2021-22

DRAFT

CIP Budget

Carmel Area Wastewater District
Capital Budget Summary 2021-22

	ITEM	ALLOCATION						Totals
		Admin	Maintenance	Collection	Treatment	PBCSD	Recla-mation	
1	CIP Projects for Administration	66,691						66,691
2	CIP Maintenance - Plant		24,000					24,000
3	CIP Projects for Collection System			3,350,000				3,350,000
4	CIP Projects for Treatment & Disposal				33,350	16,650	0	50,000
5	CIP Long Term Capital Plan for Treatment & Disposal				4,473,069	1,733,931	193,000	6,400,000
	Total CIP	66,691	24,000	3,350,000	4,506,419	1,750,581	193,000	9,890,691
1	Capital Equipment - Administration	0						0
2	Capital Equipment - Maintenance		0					0
3	Capital Equipment - Collections			82,508				82,508
4	Capital Equipment - Treatment				4,502	2,248	6,750	13,500
	Total Capital Outlay	0	0	82,508	4,502	2,248	6,750	96,008
	Grant Funding				(1,000,000)			(1,000,000)
	Total CIP & Capital Outlay 19-20	**66,691**	**24,000**	**3,432,508**	**3,510,921**	**1,752,829**	**199,750**	**8,986,699**

Carmel Area Wastewater District

Capital Budget Summary 2022-23

	ITEM	ALLOCATION						Totals
		Admin	Maintenance	Collection	Treatment	PBCSD	Recla-mation	
1	CIP Projects for Administration	95,000						95,000
2	CIP Maintenance - Plant		0					0
3	CIP Projects for Collection System			2,100,000				2,100,000
4	CIP Projects for Treatment & Disposal				0			0
5	CIP Long Term Capital Plan for Treatment & Disposal				5,831,725	1,756,275	2,000	7,590,000
	Total CIP	95,000	0	2,100,000	5,831,725	1,756,275	2,000	9,785,000
1	Capital Equipment - Administration	7,000						7,000
2	Capital Equipment - Maintenance		0					0
3	Capital Equipment - Collections			0				0
4	Capital Equipment - Treatment				10,005	4,995	135,000	150,000
	Total Capital Outlay	7,000	0	0	10,005	4,995	135,000	157,000
	Grant Funding				(2,300,000)			(2,300,000)
	Total CIP & Capital Outlay 20-21	**102,000**	**0**	**2,100,000**	**3,541,730**	**1,761,270**	**137,000**	**7,642,000**

CAWD Maintenance Plant - CIP

FY 2021/22 *thru* 2025/26

Project #	PROJECT	21/22	22/23	23/24	24/25	25/26	Unscheduled
1	Treatment Plant Access Control and Camera Project	$ 24,000					
2							
3							
	TREATMENT & DISPOSAL TOTAL	**$ 24,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
	RECLAMATION SHARE	$ -	$ -	$ -	$ -	$ -	$ -
	PBCSD SHARE	$ 8,000	$ -	$ -	$ -	$ -	$ -
	CAWD COST	**$ 16,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

1 **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name:	Treatment Plant Access Control and Camera Project
Dept:	Maintenance
Total Cost:	$ 24,000
CY Budget	$ 24,000
GL Account:	

Contact:	Foley
Area	Misc Structures
Asset Type:	Support Equipment
Avg Useful Life:	10 years
Est Residual Life:	1 year
% Consumed Life:	100
Category:	Maintenance
Urgency:	3 = Important
Carry Forward:	No

Asset Description

Network cameras at the treatement plant for security and access control. Cameras are used to monitor front gate and haulers. Access control system allows contractors, staff and deliveries into the treatment plant. Total of 5 outdoor cameras and 2 indoor cameras. Includes 10 year cloud recording license and 10 hardware warranty.

Year Built:	2010
Rehabilitation Date (Extending life of Asset):	NA
Rehab Life Extension:	NA
Asset Condition Rating:	10 Unserviceable Replace

Justification

The cameras are failing due to age and water intrusion. There is a separate wifi radio network that is failing. The camera video recorder and gate access control both run on unsecure Windows 7 servers. The new system would eliminate the local servers and be more secure and eliminate the need for a dedicated wifi network and use existing network hardware. This is system is critical for access control, monitoring after hours, deliveries and will be valuable during construction projects.

Asset Risk Management Strategy

Capital Improvement Risk	Moderate Repair
Maintenance Risk Management	Corrective Maintenance
Non Asset Risk Management	Take Asset out of Service

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Prior Yr	21-22	22-23	23-24	24-25	25-26	Unscheduled	Total
Labor		7,000						$ 7,000
Engineering								$ -
Parts & Supplies		17,000						$ 17,000
Chemicals								$ -
Utility								$ -
Other								$ -
Total		$ 24,000	$ -	$ -	$ -	$ -	$ -	$ 24,000

CAWD Collections Dept - Capital Equipment

FY 2021/22 *thru* 2026/27

Project #	PROJECT	21/22	22/23	23/24	24/25	25/26	Unscheduled
1	Replace Pump Round Truck (#8)- Rollover from FY20/21	$ 82,508					
2	Replace Collection Superintendent Truck (#17)			$ 45,000			
3	Replace Pumps at Monte Verde Pump Station				$ 25,000		
4	Replace Pumps at Bay & Scenic Pump Station				$ 25,000		
	TREATMENT & DISPOSAL TOTAL	$ 82,508	$ -	$ 45,000	$ 50,000	$ -	
	RECLAMATION SHARE	$ -	$ -	$ -	$ -	$ -	
	PBCSD SHARE	$ -	$ -	$ -	$ -	$ -	
	CAWD COST	$ 82,508	$ -	$ 45,000	$ 50,000	$ -	

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2 **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name: Replace Collection Superintendent Truck (#17)
Dept: Collections
Total Cost: $ 45,000
CY Budget $ -
GL Account:

Contact: Lauer
Area Vehicle
Asset Type: Vehicle Fleet
Avg Useful Life: 12 years
Est Residual Life 3 years
% Consumed Lif 85
Category: Capital Equipment
Urgency: 4 = Less Important
Carry Forward: No

Asset Description

Chevy 4X4 truck (Unit #17) primary use as the Collection Superintendent's vehicle with a duel purpose of employee conference vehicle. This vehicle was purchased in 2009 and currently has 95,000 miles on it.

Year Built: 2009
habilitation Date (Extending life of Asset): n/a
Rehab Life Extension: n/a
Asset Condition Rating: 5 Moderate Deterioration

Justification

Replacement of the 2009 Chevy 4x4 (Unit #17) which currently has 95,000 miles on it. This truck is the Collections Superintendent truck as well as the main vehicle for transportation of the Collection staff to/from conferences and training.

Estimate 12 year lifespan.

Asset Risk Management Strategy

Capital Improvement Risk ı Rehabilitation/Replacement
Maintenance Risk Management Preventative Maintenance
Non Asset Risk Management

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Prior Yr	21-22	22-23	23-24	24-25	25-26	26-27	Total
Labor								$ -
Engineering								$ -
Parts & Supplies				45,000				$ 45,000
Chemicals								$ -
Utility								$ -
Other								$ -
Total		$ -	$ -	$ 45,000	$ -	$ -	$ -	$ 45,000

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1 **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name:	Replace Pump Round Truck Unit (#8)
Dept:	Collections
Total Cost:	$ 82,503
CY Budget	$ 82,503
GL Account:	

Contact:	Foley
Area	Vehicle
Asset Type:	Vehicle Fleet
Avg Useful Life:	10 years
Est Residual Life:	1 year
% Consumed Life:	100%
Category:	Capital Equipment
Urgency:	3 = Important
Carry Forward:	Yes

Asset Description

The Ford F-250 is one of the District's first response vehicles for most emergencies. It is an integral part of the Collections System operations and maintenance. Tools used to mitigate SSO's, equipment to make quick field repairs, paint to mark our sewer lines for Underground Service Alert (USA) requests and equipment used for other repairs as needed are kept in the locked utility storage cabinets. This truck is also the primary vehicle used for towing the standby generators to pump stations. It has a utility bed that provides storage for all the required tools for essential field functions and roof racks to transport lengths of pipe, ladders and other materials. Additionally, this truck is the only vehicle with a crane on it, which is used to hoist pumps into and out of wet wells for service and replacement. The crane is also used at the treatment plant when needed.

The purchase was approved in September 2020 by Resolution 2020-60 for $82,507K. Due to COVID-19 pandemic the waiting time for new vehicles has been extended and this item is rolled over to 21-22 budet.

Year Built:	2009
Rehabilitation Date (Extending life of Asset):	n/a
Rehab Life Extension:	n/a
Asset Condition Rating:	7 Significant Deterioration

Justification

This truck's mileage is currently 76,963 and is showing the results of wear and tear for a ten year old truck that is regularly used. The truck has an ongoing oil leak in the rear main oil seal and the repair of this one problem is estimated to cost $6K. With it's mileage and age, it is anticipated to continue to need repairs in the next few years that will require it to be out of service. This is a vehicle that needs to be reliable and available at all times. This is an opportunity to install a larger crane that can be used at the treatment plant as well as in collections.

Asset Risk Management Strategy

Capital Improvement Risk ı Rehabilitation/Replacement
Maintenance Risk Management
Non Asset Risk Management

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Prior Yr	21-22	22-23	23-24	24-25	25-26	Unscheduled	Total
Labor								$ -
Engineering								$ -
Parts & Supplies		82,503						$ 82,503
Chemicals								$ -
Utility								$ -
Other								$ -
Total		$ 82,503	$ -	$ -	$ -	$ -	$ -	$ 82,503

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3 **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name: Replace Pumps at Monte Verde Pump Station
Dept: Collections
Total Cost: $ 25,000
CY Budget $ -
GL Account:

Contact: Lauer
Area Pump Station
Asset Type: Pump Station
Avg Useful Life: 20 years
Est Residual Life 5 years
% Consumed Lif 80
Category: Capital Equipment
Urgency: 3 = Important
Carry Forward: No

Asset Description

Flygt model 3127 pumps at Monte Verde and 16th pump station. These pumps were installed in the wet well at Monte Verde during the station upgrade in 2003.

Year Built: 2003
habilitation Date (Extending life of Asset): n/a
Rehab Life Extension: n/a
Asset Condition Rating: 3 Minor Defects Only

Justification

At the anticipated time of replacement, the pumps will be 21 years old and will not be as efficient as new pumps leading to higher costs of operation. Over time, cavitation can cause pitting on the impellers which causes imbalances that lead to vibration wear. Rocks and metals can find their way into the sewer causing damage as they crack, pit, and break the impellers and volutes. This pump will be replaced at the time of failure. At that time, the cost to rebuild the pump will be about the same as purchasing a new pump.

Manufacturer represents 20 yrs lifespan as average. Monte Verde pump is currently in good shape. On scale of 1-5 would rate a 2. Staff is attempting to purchase ammeter to provide diagnostic information so trends can be spotted in advance.

Asset Risk Management Strategy

Capital Improvement Risk Plan Rehabilitation/Replacement
Maintenance Risk Management Predictive & Preventative Maintenance
Non Asset Risk Management

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Prior Yr	21-22	22-23	23-24	24-25	25-26	26-27	Total
Labor								$ -
Engineering								$ -
Parts & Supplies					25,000			$ 25,000
Chemicals								$ -
Utility								$ -
Other								$ -
Total		$ -	$ -	$ -	$ 25,000	$ -	$ -	$ 25,000

4 **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name: Replace Pumps at Bay and Scenic Pump Station
Dept: Collections
Total Cost: $ 25,000
CY Budget $ -
GL Account:

Contact: Lauer
Area Pump Station
Asset Type: Pump Station
Avg Useful Life: 20 years
Est Residual Life 5 years
% Consumed Lif 80
Category: Capital Equipment
Urgency: 3 = Important
Carry Forward: No

Asset Description

Flygt model 3127 pumps at Bay & Scenic pump station. These pumps are a dry pit installation that took place during the station upgrade in 2004.

Year Built: 2003
:habilitation Date (Extending life of Asset): n/a
Rehab Life Extension: n/a
Asset Condition Rating: 3 Minor Defects Only

Justification

At the anticipated time of replacement, the pumps will be 20 years old and will not be as efficient as new pumps leading to higher costs of operation. Over time, cavitation can cause pitting on the impellers which causes imbalances that lead to vibration wear. Rocks and metals can find their way into the sewer causing damage as they crack, pit, and break the impellers and volutes. This pump will be replaced at the time of failure. At that time, the cost to rebuild the pump will be about the same as purchasing a new pump.

Manufacturer represents 20 yrs lifespan as average. Monte Verde pump is currently in fair/poor shape. The impeller has been replaced once. On scale of 1-5 would rate a 4. Staff is attempting to purchase ammeter to provide diagnostic information so trends can be spotted in advance.

Asset Risk Management Strategy

Capital Improvement Risk : Rehabilitation/Replacement
Maintenance Risk Management Predictive & Preventative Maintenance
Non Asset Risk Management

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Prior Yr	21-22	22-23	23-24	24-25	25-26	26-27	Total
Labor								$ -
Engineering								$ -
Parts & Supplies					25,000			$ 25,000
Chemicals								$ -
Utility								$ -
Other								$ -
Total		$ -	$ -	$ -	$ 25,000	$ -	$ -	$ 25,000

CAWD Collections Dept - CIP **FY 2021-22 *thru* 2031-32**

Project #	PROJECT	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	Unscheduled	Total
1	Scenic Pipe Bursting- Ocean to Bay	$1,200,000												$1,200,000
2	Carmel Meadows Pipeline (Carryover)	$1,500,000												$1,500,000
3	Sewer Rehab-Mission & San Carlos From Ocean to 2nd	$250,000	$710,000											$960,000
4	Bay/Scenic PS Rehabilitation (Carryover)	$150,000	$500,000											$650,000
5	Manhole Rehabilitation (30-50 per year)	$150,000	$150,000	$150,000		$150,000	$150,000		$150,000	$150,000	$150,000	$150,000		$1,350,000
6	Pescadero Creek Area Pipe Rehab	$100,000	$350,000	$1,250,000										$1,700,000
7	Sewer Rehab - Lincoln Ave. from 1st to 10th		$250,000	$1,000,000										$1,250,000
8	Carmel Woods Sewer Rehab		$140,000	$250,000	$1,500,000									$1,890,000
9	Sewer Rehab- Dolores from 4th to 10th			$250,000	$864,000									$1,114,000
10	Monte Verde PS and Sewer rehab-South of Santa Lucia				$250,000	$1,500,000								$1,750,000
11	Sewer Rehab -11th Street from Junipero to Rio Road				$250,000	$1,000,000								$1,250,000
12	Sewer Rehab-Santa Rita and Guadalupe btw Ocean & Serra					$250,000	$1,728,000							$1,978,000
13	Calle La Cruz Forcemain Rehab-from Plant to new pipe						$350,000	$1,000,000						$1,350,000
14	Sewer Rehab- Camino Real from 4th to Walker						$150,000	$1,555,200						$1,705,200
15	Calle La Cruz PS Relocation								$500,000	$1,000,000				$1,500,000
16	Mission Fields Sewer Rehab							$300,000	$1,200,000					$1,500,000
17	Sewer Rehab- Pico between 1st & Cabrillo								$250,000	$1,000,000				$1,250,000
18	Hacienda Area Sewer Rehab									$250,000	$1,200,000			$1,450,000
19	Carmel Meadows Collection System Rehab									$250,000	$1,000,000			$1,250,000
20	Carmel Knolls Area Sewer Rehab										$250,000	$1,000,000		$1,250,000
21	Electrical Upgrades at Hacienda PS												$140,000	$140,000
22	Spot Repair Projects at Various Locations												$1,000,000	$1,000,000
23	Rio Road Bioswale Pipeline Replacement												$800,000	$800,000
24	Upsize lower Rancho Canada Trunkline												$410,000	$410,000
25	Dewatering Pit at Treatment Plant (30% Treatment)												$70,000	$70,000
26														
	Collections TOTAL	**$3,350,000**	**$2,100,000**	**$2,900,000**	**$2,864,000**	**$2,900,000**	**$2,378,000**	**$2,855,200**	**$2,100,000**	**$2,650,000**	**$2,600,000**	**$1,150,000**	**$2,280,000**	**$30,127,200**
	FEMA Grant Funding												$0	$0
	PBCSD Share												$0	
	CAWD COST	**$3,350,000**	**$2,100,000**	**$2,900,000**	**$2,864,000**	**$2,900,000**	**$2,378,000**	**$2,855,200**	**$2,100,000**	**$2,650,000**	**$2,600,000**	**$1,150,000**	**$2,280,000**	**$30,127,200**

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1 **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name: Scenic Pipe Bursting- Ocean to Bay
Project Number: 19-03
Dept.: Collections
10 yr. Cap Projection: $ -
CY Budget $ 1,200,000.00
GL Account:

Contact: Lather
Area Sewer Lines
Asset Type: N/A
Avg Useful Life: 40 years
Est Residual Life: 5 years
% Consumed Life: 0.98
Category: Capital Improvement
Urgency: 1 = Critical
Carry Forward: yes

Asset Description

This asset is approximately 4,000 feet of 6" pipe on Scenic that runs from Ocean Street to Bay. These segments of pipe have been in service for over 70 years.

Year Built: 1950's
Rehabilitation Date (Extending life of Asset): n/a
Rehab Life Extension: 40
Asset Condition Rating: PACP =5

Justification

According to the Asset Management Plan, this section of pipelines has a high consequence of failure and was included in the list of high priority lines to be rehabilitated. The pipeline also has capacity issues during wet weather. It is directly upstream of the Bay & Scenic pump station. It is staff's recommendation to do the work in the same fiscal year to limit the impact to the community to one fiscal year rather than separate years. It is planned to work between Ocean and 8th in 2021-2022 in order to complete work prior to the City's plan to slurry seal those road segments in 2022. In addition, this pipeline is located within 200 feet of a water body and replacement will satisfy the requirements of the River Watch agreement.

Capital Improvement Risk: Plan Rehabilitation/Replacement
Maintenance Risk Mgmt
Non Asset Risk Mgmt

Funding Source

Primary Capital Budget Secondary n/a

Budget Impact/Other

	Prior Yrs.	21-22	22-23	23-24	25-26	26-27	Total
Labor		1,000,000					$ 1,000,000
Engineering		200,000					$ 200,000
Parts & Supplies							$ -
Chemicals							$ -
Utility							$ -
Other							$ -
Total		$ 1,200,000	$ -	$ -	$ -	$ -	$ 1,200,000

2 **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name: Carmel Meadows Pipeline (Carryover)
Dept.: Collections
10 yr. Cap Projection: $ 1,785,445.00
CY Budget $ 1,500,000.00
GL Account:

Contact: Lather
Area Sewer Lines
Asset Type: N/A
Avg Useful Life: 40 years
Est Residual Life: 5 years
% Consumed Life: n/a
Category: Capital Improvement
Urgency: 2 = Very Important
Carry Forward: Yes

Asset Description

The project consists of removing eight manholes and 1300 feet of Ductile Iron Pipe (DIP) on a aerial span. The sewerline flows will be directed to a small pump station at the end of Mariposa Drive and pumped into the existing force main on Ribera Road to Calle la Cruz Pump Station. This project is located on a easement parallel to Ribera Road and was originally installed in the early 1960's.

Year Built: 1950's
Rehabilitation Date (Extending life of Asset): n/a
Rehab Life Extension: 30
Asset Condition Rating: n/a

Justification

This pipeline is located on aerial supports downhill of the homes and directly above Carmel Lagoon. There have been multiple spills along this pipeline. The expansion of the lagoon has resulted in ponding water adjacent to the footings of the aerial supports which are slowly being undermined. Future work by others to increase flows in the lagoon will exacerbate this problem and the best solution is to remove the pipeline from this location. The project includes removing the existing pipe supports and returning landscape to a natural state.

Asset Risk Management Strategy

Capital Improvement Risk Plan Rehabilitation/Replacement
Maintenance Risk Mgmt
Non Asset Risk Mgmt

Funding Source

Primary Capital Budget Secondary n/a

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	26-27	Total
Labor		1,400,000						$ 1,400,000
Engineering	285,445	100,000						$ 385,445
Parts & Supplies								$ -
Chemicals								$ -
Utility								$ -
Other								$ -
Total		$ 1,500,000	$ -	$ -	$ -	$ -	$ -	$ 1,785,445

3 **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name: Sewer Rehab-Mission & San Carlos From Ocean to 2nd
Dept.: Collections
10 yr. Cap Projection: $ 960,000.00
CY Budget $ 250,000.00
GL Account:

Contact: Lather
Area Sewer Lines
Asset Type: N/A
Avg Useful Life: 40 years
Est Residual Life: 5 years
% Consumed Life: 95
Category: Maintenance
Urgency: 3 = Important
Carry Forward: Yes

Asset Description

This asset is approximately 3,500 feet of 6" pipe on parallel streets of Mission and San Carlos from Ocean to 2nd. Reahabilitation of these pipelines is planned to be completed prior to planned paving work in 2024.

Year Built: 1950s
Rehabilitation Date (Extending life of Asset): n/a
Rehab Life Extension: 40
Asset Condition Rating: PACP=5

Justification

According to the Asset Management Plan, this section of pipelines has a high consequence of failure and was included in the list of high priority lines to be rehabilitated.

Asset Risk Management Strategy

Capital Improvement Risk Plan Rehabilitation/Replacement
Maintenance Risk Mgmt
Non Asset Risk Mgmt

Funding Source

Primary Capital Budget Secondary n/a

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	26-27	Total
Labor			$ 710,000					$ 710,000
Engineering		250,000						$ 250,000
Parts & Supplies								$ -
Chemicals								$ -
Utility								$ -
Other								$ -
Total		$ 250,000	$ 710,000	$ -	$ -	$ -	$ -	$ 960,000

4 **FY 2021-22 Budget**

Carmel Area Wastewater District

Project Name: Bay/Scenic PS Rehabilitation (Carryover)
Dept.: Collections
10 yr. Cap Projection: $ 650,000.00
CY Budget $ 150,000.00
GL Account:

Contact: Lather
Area Sewer Lines
Asset Type: N/A
Avg Useful Life: 10 years
Est Residual Life:
% Consumed Life:
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Asset Description

Bay & Scenic pump station is currently serving more than 200 properties in the Carmel Point area and has been in service since the 1950's. It is an important asset to prevent sewage from spilling into the ocean.

Year Built: 1950s
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: 30
Asset Condition Rating: 8

Justification

This pump station is located adjacent to the Pacific Ocean underneath a public roadway. Due to the existing topography, this pump station cannot be relocated or otherwise decommissioned. For several years staff has observed erosion and deterioration of the decorative Carmel stone facade that protects the pump station from ocean forces during high tides and storm surges. In 2008 the County performed hardscaping (shotcrete) of some of the banks adjacent to the pump station to protect the slopes and extend the life of the roadway. Since that time erosion of the sandstone protecting the pump station has continued and is becoming a concern to staff. Since the pump station is in relatively good condition and has provided more than 60 years of continuous service, staff recommends repairing the exterior wall and sandstone which is beginning to crack and fall off into the ocean. Due to the critical location of this pump station, all of the regulatory agencies with jurisdiction over the area (Coastal Commission, NMFS) and the anticipated expense to accomplish repairs, staff recommends the development of design plans to prolong the life of this asset within the existing manholes and structure. Due to the proximity to the Pacific ocean this pump station has been included in the District wide sea level rise study.

Asset Risk Management Strategy

Capital Improvement Risk: Plan Rehabilitation/Replacement
Maintenance Risk Management: Predictive & Preventative Maintenance
Non Asset Risk Management:

Funding Source

Primary Capital Budget Secondary n/a

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	26-27	Total
Labor				-				$ -
Engineering		150,000	500,000					$ 650,000
Parts & Supplies								$ -
Chemicals								$ -
Utility								$ -
Other								$ -
Total		$ 150,000	$ 500,000	$ -	$ -	$ -	$ -	$ 650,000

5 **FY 2021-22 Budget**

Carmel Area Wastewater District

Project Name: Manhole Rehabilitation (30-50 per year)
Dept.: Collections
10 yr. Cap Projection: $ 1,350,000.00
CY Budget $ 150,000.00
GL Account:

Contact: Lather
Area Sewer Lines
Asset Type: N/A
Avg Useful Life: 40 years
Est Residual Life: 5 years
% Consumed Life: 95
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Asset Description

Selected brick and mortar manholes within the District that are found to need to be rehabilitated based on visual inspections. Many are over 100 years old.

Year Built: 1920s
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: 40
Asset Condition Rating: 5

Justification

Lining of damaged brick and mortar manholes will reduce exfiltration that results in leaking into the groundwater and infiltation that can result in sewer overflows. In addition, per the River Watch agreement, manholes are to be inspected and those in poor condition are required to be rehabilitated.

Asset Risk Management Strategy

Capital Improvement Risk: Plan Rehabilitation/Replacement
Maintenance Risk Management: Predictive & Preventative Maintenance
Non Asset Risk Management:

Funding Source

Primary Capital Budget Secondary n/a

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	26-27	Total
Labor		130,000	130,000	130,000		130,000	130,000	$ 650,000
Engineering		20000	20,000	20,000		20,000	20,000	$ 100,000
Parts & Supplies								$ -
Chemicals								$ -
Utility								$ -
Other								$ -
Total		$ 150,000	$ 150,000	$ 150,000	$ -	$ 150,000	$ 150,000	$ 750,000

6 **FY 2021-22 Budget**

Carmel Area Wastewater District

Project Name: Pescadero Creek Area Pipe Rehab
Dept.: Collections
10 yr. Cap Projection: $ 1,700,000.00
CY Budget $ 100,000.00
GL Account:

Contact: Lather
Area Sewer Lines
Asset Type: N/A
Avg Useful Life: 40 years
Est Residual Life: 5 years
% Consumed Life: 95
Category: Maintenance
Urgency: 3 = Important
Carry Forward: Yes

Asset Description

This asset is approximately 2,500 feet of 6" pipe on Pescadero that runs from Manhole N609 near 2nd Avenue and along the slope above Pescadero Creek to Lincoln Street. These segments of pipe have been in service for over 100 years and may need to be routed to Lincoln Avenue with ejector pumps set up at each home. This pipeline is within 200 feet of Pescadero Creek and it's replacement is in compliance with the River Watch agreement.

Year Built: 1940's
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: 40
Asset Condition Rating: 4

Justification

According to the Asset Management Plan, this section of pipelines has a high likelihood of failure and was included in the list of high priority lines to be rehabilitated. The pipeline is located along the backyards of homes and uphill of Pescadero Creek.

Asset Risk Management Strategy

Capital Improvement Risk: Plan Rehabilitation/Replacement
Maintenance Risk Management: Predictive & Preventative Maintenance
Non Asset Risk Management:

Funding Source

Primary Capital Budget Secondary n/a

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	26-27	Total
Labor				1,250,000				$ 1,250,000
Engineering		100,000	350,000					$ 450,000
Parts & Supplies								$ -
Chemicals								$ -
Utility								$ -
Other								$ -
Total		$ 100,000	$ 350,000	$ 1,250,000	$ -	$ -	$ -	$ 1,700,000

7 **FY 2021-22 Budget**

Carmel Area Wastewater District

Project Name: Sewer Rehab - Lincoln Ave. from 1st to 10th
Dept.: Collections
10 yr. Cap Projection: $ 1,250,000.00
CY Budget $ -
GL Account:

Contact: Lather
Area Sewer Lines
Asset Type: N/A
Avg Useful Life: 40 years
Est Residual Life: 5 years
% Consumed Life:
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Asset Description

This asset is approximately 4,000 feet of 6" pipe on Lincoln that runs from 4th to 10th Avenues. These segments of pipe have been in service for over 100 years.

Year Built: 1920's
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: 40
Asset Condition Rating: PACP=5

Justification

According to the Asset Management Plan, this section of pipelines has a high consequence of failure and was included in the list of high priority lines to be rehabilitated we are planning the work to be completed prior to the City's plan to slurry seal those road segments in 2024.

Asset Risk Management Strategy

Capital Improvement Risk: Plan Rehabilitation/Replacement
Maintenance Risk Management: Predictive & Preventative Maintenance
Non Asset Risk Management:

Funding Source

Primary Capital Budget Secondary n/a

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	26-27	Total
Labor				1,000,000				$ 1,000,000
Engineering			250,000					$ 250,000
Parts & Supplies								$ -
Chemicals								$ -
Utility								$ -
Other								$ -
Total	$ -	$ -	$ 250,000	$ 1,000,000	$ -	$ -	$ -	$ 1,250,000

8 **FY 2021-22 Budget**

Carmel Area Wastewater District

Project Name: Carmel Woods Sewer Rehab
Dept.: Collections
10 yr. Cap Projection: $ 1,890,000.00
CY Budget $ -
GL Account:

Contact: Lather
Area Sewer Lines
Asset Type: N/A
Avg Useful Life: 40 years
Est Residual Life: 5 years
% Consumed Life: 95
Category: Maintenance
Urgency: 3 = Important
Carry Forward: Yes

Asset Description

This asset is approximately 8,000 feet of 6" pipe in the Carmel Woods Subdivision. These segments of pipe have been in service for over 100 years. This area is within 200 feet of Pescadero Creek and it's replacement is in compliance with the River Watch agreement.

Year Built: 1920's
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: 50
Asset Condition Rating: 5

Justification

The pipe in this area is near Pescadero Creek and based on video inspection are in poor condition. These lines were identified in the Asset Management Plan as having a high likelihood of failure.

Asset Risk Management Strategy

Capital Improvement Risk: Plan Rehabilitation/Replacement
Maintenance Risk Management: Predictive & Preventative Maintenance
Non Asset Risk Management:

Funding Source

Primary Capital Budget Secondary n/a

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	26-27	Total
Labor					1,500,000			$ 1,500,000
Engineering			$140,000	250,000				$ 390,000
Parts & Supplies								$ -
Chemicals								$ -
Utility								$ -
Other								$ -
Total		$ -	$ 140,000	$ 250,000	$ 1,500,000	$ -	$ -	$ 1,890,000

9 **FY 2021-22 Budget**

Carmel Area Wastewater District

Project Name: Sewer Rehab- Dolores from 4th to 10th
Dept.: Collections
10 yr. Cap Projection: $ 1,114,000.00
CY Budget $ -
GL Account:

Contact: Lather
Area Sewer Lines
Asset Type: N/A
Avg Useful Life: 40 years
Est Residual Life: 5 years
% Consumed Life: 95
Category: Maintenance
Urgency: 3 = Important
Carry Forward: Yes

Asset Description

This asset is approximately 3,000 feet of 6" pipe on Dolores that runs from 4th Avenue to 10th. These segments of pipe have been in service for over 100 years.

Year Built: 1950s
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: 40
Asset Condition Rating: 5

Justification

According to the Asset Management Plan, this section of pipelines has a high likelihood of failure and was included in the list of high priority lines to be rehabilitated. We are planning the work to be completed prior to the City's Cape Sealing of the street in 2024.

Asset Risk Management Strategy

Capital Improvement Risk: Plan Rehabilitation/Replacement
Maintenance Risk Management: Predictive & Preventative Maintenance
Non Asset Risk Management:

Funding Source

Primary Capital Budget Secondary n/a

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	26-27	Total
Labor			-			864,000		$ 864,000
Engineering					250,000			$ 250,000
Parts & Supplies								$ -
Chemicals								$ -
Utility								$ -
Other								$ -
Total	$ -	$ -	$ -	$ -	$ 250,000	$ 864,000	$ -	$ 1,114,000

10 **FY 2021-22 Budget**

Carmel Area Wastewater District

Project Name: Monte Verde PS and Sewer rehab-South of Santa Lucia
Dept.: Collections
10 yr. Cap Projection: $ 1,750,000.00
CY Budget $ -
GL Account:

Contact: Lather
Area Sewer Lines
Asset Type: N/A
Avg Useful Life: 40 years
Est Residual Life:
% Consumed Life:
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Asset Description

Replace 6 inch VCP pipe with 8 inch PVC or HDPE pipe in the vicinity of Monte Verde South of Santa Lucia. Update pump station as needed. This area is within 200 feet of the Ocean and it's replacement is in compliance with the River Watch agreement.

Year Built: 1940s
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: 40
Asset Condition Rating: 4

Justification

Many of the sewer pipelines in this area have been found to have segments with wet weather capacity issues and structural defects. Most were constructed in the late 1940's and are past their expected life span.

Asset Risk Management Strategy

Capital Improvement Risk: Plan Rehabilitation/Replacement
Maintenance Risk Management: Predictive & Preventative Maintenance
Non Asset Risk Management:

Funding Source

Primary Capital Budget Secondary n/a

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	26-27	Total
Labor						1,500,000		$ 1,500,000
Engineering					250,000			$ 250,000
Parts & Supplies								$ -
Chemicals								$ -
Utility								$ -
Other								$ -
Total		$ -	$ -	$ -	$ 250,000	$1,500,000	$ -	$ 1,750,000

11 **FY 2021-22 Budget**

Carmel Area Wastewater District

Project Name: Sewer Rehab -11th Street from Junipero to Rio Road
Dept.: Collections
10 yr. Cap Projection: $ 1,250,000.00
CY Budget
GL Account:

Contact: Lather
Area Sewer Lines
Asset Type: N/A
Avg Useful Life: 40 years
Est Residual Life: 5 years
% Consumed Life: 95
Category: Maintenance
Urgency: 3 = Important
Carry Forward: Yes

Asset Description

This asset is approximately 3,000 feet of 6" VCP pipe on 11th Avenue that runs through backyard easements above Mission Trail Nature Preserve to Rio Road across the street from the Mission.

Year Built: 1940's
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: 40
Asset Condition Rating: 4

Justification

The pipes have severe capacity issues during wet weather and moderate to severe structural defects. These segments of pipe have been in service for over 70 years.

Asset Risk Management Strategy

Capital Improvement Risk: Plan Rehabilitation/Replacement
Maintenance Risk Management: Predictive & Preventative Maintenance
Non Asset Risk Management:

Funding Source

Primary Capital Budget Secondary n/a

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	26-27	Total
Labor						1,000,000		$1,000,000
Engineering				-	250,000			$ 250,000
Parts & Supplies								$ -
Chemicals								$ -
Utility								$ -
Other								$ -
Total	$ -	$ -	$ -	$ -	$ 250,000	$1,000,000	$ -	$1,250,000

12 **FY 2021-22 Budget**

Carmel Area Wastewater District

Project Name: Sewer Rehab-Santa Rita and Guadalupe btw Ocean & Serra
Dept.: Collections
10 yr. Cap Projection: $ 1,978,000.00
CY Budget $ -
GL Account:

Contact: Lather
Area Sewer Lines
Asset Type: N/A
Avg Useful Life: 10 years
Est Residual Life:
% Consumed Life:
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Asset Description

This asset is approximately 6,000 feet of 6" pipe on Santa Rita and on Guadalupe from Ocean Street to Serra. These segments of pipe have been in service for over 100 years.

Year Built: 1920s
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: 40
Asset Condition Rating: 5

Justification

According to the Asset Management Plan, these sections of pipelines have a high likelihood of failure and were included in the list of high priority lines to be rehabilitated. According to the Capacity Study, sections of these pipelines also have capacity issues. This work is planned for completion 10 years after the City had Cape Sealed the roads.

Asset Risk Management Strategy

Capital Improvement Risk: Plan Rehabilitation/Replacement
Maintenance Risk Management: Predictive & Preventative Maintenance
Non Asset Risk Management:

Funding Source

Primary Capital Budget Secondary n/a

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	26-27	Total
Labor							1,728,000	$ 1,728,000
Engineering					-	250,000		$ 250,000
Parts & Supplies								$ -
Chemicals								$ -
Utility								$ -
Other								$ -
Total		$ -	$ -	$ -	$ -	$ 250,000	$ 1,728,000	$ 1,978,000

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13 **FY 2021-22 Budget**

Carmel Area Wastewater District

Contact: Lather

Area Sewer Lines

Asset Type: N/A

Project Name: Calle La Cruz Forcemain Rehab-from Plant to new pipe

Dept.: Collections

10 yr. Cap Projection: $ 1,350,000.00

CY Budget

GL Account:

Avg Useful Life: 50 years

Est Residual Life: 5 years

% Consumed Life: 100

Category: Maintenance

Urgency: 3 = Important

Carry Forward: Yes

Asset Description

This asset is approximately 3000 feet of 6 inch ductile pipe that spans from the Calle La Cruz pump station to the treatment plant. The portion to be replaced is the last 3000 feet of pipe that ends at the treatment plant.

Year Built: 1960s

Rehabilitation Date (Extending life of Asset): N/A

Rehab Life Extension: 50

Asset Condition Rating: 5

Justification

Ductile iron pipe has a life expectancy of 50 years and this pipeline is past it's life expectancy. Based on the environmentally critical location of this pipe which is within the Carmel Lagoon, it is justified to replace it in the near future.

Asset Risk Management Strategy

Capital Improvement Risk: Plan Rehabilitation/Replacement

Maintenance Risk Management: Predictive & Preventative Maintenance

Non Asset Risk Management:

Funding Source

Primary Capital Budget Secondary n/a

Budget Impact/Other

	Prior Yr.	21-22	24-25	25-26	26-27	27-28	28-19	Total
Labor						1,000,000		$ 1,000,000
Engineering					350,000			$350,000
Parts & Supplies								$ -
Chemicals								$ -
Utility								$ -
Other								$ -
Total	$ -	$ -	$ -	$ -	$ 350,000	$1,000,000	$ -	$ 1,350,000

14 **FY 2021-22 Budget**

Carmel Area Wastewater District

Project Name: Sewer Rehab- Camino Real from 4th to Walker
Dept.: Collections
10 yr. Cap Projection: $ 1,705,200.00
CY Budget
GL Account:

Contact: Lather
Area Sewer Lines
Asset Type: N/A
Avg Useful Life: 40 years
Est Residual Life: 5 years
% Consumed Life: 95
Category: Maintenance
Urgency: 3 = Important
Carry Forward: Yes

Asset Description

This asset is approximately 5,000 feet of 6" pipe on Camino Real that runs from 4th to Walker Avenue. These segments of pipe have been in service for over 100 years.

Year Built: 1920s
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: 40
Asset Condition Rating: 5

Justification

According to the Asset Management Plan, this section of pipelines has a high likelihood of failure and was included in the list of high priority lines to be rehabilitated. We are planning the work to be completed prior to the City's Cape Sealing of the street in 2026.

Asset Risk Management Strategy

Capital Improvement Risk: Plan Rehabilitation/Replacement
Maintenance Risk Management: Predictive & Preventative Maintenance
Non Asset Risk Management:

Funding Source

Primary Capital Budget Secondary n/a

Budget Impact/Other

	Prior Yr.	21-22	25-26	26-27	27-28	28-29	29-30	30-31	Total
Labor					1,555,200				$ 1,555,200
Engineering				150,000					$ 150,000
Parts & Supplies									$ -
Chemicals									$ -
Utility									$ -
Other									$ -
Total	$ -	$ -	$ -	$ 150,000	$ 1,555,200	$ -	$ -	$ -	$ 1,705,200

15 **FY 2021-22 Budget**

Carmel Area Wastewater District

Project Name:	Calle La Cruz PS Relocation	Contact:	Lather
Dept.:	Collections	Area	Sewer Lines
10 yr. Cap Projection:	$ 1,500,000.00	Asset Type:	N/A
CY Budget		Avg Useful Life:	40 years
GL Account:		Est Residual Life:	
		% Consumed Life:	100
		Category:	Maintenance
		Urgency:	3 = Important
		Carry Forward:	Yes

Asset Description

Calle La Cruz Pump Station sends sewage from the west end of the District to the Treatment Plant. Approximately 33K gallons per day are pumped during dry weather. This pump station is 65 years old. The pump station is located off of Calle La Cruz and adjacent to the Carmel Lagoon.

Year Built:	1960s
Rehabilitation Date (Extending life of Asset):	N/A
Rehab Life Extension:	50
Asset Condition Rating:	5

Justification

This pump station risks inundation by the Carmel Lagoon due to changes in the river configuration. In order to prepare for sea level rise and other factors, it is recommended to relocate this pump station uphill and across the access road from it's existing footprint.

Asset Risk Management Strategy

Capital Improvement Risk:	Plan Rehabilitation/Replacement
Maintenance Risk Management:	Predictive & Preventative Maintenance
Non Asset Risk Management:	

Funding Source

Primary Capital Budget Secondary n/a

Budget Impact/Other

	Prior Yr.	21-22	25-26	26-27	27-28	28-29	29-30	30-31	31-32	Total
Labor							1,000,000			$ 1,000,000
Engineering						500,000				$ 500,000
Parts & Supplies										$ -
Chemicals										$ -
Utility										$ -
Other										$ -
Total	$ -	$ -	$ -	$ -	$ -	$ 500,000	$ 1,000,000	$ -	$ -	$ 1,500,000

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FY 2021-22 Budget

Carmel Area Wastewater District

Project Name:	Mission Fields Sewer Rehab	Contact:	Lather
Dept.:	Collections	Area	Sewer Lines
10 yr. Cap Projection:	$ 1,500,000.00	Asset Type:	N/A
CY Budget		Avg Useful Life:	40 years
GL Account:		Est Residual Life:	10 years
		% Consumed Life:	95
		Category:	Maintenance
		Urgency:	3 = Important
		Carry Forward:	Yes

Asset Description

This asset is approximately 4,000 feet of 6" pipe in the Mission Fields Subdivision. These segments of pipe have been in service for over 60 years.

Year Built:	1950s
Rehabilitation Date (Extending life of Asset):	n/a
Rehab Life Extension:	n/a
Asset Condition Rating:	5

Justification

According to the Asset Management Plan, this section of pipelines has a high likelihood of failure and was included in the list of high priority lines to be rehabilitated.

Asset Risk Management Strategy

Capital Improvement Risk:	Plan Rehabilitation/Replacement
Maintenance Risk Management:	Predictive & Preventative Maintenance
Non Asset Risk Management:	

Funding Source

Primary Capital Budget Secondary n/a

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	26-27	27-28	28-29	29-30	Total
Labor									$ 1,200,000	$ -	$ 1,200,000
Engineering								$300,000			$300,000
Parts & Supplies											$ -
Chemicals											$ -
Utility											$ -
Other											$ -
Total	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 300,000	$ 1,200,000	$ -	$ 1,500,000

17 **FY 2021-22 Budget**

Carmel Area Wastewater District

Project Name:	Sewer Rehab- Pico between 1st & Cabrillo	Contact:	Lather
Dept.:	Collections	Area	Sewer Lines
10 yr. Cap Projection:	$ 1,250,000.00	Asset Type:	N/A
CY Budget		Avg Useful Life:	40 years
GL Account:		Est Residual Life:	10 years
		% Consumed Life:	95
		Category:	Maintenance
		Urgency:	3 = Important
		Carry Forward:	Yes

Asset Description

This asset is approximately 4,000 feet of 6" pipe on Scenic that runs from Ocean Street to Bay. These segments of pipe have been in service for over 70 years.

Year Built:	1950s
Rehabilitation Date (Extending life of Asset):	N/A
Rehab Life Extension:	n/a
Asset Condition Rating:	5

Justification

According to the Asset Management Plan, this section of pipelines has a high consequence of failure and was included in the list of high priority lines to be rehabilitated. The pipeline also has capacity issues during wet weather. It is directly upstream of the Bay & Scenic pump station. It is staff's recommendation to do the work in the same fiscal year to limit the impact to the community to one fiscal year rather than separate years. It is planned to work between Ocean and 8th in 2021-2022 in order to complete work prior to the City's plan to slurry seal those road segments in 2022. In addition, this pipeline is located within 200 feet of a water body and replacement will satisfy the requirements of the River Watch agreement.

Asset Risk Management Strategy

Capital Improvement Risk:	Plan Rehabilitation/Replacement
Maintenance Risk Management:	Predictive & Preventative Maintenance
Non Asset Risk Management:	

Funding Source

Primary Capital Budget Secondary n/a

Budget Impact/Other

	Prior Yr.	21-22	22-23	24-25	25-26	28-29	29-30	30-31	Total
Labor							1,000,000		$ 1,000,000
Engineering						250,000			$ 250,000
Parts & Supplies									$ -
Chemicals									$ -
Utility									$ -
Other									$ -
Total	$ -	$ -	$ -	$ -	$ -	$ 250,000	$ 1,000,000	$ -	$ 1,250,000

18 **FY 2021-22 Budget**

Carmel Area Wastewater District

Project Name: Hacienda Area Sewer Rehab
Dept.: Collections
10 yr. Cap Projection: $ 1,450,000.00
CY Budget
GL Account:

Contact: Lather
Area Sewer Lines
Asset Type: N/A
Avg Useful Life: 40 years
Est Residual Life: 10 years
% Consumed Life: 95
Category: Maintenance
Urgency: 3 = Important
Carry Forward: Yes

Asset Description

This asset is approximately 4,000 feet of 6" pipe in the Hacienda Carmel subdivision.

Year Built: 1960's
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: 40
Asset Condition Rating: 5

Justification

This pipeline was found to need replacement through video inspections. It is over 50 years old and in the vicinity of the Carmel River.

Asset Risk Management Strategy

Capital Improvement Risk Plan Rehabilitation/Replacement
Maintenance Risk Mgmt
Non Asset Risk Mgmt

Funding Source

Primary Capital Budget Secondary n/a

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	29-30	30-31	31-32	Total
Labor						$ 1,200,000		$ 1,200,000
Engineering					$250,000			$ 250,000
Parts & Supplies								$ -
Chemicals								$ -
Utility								$ -
Other								$ -
Total		$ -	$ -	$ -	$ 250,000	$ 1,200,000	$ -	$ 1,450,000

19 **FY 2021-22 Budget**

Carmel Area Wastewater District

Project Name: Carmel Meadows Collection System Rehab
Dept.: Collections
10 yr. Cap Projection: $ 1,250,000.00
CY Budget
GL Account:

Contact: Lather
Area Sewer Lines
Asset Type: N/A
Avg Useful Life: 40 years
Est Residual Life: 5 years
% Consumed Life: 95
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Asset Description

This asset is approximately 3,000 feet of 6" pipe in the Carmel Meadows Subdivision. These segments of pipe have been in service for over 50 years.

Year Built: 1960's
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: N/A
Asset Condition Rating: 5

Justification

This pipeline was found to need replacement through video inspections. It is over 50 years old and in the vicinity of the Carmel River.

Asset Risk Management Strategy

Capital Improvement Risk Plan Rehabilitation/Replacement
Maintenance Risk Mgmt
Non Asset Risk Mgmt

Funding Source

Primary Capital Budget Secondary n/a

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	26-27	29-30	30-31	Total
Labor									1,000,000	$ 1,000,000
Engineering								250,000		$250,000
Parts & Supplies										$ -
Chemicals										$ -
Utility										$ -
Other										$ -
Total	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 250,000	$ 1,000,000	$ 1,250,000

20 **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name: Carmel Knolls Area Sewer Rehab
Dept.: Collections
yr. Cap Projection: $ 1,250,000.00
CY Budget
GL Account:

Contact: Lather
Area Sewer Lines
Asset Type: N/A
Avg Useful Life: 40 years
Est Residual Life: 5 years
% Consumed Life: 95
Category: Maintenance
Urgency: 3 = Important
Carry Forward: Yes

Asset Description

This asset is approximately 4,000 feet of 6" pipe on Carmel Knolls Drive to the east of Hatton Canyon . These segments of pipe have been in service for over 70 years.

Year Built: 1950s
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: 40
Asset Condition Rating: 5

Justification

According to the Asset Management Plan, this section of pipelines has a high consequence of failure and was included in the list of high priority lines to be rehabilitated.

Asset Risk Management Strategy

Capital Improvement Risk Plan Rehabilitation/Replacement
Maintenance Risk Mgmt
Non Asset Risk Mgmt

Funding Source

Primary Capital Budget Secondary n/a

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	30-31	31-32	32-33	33-34	Total
Labor							1,000,000			$ 1,000,000
Engineering						250,000				$ 250,000
Parts & Supplies										$ -
Chemicals										$ -
Utility										$ -
Other										$ -
Total	$ -	$ -	$ -	$ -	$ -	$ 250,000	$ 1,000,000	$ -	$ -	$ 1,250,000

21 **FY 2021-22 Budget**

Carmel Area Wastewater District

Project Name: Electrical Upgrades at Hacienda PS
Dept.: Collections
10 yr. Cap Projection: $ 140,000.00
CY Budget
GL Account:

Contact: Lather
Area Sewer Lines
Asset Type: N/A
Avg Useful Life: 40 years
Est Residual Life: 10 years
% Consumed Life: 90
Category: Maintenance
Urgency: 3 = Important
Carry Forward: Yes

Asset Description

The generator and automatic power transfer switch and the motor control panel at the Hacienda pump station. In the event that the utility power supply goes out, the generator supplies electricity and the transfer switch is responsible for switching power from the PG&E service to the generator (and visa versa) when power goes out and is then restored. This keeps staff from having to drive to the pump station to turn on the generator during power outages and prevents damage to the pump station due to both power sources being energized at the same time. The station requires 240 volt AC, 60 Hz, 100 Amp, 25 kW, 3 phase power.

Year Built: 1950s
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: 40
Asset Condition Rating: 5

Justification

The generator, automatic transfer switch, and motor control panel are 25 years old and at the end of their service life. Although still functional, it is recommended they are replaced prior to failure. The generator has been in service for many years and is requiring much more maintenance than in prior years. The block heater has been plagued with issues, the exhaust is worn through the muffler. It is not a quiet generator and has disturbed the surrounding neighbors. Newer automatic transfer switch's (ATS) have the capability of switching over in the case of a "brown out," which is loss of one but not all phases of supplied electricity. The one currently in service is unable to distinguish this difference and therefore will allow the pumps to run without adequate power which in turn could damage them. The motor control panel is very old and designed for pump system equipment that is no longer active at this station.

Asset Risk Management Strategy

Capital Improvement Risk Plan Rehabilitation/Replacement
Maintenance Risk Mgmt
Non Asset Risk Mgmt

Funding Source

Primary Capital Reserves Secondary n/a

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	26-27	27-28	30-31	Unscheduled	Total
Labor										140,000	$ 140,000
Engineering											$ -
Parts & Supplies											$ -
Chemicals											$ -
Utility											$ -
Other											$ -
Total	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 140,000	$ 140,000

22 **FY 2021-22 Budget**

Carmel Area Wastewater District

Project Name: Spot Repair Projects at Various Locations
Dept.: Collections
10 yr. Cap Projection: $ 1,000,000.00
CY Budget $ -
GL Account:

Contact: Lather
Area Sewer Lines
Asset Type: N/A
Avg Useful Life: 40 years
Est Residual Life: 5 years
% Consumed Life: 95
Category: Maintenance
Urgency: 2 = Very Important
Carry Forward: Yes

Asset Description

Based on the results of pipeline video work, we plan to perform point repairs and pipe lining for segments that are otherwise in good condition and do not have capacity issues. This will be less expensive than full rehabilitation and will satisfy the intent of the River Watch Agreement.

Year Built: various
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: 40
Asset Condition Rating: 5

Justification

Many of the sewer lines within the District can be improved with spot repairs rather than complete replacement. Pipes with condition ratings of 5 can be quickly rehabilitated less expensively using these methods and will produce results that will satisfy the River Watch Agreement requirements. Grouping the point repairs into one project will improve the bidding environments and overall cost to do the work.

Asset Risk Management Strategy

Capital Improvement Risk Plan Rehabilitation/Replacement
Maintenance Risk Mgmt
Non Asset Risk Mgmt

Funding Source

Primary Capital Reserves Secondary

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	26-27	Unscheduled	Total
Labor								1,000,000	$ 1,000,000
Engineering									$ -
Parts & Supplies									$ -
Chemicals									$ -
Utility									$ -
Other									$ -
Total	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,000,000	$ 1,000,000

3 **FY 2021-22 Budget**

Carmel Area Wastewater District

Project Name: Rio Road Bioswalel Pipeline Replacement
Dept.: Collections
5 yr. Cap Projection: $ -
CY Budget $ -
GL Account:

Contact: Lather
Area Sewer Lines
Asset Type: N/A
Avg Useful Life: 40 years
Est Residual Life: 5 years
% Consumed Life: 95
Category: Maintenance
Urgency: 3 = Important
Carry Forward: Yes

Asset Description

County of Monterey plans to construct drainage improvements above the existing 6" diameter CAWD pipeline.

Year Built: N/A
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: N/A
Asset Condition Rating: N/A

Justification

The CAWD pipeline is very flat and is in poor condition. It flows to a manhole to a 12 inch pipeline. The 6 inch line's slope can be corrected and this work should be done in conjunction with the County's project.

Asset Risk Management Strategy

Capital Improvement Plan Rehabilitation/Replacement
Maintenance Risk
Non Asset Risk Mgmt

Funding Source

Primary: Capital Reserves
70% Collections
30% Treatment

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	26-27	Unscheduled	Total
Labor								800,000	$ 800,000
Engineering									$ 800,000
Parts & Supplies									$ -
Chemicals									$ -
Utility									$ -
Other									$ -
Total	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 800,000	$ 1,600,000

24 **FY 2021-22 Budget**

Carmel Area Wastewater District

Project Name:	Upsize lower Rancho Canada Trunkline
Dept.:	Collections
10 yr. Cap Projection:	$ 410,000.00
CY Budget	$ -
GL Account:	

Contact:	Lather
Area	Sewer Lines
Asset Type:	N/A
Avg Useful Life:	40 years
Est Residual Life:	5 years
% Consumed Life:	95
Category:	Maintenance
Urgency:	3 = Important
Carry Forward:	Yes

Asset Description

This project will relocate an existing sewer trunk line that serves the eastern most portion of the District and is located adjacent to the proposed County Park at Rancho Canada. The trunk line is 12 inch diameter Truss pipe material that was installed in the early 1970's. One of the golf courses was sold to a subdivision developer and the other golf course has become part of the Monterey Regional Park System. This is the portion where the subdivision is planned to be constructed.

Year Built:	1970s
Rehabilitation Date (Extending life of Asset):	N/A
Rehab Life Extension:	40
Asset Condition Rating:	4

Justification

Rancho Canada subdivision is currently planning to install a new alignment of the 12 inch sewer trunk line that currently runs through the property. It would be in the District's best interest to take advantage of this opportunity on this project to upsize the pipeline with a pipe diameter of 15" (ID - Inside Diameter) because the existing line is at capacity and there is a strong potential for existing upstream parcels on septic to go to sewer. The developer is requesting that the District fund the difference in cost from 12 inch to 15 inch. If more of the Carmel Valley area is annexed into our system, we will benefit from this upgrade now by not incurring the future costs of needing to upgrade later when it is realized the initial pipe capacity was insufficient to convey the potential wastewater generated. The developer met with the District Engineer and is planning to start subdivision grading work in late spring of 2019, We have not heard from the Developer since that time so the project is "unscheduled".

Asset Risk Management Strategy

Capital Improvement Plan Rehabilitation/Replacement
Maintenance Risk Mgmt
Non Asset Risk Mgmt

Funding Source

Primary Capital Reserves

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	26-27	Unscheduled	Total
Labor								410,000	$ 410,000
Engineering									$ -
Parts & Supplies									$ -
Chemicals									$ -
Utility									$ -
Other									$ -
Total	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 410,000	$ 410,000

25 **FY 2021-22 Budget**

Carmel Area Wastewater District

Project Name:	Dewatering Pit at Treatment Plant (30% Treatment)		Contact:	Lather
Dept.:	Collections		Area	Sewer Lines
			Asset Type:	N/A
10 yr. Cap Projection:	$	70,000.00	Avg Useful Life:	N/A
CY Budget	$	-	Est Residual Life:	5 years
GL Account:			% Consumed Life:	N/A
			Category:	Maintenance
			Urgency:	5 = Future
			Carry Forward:	No

Asset Description

Collection dewatering pit is a needed to dewater debris that has been collected in the Vacon vacuum truck. While Collections is the primary user of this, the Treatment plant has used this area in the past also. Once the debris has been dumped into the pit, drains will carry the liquid to the headworks to be properly disposed of. Currently the District uses a depression in the ground to place the debris and the water is removed through evaporation or seepage into the soil.

Year Built:	N/A
Rehabilitation Date (Extending life of Asset):	N/A
Rehab Life Extension:	N/A
Asset Condition Rating:	N/A

Justification

The District needs a contained area to properly decant and dispose of debris collected in the vacuum truck. The construction of this disposal area will remove water and not allow it to be absorbed directly into the ground. This project is pending Costal Commission permitting.

Asset Risk Management Strategy

Capital Improvement Risk:	Plan Rehabilitation/Replacement
Maintenance Risk Management:	Predictive & Preventative Maintenance
Non Asset Risk Management:	

Funding Source

Primary: Capital Reserves

Secondary:

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	26-27	Unscheduled	Total
Labor								70,000	$ 70,000
Engineering									$ -
Parts & Supplies									$ -
Chemicals									$ -
Utility									$ -
Other									$ -
Total	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 70,000	$ 70,000

CAWD Treatment Dept - Capital Purchases

FY 2021/22 *thru* 2025/26

Project #	PROJECT	21/22	22/23	23/24	24/25	25/26	Unscheduled
1	Laboratory Muffle Furnance (50% Reclamation)	$ 13,500					
2	Laboratory Ion Chromatograph (90% Reclamation)		$ 150,000				
3	TOC Analyzer				$ 35,000		
4	Laboratory Autoclave (50% Reclamation)				$ 16,000		
5	Dewatering Building Poly Blend Unit M60-P1AA						$ 28,000
6	Laboratory Dishwashers (2)						$ 30,000
7	ATL LIMS System new generation						$ 38,790
	TREATMENT & DISPOSAL TOTAL	**$ 13,500**	**$ 150,000**	**$ -**	**$ 51,000**	**$ -**	**$ 96,790**
	RECLAMATION SHARE	$ 6,750	$ 135,000	$ -	$ 8,000	$ -	$ -
	PBCSD SHARE	$ 2,248	$ 4,995	$ -	$ -	$ -	$ -
	CAWD COST	**$ 4,502**	**$ 10,005**	**$ -**	**$ 43,000**	**$ -**	**$ 96,790**

1 **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name:	Lab Muffle Furnace
Dept:	Treatment
Total Cost:	$ 13,500
CY Budget	$ 13,500
GL Account:	

Contact:	Waggoner
Area	Misc Structures
Asset Type:	Instrumentation
Avg Useful Life:	10 years
Est Residual Life:	1 year
% Consumed Life:	90
Category:	Capital Equipment
Urgency:	3 = Important
Carry Forward:	Yes

Asset Description

The Laboratory Muffle Furnace used for CAWD Operations Process Control Analysis for Volatile Percent on solids from the digestor, primary solids, DAF and Belt Press.

Year Built:	2011
Rehabilitation Date (Extending life of Asset):	2019
Rehab Life Extension:	3
Asset Condition Rating:	Fair/Poor

Justification

The muffle furnace has need repairs on the relay electronics that control the ramping up of temperature to 500C and relay that maintains the temperature. The body frame has some corrosion eating up the frame. The unit on one occasion was on fire in the electronic board and had a loud noise when it occurred. The laboratory has been able to still order parts for the unit.

Asset Risk Management Strategy

Capital Improvement Risk	Plan Rehabilitation/Replacement
Maintenance Risk Management	Corrective Maintenance
Non Asset Risk Management	Strategic Changes to Level of Service

Funding Source

Primary CAWD 50% Secondary Reclamation 50%

Budget Impact/Other

	Prior Yr	21-22	22-23	23-24	24-25	25-26	Unscheduled	Total
Labor								
Engineering								$ -
Parts & Supplies		12,700						$ 12,700
Chemicals								$ -
Utility								$ -
Other		800						$ 800
Total		$ 13,500	$ -	$ -	$ -	$ -	$ -	$ 13,500

2 **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name:	Laboratory Ion Chromatograph
Dept:	Reclamation
Total Cost:	$ 150,000
CY Budget	$ -
GL Account:	

Contact:	Waggoner
Area	Misc Structures
Asset Type:	Support Equipment
Avg Useful Life:	10 years
Est Residual Life:	1 year
% Consumed Life:	97
Category:	Capital Equipment
Urgency:	2 = Very Important
Carry Forward:	Yes

Asset Description

The Ion Chromatograph (IC) system is a mult-use equipment used for the Pebble Beach Reclamation samples and CAWD MF/RO and Tertiary water. The IC analysis the Cation and Anion ions and Iron and Manganese in the water samples collected. The IC is used weekly for MF/RO Blend and Reclaim Line samples and on a monthly schedule PBCSD collects water samples at the golf courses and well samples. The data is used by the PBCSD and golf course superintendents for irrigation. The replacement item requested is for the Cation and Iron and Manganese analysis.

Year Built:	2009
Rehabilitation Date (Extending life of Asset):	N/A
Rehab Life Extension:	N/A
Asset Condition Rating:	Rehab unlikely

Justification

The Dionex IC unit is no longer serviceable by manufacture service technicians and parts are limited to what is available no new parts are being made. The unit has been placed on the obsolescence list by the manufacture since 2018. The purchase is for the Cation and T-metal analysis. The anion analysis will be run on a different instrument already being used.

Asset Risk Management Strategy

Capital Improvement Risk	Plan Rehabilitation/Replacement
Maintenance Risk Management	Corrective Maintenance
Non Asset Risk Management	Strategic Changes to Level of Service

Funding Source

Primary	CAWD 10%	Secondary	Reclamation 90%

Budget Impact/Other

	Prior Yr	21-22	22-23	23-24	24-25	25-26	Unscheduled	Total
Labor								
Engineering								$ -
Parts & Supplies			$ 145,000					$ 145,000
Chemicals								$ -
Utility								$ -
Other			$ 5,000					$ 5,000
Total		$ -	$ 150,000	$ -	$ -	$ -	$ -	$ 150,000

3 **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name:	TOC Analyzer
Dept:	Treatment
Total Cost:	$ 35,000
CY Budget	$ -
GL Account:	

Contact:	Waggoner
Area	Misc Structures
Asset Type:	Support Equipment
Avg Useful Life:	15 years
Est Residual Life:	10 years
% Consumed Life:	33
Category:	Capital Equipment
Urgency:	5 = Future
Carry Forward:	No

Asset Description

The Total Organic Carbon Analyzer (TOC) is currently used for process control analysis. The results are used by the Operations staff to correlate to the Biochemical Oxygen Demand (BOD) analysis. The lab has been working side by side analysis (TOC and BOD) with the all the plant samples to calculate a factor between the two values. The plan is for the TOC data to be used in replacing the traditional BOD result for reporting.

Year Built:	2015
Rehabilitation Date (Extending life of Asset):	N/A
Rehab Life Extension:	N/A
Asset Condition Rating:	excellent

Justification

The manufacture, Shimadzu, typically provides preventative maintenance services for a piece of equipment for 10-15 years then deeming the instrument obsolescence at that time. The manufacture will stop providing service and parts may still be available until there are no more parts to order.

Asset Risk Management Strategy

Capital Improvement Risk	Plan Rehabilitation/Replacement
Maintenance Risk Management	Predictive & Preventative Maintenance
Non Asset Risk Management	Strategic Changes to Level of Service

Funding Source

Primary CAWD 50% Secondary Reclamation 50%

Budget Impact/Other

	Prior Yr	21-22	22-23	23-24	24-25	25-26	Unscheduled	Total
Labor								
Engineering								$ -
Parts & Supplies					32,375			$ 32,375
Chemicals								$ -
Utility								$ -
Other					2,625			$ 2,625
Total		$ -	$ -	$ -	$ 35,000	$ -	$ -	$ 35,000

4 **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name:	Laboratory Autoclave
Dept:	Treatment
Total Cost:	$ 32,000
CY Budget	$ -
GL Account:	

Contact:	Waggoner
Area	Misc Structures
Asset Type:	Support Equipment
Avg Useful Life:	20 years
Est Residual Life:	1 year
% Consumed Life:	98
Category:	Capital Equipment
Urgency:	3 = Important
Carry Forward:	Yes

Asset Description

The autoclave is used for sterilizing bacteriological media used for microbiological analysis of the final effluent, tertiary effluent and ocean receiving samples if needed. The unit is also used to sterilize used positive tests material to be able to discard to the trash or dispose in the drain.

Year Built:	1993
Rehabilitation Date (Extending life of Asset):	N/A
Rehab Life Extension:	N/A
Asset Condition Rating:	Rehab unlikely

Justification

Lab staff has been able to keep autoclave operational by changing gaskets so that the unit can maintain the correct sterilization temperature and psi. The unit has corrosion building along the base and may not be repairable.

Asset Risk Management Strategy

Capital Improvement Risk	Plan Rehabilitation/Replacement
Maintenance Risk Management	Predictive & Preventative Maintenance
Non Asset Risk Management	Strategic Changes to Level of Service

Funding Source

Primary CAWD 50% Secondary Reclamation 50%

Budget Impact/Other

	Prior Yr	21-22	22-23	23-24	24-25	25-26	Unscheduled	Total
Labor								$ 16,000
Engineering								$ -
Parts & Supplies					16,000			$ 16,000
Chemicals								$ -
Utility								$ -
Other								$ -
Total		$ -	$ -	$ -	$ 16,000	$ -	$ -	$ 32,000

5 **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name:	Dewatering Poly Blend Unit M60-P1AA
Dept:	Treatment
Total Cost:	$ 28,000
CY Budget	$ -
GL Account:	

Contact:	Waggoner
Area	DeWatering Bldg
Asset Type:	Process Equip (Gas)
Avg Useful Life:	15 years
Est Residual Life:	10 years
% Consumed Life:	33
Category:	Capital Equipment
Urgency:	5 = Future
Carry Forward:	Yes

Asset Description

Polymer mixing and injection unit that mixes and adds a coagulant to the flow stream of anerobic digested sludge prior to the dewatering devices.
Either the Screwpress or the beltpress to enhance liquid separation.

Year Built:	2016
Rehabilitation Date (Extending life of Asset):	N/A
Rehab Life Extension:	5
Asset Condition Rating:	Good

Justification

The age in the future is such that the vendor may no longer support or sell/stock replacement parts for the UGSI Polyblend unit in the future.
This model was purchased in the Phase 1project staff continues to update all polymer mixing systems to be the same in the future to be able to limit the amount of spare parts in inventory.

Asset Risk Management Strategy

Capital Improvement Risk	Plan Rehabilitation/Replacement
Maintenance Risk Management	Predictive & Preventative Maintenance
Non Asset Risk Management	Strategic Changes to Level of Service

Funding Source

Primary CAWD 100% Secondary Capital Budget

Budget Impact/Other

	Prior Yr	21-22	22-23	23-24	24-25	25-26	Unscheduled	Total
Labor							$ 2,000	$ 2,000
Engineering								$ -
Parts & Supplies							$ 24,000	$ 24,000
Chemicals								$ -
Utility								$ -
Other							$ 2,000	$ 2,000
Total		$ -	$ -	$ -	$ -	$ -	$ 28,000	$ 28,000

6 **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name:	Laboratory Dishwashers
Dept:	Treatment
Total Cost:	$ 30,000
CY Budget	$ -
GL Account:	

Contact:	Waggoner
Area	Misc Structures
Asset Type:	Support Equipment
Avg Useful Life:	15 years
Est Residual Life:	10 years
% Consumed Life:	33%
Category:	Capital Equipment
Urgency:	5 = Future
Carry Forward:	Yes

Asset Description

The laboratory uses two dishwasher configured for different bottle washing uses. One dishwasher is used for glassware of BOD bottles, beakers and flasks that go through a washing cycle of hot water, soap wash, rinse -tap and DI water, and acid wash. The second dishwasher is used as a universal wash that larger items can be washed and the sample bottles used for sample collection.

Year Built:	2016
Rehabilitation Date (Extending life of Asset):	N/A
Rehab Life Extension:	N/A
Asset Condition Rating:	Good

Justification

This is listed as "Unscheduled", the dishwashers are working good no time frame when to replace.

Asset Risk Management Strategy

Capital Improvement Risk	Plan Rehabilitation/Replacement
Maintenance Risk Management	Predictive & Preventative Maintenance
Non Asset Risk Management	Strategic Changes to Level of Service

Funding Source

Primary CAWD 50% Secondary Reclamation 50%

Budget Impact/Other

	Prior Yr	21-22	22-23	23-24	24-25	25-26	Unscheduled	Total
Labor								
Engineering							$ 27,675	$ 27,675
Parts & Supplies								$ -
Chemicals								$ -
Utility								$ -
Other							$ 2,325	$ 2,325
Total		$ -	$ -	$ -	$ -	$ -	$ 30,000	$ 30,000

7 **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name:	ATL Laboratory Information Management System (LIMS)
Dept:	Treatment
Total Cost:	$ 38,790
CY Budget	$ -
GL Account:	

Contact:	Waggoner
Area	Misc Structures
Asset Type:	Office Equip
Avg Useful Life:	20 years
Est Residual Life:	15 years
% Consumed Life:	25%
Category:	Capital Equipment
Urgency:	5 = Future
Carry Forward:	Yes

Asset Description

The Accelerated Technology Laboratory (ATL) Laboratory Information Management System (LIMS) is used for laboratory data management. All the laboratory data (NPDES and process control) is entered into the LIMS and able to generate reports, and queries from all the different projects and analysis test.

Year Built:	2014
Rehabilitation Date (Extending life of Asset):	N/A
Rehab Life Extension:	N/A
Asset Condition Rating:	N/A

Justification

This is entered into the "Unscheduled" due to uncertainty of when ATL will update the software current version being used. ATL works from the Microsoft programs and when Microsoft makes changes to the operating system some of the ATL features will not work. The ATL representative could not give me any updates on what Microsoft will upgrade. The new version of LIMS are built from different modules that the customer would like to have.

Asset Risk Management Strategy

Capital Improvement Risk	Plan Rehabilitation/Replacement
Maintenance Risk Management	Predictive & Preventative Maintenance
Non Asset Risk Management	Strategic Changes to Level of Service

Funding Source

Primary Capital Budget Secondary n/a

Budget Impact/Other

	Prior Yr	21-22	22-23	23-24	24-25	25-26	Unscheduled	Total
Labor								
Engineering								$ -
Parts & Supplies							$ 36,000	$ 36,000
Chemicals								$ -
Utility								$ -
Other							$ 2,790	$ 2,790
Total		$ -	$ -	$ -	$ -	$ -	$ 38,790	$ 38,790

CAWD Treatment Dept - CIP

FY 2021/22 *thru* 2025/26

Project #	PROJECT	21/22	22/23	23/24	24/25	25/26	Unscheduled
1	Cart Charging In Building #35	$ 25,000					
2	Groundwater Elevation Monitoring Sensor	$ 25,000					
3	1 Water System Corrosion control						$ 20,000
4	Demonstration of Huber Strain Press						$ 17,250
5							
6							
	TREATMENT & DISPOSAL TOTAL	**$ 50,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 37,250**
	RECLAMATION SHARE	$ -	$ -	$ -	$ -	$ -	$ -
	PBCSD SHARE	$ 16,650	$ -	$ -	$ -	$ -	$ 3,330
	CAWD COST	**$ 33,350**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 33,920**

Note: Long Term Capital Projects are on Separate Worksheet

1 **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name: Cart Charging In Building #35
Dept: Treatment
Total Cost: $ 50,000
CY Budget $ 25,000
GL Account:

Contact: Foley
Area Misc Structures
Asset Type: Support Equipment
Avg Useful Life: 20 years
Est Residual Life: 20 years
% Consumed Life $ -
Category: Capital Improvement
Urgency: 3 = Important
Carry Forward: Yes

Asset Description

Electric Cart charging area at the Old Chemical Storage Building (Building Number 35).

Year Built: 2021
Rehabilitation Date: n/a
Rehab Life Extension: n/a
Asset Condition Rating: Good

Justification

Currently, there is no central location to charge the electric utility carts and golf carts or a place to park the work bicycles that plant staff uses daily out of the elements. These vehicles are stored overnight throughout the treatment plant and exposed to the elements. Staff is planning to create a charging station at building number 35. This would include charging stations for the electric utility carts and storage for the plant's work bicycles.

Asset Risk Management Strategy

Capital Improvement Risk Plan Rehabilitation/Replacement
Maintenance Risk Mgmt Predictive & Preventative Maintenance
Non Asset Risk Mgmt Take Asset out of Service

Funding Source

Primary Capital Improvement Secondary n/a

Budget Impact/Other

	Prior Yr	21-22	22-23	23-24	24-25	25-26	26-27	Total
Labor	14,000	14,000						$ 14,000
Engineering	2,000	4,000						$ 4,000
Parts & Supplies	7,000	7,000						$ 7,000
Chemicals								$ -
Utility								$ -
Other	2,000							$ -
Total	$ 25,000	$ 25,000	$ -	$ -	$ -	$ -	$ -	$ 25,000

2 **FY 2021-22 Budget**

Carmel Area Wastewater District

Project Name: Groundwater Elevation Monitoring Sensor
Dept: Treatment
Total Cost: $ 25,000
CY Budget $ 25,000
GL Account:

Contact: Treanor
Area Yard Piping
Asset Type: Instrumentation
Avg Useful Life: 20 years
Est Residual Life:
% Consumed Life
Category: Capital Improvement
Urgency: 3 = Important
Carry Forward: No

Asset Description

A level sensor to record real time groundwater data at the WWTP for use in monitoring Sea Level Rise and Coastal Flooding Hazards. The level sensor would be installed in an existing groundwater monitoring well at the WWTP adjacent to the Carmel River. The level sensor would be connected to the CAWD SCADA system so that online data can be stored and analyzed.

Year Built: n/a
Rehabilitation Date: n/a
Rehab Life Extension: n/a
Asset Condition Rating: n/a

Justification

The California Coastal Commission has required that CAWD monitor Coastal Hazards such as flooding at the WWTP to determine if Sea Level Rise is increasing the hazards at the WWTP. The data from this level sensor can provide useful insights into potential changes in flood hazards.

Asset Risk Management Strategy

Capital Improvement Risk
Maintenance Risk Mgmt
Non Asset Risk Mgmt Strategic Changes to Level of Service

Funding Source

Primary Capital Improvement Secondary n/a

Budget Impact/Other

	Prior Yr	21-22	22-23	23-24	24-25	25-26	26-27	Total
Labor		10,000					$	10,000
Engineering							$	-
Parts & Supplies		15,000					$	15,000
Chemicals							$	-
Utility							$	-
Other							$	-
Total	$ -	$ 25,000	$ -	$ -	$ -	$ -	$ -	$ 25,000

3 **FY 2021-22 Budget**

Carmel Area Wastewater District

Project Name: 1 Water System Corrosion Control
Dept: Treatment
Total Cost: $ 20,000
CY Budget $ -
GL Account:

Contact: Treanor
Area 1 Water System
Asset Type: Support Equipment
Avg Useful Life: 45 year
Est Residual Life: 20 years
% Consumed Life 60%
Category: Capital Improvement
Urgency: 3 = Important
Carry Forward: No

Asset Description

New Iorex ionization filter for 1 Water feed into the plant. The IOREX is a self-contained unit that uses the friction of water passing through the device to create a galvanic current to ionize water and reduce the size of the water clusters. This ionized water removes existing rust and scale buildup in the pipes and prevents the formation of new rust and scale. In iron and steel pipes, the IOREX-treated water also converts rust into magnetite, which can adhere to the inner pipe surface and stabilize a weakened pipe, even sealing some existing pinhole leaks.

More review of existing pipeline corrosion will be done before implementation.

Year Built: n/a
Rehabilitation Date: n/a
Rehab Life Extension: n/a
Asset Condition Rating: n/a

Justification

The number 1 Water Distribution System was installed in the early 1970's when the secondary processes were constructed at CAWD. The main piping is Ductile Iron pipe with service laterals of copper and galvanized pipe to major buildings and safety showers. This project would protect the existing piping from internal corrosion that can eventually lead to pipe leaks which could be expensive to repair and could lead to high water bills if leaks cannot be located.

Asset Risk Management Strategy

Capital Improvement Risk Moderate Repair
Maintenance Risk Mgmt Predictive & Preventative Maintenance
Non Asset Risk Mgmt Strategic Changes to Level of Service

Funding Source

Primary Capital Improvement Secondary n/a

Budget Impact/Other

	Prior Yr	21-22	22-23	23-24	24-25	25-26	26-27	Total
Labor								$ -
Engineering								$ -
Parts & Supplies							20,000	$ 20,000
Chemicals								$ -
Utility								$ -
Other								$ -
Total		$ -	$ -	$ -	$ -	$ -	$ 20,000	$ 20,000

4 **FY 2021-22 Budget**

Carmel Area Wastewater District

Project Name: Demonstration of Huber Strain Press
Dept: Treatment
Total Cost: $ 17,250
CY Budget $ -
GL Account:

Contact: Waggoner
Area Digesters
Asset Type: Support Equipment
Avg Useful Life: 1 year
Est Residual Life:
% Consumed Life
Category: Capital Improvement
Urgency: 5 = Future
Carry Forward: No

Asset Description

Press/screening unit designed to clean sludge of hard plastic and other harmful material from the headworks or food waste deliveries that is injected into the anaerobic digester.

Year Built: n/a
Rehabilitation Date: n/a
Rehab Life Extension: n/a
Asset Condition Rating: n/a

Justification

Staff will evaluate various options designed to remove hard and soft plastic from plugging the screens on the screwpress and preventing sharp items from cutting or damaging the belts on the belt press. Staff has all ready experienced having nails, plastics, and other harmful material that has created operational issues with the screw press which required extra staff time to clean the screens more often than normally needed or having to use the belt press with the fear of ruining the belts due to punctures or a tear . Funds will be used to perform any demonstration or pilot projects. Once the evaluation is complete plant staff will determine if this dewatering pretreatment unit for digested sludge is cost effective for the return of investment.

Asset Risk Management Strategy

Capital Improvement Risk
Maintenance Risk Mgmt
Non Asset Risk Mgmt

Funding Source

Primary Capital Improvement Secondary n/a

Budget Impact/Other

	Prior Yr	21-22	22-23	23-24	24-25	25-26	26-27	Total
Labor							6,000	$ 6,000
Engineering							3,500	$ 3,500
Parts & Supplies							250	$ 250
Chemicals								$ -
Utility								$ -
Other							7,500	$ 7,500
Total	$ -	$ -	$ -	$ -	$ -	$ -	$ 17,250	$ 17,250

CARMEL AREA WASTEWATER DISTRICT TREATMENT PLANT

LONG TERM CAPITAL PROJECTS - FY 2021/22 - 2035/36

Item #	Project Number	PROJECT	Estimated Prior Spent Thru 20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35	35/36	Unscheduled	Total
WWTP - Elec/Mech Rehab & Sludge Holding Tank Replacement Project																				
1	18-01	WWTP Elec/Mech Rehab & Sludge Holding Tank Replace Design (4% Reclamation)	$906,000	$10,000																*$10,000*
1	18-01	WWTP Elec/Mech Rehab & Sludge Holding Tank Replace Project Construction (4% Reclamation)	$0	$4,300,000	$4,300,000															*$8,600,000*
1	18-01	WWTP Elec/Mech Rehab & Sludge Holding Tank Project SCADA Programming	$0	$75,000	$75,000															*$150,000*
1	18-01	WWTP Elec/Mech Rehab & Sludge Holding Const Mgmt and ESDC (4% Reclamation)	$0	$450,000	$450,000															*$900,000*
1	18-01	WWTP Elec/Mech Rehab & Sludge Holding Project O&M Manual	$0			$50,000														*$50,000*
PLANNED PROJECTS																				
2	19-21	Carmel River FREE Mitigation Project (Funded by Grants/County, See Below)*	$0	$0	$0	$0														*$0*
3	19-01	Critical Process Minor Onsite Flood Adaptations (30% Reclamation)	$21,788	$50,000																*$50,000*
4		Cathodic Protection Testing and Maintenance		$30,000		$100,000					$30,000					$30,000				*$190,000*
5	18-11	Microturbine Integration Project	$45,000	$150,000																*$150,000*
6		Chlorine Contact Channel Pipe Gallery Pipe Coating		$75,000																*$75,000*
7	19-18	Perimeter Fencing	$3,000	$200,000																*$200,000*
8	18-28	WWTP Perimeter Tree Planting	$27,000	$60,000	$75,000	$75,000								$25,000						*$235,000*
9		Plant Landscaping	$20,000		$150,000															*$150,000*
10		Lunch Room MCC Replace with Panelboard (Collection 6%)			$140,000															*$140,000*
11		Main Potable Water and Gas Main Replacement (5.5% Collections)			$100,000	$150,000														*$250,000*
12		Replace Older Turblex Blower				$530,000														*$530,000*
13		Roofing Repairs				$100,000														*$100,000*
14		Inventory Storage Containers				$175,000														*$175,000*
15		Plant Paving and Vault Lids				$50,000	$200,000													*$250,000*
16		Digester No. 1 - Rehabilitation				$150,000	$760,000													*$910,000*
17		Influent Pump Station Wet Well Repairs					$150,000													*$150,000*
18		Operations Building HVAC and Plumbing Systems Repairs					$155,000													*$155,000*
19		Staff Office Trailer Replacements					$250,000													*$250,000*
20		Plant Bridge Retrofit Project					$200,000	$800,000												*$1,000,000*
21		RAS Pump/Piping Rehab						$75,000												*$75,000*
22		Septage Waste Receiving Station						$150,000	$850,000											*$1,000,000*
23		Lagoon Crossing Rehabilitation							$500,000											*$500,000*
24		Ocean Outfall Rehabilitation										$1,000,000								*$1,000,000*
25		Next Generation PLC/SCADA Upgrades Phase 1														$1,000,000				*$1,000,000*
26		Sea Level Rise Flood Mitigation																	Unknown	*Unknown*
PROCESS AREA REHABILITATION AND MAINTENANCE PROJECTS																				
27		Misc. Yard Piping Rehab and Maintenance Projects							$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000		*$900,000*
28		Influent/Headworks/Primary Rehab and Maintenance Projects							$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000		*$1,000,000*
29		EQ/Blowers/Aeration/Secondary Rehab and Maintenance Projects (Partial Reclamation)							$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000		*$2,000,000*
30		Chlorination/Dechlorination/Effluent Rehab and Maintenance Projects (Partial Reclamation)							$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000		*$1,000,000*
31		DAFT/Digestion/Dewatering Rehab and Maintenance Projects (Partial Reclamation)							$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000		*$1,000,000*
PROJECTS CLOSED OUT PRIOR YEAR																				
	18-08	Standby Power Reliability Project	$364,045																	*$0*
	18-10	Aeration Basin Improvements	$127,000																	*$0*
		TREATMENT & DISPOSAL TOTAL	**$1,513,833**	**$5,400,000**	**$5,290,000**	**$1,380,000**	**$1,715,000**	**$1,025,000**	**$1,940,000**	**$590,000**	**$620,000**	**$1,590,000**	**$590,000**	**$615,000**	**$590,000**	**$1,620,000**	**$590,000**	**$590,000**	**$0**	***$24,145,000***
-		ESTIMATED RECLAMATION SHARE (1)	$36,240	$193,000	$2,000			$0	$60,000	$60,000	$60,000	$60,000	$60,000	$60,000	$60,000	$60,000	$60,000	$60,000		*$795,000*
-		ESTIMATED PBCSD SHARE	$492,039	$1,733,931	$1,756,275	$459,540	$571,095	$341,325	$626,040	$176,490	$186,480	$509,490	$176,490	$184,815	$176,490	$519,480	$176,490	$176,490	$0	*$7,775,550*
		ESTIMATED CAWD COST	**$985,555**	**$3,473,069**	**$3,531,725**	**$920,460**	**$1,143,905**	**$683,675**	**$1,253,960**	**$353,510**	**$373,520**	**$1,020,510**	**$353,510**	**$370,185**	**$353,510**	**$1,040,520**	**$353,510**	**$353,510**	**$0**	***$15,574,450***
		***ANTICIPATED GRANT/COUNTY FUNDING**	**$750,000**	**$1,000,000**	**$2,300,000**	**$1,300,000**														***$4,600,000***
		(1) PBCSD to pay 1/3 of costs after Reclamation and or Collections portion is deducted, unless otherwise noted.																		
TECHNICAL STUDIES (EXPENSED TO O&M - SHOWN HERE FOR PLANNING PURPOSES)																				
32		Coastal Hazards Monitoring Plan	$0	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000		*$1,050,000*
33		Coastal Hazards Response Plan	$0	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000		*$1,400,000*
34		Miscellaneous Technical Studies	$0	$125,000	$125,000	$125,000	$125,000	$125,000	$125,000	$125,000	$125,000	$125,000	$125,000	$125,000	$125,000	$125,000	$125,000	$125,000		*$1,750,000*
		TOTAL TECHNICAL STUDIES	$0	$300,000	$300,000	$300,000	$300,000	$300,000	$300,000	$300,000	$300,000	$300,000	$300,000	$300,000	$300,000	$300,000	$300,000	$300,000	$0	*$4,200,000*

1 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **WWTP - Elec/Mech Rehab & Sludge Holding Tank Replacement Project**
Dept.: Treatment
5 yr. Cap Projection: $ 9,710,000
CY Budget $ 4,835,000

Contact: Treanor
Area Various
Asset Type: Various
Avg Useful Life: Various
Est Residual Life: Various
% Consumed Life: N/A
Category: Capital Improvement
Urgency: 3 = Important
Carry Forward: No

Project Description

This project is a multi-area project at the WWTP aimed at improving reliability of equipment in the Influent Pump Station, Headworks, 3W/Chlorine Analyzer Building, Effluent Building and Sludge Storage Tank. Most of the work involves replacing aged equipment electrical and mechanical work in existing buildings.

Influent Building - Replacement of existing Motor Control Center (MCC) and electrical/controls equipment. Replacement of 1 Influent pump with 2 smaller pumps.

Headworks Building - Replacement of existing Motor Control Center (MCC) and electrical/controls equipment. Replacement of existing auger screen with articulating rake screens. Replacement of existing grit tank collector mechanism in kind.

3W/Chlorine Analyzer Building - Replacement of existing Motor Control Center (MCC) and electrical/controls equipment.

Effluent Building - Replacement of existing Motor Control Center (MCC) and electrical/controls equipment. Replacement of motors on existing Effluent Pumps.

Sludge Holding Tank - Demolition of three old digesters/sludge holding tanks and replacement with one steel sludge holding tank. Work in this area includes piping demolition for piping associated with old tanks.

Year Built: 1930s, 1950s, 1970s, 1980s
Rehabilitation Date (Extending life of Asset): Various
Rehab Life Extension: Various
Asset Condition Rating: Various

Justification

This project was developed to mitigate business risk based on Kennedy/Jenks Phase 2 asset management risk assessment. The project is highly focused on electrical systems that are well past their useful life and are critical to operations. The sludge holding tank work is to address the fact that the current sludge holding tank was built in the 1930s and is past its useful life. Three existing sludge tanks that no longer meet seismic code will be removed and one new tank will be installed.

Reclamation Share is for the Lab standby power feeder and for the electrical work associated with the brine effluent pump in the Effluent Building.

Risk Management Strategy

Capital Improvement Strategy: Plant Rehabilitation/Replacement
Maintenance Strategy: Corrective Maintenance
Non Asset Strategy:

Funding Source

Primary: Capital Budget
4% Reclamation

Secondary

Budget Impact/Other

	Estimated Cumulative Thru FY20-21	21-22	22-23	23-24	24-25	25-26	Total
Labor		$ 2,400,000	$ 1,900,000				$ 4,300,000
Engineering	$ 906,000	$ 460,000	$ 450,000	$ 50,000			$ 960,000
Parts & Supplies		$ 1,900,000	$ 2,400,000				$ 4,300,000
Chemicals							$ -
Utility							$ -
Other		$ 75,000	$ 75,000				$ 150,000
							$ -
Total	$ 906,000	$ 4,835,000	$ 4,825,000	$ 50,000	$ -	$ -	$ 9,710,000

2 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Carmel River FREE Mitigation Project (Funded by Grants/County, See Below)***
Dept.: Treatment
5 yr. Cap Projection: $0
CY Budget $0

Contact: Treanor
Area Outfall
Asset Type: Structure
Avg Useful Life: Over 50 years
Est Residual Life: N/A
% Consumed Life: N/A
Category: CEQA Mitigation
Urgency: 3 = Important
Carry Forward: No

Project Description

Project to underground CAWD pipelines under the lagoon to mitigate impacts from the Monterey County flood control project (Carmel River FREE). The project will be financed as part of the Carmel River FREE Project. CAWD is providing staff time at no cost to the Carmel River FREE project.

Year Built: Various
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: N/A
Asset Condition Rating: N/A

Justification

Required mitigation for the Monterey County flood control project (Carmel River FREE).

Risk Management Strategy

Capital Improvement Strategy: CEQA Mitigation
Maintenance Strategy:
Non Asset Strategy:

Funding Source

Primary Monterey County - FEMA/OES Grant Secondary Capital Reserves

Budget Impact/Other

	Estimated Cumulative Thru FY20-21	21-22	22-23	23-24	24-25	25-26	Total
Labor		$0	$0	$0			$ -
Engineering		$0	$0	$0			$ -
Parts & Supplies		$0	$0	$0			$ -
Chemicals		$0	$0	$0			$ -
Utility		$0	$0	$0			$ -
Other		$0	$0	$0			$ -
							$ -
Total	$ -	$ -	$ -	$ -	$ -	$ -	$ -

3 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Critical Process Minor Onsite Flood Adaptations (30% Reclamation)**
Dept.: Treatment
5 yr. Cap Projection: $ 50,000
CY Budget $ 50,000

Contact: Treanor
Area Multiple
Asset Type: Various
Avg Useful Life: Various
Est Residual Life: Various
% Consumed Life: Various
Category: Capital Improvement
Urgency: 3 = Important
Carry Forward: No

Project Description

There are a few areas of the WWTP that may be vulnerable to inundation during a 100-year river flooding event. Although the likelihood of inundation is low and the impact short term, it would be prudent to mitigate any possible impacts of flooding on the treatment process. The areas that could be further adapted to avoid flooding inundation are:

Secondary Effluent Diversion Structure Hatches - The Secondary Effluent Diversion Structure (SED) was built by the Reclamation project and the hatch is very close to being below the 100-year flood plain and with increased flooding due to climate change could allow water to inflow into the treatment process which could lead to backups. The hatch would be water proofed to keep inflow of water into the treatment system minimized during possible 100-year flooding.

Chlorine Contact Channel Hatches - The Chlorine Contact Channel access openings are very close to being below the 100-year flood plain and with increased flooding due to climate change could allow water to inflow into the treatment process which could lead to backups. The openings would be water proofed to keep inflow of water into the treatment system during possible 100-year flooding.

Year Built: 1970s, 1980s, 2018
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: N/A
Asset Condition Rating: 2

Justification

The above vulnerabilities were identified during the development of the CAWD Sea Level Rise Study. The likelihood of failure due to flooding is low probability, however the efforts to make the above adaptations is minimal and will help mitigate possible issues during flooding.

Reclamation Share is for the work to flood proof the Secondary Effluent Diversion Structure Hatches.

Risk Management Strategy

Capital Improvement Strategy: Plant Rehabilitation/Replacement
Maintenance Strategy: Corrective Maintenance
Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary 30% Reclamation

Budget Impact/Other

	Estimated Cumulative Thru FY20-21	21-22	22-23	23-24	24-25	25-26	Total
Labor		$ 20,000					$ 20,000
Engineering							$ -
Parts & Supplies		$ 30,000					$ 30,000
Chemicals							$ -
Utility							$ -
Other							$ -
							$ -
Total	$ -	$ 50,000	$ -	$ -	$ -	$ -	$ 50,000

4 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Cathodic Protection Testing and Maintenance**
Dept.: Treatment
5 yr. Cap Projection: $ 130,000
CY Budget $ 30,000

Contact: Treanor
Area Yard Piping
Asset Type: Pipe (Process Buried)
Avg Useful Life: Over 50 years
Est Residual Life: 25 years
% Consumed Life: 50%
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Project Description

Cathodic protection is used to protect the Outfall Pipe, and Influent Piping. It is a technique used to control the corrosion of a metal surface by making it the cathode of an electrochemical cell. The District will continue to test the Cathodic protection systems as necessary to maintain knowledge of the condition of the critical underground process piping.

Year Built: 1970s, 1980s, 1990s
Rehabilitation Date (Extending life of Asset):
Rehab Life Extension:
Asset Condition Rating: Unknown

Justification

Underground process piping is difficult to assess due to the fact that it is buried and not visible. Maintaining the cathodic protection system helps to mitigate the chances of failure due to corrosion. Testing the cathodic protection system allows staff to understand how corrosion may be effecting buried infrastructure. Testing the cathodic protection system provides some information that is useful, but it doesn't provide all information needed to determine the condition of buried piping.

Risk Management Strategy

Capital Improvement Strategy:
Maintenance Strategy: Preventative Maintenance
Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Estimated Cumulative Thru FY20-21	21-22	22-23	23-24	24-25	25-26	Total
Labor				$ 20,000			$ 20,000
Engineering		$ 30,000		$ 50,000		$ -	$ 80,000
Parts & Supplies				$ 30,000			$ 30,000
Chemicals							$ -
Utility							$ -
Other							$ -
							$ -
Total	$ -	$ 30,000	$ -	$ 100,000	$ -	$ -	$ 130,000

5 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Microturbine Integration Project**
Dept.: Treatment
5 yr. Cap Projection: $ 150,000
CY Budget $ 150,000

Contact: Treanor
Area Digester Control Bldg.
Asset Type: Process Equip (Gas)
Avg Useful Life: 20 years
Est Residual Life: 5 years
% Consumed Life: 70%
Category: Maintenance
Urgency: 4 = Less Important
Carry Forward: No

Project Description

Additional Upgrades to the Microturbine system to integrate the new 65 kW turbine. Upgrades would include repairs and enhancements to the existing gas conditioning system and 30 kW microturbine exhaust. The project will also look at adding high pressure storage to maximize gas usage during gas production spikes and other ways to maximize microturbine capacity. One option being considered to maximize microturbine produciton is to add natural gas blending into the digester gas.

Year Built: 2010s
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: N/A
Asset Condition Rating: 6

Justification

Over the past year the Microturbines and Gas Conditioning System has been undergoing modifications including a new chiller sytsem and a new gas compressor. A new SCADA control program was also added recently. The system is now on its way to producing more electricity than ever before. Further work is needed to fully utilize the capacity of these turbines for electricity generation.

Risk Management Strategy

Capital Improvement Strategy: Plant Rehabilitation/Replacement
Maintenance Strategy: Corrective Maintenance
Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Estimated Cumulative Thru FY20-21	21-22	22-23	23-24	24-25	25-26	Total
Labor		$ 25,000					$ 25,000
Engineering	$ 45,000	$ 25,000					$ 25,000
Parts & Supplies		$ 100,000					$ 100,000
Chemicals							$ -
Utility							$ -
Other							$ -
							$ -
Total	$ 45,000	$ 150,000	$ -	$ -	$ -	$ -	$ 150,000

6 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Chlorine Contact Channel Pipe Gallery Pipe Coating**
Dept.: Treatment
5 yr. Cap Projection: $ 75,000
CY Budget $ 75,000

Contact: Treanor
Area Chlor/Dechlor Bldg.
Asset Type: Pipe (Process Exposed)
Avg Useful Life: Over 50 years
Est Residual Life: 40 years
% Consumed Life: 25%
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Project Description

Chlorine Contact Channel Pipe Gallery Piping is welded steel and subject to external corrosion in certain locations that are damp or subject to galvanic corrosion. This project would involve recoating of the piping to mitigate external pinhole corrosion.

Year Built: 1980s
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: N/A
Asset Condition Rating: Various

Justification

The Chlorine Contact Channel piping conveys all of the secondary treated water to the chlorination process. Failure of this piping would result in emergency repairs having to be done and potential permit violations.

Risk Management Strategy

Capital Improvement Strategy:
Maintenance Strategy: Preventative Maintenance
Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Estimated Cumulative Thru FY20-21	21-22	22-23	23-24	24-25	25-26	Total
Labor		$ 35,000					$ 35,000
Engineering							$ -
Parts & Supplies		$ 40,000					$ 40,000
Chemicals							$ -
Utility							$ -
Other							$ -
							$ -
Total	$ -	$ 75,000	$ -	$ -	$ -	$ -	$ 75,000

7 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Perimeter Fencing**
Dept.: Treatment
5 yr. Cap Projection: $ 200,000
CY Budget $ 200,000

Contact: Treanor
Area Misc. Structures
Asset Type: Structure
Avg Useful Life: 40 years
Est Residual Life: 0 years
% Consumed Life: 100%
Category: Maintenance
Urgency: 4 = Less Important
Carry Forward: No

Project Description

Fencing around the Treatment Plant facility has deteriorated and should be replaced. Replacement of fencing around Treatment Plant with 8' chain link.

Year Built: 1970s
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: N/A
Asset Condition Rating: 8

Justification

This work is necessary to maintain security of the WWTP site.

Risk Management Strategy

Capital Improvement Strategy:
Maintenance Strategy: Corrective Maintenance
Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Estimated Cumulative Thru FY20-21	21-22	22-23	23-24	24-25	25-26	Total
Labor		$ 50,000					$ 50,000
Engineering							$ -
Parts & Supplies	$ 3,000	$ 150,000					$ 150,000
Chemicals							$ -
Utility							$ -
Other							$ -
							$ -
Total	$ 3,000	$ 200,000	$ -	$ -	$ -	$ -	$ 200,000

8 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **WWTP Perimeter Tree Planting**
Dept.: Treatment
5 yr. Cap Projection: $ 210,000
CY Budget $ 60,000

Contact: Treanor
Area
Asset Type: N/A
Avg Useful Life: N/A
Est Residual Life: N/A
% Consumed Life: N/A
Category: Capital Improvement
Urgency: 4 = Less Important
Carry Forward: No

Project Description

Further planning and potential start of implementation of planting new native trees around perimeter of plant in anticipation for potential removal of eucalyptus some day.

Year Built: 1970s
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: N/A
Asset Condition Rating: N/A

Justification

The trees surrounding the treatment plant are 40 years old. There is a need to have a long term plan for these trees which could include replacement with native species over the next 20 years to provide an environmental benefit to the surrounding area. Staff currently has a maintenance schedule for trimming the existing eucalyptus which is a costly activity due to the number of trees and the height. Further study is needed to determine best course of action and some early implementation may be warranted.

Risk Management Strategy

Capital Improvement Strategy: Plant Rehabilitation/Replacement
Maintenance Strategy:
Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Estimated Cumulative Thru FY20-21	21-22	22-23	23-24	24-25	25-26	Total
Labor		$ 60,000	$ 75,000	$ 75,000			$ 210,000
Engineering							$ -
Parts & Supplies							$ -
Chemicals							$ -
Utility							$ -
Other - Consulting	$ 27,000						$ -
							$ -
Total	$ 27,000	$ 60,000	$ 75,000	$ 75,000	$ -	$ -	$ 210,000

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9 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Plant Landscaping**
Dept.: Treatment
5 yr. Cap Projection: $ 150,000
CY Budget $ -

Contact: Treanor
Area WWTP
Asset Type: Landscaping
Avg Useful Life: 40 years
Est Residual Life: 0 years
% Consumed Life: 100%
Category: Capital Improvement
Urgency: 4 = Less Important
Carry Forward: No

Project Description

The front entrance area to the Treatment Plant is not landscaped. The entrance to the WWTP could benefit from aesthtic improvements. CAWD gets many visitors who go on tours and it is desireable to provide a positive impression visually at the front of the WWTP. This would be accomplished by improving the landscaping at the front part of the plant where visitors enter.

Year Built: N/A
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: N/A
Asset Condition Rating: 8

Justification

Show pride of ownership of the WWTP and increase the positive impression to visitors of the WWTP.

Risk Management Strategy

Capital Improvement Strategy: Plant Rehabilitation/Replacement
Maintenance Strategy:
Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Estimated Cumulative Thru FY20-21	21-22	22-23	23-24	24-25	25-26	Total
Labor			$ 150,000				$ 150,000
Engineering	$20,000						$ -
Parts & Supplies							$ -
Chemicals							$ -
Utility							$ -
Other							$ -
							$ -
Total	$ 20,000	$ -	$ 150,000	$ -	$ -	$ -	$ 150,000

10 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Lunch Room MCC Replace with Panelboard (Collection 6%)**
Dept.: Treatment
5 yr. Cap Projection: $ 140,000
CY Budget $ -

Contact: Treanor
Area Misc. Structures
Asset Type: Electrical
Avg Useful Life: 25 years
Est Residual Life: 1 year
% Consumed Life: 100%
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Project Description

The Lunch Room MCC is a remnant of when this building used to be used for chlorine feed and also as a lab. Now this building is a lunch room and doesn't need 480V power. This project would replace the existing 480V MCC in the lunch room with a 120V panelboard more suitable for this building.

Year Built: 1950s
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: N/A
Asset Condition Rating: 8

Justification

The existing MCC is past its useful life and no longer appropriate as electrical equipment for this building.

Risk Management Strategy

Capital Improvement Strategy:
Maintenance Strategy: Preventative Maintenance
Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Estimated Cumulative Thru FY20-21	21-22	22-23	23-24	24-25	25-26	Total
Labor			$ 30,000				$ 30,000
Engineering			$ 20,000				$ 20,000
Parts & Supplies			$ 90,000				$ 90,000
Chemicals							$ -
Utility							$ -
Other							$ -
							$ -
Total	$ -	$ -	$ 140,000	$ -	$ -	$ -	$ 140,000

11 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Main Potable Water and Gas Main Replacement (5.5% Collections)**
Dept.: Treatment
5 yr. Cap Projection: $ 250,000
CY Budget $ -

Contact: Treanor
Area Yard Piping
Asset Type: Pipe (Misc.)
Avg Useful Life: Over 50 years
Est Residual Life: Unknown
% Consumed Life: Unknown
Category: Maintenance
Urgency: 4 = Less Important
Carry Forward: No

Project Description

The potable water and natural gas feed into the plant currently go through the existing under river encasement. The condition of these pipelines are unknown. Schedule 80 PVC piping is not to current code.

Year Built: 1980s
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: N/A
Asset Condition Rating: Unknown

Justification

The potable water and natural gas utility lines entering the plant are critical to the day to day operations at the WWTP and CAWD is budgeting to potentially install new lines.

Risk Management Strategy

Capital Improvement Strategy: Plant Rehabilitation/Replacement
Maintenance Strategy:
Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Estimated Cumulative Thru FY20-21	21-22	22-23	23-24	24-25	25-26	Total
Labor				$ 100,000			$ 100,000
Engineering			$ 100,000				$ 100,000
Parts & Supplies				$ 50,000			$ 50,000
Chemicals							$ -
Utility							$ -
Other							$ -
							$ -
Total	$ -	$ -	$ 100,000	$ 150,000	$ -	$ -	$ 250,000

12 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Replace Older Turblex Blower**
Dept.: Treatment
5 yr. Cap Projection: $ 530,000
CY Budget $ -

Contact: Treanor
Area Blower Bldg.
Asset Type: Process Equip (Gas)
Avg Useful Life: 30 years
Est Residual Life: 10 years
% Consumed Life: 66%
Category: Maintenance
Urgency: 4 = Less Important
Carry Forward: No

Project Description

Continuous air supply is a critical component for aeration processes within wastewater treatment. A reliable low pressure blower system with full redundancy is essential to provide continuous operation of the critical aeration process. This project will include evaluating installation of a smaller blower, or replacement of the Lamson blower that was installed in the 1970's.

Year Built: 1972, 1992
Rehabilitation Date (Extending life of Asset):
Rehab Life Extension:
Asset Condition Rating: 5 Moderate Deterioration

Justification

Two blowers are required to provide redundancy for the aeration process. The new turblex blower was installed in 2017 and is currently the lead blower. The old turblex blower will have been in service 25 years in 22/23 and may need to be replaced since it will be at its average useful life. If it is determined that energy savings could benefit the District during low flow periods, a smaller blower may be proposed.

Risk Management Strategy

Capital Improvement Strategy:
Maintenance Strategy: Preventative Maintenance
Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Estimated Cumulative Thru FY20-21	21-22	22-23	23-24	24-25	25-26	Total
Labor				$ 100,000			$ 100,000
Engineering							$ -
Parts & Supplies				$ 430,000			$ 430,000
Chemicals							$ -
Utility							$ -
Other							$ -
							$ -
Total	$ -	$ -	$ -	$ 530,000	$ -	$ -	$ 530,000

13 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Roofing Repairs**
Dept.: Treatment
yr. Cap Projection: $ 100,000
CY Budget $ -

Contact: Treanor
Area Various
Asset Type: Structure
Avg Useful Life: 25 years
Est Residual Life: 1 year
% Consumed Life: 40%
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Project Description

The Operations Building, Influent Building, and the Headworks control room have concrete roofs with an asphaltic built up roofing system common to commercial buildings. The asphaltic roof system can degrade over time which allows rainwater to leak onto the concrete roof which is not water tight. The concrete structure of the roof will not need to be repaired, just the water barrier on top.

Year Built: 1990
Rehabilitation Date (Extending life of Asset):
Rehab Life Extension:
Asset Condition Rating: 5 Moderate Deterioration

Justification

During the rainy season water can leak through an old asphaltic roof system resulting in potential water intrusion into buildings with equipment and personnel. Maintaining water tight roofs avoids any damage to equipment or safety issues created by pooling water indoors.

Risk Management Strategy

Capital Improvement Strategy:
Maintenance Strategy: Predictive & Preventative Maintenance
Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Estimated Cumulative Thru FY20-21	21-22	22-23	23-24	24-25	25-26	Total
Labor				$ 50,000			$ 50,000
Engineering							$ -
Parts & Supplies				$ 50,000			$ 50,000
Chemicals							$ -
Utility							$ -
Other							$ -
							$ -
Total	$ -	$ -	$ -	$ 100,000	$ -	$ -	$ 100,000

14 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Inventory Storage Containers**
Dept.: Treatment
5 yr. Cap Projection: $ 175,000
CY Budget $ -

Contact: Treanor
Area Misc. Structures
Asset Type: N/A
Avg Useful Life: 40 years
Est Residual Life: 40 years
% Consumed Life: N/A
Category: Capital Equipment
Urgency: 3 = Important
Carry Forward: No

Project Description

The operations and maintenance department requires storage onsite for inventory. Recently various storage containers have been used and located around the plant for onsite storage. This project would include improvements to existing sea container storage system for better organization of inventory and better access.

Year Built: N/A
Rehabilitation Date (Extending life of Asset):
Rehab Life Extension:
Asset Condition Rating: N/A

Justification

The sea containers that are currently used for storage of inventory are located at the back of the plant and are inefficient to use because they are located far from the rest of the maintenance and inventory storage areas. This project is intended to improve efficiency of maintenance work by centralizing inventory storage in a central sea container area. The project will include design to withstand flooding.

Risk Management Strategy

Capital Improvement Strategy: Plant Rehabilitation/Replacement
Maintenance Strategy:
Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Estimated Cumulative Thru FY20-21	21-22	22-23	23-24	24-25	25-26	Total
Labor							$ -
Engineering				$ 175,000			$ 175,000
Parts & Supplies							$ -
Chemicals							$ -
Utility							$ -
Other							$ -
							$ -
Total	$ -	$ -	$ -	$ 175,000	$ -	$ -	$ 175,000

15 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Plant Paving and Vault Lids**
Dept.: Treatment
5 yr. Cap Projection: $ 250,000
CY Budget $ -

Contact: Treanor
Area Misc. Structures
Asset Type: Various
Avg Useful Life: Various
Est Residual Life: Various
% Consumed Life: Various
Category: Maintenance
Urgency: 4 = Less Important
Carry Forward: No

Project Description

Repaving inside the treatment plant grounds. Replacement of failing vault lids in various locations.

Year Built: Various
Rehabilitation Date (Extending life of Asset):
Rehab Life Extension:
Asset Condition Rating: Various

Justification

The WWTP paved areas are used for vehicle and equipment movement around the plant, pavement needs to be maintained to provide for safe and efficient movement around the WWTP. There are numerous vault lids in paved and unpaved areas that have broken hinges and therefore are unsafe to open and close to do inspections and operations work.

Risk Management Strategy

Capital Improvement Strategy:
Maintenance Strategy: Corrective Maintenance
Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Estimated Cumulative Thru FY20-21	21-22	22-23	23-24	24-25	25-26	Total
Labor					$ 100,000		$ 100,000
Engineering				$50,000			$ 50,000
Parts & Supplies					$ 100,000		$ 100,000
Chemicals							$ -
Utility							$ -
Other							$ -
							$ -
Total	$ -	$ -	$ -	$ 50,000	$ 200,000	$ -	$ 250,000

16 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Digester No. 1 - Rehabilitation**
Dept.: Treatment
5 yr. Cap Projection: $ 910,000
CY Budget $ -

Contact: Treanor
Area Digesters
Asset Type: Process Equip (Solid)
Avg Useful Life: Over 50 years
Est Residual Life: 25 years
% Consumed Life: 40%
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Project Description

Digester #1 is one of two digesters which serve the treatment plant. This tank is essential to providing digestion process redundancy. This digester needs maintenance to the cover and the walls. After the Digester has been cleaned it will be inspected to determine the extent of interior repairs that are necessary.

Year Built: 1972
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: N/A
Asset Condition Rating: 7 Significant Deterioration

Justification

The Digester tanks are critical for stabilization of sludge before dewatering to meet Class B biosolids disposal regulations. CAWD has two functional primary digesters that are intended for long term service. The two tanks are necessary for redundancy so treatment can be maintained during maintenance of one digester. Digester 1 needs repairs to concrete walls and to the steel cover to keep this tank in good condition.

Risk Management Strategy

Capital Improvement Strategy: Plant Rehabilitation/Replacement
Maintenance Strategy: Preventative Maintenance
Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Estimated Cumulative Thru FY20-21	21-22	22-23	23-24	24-25	25-26	Total
Labor					$ 250,000		$ 250,000
Engineering				$ 150,000	$ 100,000		$ 250,000
Parts & Supplies					$ 410,000		$ 410,000
Chemicals							$ -
Utility							$ -
Other							$ -
							$ -
Total	$ -	$ -	$ -	$ 150,000	$ 760,000	$ -	$ 910,000

17 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Influent Pump Station Wet Well Repairs**
Dept.: Treatment
yr. Cap Projection: $ 150,000
CY Budget $ -

Contact: Treanor
Area Influent Building
Asset Type: Structure
Avg Useful Life: Over 50 years
Est Residual Life: 30 years
% Consumed Life: 40%
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Project Description

The influent wet well provides storage during pumping of plant influent to the Headworks. The wet well is subject to corrosive conditions which degrade concrete over time and if left unchecked the corrosion can extend into the rebar which is much more expensive to repair than the outer concrete layer.

Year Built: 1982
Rehabilitation Date (Extending life of Asset):
Rehab Life Extension:
Asset Condition Rating: 5 Moderate Deterioration

Justification

The influent wet well is a critical component of the conveyance of the raw wastewater to the treatment system. Repairing the concrete (method will likely be coating) as a preventative maintenance activity avoids degradation of reinforcing steel which would be much more costly to repair and damaging to the structural integrity. This wet well was identified in the asset management risk evaluations as being a candidate for repairs in the near term due to Consequence of Failure and Probability of Failure.

Risk Management Strategy

Capital Improvement Strategy:
Maintenance Strategy: Preventative Maintenance
Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Estimated Cumulative Thru FY20-21	21-22	22-23	23-24	24-25	25-26	Total
Labor					$ 50,000		$ 50,000
Engineering					$ 50,000		$ 50,000
Parts & Supplies					$ 50,000		$ 50,000
Chemicals							$ -
Utility							$ -
Other							$ -
							$ -
Total	$ -	$ -	$ -	$ -	$ 150,000	$ -	$ 150,000

18 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Operations Building HVAC and Plumbing Systems Repairs**
Dept.: Treatment
5 yr. Cap Projection: $ 155,000
CY Budget $ -

Contact: Treanor
Area Ops Bldg.
Asset Type: Building Mechanical
Avg Useful Life: 25 years
Est Residual Life: 5 years
% Consumed Life: 80%
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Project Description

The Operations Building provides staff work area with workstations for operators, contains a conference room that is used frequently, houses the main computer and SCADA servers for the treatment plant, and houses the main electrical switchgear. The HVAC system will need to be replaced for this building including heating and air conditioning, and the louvers in the switchgear room need to be replaced to keep salt air out of the electrical room. Also, the basement plumbing needs to be renovated.

Year Built: 1972
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: N/A
Asset Condition Rating: 7 Significant Deterioration

Justification

The Operations Building houses several critical systems of the WWTP including the main electrical switchgear and the main computer and SCADA servers. Keeping the air quality in the building cool and dry will extend the life of these expensive assets. Improving the HVAC systems in this building will improve the indoor air quality and will keep the switchgear and SCADA equipment in good condition.

Risk Management Strategy

Capital Improvement Strategy:
Maintenance Strategy: Corrective Maintenance
Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Estimated Cumulative Thru FY20-21	21-22	22-23	23-24	24-25	25-26	Total
Labor					$ 50,000		$ 50,000
Engineering					$ 15,000		$ 15,000
Parts & Supplies					$ 90,000		$ 90,000
Chemicals							$ -
Utility							$ -
Other							$ -
							$ -
Total	$ -	$ -	$ -	$ -	$ 155,000	$ -	$ 155,000

19 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Staff Office Trailer Replacements**
Dept.: Treatment
5 yr. Cap Projection: $ 250,000
CY Budget $ -

Contact: Treanor
Area Misc. Structures
Asset Type: Structure
Avg Useful Life: 25 years
Est Residual Life: 5 years
% Consumed Life: 80%
Category: Capital Equipment
Urgency: 5 = Future
Carry Forward: No

Project Description

Staff currently use four mobile trailers for office space at the WWTP. It is anticipated that in about 8 to 10 years these trailers will need to be replaced or undergo extensive repairs due to age.

Year Purchased: 1999, 2009, 2013, 2019 Note: the trailers were not purchased as "New"
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: N/A
Asset Condition Rating: 5 Moderate Deterioration

Justification

About 7 staff members at the WWTP use office trailers as their daily workspace. These trailers are critical for these staff to do their work and so they need to be maintained or replaced.

Risk Management Strategy

Capital Improvement Strategy: Plant Rehabilitation/Replacement
Maintenance Strategy: Corrective Maintenance
Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Estimated Cumulative Thru FY20-21	21-22	22-23	23-24	24-25	25-26	Total
Labor					$ 100,000		$ 100,000
Engineering					$ 50,000		$ 50,000
Parts & Supplies					$ 100,000		$ 100,000
Chemicals							$ -
Utility							$ -
Other							$ -
							$ -
Total	$ -	$ -	$ -	$ -	$ 250,000	$ -	$ 250,000

20 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Plant Bridge Retrofit Project**
Dept.: Treatment
5 yr. Cap Projection: $ 1,000,000
CY Budget $ -

Contact: Treanor
Area N/A
Asset Type: Structure
Avg Useful Life: Over 50 years
Est Residual Life: 15 years
% Consumed Life: 75%
Category: Maintenance
Urgency: 5 = Future
Carry Forward: No

Project Description

CAWD owns a pedestrian bridge over the Carmel River that continues to be a valuable asset for staff to access the North side of the river where CAWD maintains our natural gas service and also main trunk system lines. The fact that the bridge is intact after almost 90 years of service with essentially no maintenance is an indication of the quality of the construction. However, the bridge was evaluated by a structural design firm in 2011 and was found to have deficiencies during a large seismic event and vulnerable if it is hit by a large tree during an extreme flood event. If this structure could be rehabilitated it could potentially be used in the future as a pedestrian bridge for potential future coastal scenic walking trails connecting the State Park to Carmel-by-the-Sea.

Year Built: 1930s
Rehabilitation Date (Extending life of Asset):
Rehab Life Extension:
Asset Condition Rating: 7 Significant Deterioration

Justification

The bridge over the river is currently of value to the District in terms of access to assets on the North side of the river and also for access to the WWTP from the North if the plant access road is flooded. Maintaining this bridge is possible. Also, there may be value to the community in the future for coastal trails.

Risk Management Strategy

Capital Improvement Strategy:
Maintenance Strategy: Corrective Maintenance
Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Estimated Cumulative Thru FY20-21	21-22	22-23	23-24	24-25	25-26	Total
Labor						$ 350,000	$ -
Engineering					$ 200,000	$ 100,000	$ 200,000
Parts & Supplies						$ 350,000	$ -
Chemicals							$ -
Utility							$ -
Other							$ -
							$ -
Total	$ -	$ -	$ -	$ -	$ 200,000	$ 800,000	$ 1,000,000

21 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **RAS Pump/Piping Rehab**
Dept.: Treatment
5 yr. Cap Projection: $ 75,000
CY Budget $ -

Contact: Treanor
Area RAS Pump Bldg.
Asset Type: Pipe (Process Exposed)
Avg Useful Life: Various
Est Residual Life: Various
% Consumed Life: Various
Category: Maintenance
Urgency: 4 = Less Important
Carry Forward: No

Project Description

The RAS Pump and Piping in the basement of the RAS building are currently abandoned after the Phase 1 project installed two new pumps. One pump and some piping were kept in case CAWD wanted to add redundancy to the RAS Pumping system. This project would rehabilitate a small amount of piping and connect the old pump to the new MCC to serve as a backup RAS pump.

Year Built: Various
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: N/A
Asset Condition Rating: 6

Justification

RAS pumping is critical to the secondary process. A small investment in rehabilitation of the old pump would provide additional redundancy.

Risk Management Strategy

Capital Improvement Strategy: Plant Rehabilitation/Replacement
Maintenance Strategy: Corrective Maintenance
Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Estimated Cumulative Thru FY20-21	21-22	22-23	23-24	24-25	25-26	Total
Labor						$ 40,000	$ 40,000
Engineering						$ 15,000	$ 15,000
Parts & Supplies						$ 20,000	$ 20,000
Chemicals							$ -
Utility							$ -
Other							$ -
							$ -
Total	$ -	$ -	$ -	$ -	$ -	$ 75,000	$ 75,000

22 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Septage Waste Receiving Station**
Dept.: Treatment
5 yr. Cap Projection: $ 100,000
CY Budget $ -

Contact: Treanor
Area Misc. Structures
Asset Type: Various
Avg Useful Life: Various
Est Residual Life: N/A
% Consumed Life: N/A
Category: Capital Improvement
Urgency: 5 = Future
Carry Forward: No

Project Description

Construction of a new Wet Waste/Septage receiving station to be located adjacent to the new Digester. Station would be able to receive up to 10,000gal/day (2 tankers of ~ 5,000 gal size) of material and would be injected directly into the Digester to avoid increasing the biological load on the aeration system.

Year Built: N/A
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: N/A
Asset Condition Rating: N/A

Justification

Preliminary design of a septage receiving facility was conducted by Kennedy/Jenks Consultants and it was concluded that the construction of this facility would pay for itself in revenue in about 10 years. Staff feels that this service would be a good source of revenue and will benefit local septic haulers in that they wouldn't have to drive as far to dispose of the waste. Adding a septage receiving facility is not critical to the operation of the treatment plant or to improving reliability. The existing grease receiving station can be utilized for food waste but not for septage. This project can be re-evaluated every couple of years to see if there is merit or desire for CAWD to provide septage receiving.

Risk Management Strategy

Capital Improvement Strategy: N/A
Maintenance Strategy: N/A
Non Asset Strategy: N/A

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Estimated Cumulative Thru FY20-21	21-22	22-23	23-24	24-25	25-26	Total
Labor						$ 40,000	$ 40,000
Engineering						$ 15,000	$ 15,000
Parts & Supplies						$ 45,000	$ 45,000
Chemicals							$ -
Utility							$ -
Other							$ -
							$ -
Total	$ -	$ -	$ -	$ -	$ -	$ 100,000	$ 100,000

23 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Lagoon Crossing Rehabilitation**
Dept.: Treatment
5 yr. Cap Projection: $ -
CY Budget $ -

Contact: Treanor
Area Outfall
Asset Type: Various
Avg Useful Life: Various
Est Residual Life: Various
% Consumed Life: Various
Category: Maintenance
Urgency: 5 = Future
Carry Forward: No

Project Description

Potential rehabilitation of Lagoon Crossing Structure to maintain condition. Project may include driving a new set of piles in the lagoon to maintain the existing structure.

Year Built: Various
Rehabilitation Date (Extending life of Asset): 2019
Rehab Life Extension: N/A
Asset Condition Rating: 4

Justification

The Outfall Pipeline and Calle La Cruz Forcemain are in acceptable condition. Rehabilitation may be needed in the future and may include driving new piles.

Risk Management Strategy

Capital Improvement Strategy:
Maintenance Strategy: Preventative Maintenance
Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	26-27	Total
Labor	$ 200,000	$ 200,000
Engineering	$ 50,000	$ 50,000
Parts & Supplies	$ 250,000	$ 250,000
Chemicals		$ -
Utility		$ -
Other		$ -
		$ -
Total	$ 500,000	$ 500,000

24 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Ocean Outfall Rehabilitation**
Dept.: Treatment
'ap Projection: $ -
CY Budget $ -

Contact: Treanor
Area Outfall
Asset Type: Structure
Avg Useful Life: Over 50 years
Est Residual Life: 20 years
% Consumed Life: 60%
Category: Maintenance
Urgency: 5 = Future
Carry Forward: No

Project Description

The outfall pipeline was installed in the 1970s and has experienced a break only one time - in 2007. That break in the pipeline cost $647,504 to repair. The cause of the break remains unknown. Repair to the WWTP outfall in the event annual inspections reveal a defect or emergency repair as a result of storm damage. This item is being scheduled for 29/30 but the actual timeframe will depend on ongoing inspections of the outfall. Underwater inspections this past year found no defects.

Year Built: 1970
Rehabilitation Date (Extending life of Asset):
Rehab Life Extension:
Asset Condition Rating: 2

Justification

The ocean outfall is a critical asset to the NPDES permit as the diffusion in the outfall is required by the permit to meet the initial dilution requirements. The design of the outfall appears to be very good in that it is bedded on the granite shelf and the ocean-facing side is concrete encased for protection.

Risk Management Strategy

Capital Improvement Strategy:
Maintenance Strategy: Corrective Maintenance
Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	29-30	Total
Labor	$ 300,000	$ 300,000
Engineering	$ 200,000	$ 200,000
Parts & Supplies	$ 500,000	$ 500,000
Chemicals		$ -
Utility		$ -
Other		$ -
		$ -
Total	$ 1,000,000	$ 1,000,000

25 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Next Generation PLC/SCADA Upgrades Phase 1**
Dept.: Treatment
5 yr. Cap Projection: $ -
CY Budget $ -

Contact: Treanor
Area Various
Asset Type: SCADA
Avg Useful Life: 15 years
Est Residual Life: 15 years
% Consumed Life: 0%
Category: Maintenance
Urgency: 5 = Future
Carry Forward: No

Project Description

Upgrades to PLC and SCADA equipment to keep up with obsolescence of technology. Most likely PLC equipment and SCADA software currently installed will be obsolete in 15 years with newer technology providing better service.

Year Built: 1972
Rehabilitation Date (Extending life of Asset): 2019
Rehab Life Extension: 25
Asset Condition Rating: 2

Justification

SCADA software and PLC equipment are critical to the monitoring and operation of the WWTP. These assets can fail and the availability of replacement parts is a driver for replacement as technology changes.

Risk Management Strategy

Capital Improvement Strategy: Plant Rehabilitation/Replacement
Maintenance Strategy: Predictive & Preventative Maintenance
Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	33-34	Total
Labor	$ 350,000	$ 350,000
Engineering	$ 200,000	$ 200,000
Parts & Supplies	$ 450,000	$ 450,000
Chemicals		$ -
Utility		$ -
Other		$ -
		$ -
Total	$ 1,000,000	$ 1,000,000

26 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Sea Level Rise Flood Mitigation**
Dept.: Treatment
'ap Projection: $ -
CY Budget $ -

Contact: Treanor
Area WWTP
Asset Type: Various
Avg Useful Life: 50 years
Est Residual Life: Various
% Consumed Life: Various
Category: Capital Improvement
Urgency: 5 = Future
Carry Forward: No

Project Description

Some future work to mitigate impacts of climate change. CAWD completed a sea level rise study in 2018 that indicates that the treatment plant will be vulnerable to increased riverine flooding resulting from climate change. The plant has been designed to operate during floods, however if the base flood elevation increases above the current level of protection then improvements would need to be made to mitigate higher flood levels.

Year Built: 1970s - 2010s
Rehabilitation Date (Extending life of Asset):
Rehab Life Extension:
Asset Condition Rating: 2

Justification

Increased riverine flood levels onsite in future extreme sea level rise scenarios could cause NPDES permit violations.

Risk Management Strategy

Capital Improvement Strategy: Plant Rehabilitation/Replacement
Maintenance Strategy: Predictive & Preventative Maintenance
Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Unknown	Total
Labor	$	-
Engineering	$	-
Parts & Supplies	$	-
Chemicals	$	-
Utility	$	-
Other	$	-
	$	-
Total	Unknown	Unknown

27 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Misc. Yard Piping Rehab and Maintenance Projects**
Dept.: Treatment
5 yr. Cap Projection: $ -
CY Budget $ -

Contact: Treanor
Area Various
Asset Type: Pipe (Process Buried)
Avg Useful Life: Over 50 years
Est Residual Life: Various
% Consumed Life: Various
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Project Description

After inspections of select buried piping segments that have a high consequence of failure, it may be found that the buried pipeline should be rehabilitated. An allowance is estimated for rehabilitation of buried piping in the WWTP.

Buried piping with a high consequence of failure and selected for possible rehabilitation include:
#1 Water Distribution Piping, #3 Water Distribution Piping, Natural Gas Piping, Influent Piping, Secondary Clarifier #1 Effluent Piping, Piping between the Headworks and Primary Clarifiers

Year Built: Various
Rehabilitation Date (Extending life of Asset): Various
Rehab Life Extension: 30
Asset Condition Rating: 5 Moderate Deterioration

Justification

Piping level of service to carry fluids, gas or chemicals without leaks or breaks. Leaks and breaks should be proactively mitigated to avoid spills to the environment.

Failure Modes Addressed:
1. Lack of proactive failure mitigation and condition assessment of buried piping.
2. The condition of buried piping is unknown however due to the prevalent corrosion that can occur in wastewater process piping it is likely that condition issues exist in some buried piping.

Risk Management Strategy

Capital Improvement Strategy: Plant Rehabilitation/Replacement
Maintenance Strategy: Corrective Maintenance
Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	26-27	27-28	28-29	29-30	30-31	Total
Labor	$45,000	$45,000	$45,000	$45,000	$45,000	$ 225,000
Engineering						$ -
Parts & Supplies	$45,000	$45,000	$45,000	$45,000	$45,000	$ 225,000
Chemicals						$ -
Utility						$ -
Other						$ -
						$ -
Total	$ 90,000	$ 90,000	$ 90,000	$ 90,000	$ 90,000	$ 450,000

28 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Influent/Headworks/Primary Rehab and Maintenance Projects**
Dept.: Treatment
5 yr. Cap Projection: $ -
CY Budget $ -

Contact: Treanor
Area Various
Asset Type: Various
Avg Useful Life: Various
Est Residual Life: Various
% Consumed Life: Various
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Project Description

The Influent/Headwork/Primary provides removal provides influent conveyance of wastewater and removal of settleable solids. To maintain these facilities in good condition will require future investment in rehabilitation and maintenance activities. The exact work is not known at this time. The budget for this maintenance project work is a small percentage of the replacement cost of these assets as developed in the asset management work.

Year Built: Various
Rehabilitation Date (Extending life of Asset): Various
Rehab Life Extension: Various
Asset Condition Rating: Various

Justification

Exact project work is not known at this time. Investment in maintenance activities to address condition issues will keep existing infrastructure from degrading and requiring major replacement work.

Risk Management Strategy

Capital Improvement Strategy: Plant Rehabilitation/Replacement
Maintenance Strategy: Predictive & Preventative Maintenance
Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	26-27	27-28	28-29	29-30	30-31	Total
Labor	$50,000	$50,000	$50,000	$50,000	$50,000	$ 250,000
Engineering						$ -
Parts & Supplies	$50,000	$50,000	$50,000	$50,000	$50,000	$ 250,000
Chemicals						$ -
Utility						$ -
Other						$ -
						$ -
Total	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 500,000

29 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **EQ/Blowers/Aeration/Secondary Rehab and Maintenance Projects (Partial Reclamation)**
Dept.: Treatment
5 yr. Cap Projection: $ -
CY Budget $ -

Contact: Treanor
Area Various
Asset Type: Various
Avg Useful Life: Various
Est Residual Life: Various
% Consumed Life: Various
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Project Description

The Blowers/Aeration/Secondary processes provide removal of Biological Oxygen Demand and light settleable solids. To maintain these facilities in good condition will require future investment in rehabilitation and maintenance activities. The exact work is not known at this time. The budget for this maintenance project work is a small percentage of the replacement cost of these assets as developed in the asset management work.

Year Built: Various
Rehabilitation Date (Extending life of Asset): Various
Rehab Life Extension: Various
Asset Condition Rating: Various

Justification

Exact project work is not known at this time. Investment in maintenance activities to address condition issues will keep existing infrastructure from degrading and requiring major replacement work.

Reclamation share of work will be dependent on whether portion of work is for the benefit of reclamation production. The Equalization (EQ) system and the nitrification optimization systems which are in this area are associated with Reclamation.

Risk Management Strategy

Capital Improvement Strategy: Plant Rehabilitation/Replacement
Maintenance Strategy: Predictive & Preventative Maintenance
Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	26-27	27-28	28-29	29-30	30-31	Total
Labor	$100,000	$100,000	$100,000	$100,000	$100,000	$ 500,000
Engineering						$ -
Parts & Supplies	$100,000	$100,000	$100,000	$100,000	$100,000	$ 500,000
Chemicals						$ -
Utility						$ -
Other						$ -
						$ -
Total	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 1,000,000

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30 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Chlorination/Dechlorination/Effluent Rehab and Maintenance Projects (Partial Reclamation)**
Dept.: Treatment
5 yr. Cap Projection: $ -
CY Budget $ -
GL Account:

Contact: Treanor
Area Various
Asset Type: Various
Avg Useful Life: Various
Est Residual Life: Various
% Consumed Life: Various
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Project Description

The Chlorination/Dechlorination/Effluent processes provide disinfection and chlorine residual prior to the Reclamation Microfilters and provide inactivation of viruses and bacteria removal prior to discharge to the environment or to the Reclamation Project. To maintain these facilities in good condition will require future investment in rehabilitation and maintenance activities. The exact work is not known at this time. The budget for this maintenance project work is a small percentage of the replacement cost of these assets as developed in the asset management work.

Year Built: Various
Rehabilitation Date (Extending life of Asset): Various
Rehab Life Extension: Various
Asset Condition Rating: Various

Justification

Exact project work is not known at this time. Investment in maintenance activities to address condition issues will keep existing infrastructure from degrading and requiring major replacement work.

Reclamation share of work will be dependent on whether portion of work is for the benefit of reclamation production. The chlorination systems are interconnected between the Secondary Plant and Reclamation.

Risk Management Strategy

Capital Improvement Strategy: Plant Rehabilitation/Replacement
Maintenance Strategy: Predictive & Preventative Maintenance
Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	26-27	27-28	28-29	29-30	30-31	Total
Labor	$50,000	$50,000	$50,000	$50,000	$50,000	$ 250,000
Engineering						$ -
Parts & Supplies	$50,000	$50,000	$50,000	$50,000	$50,000	$ 250,000
Chemicals						$ -
Utility						$ -
Other						$ -
						$ -
Total	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 500,000

31 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **DAFT/Digestion/Dewatering Rehab and Maintenance Projects (Partial Reclamation)**
Dept.: Treatment
5 yr. Cap Projection: $ -
CY Budget $ -

Contact: Treanor
Area Various
Asset Type: Various
Avg Useful Life: Various
Est Residual Life: Various
% Consumed Life: Various
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Project Description

The DAFT/Digestion/Dewatering systems provide treatment of sludge and waste streams and removal of solids from the treatment plant. To maintain these facilities in good condition will require future investment in rehabilitation and maintenance activities. The exact work is not known at this time. The budget for this maintenance project work is a small percentage of the replacement cost of these assets as developed in the asset management work.

Year Built: Various
Rehabilitation Date (Extending life of Asset): Various
Rehab Life Extension: Various
Asset Condition Rating: Various

Justification

Exact project work is not known at this time. Investment in maintenance activities to address condition issues will keep existing infrastructure from degrading and requiring major replacement work.

Reclamation share of work will be dependent on whether portion of work is for the benefit of reclamation production. The DAFT system is used by the Reclamation Project for treatment of MF Backwash and membrane cleaning waste.

Risk Management Strategy

Capital Improvement Strategy: Plant Rehabilitation/Replacement
Maintenance Strategy: Predictive & Preventative Maintenance
Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

		26-27	27-28	28-29	29-30	30-31	Total
Labor		$50,000	$50,000	$50,000	$50,000	$50,000	$ 250,000
Engineering							$ -
Parts & Supplies		$50,000	$50,000	$50,000	$50,000	$50,000	$ 250,000
Chemicals							$ -
Utility							$ -
Other							$ -
							$ -
Total	$ -	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 500,000

32 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Coastal Hazards Monitoring Plan**
Dept.: Treatment
5 yr. Cap Projection: See O&M Budget
CY Budget See O&M Budget

Contact: Treanor
Area WWTP
Asset Type: N/A
Avg Useful Life: N/A
Est Residual Life: N/A
% Consumed Life: N/A
Category: Study
Urgency: 3 = Important
Carry Forward: No

Project Description

Pending Coastal Commission Direction - The Coastal Hazards Monitoring Plan shall establish the framework and parameters for: 1) regularly monitoring flood and other coastal hazards at the Plant and management responses, 2) identifying how those hazards are impacting and affecting the operations of the Plant, 3) identifying changes necessary to allow continued appropriate and required functioning of the Plant, 4) identifying flood/hazard "triggers" to establish when actions need to be pursued in response to specific flood/hazard events, and 5) evaluating how area and regional projects regarding flood control projects proposed in the vicinity of the WWTP will impact the plant.

Year Built: N/A
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: N/A
Asset Condition Rating: N/A

Justification

This work is being proposed by the California Coastal Commission as part of Coastal Development Permitting

Risk Management Strategy

Capital Improvement Strategy:
Maintenance Strategy:
Non Asset Strategy: Strategic Changes to Level of Service

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Estimated Cumulative Thru FY20-21	21-22	22-23	23-24	24-25	25-26	Total
Labor							$ -
Engineering		$75,000	$75,000	$75,000	$75,000	$75,000	$ 375,000
Parts & Supplies							$ -
Chemicals							$ -
Utility							$ -
Other							$ -
							$ -
Total	$ -	$ 75,000	$ 75,000	$ 75,000	$ 75,000	$ 75,000	$ 375,000

33 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Coastal Hazards Response Plan**
Dept.: Treatment
5 yr. Cap Projection: See O&M Budget
CY Budget See O&M Budget

Contact: Treanor
Area WWTP
Asset Type: N/A
Avg Useful Life: N/A
Est Residual Life: N/A
% Consumed Life: N/A
Category: Study
Urgency: 3 = Important
Carry Forward: No

Project Description

Per Coastal Commission - A response plan shall build upon the sea level rise work already completed, and the coastal hazards monitoring. This study shall compare the costs and benefits of maintaining the WWTP in its current location vs relocating the treatment facilities and look at alternatives for relocation.

Year Built: N/A
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: N/A
Asset Condition Rating: N/A

Justification

This work is being proposed by the California Coastal Commission as part of Coastal Development Permitting

Risk Management Strategy

Capital Improvement Strategy:
Maintenance Strategy:
Non Asset Strategy: Strategic Changes to Level of Service

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Estimated Cumulative Thru FY20-21	21-22	22-23	23-24	24-25	25-26	Total
Labor							$ -
Engineering		$100,000	$100,000	$100,000	$100,000	$100,000	$ 500,000
Parts & Supplies							$ -
Chemicals							$ -
Utility							$ -
Other							$ -
							$ -
Total	$ -	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 500,000

34 **FY 2019-20 Budget**
Carmel Area Wastewater District

Project Name: **Miscellaneous Technical Studies**
Dept.: Treatment
5 yr. Cap Projection: See O&M Budget
CY Budget See O&M Budget

Contact: Treanor
Area WWTP
Asset Type: N/A
Avg Useful Life: N/A
Est Residual Life: N/A
% Consumed Life: N/A
Category: Study
Urgency: 3 = Important
Carry Forward: No

Project Description

Technical studies as may be necessary to evaluate technical issues or opportunities at the WWTP.

Year Built: N/A
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: N/A
Asset Condition Rating: N/A

Justification

Being prepared for opportunities or issue mitigations by advance study/review will allow CAWD to be proactive in management and operation of the WWTP.

Risk Management Strategy

Capital Improvement Strategy:
Maintenance Strategy:
Non Asset Strategy: Strategic Changes to Level of Service

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Estimated Cumulative Thru FY20-21	21-22	22-23	23-24	24-25	25-26	Total
Labor							$ -
Engineering		$125,000	$125,000	$125,000	$125,000	$125,000	$ 625,000
Parts & Supplies							$ -
Chemicals							$ -
Utility							$ -
Other							$ -
							$ -
Total	$ -	$ 125,000	$ 125,000	$ 125,000	$ 125,000	$ 125,000	$ 625,000

CAWD Administration Dept

FY 2021/22 *thru* 2025/26

Project #	PROJECT	21/22	22/23	23/24	24/25	25/26	Unscheduled
CAPITAL PROJECTS							
1	Parking Lot Lighting	$ 22,400					
2	Access Control and Security Cameras	$ 19,291					
3	Admin Roof		$ 70,000				
4	Codification / Admnistrative Code Project	$ 25,000	$ 25,000				
5	Front Porch Settling - repairs						$ 35,000
6	Replace Administrative Office Carpeting						$ 27,000
7	Interior Painting						$ 25,000
8	Update bathrooms - new tile & paint						$ 25,000
9	Replace Administrative Office Furnaces						$ 6,500
CAPITAL PURCHASES							
a	Admin Copy Machine/Scanner/Fax					$ 10,500	
b	Server Replacement		$ 7,000				
c	General Manager's Sedan						$ 38,000
	TREATMENT & DISPOSAL TOTAL	**$ 66,691**	**$ 102,000**	**$ -**	**$ -**	**$ 10,500**	**$ 156,500**
	RECLAMATION SHARE	$ -	$ -	$ -	$ -	$ -	$ -
	PBCSD SHARE	$ -	$ -	$ -	$ -	$ -	$ -
	CAWD COST	**$ 66,691**	**$ 102,000**	**$ -**	**$ -**	**$ 10,500**	**$ 156,500**

1 **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name: Admin Parking Lot Lighting
Dept.: Admin
5 yr. Cap Projection: $ 22,400
CY Budget $ 22,400
GL Account:

Contact: Foley
Area Administration
Asset Type: N/A
Avg Useful Life: 20 years
Est Residual Life: 0
% Consumed Life: 100
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Asset Description

Replace 14 parking lot bollard lights with new LED bollards.

Year Built: 1990
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: N/A
Asset Condition Rating: 10

Justification

The existing lights are deteriorating and require replacement. LED screw in lamps have been installed but only last less than 2 years because the original design was meant for incandescent. The bollards have previously been reconditioned and glass replaced to obtain the maximum life. Staff will apply for a PG&E rebate if eligible before purchasing lights and also present the available options for review.

Asset Risk Management Strategy

Capital Improvement Risk:
Maintenance Risk Management: Corrective Maintenance
Non Asset Risk Management:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	26-27	Total
Labor		11,200						$ 11,200
Engineering								$ -
Parts & Supplies		11,200						$ 11,200
Chemicals								$ -
Utility								$ -
Other								$ -
Total	$	22,400	$ -	$ -	$ -	$ -	$ -	$ 22,400

2 **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name: Access Control and Security Cameras
Dept.: Admin
5 yr. Cap Projection: $ 19,291
CY Budget $ 19,291
GL Account:

Contact: Lather
Area Administration
Asset Type: N/A
Avg Useful Life: 10 years
Est Residual Life: 1
% Consumed Life:
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Asset Description

Network security camera for the lobby and admin parking lot. Door access controller and 3 card readers that would allow staff to control access thorugh access control cards and switch to the front door, side entrance and lobby interior door. Includes 10 year cloud recording license and 10 hardware warranty.

Year Built: N/A
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: N/A
Asset Condition Rating: 1

Justification

There currently is no security monitoring at the admin site. The current setup requires staff to physically visit the site if an alarm is triggered. The new lobby interior doors include an electronic lock so this access control system will enable control of the lock.

Asset Risk Management Strategy

Capital Improvement Risk:
Maintenance Risk Management:
Non Asset Risk Management: Strategic Changes to Level of Service

Funding Source

Primary

Secondary

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	26-27	Total
Labor		5,000						$ 5,000
Engineering								$ -
Parts & Supplies		14,291						$ 14,291
Chemicals								$ -
Utility								$ -
Other								$ -
Total	$	19,291	$ -	$ -	$ -	$ -	$ -	$ 19,291

3 **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name: Admin Roof
Dept.: Admin
5 yr. Cap Projection: $ 70,000
CY Budget $ -
GL Account:

Contact: Lather
Area Administration
Asset Type: N/A
Avg Useful Life: 30 years
Est Residual Life: 1
% Consumed Life: 95
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Asset Description

The roof at the Admin offices is composite shingle. The average lifespan of asphalt shingles ranges from 20 to 40 years.

Year Built: N/A
Rehabilitation Date (Extending life of Asset): 1990
Rehab Life Extension: N/A
Asset Condition Rating: 4

Justification

The roof will be 32 years old in 2022. While we will continue to monitor its condition, it is estimated that it will be ready for replacement in 2022.
At this time the plan is to replace with like roofing.

Asset Risk Management Strategy

Capital Improvement Risk:
Maintenance Risk Management: Predictive & Preventative Maintenance
Non Asset Risk Management:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	Unscheduled	Total
Labor				$ -			$	-
Engineering							$	-
Parts & Supplies							$	-
Chemicals							$	-
Utility							$	-
Other			70,000				$	70,000
Total	$ -	$ -	$ 70,000	$ -	$ -	$ -	$ -	$ 70,000

4 **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name: Codification / Administrative Code
Dept.: Admin
5 yr. Cap Projection: $ 50,000
CY Budget $ 25,000
GL Account:

Contact: Barringer
Area Administration
Asset Type: N/A
Avg Useful Life: 50 years
Est Residual Life:
% Consumed Life:
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Asset Description

Currently the majority of District administrative policies are held in individual Resolutions and Ordinances. There is no consolidated "Administrative Code" manual.

Year Built: N/A
Rehabilitation Date (Extending life of Asset): 1990
Rehab Life Extension: N/A
Asset Condition Rating: 4

Justification

This project will consolidate all District policies into one document or Administrative Code. It will make it easier and clearer for staff and any outside agency or member of the public to examine District policies in one location.

Asset Risk Management Strategy

Capital Improvement Risk:
Maintenance Risk Management:
Non Asset Risk Management: Regulatory Project

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	Unscheduled	Total
Labor							$	-
Engineering							$	-
Parts & Supplies							$	-
Chemicals							$	-
Utility							$	-
Other		$ 25,000	$ 25,000				$	50,000
Total		$ 25,000	$ 25,000	$ -	$ -	$ -	$ -	$ 50,000

5 **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name: Front Porch Settling - repairs
Dept.: Admin
5 yr. Cap Projection: $ 35,000
CY Budget $ -
GL Account:

Contact: Lather
Area Administration
Asset Type: N/A
Avg Useful Life: 50 years
Est Residual Life:
% Consumed Life:
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Asset Description

The concrete front porch to the Admin Building has settled approximately 1-2 inches since it was initially poured in 1990. Settlement is likely due to improper/non existant footings/foundations under the steps.

Year Built: N/A
Rehabilitation Date (Extending life of Asset): 1990
Rehab Life Extension: N/A
Asset Condition Rating: 4

Justification

The options to solve this problem include: (1) Rip out and build new, (2) Dig underneath and jack it up a bit above where it belongs, pour a new footer below, and then set it back down, and (2) Leave it as is and build something new over the top of it that makes it "disappear". Mudjacking, also referred to as slabjacking, concrete raising or pressure grouting, is the process of raising concrete slabs by hydraulically pumping a grout mixture mixed with cement under the concrete slab. This procedure may provide a solution to the settling experienced on the building front porch. The District will invite contractors experienced in these techniques to the site for analysis of which method will provide the best results.

Asset Risk Management Strategy

Capital Improvement Risk:
Maintenance Risk Management: Predictive & Preventative Maintenance
Non Asset Risk Management:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	Unscheduled	Total
Labor								$ -
Engineering								$ -
Parts & Supplies								$ -
Chemicals								$ -
Utility								$ -
Other							35,000	$ 35,000
Total		$ -	$ -	$ -	$ -	$ -	$ 35,000	$ 35,000

6 **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name: Replace Administrative Office Carpeting
Dept.: Admin
5 yr. Cap Projection: $ 27,000
CY Budget $ -
GL Account:

Contact: Lather
Area Administration
Asset Type: Administration
Avg Useful Life: 20 years
Est Residual Life: 0
% Consumed Life: 100
Category: Maintenance
Urgency: 5 = Future
Carry Forward: No

Asset Description

It is anticipated that the Administration office building carpeting, which has never been replaced, will need to be replaced within the next 5 years. 500 square yards at $45/yd. To prolong the carpet life, staff proposes to include a maintenance item to professionally clean the carpets every six months. The proposed carpet replacement will remain an unscheduled expense and be re-evaluated each year.

Year Built: 1990
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: N/A
Asset Condition Rating: 5 Moderate Deterioration

Justification

The carpeting has been cleaned many times over the years but is showing its age. General recommendation for commercial carpeting is ten year lifespan.

Asset Risk Management Strategy

Capital Improvement Risk:
Maintenance Risk Management: Predictive & Preventative Maintenance
Non Asset Risk Management:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	Unscheduled	Total
Labor								$ -
Engineering								$ -
Parts & Supplies								$ -
Chemicals								$ -
Utility								$ -
Other							27,000	$ 27,000
Total	$ -	$ -	$ -	$ -	$ -	$ -	$ 27,000	$ 27,000

7 **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name: Interior Painting
Dept.: Admin
5 yr. Cap Projection: $ 25,000
CY Budget -
GL Account:

Contact: Lather
Area Administration
Asset Type: N/A
Avg Useful Life: 20 years
Est Residual Life: 0
% Consumed Life: 100
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Asset Description

The District has not had the interior building walls painted since 1990. There has been some "touch up" work over the years, but we've reached the point where there are repairs that need to be done (i.e. cracks, separation at corners, chipping, etc.) and then the entire office repainted. Base boards in the main hallway were painted in 2016 as part of floor tile project. We would like to keep the "teal" wallpaper in entry and boardroom intact.

Year Built: 1990
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: N/A
Asset Condition Rating: 5 Moderate Deterioration

Justification

Normal wear and tear on the building over past 30 years - it is generally recommended in trade to repaint interior every 5-7 years

Asset Risk Management Strategy

Capital Improvement Risk:
Maintenance Risk Management: Preventative Maintenance
Non Asset Risk Management:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	Unscheduled	Total
Labor								$ -
Engineering								$ -
Parts & Supplies								$ -
Chemicals								$ -
Utility								$ -
Other							25,000	$ 25,000
Total	$ -	$ -	$ -	$ -	$ -	$ -	$ 25,000	$ 25,000

8 **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name: Update bathrooms - new tile & paint
Dept.: Admin
5 yr. Cap Projection: $ 25,000
CY Budget $ -
GL Account:

Contact: Lather
Area Administration
Asset Type: N/A
Avg Useful Life: 10 years
Est Residual Life: 0
% Consumed Life: 100
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Asset Description

The bathrooms in the Admin Offices were tiled and painted in 1990 when the building was completed. After 28 years it is time to update the paint and tile.

Year Built: N/A
Rehabilitation Date (Extending life of Asset): 2009
Rehab Life Extension: N/A
Asset Condition Rating: 4

Justification

Bathrooms appear dated - when interior walls are painted, the restroom should also be done. Tile should extend up walls for splash purposes.

Note: There is some tile remaining from main Admin lobby area that may be useable for the bathrooms.

Asset Risk Management Strategy

Capital Improvement Risk:
Maintenance Risk Management: Predictive & Preventative Maintenance
Non Asset Risk Management:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	Unscheduled	Total
Labor								$ -
Engineering								$ -
Parts & Supplies								$ -
Chemicals								$ -
Utility								$ -
Other							25,000	$ 25,000
Total	$ -	$ -	$ -	$ -	$ -	$ -	$ 25,000	$ 25,000

9 **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name: Replace Administrative Office Furnaces
Dept.: Admin
5 yr. Cap Projection: $ 6,500
CY Budget $ -
GL Account:

Contact: Lather
Area Administration
Asset Type: N/A
Avg Useful Life: 10 years
Est Residual Life:
% Consumed Life:
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Asset Description

It is anticipated that the Administrative Office building furnaces will need to be replaced at some future date. There are a total of three furnaces in the building. We have had intermittent repairs to the system and replaced one unit in Jan 2009.

Year Built: N/A
Rehabilitation Date (Extending life of Asset): 1990
Rehab Life Extension: N/A
Asset Condition Rating: 4

Justification

Because the furnaces are relatively easy to repair/replace we will continue to handle these on a run-to-fail basis.

Asset Risk Management Strategy

Capital Improvement Risk:
Maintenance Risk Management: Predictive & Preventative Maintenance
Non Asset Risk Management:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	Unscheduled	Total
Labor								$ -
Engineering								$ -
Parts & Supplies								$ -
Chemicals								$ -
Utility								$ -
Other							6,500	$ 6,500
Total	$ -	$ -	$ -	$ -	$ -	$ -	$ 6,500	$ 6,500

a **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name: Admin Copy Machine/Scanner/Fax
Dept.: Admin
5 yr. Cap Projection: $ 10,500
CY Budget $ -
GL Account:

Contact: Buikema
Area Administration
Asset Type: Office Equip
Avg Useful Life: 10 years
Est Residual Life: 0
% Consumed Life: 100
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Asset Description

The current machine was purchased in 2019 for $7,865. The technician advises that the typical lifespan is 5-7 years. Budget assumes a 4% increase per year from 2019 or a 26-30% cost increase in total and the inclusion of a pedestal with additional paper drawers to accommodate regular, legal, and ledger paper.

Year Built: N/A
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: N/A
Asset Condition Rating: 3 Minor Defects Only

Justification

The Admin copy machine receives considerable use every working day and is a critical piece of office equipment. While technology will certainly continue to change, based on current average usage we are planning for its replacement with an equivalent machine. This machine carries the largest load of copy and print volume for the District and is the conduit between copy/scan/fax/email of documents in Admin. The usage on this machine is heavy due to printing of board packets and other admin material. Staff must have the ability to print/scan/fax from the Admin Office to ensure continued work flow without interruption.

Asset Risk Management Strategy

Capital Improvement Risk:
Maintenance Risk Management: Predictive & Preventative Maintenance
Non Asset Risk Management:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	Unscheduled	Total
Labor							$	-
Engineering							$	-
Parts & Supplies							$	-
Chemicals							$	-
Utility							$	-
Other						10,500	$	10,500
Total		$ -	$ -	$ -	$ -	$ 10,500	$ -	$ 10,500

b **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name: Server Replacement
Dept.: Admin
5 yr. Cap Projection: $ 7,000
CY Budget $ -
GL Account:

Contact: Lather
Area Administration
Asset Type: N/A
Avg Useful Life: 5 years
Est Residual Life: 4 years
% Consumed Life: 20%
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Asset Description

Dell Optiplex server located in Admin was installed in 2017. It functions as the email server and data server for Admin offices.

Year Built: N/A
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: N/A
Asset Condition Rating: 4

Justification

This server was replaced in 2017. We replace servers on a rotating five year basis to ensure reliability and ability to keep up with technology. The older servers become, the less value they produce on the efficiency level. Stretching out the lifespan would mean an increase in business risk as we rely on hardware that is unsupported or that cannot be fixed in a timely manner. There is also a greater chance of losing sensitive data or that the Admin Office ends up offline for an extended period. Because Admin employees spend at least 6 hrs/day on a computer reliability is critical.

Asset Risk Management Strategy

Capital Improvement Risk: Plan Rehabilitation/Replacement
Maintenance Risk Management: Predictive & Preventative Maintenance
Non Asset Risk Management:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	Unscheduled	Total
Labor							$	-
Engineering							$	-
Parts & Supplies							$	-
Chemicals							$	-
Utility							$	-
Other			7,000				$	7,000
Total	$ -	$ -	$ 7,000	$ -	$ -	$ -	$ -	$ 7,000

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c **FY 2021-22 Budget**
Carmel Area Wastewater District

Project Name: General Manager's Sedan
Dept.: Admin
5 yr. Cap Projection: $ 38,000
CY Budget $ -
GL Account:

Contact: Lather
Area Administration
Asset Type: N/A
Avg Useful Life: 10 years
Est Residual Life: 8 yrs
% Consumed Life: 20%
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

Asset Description

The current vehicle (Hyundai Santa Fe) was purchased in 2016 and has 13,428 miles on the odometer. We estimate this car will last over 100,000 miles. Replacement is estimated after 10+ years.

Year Built: N/A
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: N/A
Asset Condition Rating: 4

Justification

This vehicle is used by all staff for daily business meetings, conferences, and training. While it is predominately used by Administration staff, it is available to plant staff or the Board for travel to conferences/training. The ability to handle up to four large adults comfortably makes this vehicle quite useful.

Asset Risk Management Strategy

Capital Improvement Risk: Plan Rehabilitation/Replacement
Maintenance Risk Management: Predictive & Preventative Maintenance
Non Asset Risk Management:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Prior Yr.	21-22	22-23	23-24	24-25	25-26	Unscheduled	Total
Labor								$ -
Engineering								$ -
Parts & Supplies							38,000	$ 38,000
Chemicals								$ -
Utility								$ -
Other								$ -
Total	$ -	$ -	$ -	$ -	$ -	$ -	$ 38,000	$ 38,000