other	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>250,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>250,000</b>

  

Funding Sources	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Solid Waste Enterprise Fund Capital Outlay	0	250,000	0	0	0	0	250,000
<b>TOTAL</b>	<b>0</b>	<b>250,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>250,000</b>

**Project Analysis:**

Analysis Done	Analysis Results
Operating budget impact analyzed	This project will provide essential improved performance by managing individual containers and customer accounts.

# WASTE MANAGEMENT & RECYCLING

## Equipment Replacements

12701 Kiefer Boulevard, Sloughouse, CA 95683  
 4450 Roseville Road, North Highlands, CA 95660  
 9611 Conservation Road, Sacramento, CA 95827

Project #5

**Department:** Waste Management and Recycling **Estimated Project Cost:** \$22,490,997

**Expected Completion Date:** 2022

**Funding Sources:** Solid Waste Enterprise Fund Capital Outlay

**Project Description:**

This project displays the amounts of anticipated equipment purchases to replace older equipment for various Collection, Landfill, Transfer, Engineering, and Special Waste programs.

### Equipment Replacements

Estimated Project Costs	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Construction Costs	0	0	0	0	0	0	0
Project Management/ Design (In-House)	0	0	0	0	0	0	0
Project Management/ Design (Consultant)	0	0	0	0	0	0	0
Construction Fees and Services	0	0	0	0	0	0	0
Right-of-way.Land/Acquisition	0	0	0	0	0	0	0
Purchase Cost (Equip/Vehicle)	0	0	6,374,948	5,015,617	5,590,402	5,510,030	22,490,997
Other	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>6,374,948</b>	<b>5,015,617</b>	<b>5,590,402</b>	<b>5,510,030</b>	<b>22,490,997</b>

Funding Sources	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Solid Waste Enterprise Fund Capital Outlay	0	0	6,374,948	5,015,617	5,590,402	5,510,030	22,490,997
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>6,374,948</b>	<b>5,015,617</b>	<b>5,590,402</b>	<b>5,510,030</b>	<b>22,490,997</b>

**Project Analysis:**

Analysis Done	Analysis Results
Operating budget impact analyzed	Project will result in a decrease in operating costs due to less maintenance for new equipment.

# WASTE MANAGEMENT & RECYCLING

## Facility Improvements – Capital Renewal Forecast

Various Departments of Waste Management and Recycling  
(DWMR) Sites

Project #6

**Department:** Waste Management & Recycling      **Estimated Project Cost:** \$1,053,183

**Expected Completion Date:** 2022      **Funding Sources:** Solid Waste Enterprise Fund Capital Outlay

**Project Description:**

This project includes forecasted replacement needs of building systems and equipment at various DWMR buildings. The project is based on a 2014-16 facility condition assessment that included buildings at six DWMR facilities.

### Facility Improvements – Capital Renewal Forecast

Estimated Project Costs	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Construction Costs	0	200,000	76,723	62,457	394,096	319,907	1,053,183
Project Management/ Design (In-House)	0	0	0	0	0	0	0
Project Management/ Design (Consultant)	0	0	0	0	0	0	0
Construction Fees and Services	0	0	0	0	0	0	0
Right-of-way/Land Acquisition	0	0	0	0	0	0	0
Purchase Cost (Equip/Vehicle)	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>200,000</b>	<b>76,723</b>	<b>62,457</b>	<b>394,096</b>	<b>319,907</b>	<b>1,053,183</b>

Funding Sources	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Solid Waste Enterprise Fund Capital Outlay	0	200,000	76,723	62,457	394,096	319,907	1,053,183
<b>TOTAL</b>	<b>0</b>	<b>200,000</b>	<b>76,723</b>	<b>62,457</b>	<b>394,096</b>	<b>319,907</b>	<b>1,053,183</b>

**Project Analysis:**

Analysis Done	Analysis Results
Operating budget impact analyzed	The operating cost of this project has no measureable impact on the operating budget.

# WASTE MANAGEMENT & RECYCLING

## Kiefer Landfill – ABOP Facility Improvements

12701 Kiefer Blvd., Sloughouse, CA 95683

Project #7

**Department:** Waste Management and Recycling    **Estimated Project Cost:** \$200,000

**Expected Completion Date:** 2018

**Funding Sources:** Solid Waste Enterprise Fund Capital Outlay

**Project Description:**

This project will upgrade the existing Kiefer Landfill Antifreeze, Batteries, Oil, and Paint (ABOP) facility to a Permanent Household Hazardous Waste Collection Facility (PHHWCF). This construction will allow the Kiefer facility to accept the full spectrum of household hazardous waste from residents. This facility at Kiefer will allow residents to have the same service available to residents visiting the North Area Recovery Station.

### Kiefer Landfill - ABOP Facility Improvements

Estimated Project Costs	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Construction Costs	0	180,000	0	0	0	0	180,000
Project Management/ Design (In-House)	0	20,000	0	0	0	0	20,000
Project Management/ Design (Consultant)	0	0	0	0	0	0	0
Construction Fees and Services	0	0	0	0	0	0	0
Right-of-way/Land Acquisition	0	0	0	0	0	0	0
Purchase Cost (Equip/Vehicle)	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>200,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>200,000</b>

Funding Sources	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Solid Waste Enterprise Fund Capital Outlay	0	200,000	0	0	0	0	200,000
<b>TOTAL</b>	<b>0</b>	<b>200,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>200,000</b>

**Project Analysis:**

Analysis Done	Analysis Results
Operating budget impact analyzed	This project will provide essential improved performance and additional convenience to residents.

# WASTE MANAGEMENT & RECYCLING

## Kiefer Landfill – Eastside Electrical Supply

12701 Kiefer Blvd., Sloughouse, CA 95683

Project #8

**Department:** Waste Management & Recycling      **Estimated Project Cost:** \$386,000

**Expected Completion Date:** 2018      **Funding Sources:** Solid Waste Enterprise Fund Capital Outlay

**Project Description:**

This project is for installation of an electrical supply on the eastern side of the Kiefer Landfill facility. The project will provide electrical service for future modules and environmental control systems.

### Kiefer Landfill – Eastside Electrical Supply

Estimated Project Costs	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Construction Costs	0	360,000	0	0	0	0	360,000
Project Management/ Design (In-House)	0	0	0	0	0	0	0
Project Management/ Design (Consultant)	0	8,000	0	0	0	0	8,000
Construction Fees and Services	0	18,000	0	0	0	0	18,000
Right-of-way/Land Acquisition	0	0	0	0	0	0	0
Purchase Cost (Equip/Vehicle)	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>386,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>386,000</b>

Funding Sources	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Solid Waste Enterprise Fund Capital Outlay	0	386,000	0	0	0	0	386,000
<b>TOTAL</b>	<b>0</b>	<b>386,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>386,000</b>

**Project Analysis:**

Analysis Done	Analysis Results
Operating budget impact analyzed	The operating cost of this project has no measureable impact on the operating budget.

## Kiefer Landfill – Fuel Truck

12701 Kiefer Boulevard, Sloughouse, CA 95683

Project #9

**Department:** Waste Management and Recycling **Estimated Project Cost:** \$360,500

**Expected Completion Date:** 2017

**Funding Sources:** Solid Waste Enterprise Fund Capital Outlay



### **Project Description:**

This project is for an all-wheel drive fuel truck for Kiefer Landfill operations. This equipment will replace a fully-depreciated unit currently in operation at the landfill.

# WASTE MANAGEMENT & RECYCLING

## Kiefer Landfill – Fuel Truck

Estimated Project Costs	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Construction Costs	0	0	0	0	0	0	0
Project Management/ Design (In-House)	0	0	0	0	0	0	0
Project Management/ Design (Consultant)	0	0	0	0	0	0	0
Construction Fees and Services	0	0	0	0	0	0	0
Right-of-way/Land Acquisition	0	0	0	0	0	0	0
Purchase Cost (Equip/Vehicle)	0	360,500	0	0	0	0	360,500
Other	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>360,500</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>360,500</b>

  

Funding Sources	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Solid Waste Enterprise Fund							
Capital Outlay	0	360,500	0	0	0	0	360,500
<b>TOTAL</b>	<b>0</b>	<b>360,500</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>360,500</b>

**Project Analysis:**

Analysis Done	Analysis Results
Operating budget impact analyzed	Project will result in a decrease in operation costs due to less maintenance for new equipment.

## Kiefer Landfill – Gas and Leachate Management Systems Improvements

12701 Kiefer Blvd., Sloughouse, CA 95683

Project #10

**Department:** Waste Management & Recycling

**Estimated Project Cost:** \$11,549,683

**Expected Completion Date:** 2022

**Funding Sources:** Solid Waste Enterprise Fund Capital Outlay



### **Project Description:**

This project includes expansion of the Kiefer Landfill gas collection system into Module 3 (M3) and installation of additional gas and leachate infrastructure in and around modules M1, M1-L, and M2. Additional gas collectors are required to maintain compliance with regulatory requirements. The project will involve the installation of new and replacement wells, horizontal gas collectors, and new piping. Leachate recirculation system components will be installed in module M3. This budget also includes costs for scheduled replacement of various flare station and energy plant equipment items.

# WASTE MANAGEMENT & RECYCLING

## Kiefer Landfill – Gas and Leachate Management Systems Improvements

Estimated Project Costs	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Construction Costs	6,821,398	449,790	413,930	298,100	646,520	385,820	9,015,558
Project Management/ Design (In-House)	0	0	0	0	0	0	0
Project Management/ Design (Consultant)	0	22,490	20,697	14,905	32,326	19,291	109,709
Construction Fees and Services	0	44,979	41,393	29,810	64,652	38,582	219,416
Right-of-way/Land Acquisition	0	0	0	0	0	0	0
Purchase Cost (Equip/Vehicle)	0	325,000	250,000	800,000	555,000	275,000	2,205,000
Other	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>6,821,398</b>	<b>842,259</b>	<b>726,020</b>	<b>1,142,815</b>	<b>1,298,498</b>	<b>718,693</b>	<b>11,549,683</b>

Funding Sources	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Solid Waste Enterprise Fund							
Capital Outlay	6,821,398	842,259	726,020	1,142,815	1,298,498	718,693	11,549,683
<b>TOTAL</b>	<b>6,821,398</b>	<b>842,259</b>	<b>726,020</b>	<b>1,142,815</b>	<b>1,298,498</b>	<b>718,693</b>	<b>11,549,683</b>

### Project Analysis:

Analysis Done	Analysis Results
Operating budget impact analyzed	The project will result in an increase in operating costs due to installation of new facilities.
Age of existing facility/system/equipment	The original Module M1 landfill gas extraction wells were installed during 1997. System expansion has been ongoing. Wells require replacement when no longer effectively collecting landfill gas.

# WASTE MANAGEMENT & RECYCLING

## Kiefer Landfill – Groundwater Treatment Plant Wireless Communications System

12701 Kiefer Blvd., Sloughouse, CA 95683

Project #11

**Department:** Waste Management and Recycling    **Estimated Project Cost:** \$150,000

**Expected Completion Date:** 2018

**Funding Sources:** Solid Waste Enterprise Fund Capital Outlay

**Project Description:**

The facility's hardwire communication system was constructed in 1994 and is exhibiting increasing signal transmission faults. These faults may cause shutdown of the treatment plant. The Regional Water Quality Control Board mandates continued operation of the Plant. A portion of the existing wires lie beneath Kiefer Boulevard Replacement of the existing system with a wireless system offers more reliable communications while avoiding construction within the roadway.

### Kiefer Landfill - Groundwater Treatment Plant Wireless Communications System

Estimated Project Costs	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Construction Costs	0	150,000	0	0	0	0	150,000
Project Management/ Design (In-House)	0	0	0	0	0	0	0
Project Management/ Design (Consultant)	0	0	0	0	0	0	0
Construction Fees and Services	0	0	0	0	0	0	0
Right-of-way/Land Acquisition	0	0	0	0	0	0	0
Purchase Cost (Equip/Vehicle)	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>150,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>150,000</b>

Funding Sources	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Solid Waste Enterprise Fund Capital Outlay	0	150,000	0	0	0	0	150,000
<b>TOTAL</b>	<b>0</b>	<b>150,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>150,000</b>

**Project Analysis:**

Analysis Done	Analysis Results
Operating budget impact analyzed	This project will provide essential improved performance.

## Kiefer Landfill – Liner and Ancillary Features

12701 Kiefer Blvd., Sloughouse, CA 95683

Project #12

**Department:** Waste Management & Recycling

**Estimated Project Cost:** \$33,652,678

**Expected Completion Date:** 2022

**Funding Sources:** Solid Waste Enterprise  
Fund Capital Outlay



### **Project Description:**

This project includes the planning, design, construction, construction management, inspections, reporting, and oversight associated with construction of landfill liner, leachate collection, and landfill gas piping systems for the Kiefer Landfill. The project will be constructed over multiple fiscal years. Liner and supporting infrastructure is planned to be constructed in module M4 during 2019-21.

# WASTE MANAGEMENT & RECYCLING

## Kiefer Landfill – Liner and Ancillary Features

Estimated Project Costs	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Construction Costs	0	0	5,152,397	19,708,808	5,502,397	0	30,363,602
Project Management/ Design (In-House)	0	0	0	0	0	0	0
Project Management/ Design (Consultant)	0	220,000	180,334	985,441	275,120	110,000	1,770,895
Construction Fees and Services	0	0	257,620	985,441	275,120	0	1,518,181
Right-of-way/Land Acquisition	0	0	0	0	0	0	0
Purchase Cost (Equip/Vehicle)	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>220,000</b>	<b>5,590,351</b>	<b>21,679,690</b>	<b>6,052,637</b>	<b>110,000</b>	<b>33,652,678</b>

  

Funding Sources	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Solid Waste Enterprise Fund Capital Outlay	0	220,000	5,590,351	21,679,690	6,052,637	110,000	33,652,678
<b>TOTAL</b>	<b>0</b>	<b>220,000</b>	<b>5,590,351</b>	<b>21,679,690</b>	<b>6,052,637</b>	<b>110,000</b>	<b>33,652,678</b>

**Project Analysis:**

Analysis Done	Analysis Results
Operating budget impact analyzed	The project will result in an increase in operating costs due to installation of new facilities.

## Kiefer Landfill – Regenerative Air Sweeper

12701 Kiefer Boulevard, Sloughouse, CA 95683

Project #13

**Department:** Waste Management and Recycling **Estimated Project Cost:** \$206,000

**Expected Completion Date:** 2017

**Funding Sources:** Solid Waste Enterprise Fund Capital Outlay



### **Project Description:**

This project is for a regenerative air sweeper needed for Kiefer Landfill operations. This equipment will be powered by a Tier 4 final diesel engine to comply with CARB rules. This will replace a fully-depreciated unit currently in use.

# WASTE MANAGEMENT & RECYCLING

## Kiefer Landfill – Regenerative Air Sweeper

Estimated Project Costs	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Construction Costs	0	0	0	0	0	0	0
Project Management/ Design (In-House)	0	0	0	0	0	0	0
Project Management/ Design (Consultant)	0	0	0	0	0	0	0
Construction Fees and Services	0	0	0	0	0	0	0
Right-of-way/Land Acquisition	0	0	0	0	0	0	0
Purchase Cost (Equip/Vehicle)	0	206,000	0	0	0	0	206,000
Other	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>206,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>206,000</b>

Funding Sources	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Solid Waste Enterprise Fund							
Capital Outlay	0	206,000	0	0	0	0	206,000
<b>TOTAL</b>	<b>0</b>	<b>206,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>206,000</b>

**Project Analysis:**

Analysis Done	Analysis Results
Operating budget impact analyzed	Project will result in a decrease in operation costs due to less maintenance for new equipment.

# WASTE MANAGEMENT & RECYCLING

## North Area Recovery Station – Equipment Maintenance Facility

4450 Roseville Road, North Highlands, 95660

Project #14

**Department:** Waste Management and Recycling    **Estimated Project Cost:** \$6,000,000

**Expected Completion Date:** 2018

**Funding Sources:** Solid Waste Enterprise Fund Capital Outlay

**Project Description:**

This project includes design and construction to replace the existing Equipment Maintenance Facility, most of which was built in 1973. The existing facility is undersized and would require extensive improvements and repairs for ongoing use.

### North Area Recovery Station – Equipment Maintenance Facility

Estimated Project Costs	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Construction Costs	0	4,700,000	0	0	0	0	4,700,000
Project Management/ Design (In-House)	0	140,000	0	0	0	0	140,000
Project Management/ Design (Consultant)	0	626,000	0	0	0	0	626,000
Construction Fees and Services	0	460,000	0	0	0	0	460,000
Right-of-way/Land Acquisition	0	0	0	0	0	0	0
Purchase Cost (Equip/Vehicle)	0	0	0	0	0	0	0
Other	0	74,000	0	0	0	0	74,000
<b>TOTAL</b>	<b>0</b>	<b>6,000,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6,000,000</b>

Funding Sources	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Solid Waste Enterprise Fund Capital Outlay	0	6,000,000	0	0	0	0	6,000,000
<b>TOTAL</b>	<b>0</b>	<b>6,000,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6,000,000</b>

# WASTE MANAGEMENT & RECYCLING

## Project Analysis:

<b>Analysis Done</b>	<b>Analysis Results</b>
Operating budget impact analyzed	This project will result in a decrease in operating costs due to less maintenance and increased operational efficiency.
Age of existing facility/system/equipment	Existing facility is 31 to 44 years old.

# WASTE MANAGEMENT & RECYCLING

## North Area Recovery Station – Land Transfer

4450 Roseville Road, North Highlands, CA 95660

Project #15

**Department:** Waste Management & Recycling

**Estimated Project Cost:** \$3,002,781

**Expected Completion Date:** 2019

**Funding Sources:** Solid Waste Enterprise Fund Capital Outlay

**Project Description:**

The Sacramento County Department of Waste Management and Recycling (DWMR) has agreed to the transfer of land located at the North Area Recovery Station from the Sacramento County Department of Economic Development and Intergovernmental Affairs (Econ Dev), and to complete the financial obligation agreed to in the June 22, 1999 Informational Report to the Board of Supervisors and the approved July 20, 1999 Board action, Resolution 99-0917.

The price for the transfer of the asset shall be two million, five hundred thousand dollars (\$2,500,000 plus interest). DWMR made the initial payment to Econ Dev of \$500,000 on July 1, 2009, and will continue to make annual payments of \$250,278 for ten years through July 1, 2019.

### North Area Recovery Station – Land Transfer

Estimated Project Costs	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Construction Costs	0	0	0	0	0	0	0
Project Management/ Design (In-House)	0	0	0	0	0	0	0
Project Management/ Design (Consultant)	0	0	0	0	0	0	0
Construction Fees and Services	0	0	0	0	0	0	0
Right-of-way/Land Acquisition	0	0	0	0	0	0	0
Purchase Cost (Equip/Vehicle)	0	0	0	0	0	0	0
Land Transfer	2,251,947	250,278	250,278	250,278	0	0	3,002,781
<b>TOTAL</b>	<b>2,251,947</b>	<b>250,278</b>	<b>250,278</b>	<b>250,278</b>	<b>0</b>	<b>0</b>	<b>3,002,781</b>

  

Funding Sources	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Solid Waste Enterprise Fund Capital Outlay	2,251,947	250,278	250,278	250,278	0	0	3,002,781
<b>TOTAL</b>	<b>2,251,947</b>	<b>250,278</b>	<b>250,278</b>	<b>250,278</b>	<b>0</b>	<b>0</b>	<b>3,002,781</b>

# WASTE MANAGEMENT & RECYCLING

## Project Analysis:

<b>Analysis Done</b>	<b>Analysis Results</b>
Operating budget impact analyzed	This project has no measurable impact on the operating budget once complete.

# WASTE MANAGEMENT & RECYCLING

## North Area Recovery Station – Loaded Trailer Parking Rehabilitation

4450 Roseville Road, North Highlands, 95660

Project #16

**Department:** Waste Management and Recycling    **Estimated Project Cost:** \$886,800

**Expected Completion Date:** 2018

**Funding Sources:** Solid Waste Enterprise Fund Capital Outlay

**Project Description:**

This project is for the replacement of pavement in the loaded trailer parking at North Area Recovery Station.

### North Area Recovery Station – Loaded Trailer Parking Rehabilitation

Estimated Project Costs	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Construction Costs	0	791,800	0	0	0	0	791,800
Project Management/ Design (In-House)	0	40,000	0	0	0	0	40,000
Project Management/ Design (Consultant)	0	0	0	0	0	0	0
Construction Fees and Services	0	55,000	0	0	0	0	55,000
Right-of-way/Land Acquisition	0	0	0	0	0	0	0
Purchase Cost (Equip/Vehicle)	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>886,800</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>886,800</b>

Funding Sources	Prior Years Expenses	Fiscal Year 2017-18 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-22 Budget	Total
Solid Waste Enterprise Fund Capital Outlay	0	886,800	0	0	0	0	886,800
<b>TOTAL</b>	<b>0</b>	<b>886,800</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>886,800</b>

**Project Analysis:**

Analysis Done	Analysis Results
Operating budget impact analyzed	This project will result in a decrease in operating costs due to less maintenance for the improved pavement.

## North Area Recovery Station – Transfer Tractors

4450 Roseville, North Highlands, CA 95660

Project #17

**Department:** Waste Management and Recycling **Estimated Project Cost:** \$364,620

**Expected Completion Date:** 2018

**Funding Sources:** Solid Waste Enterprise Fund Capital Outlay



### **Project Description:**

This project is for the purchase of two transfer tractors. These transfer tractors will be used primarily at the North Area Recovery Station to transfer waste material from the North Area Recover Station to the Kiefer Landfill. These units will replace fully-depreciated units in current use.

# WASTE MANAGEMENT & RECYCLING

## North Area Recovery Station – Transfer Tractors

Estimated Project Costs	Prior Years Expenses	Fiscal Year 2017-2018 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-2022 Budget	Total
Construction Costs	0	0	0	0	0	0	0
Project Management/ Design (In-House)	0	0	0	0	0	0	0
Project Management/ Design (Consultant)	0	0	0	0	0	0	0
Construction Fees and Services	0	0	0	0	0	0	0
Right-of-way/Land Acquisition	0	0	0	0	0	0	0
Purchase Cost (Equip/Vehicle)	0	364,620	0	0	0	0	364,620
Other	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>364,620</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>364,620</b>

  

Funding Sources	Prior Years Expenses	Fiscal Year 2017-2018 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-2022 Budget	Total
Solid Waste Enterprise Fund							
Capital Outlay	0	364,620	0	0	0	0	364,620
<b>TOTAL</b>	<b>0</b>	<b>364,620</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>364,620</b>

**Project Analysis:**

Analysis Done	Analysis Results
Operating budget impact analyzed	Project will result in a decrease in operating costs due to less maintenance for new equipment.

# WASTE MANAGEMENT & RECYCLING

## North Area Recovery Station – Transfer Trailers

4450 Roseville, North Highlands, CA 95660

Project #18

**Department:** Waste Management and Recycling **Estimated Project Cost:** \$253,380

**Expected Completion Date:** 2018

**Funding Sources:** Solid Waste Enterprise Fund Capital Outlay



### **Project Description:**

This project is for the purchase of three transfer trailers. These transfer trailers will be used primarily at the North Area Recovery Station to transfer waste material from the North Area Recover Station to the Kiefer Landfill. These units will replace fully-depreciated units in current use.

# WASTE MANAGEMENT & RECYCLING

## North Area Recovery Station – Transfer Trailers

Estimated Project Costs	Prior Years Expenses	Fiscal Year 2017-2018 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-2022 Budget	Total
Construction Costs	0	0	0	0	0	0	0
Project Management/ Design (In- House)	0	0	0	0	0	0	0
Project Management/ Design (Consultant)	0	0	0	0	0	0	0
Construction Fees and Services	0	0	0	0	0	0	0
Right-of-way/Land Acquisition	0	0	0	0	0	0	0
Purchase Cost (Equip/Vehicle)	0	253,380	0	0	0	0	253,380
Other	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>253,380</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>253,380</b>

Funding Sources	Prior Years Expenses	Fiscal Year 2017-2018 Budget	Fiscal Year 2018-19 Budget	Fiscal Year 2019-20 Budget	Fiscal Year 2020-21 Budget	Fiscal Year 2021-2022 Budget	Total
Solid Waste Enterprise Fund Capital Outlay	0	253,380	0	0	0	0	253,380
<b>TOTAL</b>	<b>0</b>	<b>253,380</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>253,380</b>

**Project Analysis:**

Analysis Done	Analysis Results
Operating budget impact analyzed	Project will result in a decrease in operating costs due to less maintenance for new equipment.