



Carmel Area Wastewater District Budget – Volume 2 2020-21

Prepared and Submitted

By

The Budget Committee

June 25, 2020

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Carmel Area Wastewater District

2020-21

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Principal Accountant
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Mission Statement

Carmel Area Wastewater District is a special district dedicated to protecting the public Health and the environment by the cost-effective collection and treatment of wastewater and the return of clean water to the environment.



Carmel Area Wastewater District 2020-21

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Capital Budget Message

2020-21 Capital Budget



Capital Projects/Maintenance Budget & Long-Range Plan

After many years of budgeting only five years into the future the District decided to take a longer view. In hindsight, the long view seems like the only way to manage the major infrastructure costs that we face in wastewater. The District established its long range, 15-year plan, at the Treatment Plant facilities beginning in 2012. In 2018 we began the same type of long-range planning for the Collection System. Each year we analyze and look at all infrastructure and projects, prioritize and re-prioritize until we come up with our 15-year plan. This sequence of fully examining infrastructure assets forms the foundation of our long-term planning efforts.

The District retained Kennedy/Jenks Consultants in March 2012 to perform a condition survey of the assets at the treatment plant and to develop an asset database to document and analyze the asset condition data. Based on those findings the District embarked on a program to improve the management of the wastewater treatment plant. Engineering, Operations, and Management staff have all committed to maintaining and extending the original 15-

year plan to ensure we are keeping pace with replacement needs.

In 2018 the District completed the same asset management process for the Collection system by engaging West Yost Associates to



review and prioritize the asset condition of all pump stations and infrastructure underground. We received the report from West Yost and translated it into a 15-year budget. We believe that we have approximately \$40M in collection system rehabilitation in front of us and are using the findings to best schedule it for the future.

A few of the main projects we have moving forward are as follows:

Collection Department

Hatton Canyon Sewer Line Rehabilitation (\$1.45M): State Parks owns the land in Hatton Canyon and the District holds an easement for sewer. The District's infrastructure is underwater during winter storms and our risk of a sanitary sewer spill has greatly increased because of the roadway failure. The sewer line that flow through Hatton canyon are approximately 60 years old and are made of Vitrified Clay Pipe (VCP). The pipe size is 8 inch and is almost a mile in length

that starts north of the Carmel High in the canyon and flows to Carmel Valley Road. We applied for and anticipate receiving a \$1M grant from the Federal Emergency Management Agency (FEMA)/Office of Emergency Services (OES).

Upper Rancho Canada Pipe Relocation (\$1.76M): This project will relocate an existing sewer trunk line that serves the eastern portion of the District and is located within the Regional Park at Rancho Canada. The trunk line varies in size from 12” to 8” and is Truss pipe material that was installed in the early 1970’s.

Rio Road Cure in Place Pipe Lining Project (\$1.34M): Portions of this line were identified in the Asset Management Plan performed by West Yost Associates as having severe defects. Because the project is downstream of the proposed Rancho Canada Subdivision and the upper Rancho Canada Golf Course pipeline relocation project, we would like to complete the project prior to the upstream improvements. Lining requires no environmental permit and minimal design.



Treatment Plant

WWTP Elec/Mech Rehab & Sludge Holding Tank (\$2.93M): this project is a multi-area project at the plant aimed at addressing risk of failure in various areas that involves replacing aged equipment electrical and mechanical work in existing buildings. The project was developed to mitigate risk of failure based on the original Kennedy/Jenks asset management risk assessment. The project focuses on electrical systems that are well past their useful life and are critical to operation. The current sludge holding tank was built in the 1930s and is also past its useful life.

Standby Power Reliability Project (\$450K): the existing 450kW generator has controls which are obsolete and can no longer be maintained. To improve reliability the District would like to

decommission the 450kW generator and run the plant entirely off the existing 750kW generator. To improve fault tolerance a trailer mounted 750kW generator would be purchased in this project to serve as a fully redundant backup to the existing 750kW generator.

Aeration Basin Improvements (\$87K): Replacement of blown off diffuser membranes and unplugging of diffusers in Aeration Basin 4.

Microturbine Integration Project (\$510K): additional upgrades to the microturbine system to integrate the new 65kW turbine.

Carmel River Floodplain Restoration and Environmental Enhancement Project (CRFREE): The District will underground its outfall line and force main as a mitigation measure for CRFREE. The increased velocity flows and added debris coming downstream have the potential to harm our infrastructure.

Renewal & Replacement (R&R) – Long Range Plan within the Operating Budget
The average annual maintenance and repairs



budget projected for the Secondary Treatment Plant over 15 years is estimated

to be in the range of \$900,000 per year. This estimate includes asset materials, installation costs, construction markups, contingency, and engineering costs. We estimate that the amount of average annual maintenance and repairs budget for the Collection System should be in the range of \$800,000 per year. We view the annual renewal and replacement efforts as equally significant as the capital projects on the drawing board. The efforts to maintain and improve the plant require that both efforts proceed simultaneously.

Total Replacement Cost vs. CIP/Maintenance Budget

On a percentage basis, the 15-year average annual investment in capital improvement projects is estimated to range between 2% and 4% annually of the total estimated replacement cost of the Secondary Treatment Plant. The corresponding maintenance budget is estimated to equate between 0.60% to 1.4% of the total estimated replacement cost of the Secondary Treatment Plant. We believe those percentages are reasonable. An annual renewal budget of 3% assumes that the assets are renewed at a rate of once every 33 years; 4% assumes a renewal rate of once every 25 years. The average of all assets average useful life list in the Kennedy/Jenks plan database is about 38 years.

The sewer pipeline inventory likely has a longer average useful life – but our initial focus was on the treatment facility, so we are now turning towards Collections. At first blush it may seem that we are behind; but again, it was a strategic decision to focus on treatment first.

It is likely that we will need to strategize and prioritize projects to stretch our financial resources as much as possible. We believe that our current strategy of pay-as-you-go remains viable for the long term if we schedule projects and rehabilitation efforts tightly. A basic cash flow

analysis shows us that it is possible – what that analysis doesn't account for is the unanticipated. Clearly those unanticipated events do happen, we know that. We also know that we are facing a significant challenge ahead in dealing with the impacts of sea level rise.

Fundamental Service Goals for our Facility

The mission of CAWD is to safely, reliably, and cost-effectively treat wastewater to meet regulatory compliance and return this treated wastewater back to the environment. The fundamental and strategic levels of services are the guiding principles for what the treatment plant should be set to accomplish. If assets are not serving to meet these levels of service then they should be rehabilitated, replaced, phased out of operation, or removed from service. The fundamental levels of service that speak to our mission include:

- To be compliant with all current regulatory waste discharge permits and to be positioned to comply with probably future regulations.
- To be cost effective in operating and maintaining the District's facilities.
- To invest in safety practices to eliminate personal injuries or environmental hazards from occurring at District facilities.
- To apply fail safe systems and redundancy to maintain reliability.
- To provide secondary treated wastewater to the Reclamation Project tertiary microfiltration/reverse-osmosis plant.
- To plan for and appropriately handle severe flooding events which can occur at the treatment plant.



CAWD pipe crossing under Carmel River

Budget Summary

Carmel Area Wastewater District
Budget Summary
2020-21

Description	2018-19			Estimated thru 01-31-20			Proposed 2020-21 Budget	% Chg. Prior Yr. Actual	Projected 2021-22 Budget	% Chg. Prior Yr. Budget
	Actual	Budget	% of Budget	Actual	Budget	% of Budget				
Beginning Fund Balance	26,326,207	26,326,207		32,398,289	32,398,289		34,527,275	106.57%	30,911,398	-10.47%
Operating Revenues	10,099,370	9,279,993	108.83%	9,071,435	9,887,417	91.75%	10,222,956	112.69%	10,665,290	4.33%
	10,099,370	9,279,993	108.83%	9,071,435	9,887,417	91.75%	10,222,956	112.69%	10,665,290	4.33%
Op Expend. (less deprec.)										
Treatment	2,447,451	2,768,559	88.40%	3,008,006	2,855,757	105.33%	3,182,836	105.81%	3,447,229	8.31%
Maintenance - Plant	1,158,545	1,691,895	68.48%	1,334,827	1,876,166	71.15%	1,861,996	139.49%	1,914,015	2.79%
Maintenance - Field	47,998	100,625	47.70%	0	0	∞	0	∞	0	∞
Administration	996,166	1,572,510	63.35%	1,261,760	1,686,164	74.83%	1,306,814	103.57%	1,463,995	12.03%
Collection	998,209	1,237,424	80.67%	1,335,062	1,705,960	78.26%	1,439,868	107.85%	1,729,543	20.12%
Reclamation Project	560,639	457,133	122.64%	606,510	471,938	128.51%	541,645	89.31%	560,413	3.47%
Waste to Energy	7,775	0	∞	28,153	9,108	309.10%	23,583	83.77%	25,290	7.24%
Brine Disposal	4,624	0	∞	6,138	7,910	77.60%	7,884	128.45%	7,385	-6.33%
Total Operating Exp	6,221,406	7,828,146	79.47%	7,580,456	8,613,003	88.01%	8,364,625	110.34%	9,147,870	9.36%
Operating Gain/(Loss) (exclusive of depreciation)	3,877,963	1,451,847	267.11%	1,490,979	1,274,414	116.99%	1,858,331	124.64%	1,517,420	-18.35%
Depreciation Expense	2,489,149	2,669,000	93.26%	2,669,000	2,669,000	100.00%	2,669,000	100.00%	2,669,000	0.00%
Amortization Expense	0	4,860	0.00%	4,860	4,860	100.00%	4,860	100.00%	4,860	0.00%
Operating Gain/(Loss)	1,388,814	(1,222,013)	-113.65%	(1,182,881)	(1,399,446)	84.52%	(815,529)	68.94%	(1,156,440)	41.80%
Non Operating Revenues	3,989,136	3,701,631	107.77%	2,627,330	3,341,282	78.63%	3,846,892	146.42%	5,208,195	35.39%
Non Operating Expend.	212,310	213,762	99.32%	211,000	215,625	97.86%	223,689	106.01%	219,632	-1.81%
Net Income/(Loss)	5,165,640	2,265,856	227.98%	1,233,450	1,726,211	71.45%	2,807,674	227.63%	3,832,123	36.49%
Capital Budget										
Equipment Purchases										

**Carmel Area Wastewater District
Budget Summary
2020-21**

Description	2018-19			Estimated thru 01-31-20			Proposed 2020-21 Budget	% Chg. Prior Yr. Actual	Projected 2021-22 Budget	% Chg. Prior Yr. Budget
	Actual	Budget	% of Budget	Actual	Budget	% of Budget				
Administration	16,735	0	∞	0	14,000	0.00%	0	∞	0	∞
Maintenance	0	200,000	0.00%	0	0	∞	18,500	∞	0	-100.00%
Collections	12,554	0	∞	554,098	410,000	135.15%	160,000	28.88%	120,000	-25.00%
Treatment	75,820	33,000	229.76%	40,561	17,800	227.87%	116,466	287.14%	176,500	51.55%
Capital Improvement Projects										
Administration	0	0	∞	0	0	∞	75,000	∞	0	∞
Maintenance	0	0	∞	0	0	∞	0	∞	0	∞
Collections	147,626	2,210,000	6.68%	521,057	3,725,000	13.99%	5,035,445	966.39%	2,340,000	-53.53%
Treatment	195,113	164,001	118.97%	4,370	305,396	1.43%	25,000	572.08%	25,000	0.00%
Treatment Long Term Capita	1,153,763	4,265,331	27.05%	658,238	2,695,000	24.42%	3,667,000	557.09%	7,424,000	102.45%
Total Capital Budget	1,601,611	6,872,332	23.31%	1,778,324	7,167,196	24.81%	9,097,411	511.57%	10,085,500	10.86%
Ending Fund Balance	32,379,385	24,393,591	132.74%	34,527,275	29,631,164	116.52%	30,911,398	89.53%	27,331,881	-11.58%

Capital Budget Summary

2020-21

Carmel Area Wastewater District
Capital Budget Summary 2020-21

ITEM	ALLOCATION						Totals
	Admin	Maintenance	Collection	Treatment	PBCSD	Reclamation	
1 CIP Projects for Administration	0						0
2 CIP Maintenance - Plant		0					0
3 CIP Projects for Collection System			5,035,445				5,035,445
4 CIP Projects for Treatment & Disposal				16,675	8,325		25,000
5 CIP Long Term Capital Plan for Treatment & Disposal				2,357,578	1,177,022	132,400	3,667,000
Total CIP	0	0	5,035,445	2,374,253	1,185,347	132,400	8,727,445
1 Capital Equipment - Administration	0						0
2 Capital Equipment - Maintenance		18,500					18,500
3 Capital Equipment - Collections			160,000				160,000
4 Capital Equipment - Treatment				57,184	28,549	30,733	116,466
Total Capital Outlay	0	18,500	160,000	57,184	28,549	30,733	294,966
Grant Funding			(983,029)	(500,000)	(250,000)		(1,733,029)
Total CIP & Capital Outlay 19-20	0	18,500	4,212,416	1,931,437	963,896	163,133	7,289,382

Capital Budget Summary

2021-22

Carmel Area Wastewater District
Capital Budget Summary 2021-22

ITEM	ALLOCATION						Totals
	Admin	Maintenance	Collection	Treatment	PBCSD	Reclamation	
1 CIP Projects for Administration	0						0
2 CIP Maintenance - Plant		0					0
3 CIP Projects for Collection System			2,340,000				2,340,000
4 CIP Projects for Treatment & Disposal				16,675	8,325		25,000
5 CIP Long Term Capital Plan for Treatment & Disposal				4,772,385	2,382,615	269,000	7,424,000
Total CIP	0	0	2,340,000	4,789,060	2,390,940	269,000	9,789,000
1 Capital Equipment - Administration	0						0
2 Capital Equipment - Maintenance		0					0
3 Capital Equipment - Collections			120,000				120,000
4 Capital Equipment - Treatment				18,843	9,407	148,250	176,500
Total Capital Outlay	0	0	120,000	18,843	9,407	148,250	296,500
Grant Funding				(3,068,200)	(1,531,800)		(4,600,000)
Total CIP & Capital Outlay 20-21	0	0	2,460,000	1,739,703	868,547	417,250	5,485,500

Maintenance Dept.
Equipment

1 FY 2020-21 Budget
Carmel Area Wastewater District

Project Name: Food Waste Receiving Pump
 Dept: Food Waste Receiving Pump
 Total Cost: \$ 18,500
 CY Budget \$ 18,500
 GL Account: .8 Grease

Contact: Foley
 Area: Misc Structures
 Asset Type: Process Equip (Liquid)
 Avg Useful Life: 20 years
 Est Residual Life 1 year
 % Consumed Lif 0
 Category: Capital Equipment
 Urgency: 3 = Important
 Carry Forward: No

Asset Description

New two horsepower positive displacement pump that will be installed at the food waste receiving facility.

Year Built: 2020
 Rehabilitation Date (Extending life of Asset): NA
 Rehab Life Extension: NA
 Asset Condition Rating: NA

Justification

This equipment would be installed at the food waste receiving facility. The style of pump is a double disc positive displacement pump. The pump will have thermal protection and be glass lined to better protect the pump from nails, rocks and other debris that may be in the pumping trucks. There is no up front cost to try the pump so the purchase will only be completed if the pump is proven to be a good solution. The existing progressive cavity pump has failed twice in one year and cost \$5000 in labor and parts to rebuild for each failure. Food waste is then diverted to the head of the plant until the pump can be repaired. This negatively impacts the plant biological process and increases the energy consumption of the aeration basins. The long term goal is to have a reliable food waste receiving facility that will feed the digester so that more methane gas is produced that can be used in the microturbines to make energy and heat. This pump will help us move closer to this goal.

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 Capital Budget 100% Secondary Capital Budget

Budget Impact/Other

	Prior Yr	19-20	20-21	21-22	22-23	23-24	24-25	Total
Labor							\$	-
Engineering							\$	-
Parts & Supplies accessories		\$ 1,000					\$	1,000
Chemicals							\$	-
Utility							\$	-
Other Vehicle cost		\$ 17,500					\$	17,500
Total		\$ 18,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 18,500

Project #	PROJECT	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	Unscheduled	Total
1	Carmel Meadows Pipeline (Carry Over)	\$185,445	\$1,000,000											\$1,185,445
2	Hatton Canyon Pipeline Pipe Bursting	\$1,450,000												\$1,450,000
3	Upper Rancho Canada Pipe Relocation	\$1,760,000												\$1,760,000
4	Bay/Scenic PS Rehabilitation	\$100,000	\$150,000	\$350,000										\$600,000
5	Scenic Pipe Bursting - Ocean to Bay	\$200,000	\$600,000	\$600,000										\$1,400,000
6	Pescadero Creek Area Pipe Rehab		\$250,000	\$1,250,000										\$1,500,000
7	Electrical Upgrades at Hacienda Pump Station		\$140,000											\$140,000
8	Monte Verde PS and Sewers- South of Santa Lucia			\$250,000	\$1,500,000	\$500,000								\$2,250,000
9	11th- Junipero to Rio Road				\$250,000	\$1,500,000								\$1,750,000
10	Carmel Woods Sewer Rehabilitation					\$400,000	\$2,300,000							\$2,700,000
11	Calle La Cruz PS Relocation/Rehab					\$150,000	\$150,000	\$800,000						\$1,100,000
12	Mission & San Carlos -Ocean to 2nd						\$150,000	\$1,008,000						\$1,158,000
13	Dolores Stereet Pipe Bursting 4th to 10th							\$150,000	\$864,000					\$1,014,000
14	Hacienda PS area sewer upsizing							\$200,000	\$1,000,000	\$1,808,000				\$3,008,000
15	Lincoln Street Pipe Bursting 4th to 10th								\$150,000		\$864,000			\$1,014,000
16	Santa Rita and Guadalupe-Pipe bursting Ocean to Serra									\$250,000	\$1,728,000			\$1,978,000
17	Camino Real-between 4th & Walker Avenue									\$150,000	\$100,000	\$1,555,200		\$1,805,200
18	Manhole Rehabilitation				\$270,000			\$270,000						\$540,000
19	Point Repairs @ various locations								\$400,000	\$200,000		\$500,000		\$1,100,000
20	Upsize Rancho Canada Subdivision Trunkline												\$410,000	\$410,000
21	Rio Road Bioswale- Pipeline Replacement												\$800,000	\$800,000
22	Dewatering Pit at Treatment Plant (30% Treatment)												\$70,000	\$70,000
23	Highlands Line Cleaning		\$200,000											
24	Manhole Condition Assessment			\$200,000										
25	Rio Road CIPP Lining Project (Carry over)	\$1,340,000												
	Collections TOTAL	\$5,035,445	\$2,340,000	\$2,650,000	\$2,020,000	\$2,550,000	\$2,600,000	\$2,428,000	\$2,414,000	\$2,408,000	\$2,692,000	\$2,055,200	\$1,280,000	\$30,472,645
	FEMA Grant Funding	\$983,029	\$0	\$0	\$0	\$0							\$0	\$983,029
	PBCSD Share	\$0											\$0	
	CAWD COST	\$4,052,416	\$2,340,000	\$2,650,000	\$2,020,000	\$2,550,000	\$2,600,000	\$2,428,000	\$2,414,000	\$2,408,000	\$2,692,000	\$2,055,200	\$1,280,000	\$29,489,616

Collections Dept.
Capital Improvement Projects

1 FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Lather
Area Collections Force
Asset Type: N/A
Avg Useful Life: 40 years
Est Residual Life: 5 years
% Consumed Life: 98%
Category: Capital Improvement
Urgency: 1 = Critical
Carry Forward: yes

Project Name: Carmel Meadows Pipeline (Carry Over)
Project Number: 19-03
Dept.: Collections
10 yr. Cap Projection: \$ 1,185,445
CY Budget \$ 185,445
GL Account:

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: 1960's
Rehabilitation Date (Extending life of Asset): 2021-22
Rehab Life Extension: 60
Asset Condition Rating: PACP =5

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 Management: Predictive & Preventative Maintenance
Non Asset Risk Management:

Funding Source

Primary Capital Reserves Secondary

Budget Impact/Other

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total
Labor			1000000					\$ 1,000,000
Engineering & Environmental	\$ 100,000	\$ 185,445						\$ 285,445
Parts & Supplies								\$ -
Chemicals								\$ -
Utility								\$ -
Other								\$ -
Total		\$ 185,445	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ 1,285,445

2 FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Lather
 Area Sewer Lines
 Asset Type: Collections Gravity
 Avg Useful Life: 40 years
 Est Residual Life: 1 year
 % Consumed Life: 98%
 Category: Capital Improvement
 Urgency: 1 = Critical
 Carry Forward: No

Project Name: Hatton Canyon Pipeline Pipe Bursting
 Project Number: 18-17
 Dept.: Collections
 5 yr. Cap Projection: \$ 682,019
 CY Budget \$ 466,971
 GL Account:

Asset Description

Eight inch diameter Vitrified Clay Pipe (VCP) sewer collection line located in an easement on State Parks land in Hatton Canyon. The pipeline's bell and spigot connections are not strong enough to stay in place when the area is flooded during rain events and roadway failures. The pipeline was originally constructed over 60 years ago and is about a mile in length, spanning from Carmel High School to Carmel Valley Road.

Year Built: 1960s
 Rehabilitation Date (Extending life of Asset): 2020
 Rehab Life Extension: 50
 Asset Condition Rating: PACP=5

Justification

The District has had three major overflows over the past 20 years. The District experienced a large SSO resulting in 145,000 gallons of sewage flowing directly into the Hatton creek and then into the Carmel river ultimately ending up in the Ocean. MNS Engineering completed the design for the replacement of this sewer line and all permitting has been received. FEMA has awarded the district \$983,029 for construction of the project. Construction will begin in June 2020.

Asset Risk Management Strategy

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

Funding Source

Primary Capital Reserves Secondary Grant Funding

Budget Impact/Other

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total
Labor		1,450,000						\$ 1,450,000
Engineering	\$215,048							\$215,048
Parts & Supplies								\$ -
Chemicals								\$ -
Utility								\$ -
Other - Grant	\$	(983,029)						\$ (983,029)
Total		\$ 466,971	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 682,019

3 FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Lather
Area Sewer Lines
Asset Type: Collections Gravity
Avg Useful Life: 50 years
Est Residual Life: 1 year
% Consumed Life: 100%
Category: Capital Improvement
Urgency: 2 = Very Important
Carry Forward: No

Project Name: Upper Rancho Canada Pipe Relocation
Project Number: 19-13
Dept.: Collections
5 yr. Cap Projection: \$ 1,916,488
CY Budget \$ 1,760,000
GL Account:

Asset Description

This project will relocate an existing sewer trunkline that serves the eastern most portion of the District and is located within the proposed Regional Park at Rancho Canada. The trunkline varies in size from 12 inch to 8 inch and is Truss pipe material that was installed in the early 1970's. It is planned to convert one of the golf courses to a subdivision of Single Family Dwellings (SFD's) and donated the other golf course land to Monterey Regional Park System.

Year Built: 1966
Rehabilitation Date (Extending life of Asset): 2021
Rehab Life Extension: 100 years
Asset Condition Rating: Capacity Issues =5

Justification

The current alignment of the trunkline followed a farm road that no longer exists. The manholes are difficult to access and some have been covered by structures and soil. Staff has approached the Regional Park District with plans to realign the pipeline to more accessible locations that will be incorporated into the future park design. In addition, our capacity analysis of the trunkline indicates that currently it is undersized for the wet weather capacity. The project will include roughly 1,900 ft. of pipe replacement and 6 manholes. A repayment formula for new connections will be developed as part of this project.

Reimbursement plan for additional connections will be based on formula (estimated contribution to flow/total flows) x total shared costs.

Asset Risk Management Strategy

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

Funding Source

Primary Capital Reserves Secondary

Budget Impact/Other

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total
Labor	\$	1,760,000						\$ 1,760,000
Engineering & Environmental	\$156,488							\$156,488
Parts & Supplies							\$	-
Chemicals							\$	-
Utility							\$	-
Other							\$	-
Total		\$ 1,760,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,916,488

4 FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Lather
Area Collections Gravity
Asset Type: N/A
Avg Useful Life: 40 years
Est Residual Life: 5 years
% Consumed Life: 98%
Category: Capital Improvement
Urgency: 2 = Very Important
Carry Forward: No

Project Name: Bay/Scenic PS Rehabilitation
Project Number:
Dept.: Collections
5 yr. Cap Projection: \$ 600,000
CY Budget \$ 100,000
GL Account:

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: 1950's
Rehabilitation Date (Extending life of Asset):
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 Reserves Secondary

Budget Impact/Other

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total
Labor				\$ 350,000				\$ 350,000
Engineering	\$	100,000	\$ 150,000					\$ 250,000
Parts & Supplies								\$ -
Chemicals								\$ -
Utility								\$ -
Other								\$ -
Total	\$	100,000	\$ 150,000	\$ 350,000	\$ -	\$ -	\$ -	\$ 600,000

5 FY 2020-21 Budget
 Carmel Area Wastewater District

Contact: Lather
 Area N/A

Project Name: Scenic Pipe Bursting - Ocean to Bay
 Dept.: Collections
 5 yr. Cap Projection: \$ 1,400,000
 CY Budget \$ 200,000
 GL Account:

Asset Type: N/A
 Avg Useful Life: 40 years
 Est Residual Life:
 % Consumed Life: 98%
 Category: Maintenance
 Urgency: 3 = Important
 Carry Forward: No

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):
 Rehab Life Extension:
 Asset Condition Rating: 8

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 and will potentially be included in the same bid packet with the pump station upgrades. 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.

Asset Risk Management Strategy

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

Funding Source

Primary Capital Reserves Secondary

Budget Impact/Other

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total
Labor			\$ 600,000	600000				\$ 1,200,000
Engineering	\$	200,000						\$ 200,000
Parts & Supplies								\$ -
Chemicals								\$ -
Utility								\$ -
Other								\$ -
Total		\$ 200,000	\$ 600,000	\$ 600,000	\$ -	\$ -	\$ -	\$ 1,400,000

6 FY 2020-21 Budget
Carmel Area Wastewater District

Project Name: Pescadero Creek Area Pipe Rehab
Dept.: Collections

5 yr. Cap Projection: \$ 1,500,000
CY Budget \$ -
GL Account:

Contact: Lather
Area Sewer Lines
Asset Type: N/A
Avg Useful Life: 10 years
Est Residual Life:
% Consumed Life: 98%
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

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.

Year Built: 1920's
Rehabilitation Date (Extending life of Asset): 2026
Rehab Life Extension: 100
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. 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:
Non Asset Risk Management:

Funding Source

Primary Capital Reserves Secondary

Budget Impact/Other

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	25-26	26-27
Labor				1250000				
Engineering			\$ 250,000					
Parts & Supplies								
Chemicals								
Utility								
Other								
Total		\$ -	\$ 250,000	\$ 1,250,000	\$ -	\$ -	\$ -	\$ -

7 FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Lather
Area Sewer Lines

Project Name: Electrical Upgrades at Hacienda Pump Station
Dept.: Collections
5 yr. Cap Projection: \$ 140,000.00
CY Budget \$ -
GL Account:

Asset Type: N/A
Avg Useful Life: 10 years
Est Residual Life: 1 year
% Consumed Life: 95
Category: Maintenance
Urgency: 3 = Important
Carry Forward: No

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: 1999
Rehabilitation Date (Extending life of Asset): N/A
Rehab Life Extension: N/A
Asset Condition Rating: 4

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 Management:
Non Asset Risk Management:

Funding Source

Primary Capital Reserves Secondary

Budget Impact/Other

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total
Labor							\$	-
Engineering							\$	-
Parts & Supplies							\$	-
Chemicals							\$	-
Utility							\$	-
Other			\$ 140,000				\$	140,000
Total		\$ -	\$ 140,000	\$ -	\$ -	\$ -	\$ -	\$ 140,000

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FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Lather
Area Sewer Lines

Project Name: Monte Verde PS and Sewers- South of Santa Lucia

Dept.: Collections

Asset Type: N/A
Avg Useful Life: 30 years
Est Residual Life: 1 year
% Consumed Life:

5 yr. Cap Projection: \$ 2,250,000

CY Budget \$ -

GL Account:

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.

Year Built: 1940's

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

Rehab Life Extension: 50

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:

Non Asset Risk Management:

Funding Source

Primary Capital Reserves Secondary

Budget Impact/Other

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	25-26	Total
Labor					\$ 1,500,000	\$ 500,000		\$ 2,000,000
Engineering				\$ 250,000				\$ 250,000
Parts & Supplies								
Chemicals								
Utility								
Other								
Total	\$ -	\$ -	\$ -	\$ 250,000	\$ 1,500,000	\$ 500,000	\$ -	\$ 2,250,000

9 **FY 2020-21 Budget**
Carmel Area Wastewater District

Contact: Lather
Area Sewer Lines

Project Name: 11th- Junipero to Rio Road
Dept.: Collections

Asset Type: N/A

Avg Useful Life: 10 years

Est Residual Life:

% Consumed Life:

Category: Maintenance

Urgency: 3 = Important

Carry Forward: No

5 yr. Cap Projection: \$ 1,750,000
CY Budget \$ -
GL Account:

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: N/A

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

Rehab Life Extension: N/A

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:
Non Asset Risk Management:

Funding Source

Primary Capital Reserves Secondary

Budget Impact/Other

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	25-26	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

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FY 2020-21 Budget

Carmel Area Wastewater District

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

Project Name: Carmel Woods Sewer Rehabilitation

Dept.: Collections

5 yr. Cap Projection: \$ 400,000

CY Budget \$ -

GL Account:

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

Year Built: N/A

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

Rehab Life Extension: N/A

Asset Condition Rating: 4

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:

Non Asset Risk Management:

Funding Source

Primary

Capital Reserves

Secondary

Budget Impact/Other

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	25-26
Labor							\$ 2,300,000
Engineering						\$ 400,000	
Parts & Supplies							
Chemicals							
Utility							
Other							
Total		\$ -	\$ -	\$ -	\$ -	\$ 400,000	\$ 2,300,000

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FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Lather
Area Sewer Lines

Project Name: Calle La Cruz PS Relocation/Rehab
Dept.: Collections
5 yr. Cap Projection: \$ 150,000
CY Budget \$ -
GL Account:

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

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: 1954
Rehabilitation Date (Extending life of Asset): 1987
Rehab Life Extension: N/A
Asset Condition Rating: 4

Justification

This pump station has been inundated 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:
Non Asset Risk Management:

Funding Source

Primary Capital Reserves Secondary

Budget Impact/Other

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	25-26	26-27	Unscheduled	Total
Labor								\$ 800,000		\$ 800,000
Engineering						\$ 150,000	\$ 150,000			\$ 300,000
Parts & Supplies										\$ -
Chemicals										\$ -
Utility										\$ -
Other										\$ -
Total		\$ -	\$ -	\$ -	\$ -	\$ 150,000	\$ 150,000	\$ 800,000	\$ -	\$ 1,100,000

12 FY 2020-21 Budget

Carmel Area Wastewater District

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

Project Name: Mission & San Carlos -Ocean to 2nd

Dept.: Collections

5 yr. Cap Projection: \$ -

CY Budget \$ -

GL Account:

Asset Description

This asset is approximately 3,500 feet of 6" pipe on parallel streets of Mission and San Carlos from Ocean to 2nd.

Year Built: N/A

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

Rehab Life Extension: N/A

Asset Condition Rating: 4

Justification

These segments of pipe have been in service for over 100 years and need to be replaced.

Asset Risk Management Strategy

Capital Improvement Risk: Plan Rehabilitation/Replacement

Maintenance Risk Management:

Non Asset Risk Management:

Funding Source

Primary Capital Reserves Secondary

Budget Impact/Other

	Prior Yr.	22-23	23-24	24-25	25-26	26-27	27-28	28-29
Labor						\$ 1,008,000		
Engineering					\$ 150,000			
Parts & Supplies								
Chemicals								
Utility								
Other								
Total		\$ -	\$ -	\$ -	\$ 150,000	\$ 1,008,000	\$ -	\$ -

13 FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Lather
 Area Sewer Lines

Project Name: Dolores Stereet Pipe Bursting 4th to 10th

Asset Type: Collections Gravity

Project Number

Avg Useful Life: 50 years

Dept.: Collections

Est Residual Life: 10 years

5 yr. Cap Projection: \$ -

% Consumed Life: 90%

CY Budget \$ -

Category: Capital Improvement

GL Account:

Urgency: 3 = Important

Carry Forward: No

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: 1920's

Rehabilitation Date (Extending life of Asset):

Rehab Life Extension: 100

Asset Condition Rating:

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 2022.

Asset Risk Management Strategy

Capital Improvement Risk: Plan Rehabilitation/Replacement

Maintenance Risk Management:

Non Asset Risk Management:

Funding Source

Primary Capital Reserves Secondary

Budget Impact/Other

	Prior Yr.	20-21	21-22	22-23	23-24	27-28	28-29	29-30
Labor							864,000	864,000
Engineering						150,000		150,000
Parts & Supplies								
Chemicals								
Utility								
Other								
Total		\$ -	\$ -	\$ -	\$ -	\$ 150,000	\$ 864,000	\$ 1,014,000

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FY 2020-21 Budget

Carmel Area Wastewater District

Project Name: Hacienda PS area sewer upsizing

Project Number:

Dept.: Collections

5 yr. Cap Projection: \$ 1,200,000

CY Budget \$ -

GL Account:

Contact: Lather

Area Sewer Lines

Asset Type: Collections Gravity

Avg Useful Life: 40 years

Est Residual Life: 1 year

% Consumed Life: n/a

Category: Maintenance

Urgency: 2 = Very Important

Carry Forward: No

Asset Description

This is 7,800 feet of transmission line from the proposed pump station to be constructed by Carmel Valley Manor to Hacienda Pump Station.

Year Built: 1970s

Rehabilitation Date (Extending life of Asset): n/a

Rehab Life Extension: n/a

Asset Condition Rating: 4 Capacity Issues

Justification

With the Carmel Valley area being annexed into our system, we will need to increase the pipe capacity in this area. Based on the District's flow study, this area is already over capacity in sections during dry weather, which is causing surcharging in manholes. The 8 inch pipelines will need to be replaced with 10 inch.

Asset Risk Management Strategy

Capital Improvement Risk: Plan Rehabilitation/Replacement

Maintenance Risk Management:

Non Asset Risk Management:

Funding Source

Primary Capital Reserves Secondary

Budget Impact/Other

	Prior Yr.	20-21	21-22	22-23	26-27	27-28	28-29	29-30	Total
Labor						\$ 1,000,000	\$ 1,808,000		\$ 2,808,000
Engineering					\$ 200,000				\$ 200,000
Parts & Supplies									\$ -
Chemicals									\$ -
Utility									\$ -
Other									\$ -
Total		\$ -	\$ -	\$ -	\$ 200,000	\$ 1,000,000	\$ 1,808,000	\$ -	\$ 3,008,000

15 FY 2020-21 Budget
Carmel Area Wastewater District

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

Project Name: Lincoln Street Pipe Bursting 4th to 10th
 Dept.: Collections
 5 yr. Cap Projection: \$ 150,000
 CY Budget \$ -
 GL Account:

Asset Description

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

Year Built: 1920's
 Rehabilitation Date (Extending life of Asset): 2022-23
 Rehab Life Extension: 100
 Asset Condition Rating: 8

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:
 Non Asset Risk Management:

Funding Source

Primary Capital Reserves Secondary

Budget Impact/Other

	Prior Yr.	20-21	21-22	22-23	24-25	28-29	29-30	Unscheduled	Total
Labor							\$ 864,000		\$ 864,000
Engineering						\$ 150,000			\$ 150,000
Parts & Supplies									0
Chemicals									0
Utility									0
Other									0
Total		\$ -	\$ -	\$ -	\$ -	\$ 150,000	\$ 864,000	\$ -	\$ 1,014,000

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FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Lather

Area Structure

Asset Type: Collections Gravity

Avg Useful Life: 40 years

Est Residual Life: 5 years

% Consumed Life:

Category: Maintenance

Urgency: 2 = Very Important

Carry Forward: No

Project Name: Santa Rita and Guadalupe-Pipe bursting Ocean to Serra
Project Number
Dept.: Collections
5 yr. Cap Projection: \$ -
CY Budget \$ -
GL Account:

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:

Rehabilitation Date (Extending life of Asset):

Rehab Life Extension:

Asset Condition Rating:

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.

Funding Source

Primary	Capital Reserves	Secondary						
Budget Impact/Other	Prior Yr.	20-21	21-22	27-28	28-29	29-30	Unscheduled	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

17 FY 2020-21 Budget
Carmel Area Wastewater District

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

Project Name: Camino Real-between 4th & Walker Avenue
Project Number
Dept.: Collections
5 yr. Cap Projection: \$ -
CY Budget \$ -
GL Account:

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: 1920's
Rehabilitation Date (Extending life of Asset):
Rehab Life Extension:
Asset Condition Rating:

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:
Non Asset Risk Management:

Funding Source

Primary	Capital Reserves	Secondary							
Budget Impact/Other		Prior Yr.	20-21	21-22	28-29	29-30	30-31	Unscheduled	Total
	Labor						\$ 1,555,200		\$ 1,555,200
	Engineering			\$	100,000	\$ 150,000			\$ 250,000
	Parts & Supplies								0
	Chemicals								0
	Utility								0
	Other								0
Total		\$ -	\$ -	\$	100,000	\$ 150,000	\$ 1,555,200	\$	- \$ 1,805,200

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FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Lather

Area Structure

Asset Type: Collections Gravity

Avg Useful Life: 40 years

Est Residual Life:

% Consumed Life:

Category: Maintenance

Urgency: 2 = Very Important

Carry Forward: No

Project Name: Manhole Rehabilitation

Project Number

Dept.: Collections

5 yr. Cap Projection: \$ 270,000

CY Budget \$ -

GL Account:

Asset Description

Brick and mortar manholes that are over 100 years old located throughout the District.

Year Built: 1920's

Rehabilitation Date (Extending life of Asset):

Rehab Life Extension: 50

Asset Condition Rating:

Justification

Brick and mortar manholes are located throughout the District and are leaking through the mortar during rain events, causing increased inflow into the sewer system. In order to reduce inflow and the potential of structural failures of the manholes, it is recommended to start a rehabilitation program that focuses on old brick manholes and known damaged ones.

Asset Risk Management Strategy

Capital Improvement Risk: Plan Rehabilitation/Replacement

Maintenance Risk Management:

Non Asset Risk Management:

Funding Source

Primary Capital Reserves Secondary

Budget Impact/Other

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	25-26	26-27	Total
Labor					\$ 270,000			\$ 270,000	\$ 540,000
Engineering									\$ -
Parts & Supplies									\$ -
Chemicals									\$ -
Utility									\$ -
Other									\$ -
Total		\$ -	\$ -	\$ -	\$ 270,000	\$ -	\$ -	\$ 270,000	\$ 540,000

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FY 2020-21 Budget

Carmel Area Wastewater District

Project Name: Point Repairs @ various locations

Project Number:

Dept.: Collections

5 yr. Cap Projection: \$ -

CY Budget \$ -

GL Account:

Contact: Lather

Area Sewer Lines

Asset Type: Collections Gravity

Avg Useful Life: 40 years

Est Residual Life: 1 year

% Consumed Life: n/a

Category: Maintenance

Urgency: 2 = Very Important

Carry Forward: No

Asset Description

Point repairs and pipe lining of pipes identified in the Asset Management Plan are located throughout the District. These are pipes that do not have capacity issues but are damaged.

Year Built: 1960's

Rehabilitation Date (Extending life of Asset):

Rehab Life Extension: 30

Asset Condition Rating:

Justification

Many of the sewer lines within the District can be improved with spot repairs rather than complete replacement. These lines will be selected based on video inspections and were identified in the Asset Management Plan as a high priority. 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 Management:

Non Asset Risk Management:

Funding Source

Primary Capital Reserves

Budget Impact/Other

	Prior Yr.	20-21	21-22	27-28	28-29	29-30	30-31	31-32	Unscheduled	Total
Labor				\$ 400,000	\$ 200,000		\$ 500,000			\$ 1,100,000
Engineering										\$ -
Parts & Supplies										\$ -
Chemicals										\$ -
Utility										\$ -
Other										\$ -
Total		\$ -	\$ -	\$ 400,000	\$ 200,000	\$ -	\$ 600,000		\$ -	\$ 1,100,000

20 **FY 2020-21 Budget**
 Carmel Area Wastewater District
 Project Name: Upsize Rancho Canada Subdivision Trunkline
 Project Number: work by others
 Dept.: Collections
 5 yr. Cap Projection: \$ -
 CY Budget \$ -
 GL Account:

Contact: Lather
 Area Sewer Lines
 Asset Type: Collections Gravity
 Avg Useful Life: 40 years
 Est Residual Life: 1 year
 % Consumed Life: n/a
 Category: Maintenance
 Urgency: 2 = Very Important
 Carry Forward: No

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 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: 100 years
 Asset Condition Rating: 4 Capacity Issues

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 Risk: Plan Rehabilitation/Replacement
 Maintenance Risk Management:
 Non Asset Risk Management:

Funding Source

Primary Capital Reserves Secondary

Budget Impact/Other	Prior Yr.	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total
Labor							\$ 410,000	\$ 410,000
Engineering							\$ -	\$ -
Parts & Supplies							\$ -	\$ -
Chemicals							\$ -	\$ -
Utility							\$ -	\$ -
Other							\$ -	\$ -
Total		\$ -	\$ -	\$ -	\$ -	\$ -	\$ 410,000	\$ 410,000

21 **FY 2020-21 Budget**
 Carmel Area Wastewater District

Contact: Lather
 Area Sewer Lines

Project Name: Rio Road Bioswale- Pipeline Replacement
 Project Number:
 Dept.: Collections
 10 yr. Cap Projection: \$ -
 CY Budget \$ -
 GL Account:

Asset Type: N/A
 Avg Useful Life: 40 years
 Est Residual Life:
 % Consumed Life:
 Category: Maintenance
 Urgency: 2 = Very Important
 Carry Forward: No

Asset Description

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

Year Built: Pre 1960
 Rehabilitation Date (Extending life of Asset): N/A
 Rehab Life Extension: N/A
 Asset Condition Rating: 4

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 Risk: Plan Rehabilitation/Replacement
 Maintenance Risk Management:
 Non Asset Risk Management:

Funding Source

Primary Capital Reserves Secondary

Budget Impact/Other

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total
Labor							\$ 800,000	\$ 800,000
Engineering							\$	-
Parts & Supplies							\$	-
Chemicals							\$	-
Utility							\$	-
Other							\$	-
Total		\$ -	\$ -	\$ -	\$ -	\$ -	\$ 800,000	\$ 800,000

22 **FY 2020-21 Budget**
 Carmel Area Wastewater District

Contact: Lather
 Area Collections Gravity

Project Name: Dewatering Pit at Treatment Plant (30% Treatment)
 Dept.: Collections
 5 yr. Cap Projection: \$ -
 CY Budget \$ -
 GL Account:

Asset Type: N/A
 Avg Useful Life: 50 years
 Est Residual Life:
 % Consumed Life:
 Category: Capital Improvement
 Urgency: 3 = Important
 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 70% Collections Capital Reserves Secondary
 30% Treatment

Budget Impact/Other

	Prior Yr.	20-21	21-22	22-23	23-24	Unscheduled	Total
Labor						\$	-
Engineering						\$	-
Parts & Supplies						\$	-
Chemicals						\$	-
Utility						\$	-
Other						\$ 70,000	\$ 70,000
Total		\$	- \$	- \$	- \$	- \$ 70,000	\$ 70,000

23 FY 2020-21 Budget
 Carmel Area Wastewater District

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

Project Name: Highlands Line Cleaning
 Dept.: Collections
 5 yr. Cap Projection: \$ 200,000
 CY Budget \$ -
 GL Account:

Asset Description

Highlands Sewer line was installed in 2004-2006. It is over 3 miles long and has not been cleaned.

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

Justification

The Highlands line has not been cleaned since its installation in 2004. The line is over 3 miles long and has evidence of H2S damage at manholes.

Asset Risk Management Strategy

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

Funding Source

Primary Capital Reserves Secondary

Budget Impact/Other

	Prior Yr.	20-21	21-22	22-23	23-24	Unscheduled	Total
Labor						\$	-
Engineering						\$	-
Parts & Supplies						\$	-
Chemicals						\$	-
Utility						\$	-
Other			\$ 200,000			\$	200,000
Total		\$ -	\$ 200,000	\$ -	\$ -	\$ -	\$ 200,000

24 FY 2020-21 Budget
Carmel Area Wastewater District

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

Project Name: Manhole Condition Assessment
Dept.: Collections
5 yr. Cap Projection: \$ 200,000
CY Budget \$ -
GL Account:

Asset Description

The District needs to perform a condition assessment of all maholes in its system.

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

Justification

As part of the requirements of River Watch Settlement the District must complete a review of its manhole assets within 5 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 Reserves Secondary

Budget Impact/Other

	Prior Yr.	20-21	21-22	22-23	23-24	Unscheduled	Total
Labor						\$	-
Engineering						\$	-
Parts & Supplies						\$	-
Chemicals						\$	-
Utility						\$	-
Other				\$ 200,000		\$	200,000
Total		\$ -	\$ -	\$ 200,000	\$ -	\$ -	\$ 200,000

25 FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Lather
Area Collections Gravity

Project Name: Rio Road CIPP Lining Project (Carry over)
Dept.: Collections
5 yr. Cap Projection: \$ 1,340,000
CY Budget \$ -
GL Account:

Asset Type: N/A
Avg Useful Life: 40 years
Est Residual Life: 5 years
% Consumed Life: 100%
Category: Capital Improvement
Urgency: 2 = Very Important
Carry Forward: yes

Asset Description

The asset is approximately 4,000 feet of 24 to 27 inch diameter asbestos cement pipe (ACP) trunkline that runs along Rio Road in Carmel.

Year Built: 1968
Rehabilitation Date (Extending life of Asset): 2019
Rehab Life Extension: 60
Asset Condition Rating: PACP = 5

Justification

Portions of the pipeline have been identified in the Asset Management Plan as having severe defects that require replacement in the next 5 years. This pipeline is downstream of the proposed Rancho Canada subdivision and the upper Rancho Canada Golf Course pipeline relocation projects. This project needs to be completed prior to the anticipated upstream improvements (i.s. Rancho Canada subdivision in order to reduce by-pass pumping costs during construction an to elminate structural defects prior to adding more flow into the pipe. The lining of the Rio Road pipeline requires no environmental permits and minimal design. In addition, it is the only ACP pipeline in the District and lining this pipe is best solution. This pipeline is the main trunkline collecting sewage from the pipelines east of Highway 1.

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.	20-21	21-22	22-23	23-24	Unscheduled	Total
Labor		\$ 1,340,000					\$ 1,340,000
Engineering						\$ -	\$ -
Parts & Supplies						\$ -	\$ -
Chemicals						\$ -	\$ -
Utility						\$ -	\$ -
Other						\$ -	\$ -
Total		\$ 1,340,000	\$ -	\$ -	\$ -	\$ -	\$ 1,340,000

Collections Dept.
Equipment

CAWD Collections Dept - Capital Equipment

FY 2020/21 thru 2025/26

Project #	PROJECT	20/21	21/22	22/23	23/24	24/25	Unscheduled
1	Replace Generac Portable Generator	\$ 80,000					
2	Replace Pump Round Truck (# 8)	\$ 80,000					
3	Replace existing collections CMMS		\$ 120,000				
4	Replace Collection Superintendent Truck (#17)			\$ 45,000			
5	Replace Pumps at Monte Verde Pump Station				\$ 25,000		
6	Replace Pumps at Bay & Scenic Pump Station				\$ 25,000		
	TREATMENT & DISPOSAL TOTAL	\$ 160,000	\$ 120,000	\$ 45,000	\$ 50,000	\$ -	
	RECLAMATION SHARE	\$ -	\$ -	\$ -	\$ -	\$ -	
	PBCSD SHARE	\$ -	\$ -	\$ -	\$ -	\$ -	
	CAWD COST	\$ 160,000	\$ 120,000	\$ 45,000	\$ 50,000	\$ -	

1 FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Lauer
Area: Pump Station
Asset Type: Vehicle Fleet
Avg Useful Life: 20 years
Est Residual Life: 1 year
% Consumed Life: 75
Category: Capital Equipment
Urgency: 3 = Important
Carry Forward: No

Project Name: Replace Generac Portable Generator
Dept: Collections
Total Cost: \$ 80,000
CY Budget \$ 80,000
GL Account:

Asset Description

The 1999 Generac 44 kW 270/480 volt 61 amp 3 phase portable diesel generator is typically used at the Bay and Scenic pump station but is also capable of providing back up power for all pump stations. Currently, all the stations are undergoing compatibility upgrades so this Generator can be deployed and quickly connected at all stations. Additionally, this generator is set up to run a bypass pump in the event of an emergency or through routine maintenance. This generator may also be utilized at the plant on a nonemergency basis.

Year Built: 1999
Rehabilitation Date (Extending life of Asset): n/a
Rehab Life Extension: n/a
Asset Condition Rating: 7 Significant Deterioration

Justification

Recent maintenance and load testing had increased the reliability of this unit for a few additional years but it is now time to replace this generator. The two areas of major concern are: (1) generators get deployed in residential areas & the generator is noisy and (2) the current generator will not meet the new emissions standards. Quieting technologies have improved over the last couple of decades and emissions standards have become more stringent. This generator is a tier 0 motor in regards to emissions and the Air Board is requiring tier 4 motors by 2020.

Asset Risk Management Strategy

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

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Prior Yr	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total
Labor							\$	-
Engineering							\$	-
Parts & Supplies	\$	80,000					\$	80,000
Chemicals							\$	-
Utility							\$	-
Other							\$	-
Total	\$	80,000			\$	-	\$	80,000

2 FY 2020-21 Budget
Carmel Area Wastewater District

Project Name Replace Pump Round Truck (# 8)
Dept: Collections
Total Cost: \$ 80,000
CY Budget \$ 80,000
GL Account:

Contact: Lauer
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: No

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 lots of 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.

Note: Life of asset is based on # years plus mileage
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 Plan Rehabilitation/Replacement
Maintenance Risk Management Predictive & Preventative Maintenance
Non Asset Risk Management

Funding Source

Primary		Capital Budget		Secondary					
Budget Impact/Other		Prior Yr	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total
Labor								\$	-
Engineering								\$	-
Parts & Supplies		\$	80,000					\$	80,000
Chemicals								\$	-
Utility								\$	-
Other								\$	-
Total		\$	80,000	\$	-	\$	-	\$	80,000

3 FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Lauer
 Area: Sewer Lines
 Asset Type: Support Equipment
 Avg Useful Life: 20 years
 Est Residual Life: 1 year
 % Consumed Life: 98
 Category: Capital Equipment
 Urgency: 2 = Very Important
 Carry Forward: No

Project Name: Replace Collections Computerized Maintenance Management System (CMMS)
 Dept: Collections
 Total Cost: \$ 90,000
 CY Budget \$ -
 GL Account:

Asset Description

This is a CMMS specifically for the collections system named ICOM that is owned by RedZone Robotics. ICOM is used to store pipeline cleaning and inspection history, as well as produce work orders to hydro clean and CCTV pipelines on a regular schedule set for the each asset.

Year Built: 2007

Rehabilitation Date (Extending life of Asset):

Rehab Life Extension:

Asset Condition Rating:

Justification

The ICOM program was purchased by the District in 2007 and was upgraded in 2012. In 2012 the company was purchased by RedZone Robotics who have over the past 8 years stopped upgrading the product and closed the west coast offices for support of the program. Over the past few years the annual cost of the program was \$4,000 but we were informed by RedZone that the annual support will be increasing to \$13K this year. The current standard for CMMS technology is to have GIS based mapping of collection system assets and work orders for each asset that can be accessed through the cloud from a device that has internet capabilities. This will allow our field crews to receive and complete a work order in the field rather than at a computer in the office. ICOM does not do this and RedZone will not be investing in upgrades to ICOM to compete with other available CMMS providers. Due to the increased annual cost and the need to keep up with the basic standards for collection system management, we recommend investing in a new system. The software cost is estimated at \$90K, integration of data and the cost for exceedio to install the software is anticipated to cost \$30K.

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	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total
Labor							\$	-
Engineering							\$	-
Parts & Supplies		\$ 90,000					\$	90,000
Chemicals							\$	-
Utility							\$	-
Other							\$	-
Total		\$ -	\$ 90,000	\$ -	\$ -	\$ -	\$ -	\$ 90,000

4 FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Lauer
Area: Vehicle
Asset Type: Vehicle Fleet
Avg Useful Life: 10 years
Est Residual Life: 5 years
% Consumed Life: 75
Category: Capital Equipment
Urgency: 4 = Less Important
Carry Forward: No

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

Asset Description

Chevy 4X4 truck (Unit #17) primary use as the Collection Superintendent's vehicle with a dual purpose of employee conference vehicle. This vehicle was purchased in 2009 and currently has 85,000 miles on it.

Year Built: 2009
Rehabilitation 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 85,000 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.

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	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total
Labor							\$	-
Engineering								
Parts & Supplies			\$	45,000			\$	45,000
Chemicals							\$	-
Utility							\$	-
Other							\$	-
Total		\$ -	\$ -	\$ 45,000	\$ -	\$ -	\$ -	\$ 45,000

5 FY 2020-21 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 Life: 75
 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
 Rehabilitation 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 almost 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.

Asset Risk Management Strategy

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

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

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

6 FY 2020-21 Budget
Carmel Area Wastewater District

Project Name: Replace Pumps at Bay & 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 Life: 75
 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: 2004
 Rehabilitation 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 almost 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.

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	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total
Labor							\$	-
Engineering							\$	-
Parts & Supplies				\$	25,000		\$	25,000
Chemicals							\$	-
Utility							\$	-
Other							\$	-
Total		\$ -	\$ -	\$ -	\$ 25,000	\$ -	\$ -	\$ 25,000

Treatment Dept.
Capital Improvement Projects

1 FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Foley
 Area Misc Structures
 Asset Type: Support Equipment
 Avg Useful Life 20 years
 Est Residual Lif 20 years
 % Consumed Li \$ -
 Category: Capital Improvement
 Urgency: 1 = Critical
 Carry Forward: Yes

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

Asset Description

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

Year Built: 2019
 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

Budget Impact/Other

	Prior Yr	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total
Labor	\$	14,000	14000				\$	28,000
Engineering	\$	4,000	2,000				\$	6,000
Parts & Supplies	\$	7,000	7,000				\$	14,000
Chemicals							\$	-
Utility							\$	-
Other	0	\$	2,000				\$	2,000
Total	\$	25,000	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ 50,000

2 FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Treanor
 Area: 1 Water System
 Asset Type: Support Equipment
 Avg Useful Life: 20 years
 Est Residual Lif: 20 years
 % Consumed Li: \$ -
 Category: Capital Improvement
 Urgency: 3 = Important
 Carry Forward: No

Project Name: 1 Water System Corrosion Control
 Dept: Treatment
 Total Cost: \$ 25,000
 CY Budget: \$ 20,000
 GL Account: 1627

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: 1972
 Rehabilitation Date: N/A
 Rehab Life Extension: N/A
 Asset Condition Rating:

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
 Maintenance Risk Mgmt Predictive & Preventative Maintenance
 Non Asset Risk Mgmt

Funding Source

Primary Capital Improvement

Budget Impact/Other

	Prior Yr	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total
Labor							\$	-
Engineering							\$	-
Parts & Supplies	5,000					\$	20,000	20,000
Chemicals							\$	-
Utility							\$	-
Other							\$	-
Total		\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,000	\$ 20,000

3 FY 2020-21 Budget
 Carmel Area Wastewater District

Contact: Treanor
 Area: Ops Bldg
 Asset Type: Support Equipment
 Avg Useful Life 20 years
 Est Residual Lif 1 year
 % Consumed Li \$ 100
 Category: Capital Improvement
 Urgency: 3 = Important
 Carry Forward: Yes

Project Name: Operation Building Basement Rehabilitation
 Dept: Treatment
 Total Cost: \$ 50,000
 CY Budget \$ -
 GL Account:

Asset Description

Operations Building (Building Number 30), Basement Rehabilitation.

Year Built: 1972
 Rehabilitation Date: N/A
 Rehab Life Extension: N/A
 Asset Condition Rating: Good

Justification

The original design of the building in this area included a woman's bathroom with shower, men's locker room and a storage area for Personal Protective Equipment (PPE) (i.e. Rain gear, Haz-mat equipment and janitorial supplies). During Phase I construction all of this space was demolished to allow for new electrical and plumbing chase runs for various areas of the treatment plant. Staff would like to reinstall a gender neutral bathroom in the basement with a shower to decontaminate PPE, a laundry area to clean and store Personal Protective Equipment, having a centralize area for the PPE it will allow for better inventory control of all PPE equipment. Included in the cost would be a second sump pump to prevent flooding of the area.

Asset Risk Management Strategy

Capital Improvement Risk Plan Rehabilitation/Replacement
 Maintenance Risk Mgmt Corrective Maintenance
 Non Asset Risk Mgmt Take Asset out of Service

Funding Source

Primary Capital Improvement

Budget Impact/Other

	Prior Yr	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total
Labor							\$ 25,000	\$ 25,000
Engineering								\$ -
Parts & Supplies							\$ 25,000	\$ 25,000
Chemicals								\$ -
Utility								\$ -
Other								\$ -
Total		\$ -	\$ -	\$ -	\$ -	\$ -	\$ 50,000	\$ 50,000

4 FY 2020-21 Budget
 Carmel Area Wastewater District

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

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

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:
 Rehabilitation Date:
 Rehab Life Extension:
 Asset Condition Rating:

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.

Funding Source

Primary Capital Improvement

Budget Impact/Other

	Prior Yr	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total
Labor	0						\$ 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

Treatment Dept.
Equipment

1 FY 2020-21 Budget
Carmel Area Wastewater District

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

Project Name: Laboratory Ion Chromatograph (90% Reclamation)
 Dept: Treatment
 Total Cost: \$ 150,000
 CY Budget \$ -
 GL Account:

Asset Description

The Ion Chromatograph unit is a Laboratory instrument used to analyze various chemical constituents for the process control and reporting for the Reclamation Project.

Year Built: Jul-05

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

Rehab Life Extension: N/A

Asset Condition Rating: 9 Rehab unlikely

Justification

The Ion Chromatography unit (IC) is coming to the end of its useful life as outlined by the manufacturer service representative. The manufacture of the Ion Chromatography unit will stop supporting parts and services in the next two years. Once that support stops replacement parts and consumables will become difficult to obtain along with service request of the equipment. The Ion Chromatography unit is used to analyze the reclaim water sent to Pebble Beach for golf course irrigation. The samples are tested at different intervals ranging from weekly, monthly and daily if needed. Samples collected and tested on a weekly schedule are the Reclaim Line and MF/RO Blend, for the monthly schedule samples that are collected are PBCSD Storage Tank, Pebble Beach Golf Course, Spanish Bay Golf Course and Forest Lake Reservoir, and depending if Pebble Beach Wells are turned on there are three other samples. The specific analysis that can be performed on the IC are the Anion and Cation ions in the water sample. The Anions are negative charged ions- Fluoride, Chloride, Nitrate, Sulfate and Phosphate. The Cations are positive charged ions- Sodium, Ammonium, Potassium, Magnesium, Calcium. Also the Sodium Absorption Ratio (SAR) and Adjusted SAR are calculated from the various test. Since the feed source of water is coming from the CAWD Secondary Effluent we are also testing the water coming in.

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 Capital Budget 10% Secondary Reclamation 90%

Budget Impact/Other

	Prior Yr	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total
Labor							\$	-
Engineering							\$	-
Parts & Supplies			\$ 150,000				\$	150,000
Chemicals							\$	-
Utility							\$	-
Other							\$	-
Total		\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ 150,000

2 FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Treanor
Area: Pump Station
Asset Type: Process Equip (Liquid)
Avg Useful Life: 30 years
Est Residual Life: New Equipment
% Consumed Life: N/A
Category: Capital Equipment
Urgency: 3 = Important
Carry Forward: Yes

Project Name: Influent Chopper Pump
Dept: Treatment
Total Cost: \$ 55,000
CY Budget \$ 55,000
GL Account: Capital

Asset Description

The Influent Pumps pump raw sewage into the WWTP process.

Year Built: New Equipment

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

Rehab Life Extension: N/A

Asset Condition Rating: New Equipment

Justification

The existing Influent Pumps get clogged with rags after a few days of operation. This takes about 6 hours of total staff time each week to remove rags from the influent pumps. A chopper style pump would reduce ragging issues by means of the cutter included on the impeller. These types of pumps are increasingly being used as more and more wipes are being put in sewers by the public, and the wipes do not break down like toilet paper.

Asset Risk Management Strategy

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

Funding Source

Budget Impact/Other

	Primary	Capital Reserves	Secondary					Unscheduled	Total
	Prior Yr	20-21	21-22	22-23	23-24	24-25			
Labor		\$ 5,000					\$	5,000	
Engineering							\$	-	
Parts & Supplies		\$ 40,000					\$	40,000	
Chemicals							\$	-	
Utility							\$	-	
Other		\$ 10,000					\$	10,000	
Total		\$ 55,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 55,000	

3 FY 2020-21 Budget
Carmel Area Wastewater District

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: 2 = Very Important
 Carry Forward: Yes

Project Name: Versatile Titrator (50% Reclamation)
 Dept: Treatment
 Total Cost: \$ 38,965
 CY Budget \$ -
 GL Account: Capital

Asset Description

The Mettler Toledo Titrator Excellence T7 instrument is a new piece of CAWD laboratory equipment. The Mettler T7 is a versatile titrator expandable from 1 to 4 different burettes for the different titrants used. The unit is fully automated from sample changing, complex titrations and cleaning the probe after analysis is completed. After sample analysis is completed the results are displayed on the screen or can be transferred to the CAWD LIMS system reducing the manual entry and eliminate errors.

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

Justification

Currently the laboratory analysts perform the following analysis pH, Alkalinity, Conductivity, Volatile Acids and sample titrations are analyzed individually. With the automated titrator unit, multiple analysis can be completed by programming a test(s) and the unit will complete the programmed analysis on the sample and move to the next sample. The results will be displayed or transferred to the LIMS database which will reduce manual entry. Based on current work minutes to perform calibration and sample analysis for twenty five samples taking 15 minutes per sample the titrator can perform in seven and half minutes. The time savings will allow the laboratory analyst to complete other duties. The labor cost of manual analysis per year is estimated at \$ 118,209.00, the labor cost of automated analysis is estimated at \$ 70,835 per year and the total saving cost of \$ 43,761 per year.

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 50% CAWD Secondary Reclamation 50%

Budget Impact/Other

	Prior Yr	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total
Labor		\$ 3,315					\$	3,315
Engineering							\$	-
Parts & Supplies		\$ 33,085					\$	33,085
Chemicals							\$	-
Utility							\$	-
Other		\$ 2,565					\$	2,565
Total		\$ 38,965	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 38,965

4 FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Waggoner
Area: DAFT
Asset Type: Process Equip (Solid)
Avg Useful Life: 15 years
Est Residual Life: 1 year
% Consumed Life: 100%
Category: Capital Equipment
Urgency: 2 = Very Important
Carry Forward: Yes

Project Name: DAF unit Poly Blend Unit M60-P1AA (50% Reclamation)
Dept: Treatment
Total Cost: \$ 22,500
CY Budget \$ 22,500
GL Account:

Asset Description

Polymer mixing and inject unit that mixes and and a coagulant to the flow stream of waste activate sludge and backwash water from the microfiltration/reverse osmosis systems.

Year Built: 2000
Rehabilitation Date (Extending life of Asset): 2009
Rehab Life Extension: 10 years
Asset Condition Rating: Poor

Justification

The existing model M-40-D4AA-V s/n 16152 is from 2000. The age is such that the vendor no longer supports or sells/stocks replacement parts for the UGSI PolyBlend unit. This model is the same as the models purchase in the Phase 1 project Staff is updating all Polymer mixing systems to be the same to be able to limit the amount of spare parts in plant inventory systems.

Asset Risk Management Strategy

Capital Improvement Risk Plan Rehabilitation/Replacement
Maintenance Risk Management 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	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total
Labor		\$1,000						\$ 1,000
Engineering								\$ -
Parts & Supplies		\$ 20,000						\$ 20,000
Chemicals								\$ -
Utility								\$ -
Other		\$ 1,500						\$ 1,500
Total		\$ 22,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 22,500

5 FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Waggoner
Area: Misc Structures
Asset Type: Support Equipment
Avg Useful Life: 10 years
Est Residual Life: 5 years
% Consumed Life: 75
Category: Capital Equipment
Urgency: 3 = Important
Carry Forward: Yes

Project Name: Laboratory Muffle Furnance (50% Reclamation)
Dept: Treatment
Total Cost: \$ 13,500
CY Budget \$ -
GL Account:

Asset Description

The muffle furnace is used in the laboratory to provide the Operations Department with process control data on the Volatile Total Suspended Solids. The data from the percent volatile solids is used for monthly and annual NPDES reporting.

Year Built: 2011
Rehabilitation Date (Extending life of Asset): 16-Apr
Rehab Life Extension: 2 years
Asset Condition Rating: 3 minor Defects Only

Justification

The muffle furnace was purchased during 2011 and repaired in 2016. The service report stated that this unit model is no longer produced and parts are limited at this time.

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 Capital Budget 50% Secondary Reclamation 50%

Budget Impact/Other

	Prior Yr	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total
Labor							\$	-
Engineering							\$	-
Parts & Supplies			\$ 13,500				\$	13,500
Chemicals							\$	-
Utility							\$	-
Other							\$	-
Total		\$ -	\$ 13,500	\$ -	\$ -	\$ -	\$ -	\$ 13,500

6 FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Waggoner
 Area: Misc Structures
 Asset Type: Support Equipment
 Avg Useful Life: 10 years
 Est Residual Life: 5 years
 % Consumed Life: 72%
 Category: Capital Equipment
 Urgency: 2 = Very Important
 Carry Forward: Yes

Project Name: Laboratory BOD incubator (50% Reclamation)
 Dept: Treatment
 Total Cost: \$ 13,000
 CY Budget \$ -
 GL Account:

Asset Description

The BOD incubator is used to incubate the BOD analysis samples at a specific temperature of 20.0 C. This is a NPDES required analysis for Tertiary DMR and for CAWD NPDES permit.

Year Built: 2004
 Rehabilitation Date (Extending life of Asset): 9-Jul
 Rehab Life Extension: 2 years
 Asset Condition Rating: 3 Minor Defects Only

Justification

The incubator was purchased in 2004 and remains operating 24 hours a day and is close to its average useful life. Service technicians replaced the cooling compressor in 2017 which can give the unit 2 to 3 years of useful service. The BOD analysis is a NPDES permit requirement making this a critical equipment in the laboratory to remain compliant to the permits.

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 50% Secondary Reclamation 50%

Budget Impact/Other

	Prior Yr	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total
Labor							\$	-
Engineering							\$	-
Parts & Supplies			\$ 13,000				\$	13,000
Chemicals							\$	-
Utility							\$	-
Other							\$	-
Total		\$ -	\$ 13,000	\$ -	\$ -	\$ -	\$ -	\$ 13,000

7 FY 2020-21 Budget
 Carmel Area Wastewater District

Contact: Waggoner
 Area: Misc Structures
 Asset Type: Support Equipment
 Avg Useful Life: 20 years
 Est Residual Life: 1 year
 % Consumed Life: 89
 Category: Capital Equipment
 Urgency: 3 = Important
 Carry Forward: Yes

Project Name: Laboratory Autoclave (50% Reclamation)
 Dept: Treatment
 Total Cost: \$ 16,000
 CY Budget \$ -
 GL Account:

Asset Description

The autoclave is used to conduct NPDES permit coliform tests and to destroy samples that are completed prior to disposal.

Year Built: Jun-93
 Rehabilitation Date (Extending life of Asset): N/A
 Rehab Life Extension: N/A
 Asset Condition Rating: 8 Rehab unlikely

Justification

The autoclave unit has reached the end of the service life recommended by the manufacturer.
 It is essential to complete the permit required analysis and maintain compliance with EPA and ELAP requirements.

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 50%			Secondary	Reclamation 50%			
Budget Impact/Other	Prior Yr	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total	
Labor							\$	-	
Engineering							\$	-	
Parts & Supplies				\$ 16,000			\$	16,000	
Chemicals							\$	-	
Utility							\$	-	
Other							\$	-	
Total		\$ -	\$ -	\$ 16,000	\$ -	\$ -	\$ -	\$ 16,000	

Treatment Plant Long Term Capital Projects

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 Name: **WWTP - Elec/Mech Rehab & Sludge Holding Tank Replacement Project**
Dept.: Treatment
5 yr. Cap Projection: \$ 9,710,000
CY Budget \$ 2,935,000

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

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	Total
Labor		\$ 1,200,000	\$ 3,200,000			\$ 4,400,000	
Engineering	\$ 906,000	\$ 460,000	\$ 450,000	\$ 50,000		\$ 960,000	
Parts & Supplies		\$ 1,200,000	\$ 3,000,000			\$ 4,200,000	
Chemicals						\$ -	
Utility						\$ -	
Other		\$ 75,000	\$ 75,000			\$ 150,000	
						\$ -	
Total	\$ 906,000	\$ 2,935,000	\$ 6,725,000	\$ 50,000	\$ -	\$ -	\$ 9,710,000

FY 2019-20 Budget

Carmel Area Wastewater District

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 Name: **Carmel River FREE Mitigation Project (Funded by Grants/County, See Below)***

Dept.: Treatment

5 yr. Cap Projection: \$ -

CY Budget \$ -

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. The Board of Directors has agreed to finance up to \$500K of cost overruns in excess of \$4.6M

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

	Prior Yr.	20-21	21-22	22-23	23-24	Unscheduled	Total
Labor	\$ -	\$ -	\$ -			\$ -	\$ -
Engineering	\$ -	\$ -	\$ -			\$ -	\$ -
Parts & Supplies	\$ -	\$ -	\$ -			\$ -	\$ -
Chemicals	\$ -	\$ -	\$ -			\$ -	\$ -
Utility	\$ -	\$ -	\$ -			\$ -	\$ -
Other	\$ -	\$ -	\$ -		\$ 500,000	\$ 500,000	\$ 500,000
	\$ -	\$ -	\$ -			\$ -	\$ -
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 500,000	\$ 500,000

3 FY 2019-20 Budget
Carmel Area Wastewater District

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 Name: **Critical Process Minor Onsite Flood Adaptations (30% Reclamation)**

Dept.: Treatment

5 yr. Cap Projection: \$ 50,000

CY Budget \$ 50,000

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

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	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

Contact: Treanor

Area Standby Power

Asset Type: Process Equip (Gas)

Avg Useful Life: 30 years

Est Residual Life: N/A

% Consumed Life: N/A

Category: Capital Equipment

Urgency: 2 = Very Important

Carry Forward: No

Project Name: **Standby Power Reliability Project**

Dept.: Treatment

5 yr. Cap Projection: \$ 450,000

CY Budget \$ 450,000

Project Description

This project would involve purchasing a trailer mounted 500kW generator to serve as a backup to the existing standby system in case the existing 750kW generator were to fail. The Main Switchgear would be reprogrammed to run off one generator with a standby (instead of the current split bus system). This would allow removal of the existing 450kW generator (which has obsolete controls and needs to be removed to facilitate construction of new motor control equipment for the Influent Pump Station).

Year Built: N/A

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

Rehab Life Extension: N/A

Asset Condition Rating: N/A

Justification

The existing 450kW generator has controls which are obsolete and can no longer be maintained. The District currently has two standby generators that power a portion of the treatment plant (split system). To improve reliability CAWD would like to decommission the 450kW generator and run the plant entirely off the existing 750kW generator. To improve fault tolerance a trailer mounted 500kW generator would be purchased in this project to serve as a backup to the existing 750kW generator. This work also allows for more efficient implementation of a new Motor Control Center for the Influent Pump Station.

The existing 450kW generator has experienced mechanical and startup issues in the recent past. Parts are difficult to obtain and will only be increasingly so.

Risk Management Strategy

Capital Improvement Strategy: Add Backup/Redundancy

Maintenance Strategy:

Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	Total
Labor		\$ 50,000				\$ 50,000	\$ 50,000
Engineering	\$ 35,600	\$ 175,000				\$ 175,000	\$ 175,000
Parts & Supplies		\$ 225,000				\$ 225,000	\$ 225,000
Chemicals						\$ -	\$ -
Utility						\$ -	\$ -
Other						\$ -	\$ -
Total	\$ 35,600	\$ 450,000	\$ -	\$ -	\$ -	\$ -	\$ 450,000

5 FY 2019-20 Budget
 Carmel Area Wastewater District

Contact: Treanor
 Area Aeration Basins
 Asset Type: Process Equip (Liquid)
 Avg Useful Life: 25 years
 Est Residual Life: 20 years
 % Consumed Life: 90%
 Category: Maintenance
 Urgency: 4 = Less Important
 Carry Forward: Yes

Project Name: Aeration Basin Improvements

Dept.: Treatment

5 yr. Cap Projection: \$ 127,000

CY Budget \$ 87,000

Project Description

Replacement of blown off diffuser membranes and unplugging of diffusers in Aeration Basin 4.

Year Built: 1992

Rehabilitation Date (Extending life of Asset): 2015

Rehab Life Extension: 15 years

Asset Condition Rating: 1 New or Excellent Condition

Justification

Multiple air diffusers have blown off over the last couple years when basins 5 & 6 were offline and air demand was high in basin 4. This project aims to replace diffusers that were blown off and unplug diffusers that were plugged in the past.

Risk Management Strategy

Capital Improvement Strategy:

Maintenance Strategy: Corrective Maintenance

Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	Total			
Labor		\$	10,000			\$	10,000			
Engineering						\$	-			
Parts & Supplies	\$	87,000	\$	30,000		\$	117,000			
Chemicals						\$	-			
Utility						\$	-			
Other						\$	-			
Total	\$	-	\$	87,000	\$	40,000	\$	-	\$	127,000

6 FY 2019-20 Budget
 Carmel Area Wastewater District

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 Name: **Plant Landscaping**

Dept.: Treatment

5 yr. Cap Projection: \$ 15,000

CY Budget \$ 15,000

Project Description

The front entrance area to the Treatment Plant is not landscaped or setup to show off the WWTP. CAWD gets many visitors who go on tours and it is desirable 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

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	Total
Labor	\$	10,000				\$	10,000
Engineering						\$	-
Parts & Supplies	\$	5,000				\$	5,000
Chemicals						\$	-
Utility						\$	-
Other						\$	-
Total	\$ -	\$ 15,000	\$ -	\$ -	\$ -	\$ -	\$ 15,000

Project Name: **Cathodic Protection Testing and Maintenance**

Dept.: Treatment

5 yr. Cap Projection: \$ 190,000

CY Budget \$ 30,000

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. A simple method of protection connects the metal to be protected to a more easily corroded "sacrificial metal" to act as the anode. The sacrificial metal then corrodes instead of the protected cathode metal. The District will continue to test the Cathodic protection system 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

	Prior Yr.	20-21	24-25	28-29	33-34	Unscheduled	Total
Labor						\$	-
Engineering	\$ 30,000	\$ 100,000	\$ 30,000	\$ 30,000	\$	-	190,000
Parts & Supplies						\$	-
Chemicals						\$	-
Utility						\$	-
Other						\$	-
Total	\$ -	\$ 30,000	\$ 100,000	\$ 30,000	\$ 30,000	\$ -	\$ 190,000

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

Contact: Treanor
 Area Digester Control Bldg.
 Asset Type: Process Equip (Gas)
 Avg Useful Life: 20 years
 Est Residual Life: 5 years
 % Consumed Life: 80%
 Category: Maintenance
 Urgency: 4 = Less Important
 Carry Forward: No

Project Name: Microturbine Integration Project

Dept.: Treatment

5 yr. Cap Projection: \$ 665,000

CY Budget \$ 100,000

Project Description

Additional Upgrades to the Microturbine system to integrate the new 65 kW turbine. Upgrades would include a new gas conditioning system or individual component replacements with greater capacity to handle more gas. Also, a new PLC and programming for the system is needed to control the lead/lag operation of the turbines to maximize gas use in advance of the new gas conditioning system installation. The project will look at adding high pressure storage to maximize gas usage during gas production spikes.

Year Built: 2010s

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

Rehab Life Extension: N/A

Asset Condition Rating: 6

Justification

The Microturbine Gas Conditioning System is in poor condition. The gas compressor failed last year and is being replaced. The gas conditioning system has many components that are in poor condition and therefore it may be more cost effective to build a complete package system instead of continuing to fix minor components and have extended outages of the microturbine energy production due to component failures. Going with a new package system would be an improvement over the existing system which is not integrated. Also, a new gas conditioning system could be sized so that the microturbines could operate at maximum production given that a larger 65kW generator was installed recently.

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

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	Total
Labor		\$	160,000			\$	160,000
Engineering	\$ 45,000	\$ 100,000	\$ 30,000			\$	130,000
Parts & Supplies		\$	375,000			\$	375,000
Chemicals						\$	-
Utility						\$	-
Other						\$	-
Total	\$ 45,000	\$ 100,000	\$ 565,000	\$ -	\$ -	\$ -	\$ 665,000

9 FY 2019-20 Budget
Carmel Area Wastewater District

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 Name: **Chlorine Contact Channel Pipe Gallery Pipe Coating**

Dept.: Treatment

5 yr. Cap Projection: \$ 44,000

CY Budget \$ -

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 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

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	Total
Labor		\$	22,000			\$	22,000
Engineering						\$	-
Parts & Supplies		\$	22,000			\$	22,000
Chemicals						\$	-
Utility						\$	-
Other						\$	-
						\$	-
Total	\$ -	\$ -	\$ 44,000	\$ -	\$ -	\$ -	\$ 44,000

10 FY 2019-20 Budget
 Carmel Area Wastewater District

Contact: Treanor
 Area Misc. Structures

Project Name: **Plant Paving, Vault Lids, and Drainage**

Dept.: Treatment

5 yr. Cap Projection: \$ 50,000

CY Budget \$ -

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

Asphalt and drainage improvements 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 and drainage needs to be maintained to provide for 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

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	Total
Labor		\$	25,000		\$	75,000	\$ 100,000
Engineering						\$	-
Parts & Supplies		\$	25,000		\$	75,000	\$ 100,000
Chemicals						\$	-
Utility						\$	-
Other						\$	-
Total	\$ -	\$ -	\$ 50,000	\$ -	\$ -	\$ 150,000	\$ 200,000

11 FY 2019-20 Budget
Carmel Area Wastewater District

Contact: Treanor
Area Misc. Structures

Project Name: **Perimeter Fencing**

Dept.: Treatment

5 yr. Cap Projection: \$ 175,000

CY Budget \$ -

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

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	Total
Labor				\$ 50,000		\$	50,000
Engineering						\$	-
Parts & Supplies	\$ 3,000		\$	125,000		\$	125,000
Chemicals						\$	-
Utility						\$	-
Other						\$	-
Total	\$ 3,000	\$ -	\$ -	\$ 175,000	\$ -	\$ -	\$ 175,000

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

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 Name: **Lunch Room MCC Replace with Panelboard (Collection 6%)**

Dept.: Treatment

5 yr. Cap Projection: \$ 140,000

CY Budget \$ -

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

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	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

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

Contact: Treanor
 Area

Project Name: **WWTP Perimeter Tree Planting**

Dept.: Treatment

5 yr. Cap Projection: \$ 235,000

CY Budget \$ -

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

	Prior Yr.	20-21	22-23	24-25	25-26	31-32	Total
Labor		\$	60,000	\$	75,000	\$	235,000
Engineering						\$	-
Parts & Supplies						\$	-
Chemicals						\$	-
Utility						\$	-
Other - Consulting	\$ 27,000					\$	-
						\$	-
Total	\$ 27,000	\$ -	\$ 60,000	\$ 75,000	\$ 75,000	\$ 25,000	\$ 235,000

14 FY 2019-20 Budget
Carmel Area Wastewater District

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 Name: **RAS Pump/Piping Rehab**

Dept.: Treatment

5 yr. Cap Projection: \$ 100,000

CY Budget \$ -

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

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	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

15 FY 2019-20 Budget
Carmel Area Wastewater District

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 Name: **Main Potable Water and Gas Main Replacement (5.5% Collections)**

Dept.: Treatment

5 yr. Cap Projection: \$ 200,000

CY Budget \$ -

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

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	Total
Labor				\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
Engineering			\$ 50,000	\$ 50,000		\$ 50,000	\$ 50,000
Parts & Supplies			\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 100,000
Chemicals						\$ -	\$ -
Utility						\$ -	\$ -
Other						\$ -	\$ -
Total	\$ -	\$ -	\$ -	\$ 100,000	\$ 100,000	\$ -	\$ 200,000

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

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 Name: **Replace Older Turblex Blower**

Dept.: Treatment

5 yr. Cap Projection: \$ 530,000

CY Budget \$ -

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

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	Total
Labor				\$ 100,000		\$	100,000
Engineering						\$	-
Parts & Supplies			\$ 430,000			\$	430,000
Chemicals						\$	-
Utility						\$	-
Other						\$	-
						\$	-
Total	\$ -	\$ -	\$ -	\$ 530,000	\$ -	\$ -	\$ 530,000

17 FY 2019-20 Budget
Carmel Area Wastewater District

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 Name: **Roofing Repairs**
 Dept.: Treatment
 yr. Cap Projection: \$ 90,000
 CY Budget \$ -

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

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	Total
Labor					\$ 45,000	\$	45,000
Engineering						\$	-
Parts & Supplies					\$ 45,000	\$	45,000
Chemicals						\$	-
Utility						\$	-
Other						\$	-
						\$	-
Total	\$ -	\$ -	\$ -	\$ -	\$ 90,000	\$ -	\$ 90,000

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

Contact: Treanor
 Area Misc. Structures

Project Name: **Inventory Storage Containers**

Dept.: Treatment

5 yr. Cap Projection: \$ 175,000

CY Budget \$ -

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.

Risk Management Strategy

Capital Improvement Strategy: Plant Rehabilitation/Replacement

Maintenance Strategy:

Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	Total
Labor						\$ -	-
Engineering				\$ 175,000		\$ 175,000	175,000
Parts & Supplies						\$ -	-
Chemicals						\$ -	-
Utility						\$ -	-
Other						\$ -	-
Total	\$ -	\$ -	\$ -	\$ -	\$ 175,000	\$ -	175,000

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

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 Name: **Plant Bridge Retrofit Project**

Dept.: Treatment

5 yr. Cap Projection: \$ 500,000

CY Budget \$ -

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. Building a bridge like this today would be extremely costly compared to the cost to rehabilitate the existing bridge. Also, there may be value to the community in the future for coastal trails. Allowing this asset to fall into disrepair could end up being regretful due to the benefits now and potentially in the future.

Risk Management Strategy

Capital Improvement Strategy:

Maintenance Strategy: Corrective Maintenance

Non Asset Strategy:

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	Total					
Labor				\$	150,000	\$	300,000	\$	450,000			
Engineering				\$	200,000			\$	200,000			
Parts & Supplies				\$	150,000	\$	200,000	\$	350,000			
Chemicals								\$	-			
Utility								\$	-			
Other								\$	-			
								\$	-			
Total	\$	-	\$	-	\$	-	\$	500,000	\$	500,000	\$	1,000,000

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

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 Name: **Digester No. 1 - Rehabilitation**

Dept.: Treatment

5 yr. Cap Projection: \$ 150,000

CY Budget \$ -

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. Delaying this work would result in more expensive repairs being required in the future.

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

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	Total
Labor					\$ 250,000	\$ 250,000	\$ 250,000
Engineering				\$ 150,000	\$ 100,000	\$ 100,000	\$ 250,000
Parts & Supplies					\$ 410,000	\$ 410,000	\$ 410,000
Chemicals						\$ -	\$ -
Utility						\$ -	\$ -
Other						\$ -	\$ -
Total	\$ -	\$ -	\$ -	\$ -	\$ 150,000	\$ 760,000	\$ 910,000

21 FY 2019-20 Budget
Carmel Area Wastewater District

Contact: Treanor
 Area Influent Building

Project Name: **Influent Pump Station Wet Well Repairs**

Dept.: Treatment

yr. Cap Projection: \$ -
 CY Budget \$ -

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 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

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	Total
Labor					\$ 55,000	\$ 55,000	\$ 55,000
Engineering						\$ -	\$ -
Parts & Supplies					\$ 35,000	\$ 35,000	\$ 35,000
Chemicals						\$ -	\$ -
Utility						\$ -	\$ -
Other						\$ -	\$ -
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 90,000	\$ 90,000

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

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 Name: **Operations Building HVAC and Plumbing Systems Repairs**

Dept.: Treatment

5 yr. Cap Projection: \$ -

CY Budget \$ -

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

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	Total
Labor					\$ 50,000	\$ 50,000	\$ 50,000
Engineering					\$ 15,000	\$ 15,000	\$ 15,000
Parts & Supplies					\$ 90,000	\$ 90,000	\$ 90,000
Chemicals						\$ -	\$ -
Utility						\$ -	\$ -
Other						\$ -	\$ -
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 155,000	\$ 155,000

23 FY 2019-20 Budget
Carmel Area Wastewater District

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 Name: **Lagoon Crossing Rehabilitation**

Dept.: Treatment

5 yr. Cap Projection: \$ -

CY Budget \$ -

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

	25-26	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

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 Name: **Septage Waste Receiving Station**

Dept.: Treatment

5 yr. Cap Projection: \$ -

CY Budget \$ -

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

	25-26	Total
Labor	\$ 400,000	\$ 400,000
Engineering	\$ 200,000	\$ 200,000
Parts & Supplies	\$ 400,000	\$ 400,000
Chemicals	\$ -	\$ -
Utility	\$ -	\$ -
Other	\$ -	\$ -
Total	\$ 1,000,000	\$ 1,000,000

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

Contact: Treanor
 Area Misc. Structures

Project Name: **Staff Office Trailer Replacements**
 Dept.: Treatment

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

5 yr. Cap Projection: \$ -
 CY Budget \$ -

Project Description

Staff currently use 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 Built: 2010
 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

	26-27	Total
Labor \$	90,000	\$ 90,000
Engineering \$	10,000	\$ 10,000
Parts & Supplies \$	50,000	\$ 50,000
Chemicals	\$	-
Utility	\$	-
Other	\$	-
	\$	-
Total	\$ 150,000	\$ 150,000

26 FY 2019-20 Budget
 Carmel Area Wastewater District

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 Name: **Ocean Outfall Rehabilitation**
 Dept.: Treatment
 Cap Projection: \$ -
 CY Budget \$ -

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

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

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 Name: Next Generation PLC/SCADA Upgrades Phase 1

Dept.: Treatment

5 yr. Cap Projection: \$ -
 CY Budget \$ -

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	\$ 100,000	\$ 100,000
Engineering	\$ 100,000	\$ 100,000
Parts & Supplies	\$ 300,000	\$ 300,000
Chemicals	\$ -	\$ -
Utility	\$ -	\$ -
Other	\$ -	\$ -
	\$ -	\$ -
Total	\$ 500,000	\$ 500,000

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

Contact: Treanor
 Area WWTP

Asset Type: Instrumentation
 Avg Useful Life: 10 years
 Est Residual Life: N/A
 % Consumed Life: 0%
 Category: Maintenance
 Urgency: 5 = Future
 Carry Forward: No

Project Name: **Air Monitoring**

Dept.: Treatment

5 yr. Cap Projection: \$ -

CY Budget \$ -

Project Description

Installation of air quality sampling equipment to be connected via WIFI so that data can be web enabled. Air quality equipment and specifications will be specified by Monterey Bay Air Quality Board so that data can be correlated with local databases. Includes purchase of equipment, installation, web enabled programing and research needed to reduce ongoing costs.

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

Justification

Board of Directors discussion in 2016 resulted in the Board request to include investigation into air quality monitoring. Air quality data gathered will be site specific and can be utilized to develop a correlation between employee respiratory health and air quality. In addition, any data gathered on site can be compared to other regional air quality monitors to view any variations. No health issues have been reported or are identified. This proposal was developed from a discussion by the CAWD board.

Risk Management Strategy

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

Funding Source

Primary Capital Budget Secondary

Budget Impact/Other

	Unknown	Total
Labor	\$ -	-
Engineering	\$ -	-
Parts & Supplies	\$ 15,000	\$ 15,000
Chemicals	\$ -	-
Utility	\$ -	-
Other	\$ -	-
	\$ -	-
Total	\$ 15,000	\$ 15,000

29 FY 2019-20 Budget
Carmel Area Wastewater District

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 Name: **Sea Level Rise Flood Mitigation**
 Dept.: Treatment
 Cap Projection: \$ -
 CY Budget \$ -

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	<u>Unknown</u>	<u>Unknown</u>

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 Name: Misc. Yard Piping Rehab and Maintenance Projects

Dept.: Treatment

5 yr. Cap Projection: \$ -
 CY Budget \$ -

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

	Prior Yr.	25-26	26-27	27-28	28-29	29-30	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

31 FY 2019-20 Budget
 Camel Area Wastewater District

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 Name: **Influent/Headworks/Primary Rehab and Maintenance Projects**

Dept.: Treatment

5 yr. Cap Projection: \$ -
 CY Budget \$ -

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

	25-26	26-27	27-28	28-29	29-30	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

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

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 mostly required by Reclamation.

Risk Management Strategy

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

Funding Source

Primary	Capital Budget	Secondary					Total
Budget Impact/Other		25-26	26-27	27-28	28-29	29-30	
Labor	\$100,000	\$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	\$100,000	\$ 500,000
Chemicals						\$	-
Utility						\$	-
Other						\$	-
Total	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 1,000,000

33 FY 2019-20 Budget
Carmel Area Wastewater District

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

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

	25-26	26-27	27-28	28-29	29-30	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

34 FY 2019-20 Budget
Carmel Area Wastewater District

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 Name: **DAFT/Digestion/Dewatering Rehab and Maintenance Projects (Partial Reclamation)**

Dept.: Treatment

5 yr. Cap Projection: \$ -

CY Budget \$ -

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

	25-26	26-27	27-28	28-29	29-30	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	\$ 500,000

Project Name: **Coastal Hazards Monitoring Plan**

Dept.: Treatment

5 yr. Cap Projection: See O&M Budget

CY Budget See O&M Budget

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

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	Total
Labor						\$	-
Engineering		\$150,000	\$75,000	\$75,000	\$75,000	\$	450,000
Parts & Supplies						\$	-
Chemicals						\$	-
Utility						\$	-
Other						\$	-
Total	\$ -	\$ 150,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 450,000

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

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

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

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	Total
Labor						\$ -	-
Engineering		\$150,000	\$100,000	\$100,000	\$100,000	\$100,000	\$ 550,000
Parts & Supplies						\$ -	-
Chemicals						\$ -	-
Utility						\$ -	-
Other						\$ -	-
Total	\$ -	\$ 150,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 550,000

37 FY 2019-20 Budget
Carmel Area Wastewater District

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

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

	Prior Yr.	20-21	21-22	22-23	23-24	24-25	Total
Labor						\$	-
Engineering		\$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

Administration Dept Capital Budget

Project #	PROJECT	20/21	21/22	22/23	23/24	24/25	Unscheduled
CAPITAL PROJECTS							
1	Interior Painting						\$ 25,000
2	Replace Administrative Office Carpeting						\$ 27,000
3	Update bathrooms - new tile & paint						\$ 25,000
4	Replace Administrative Office Furnaces						\$ 6,500
5	Admin Roof			\$ 70,000			
6	Front Porch Settling - repairs						\$ 35,000
7	Admin Bldg modifications for COVID-19 safety	\$ 75,000					
8	Codification / Administrative Code Project						\$ 50,000
CAPITAL PURCHASES							
a	Admin Copy Machine/Scanner/Fax						\$ 10,500
b	Server Replacement			\$ 11,000			
c	General Manager's Sedan						\$ 35,000
TREATMENT & DISPOSAL TOTAL							
		\$ 75,000	\$ -	\$ 81,000	\$ -	\$ -	\$ 214,000
RECLAMATION SHARE							
		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PBCSD SHARE							
		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CAWD COST							
		\$ 75,000	\$ -	\$ 81,000	\$ -	\$ -	\$ 214,000

1 FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Lather
 Area Administration

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

Asset Type: N/A
 Avg Useful Life: 20 years
 Est Residual Life:
 % Consumed Life:
 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.	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total	
Labor							\$	-	
Engineering							\$	-	
Parts & Supplies							\$	-	
Chemicals							\$	-	
Utility							\$	-	
Other	-	-	-		-	-	25,000.00	\$25,000	
Total		-	-	\$0	-	-	25,000.00	\$ 25,000	

2 FY 2020-21 Budget
Carmel Area Wastewater District

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

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

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					Unscheduled	Total
Budget Impact/Other	Prior Yr.	20-21	21-22	22-23	23-24	24-25			
Labor							\$	-	
Engineering							\$	-	
Parts & Supplies							\$	-	
Chemicals							\$	-	
Utility							\$	-	
Other							\$ 27,000	\$ 27,000	
Total		\$ -	\$ -	\$ -	\$ -	\$ -	\$ 27,000	\$ 27,000	

3 FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Lather
 Area Administration

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

Asset Type: N/A
 Avg Useful Life: 10 years
 Est Residual Life:
 % Consumed Life:
 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 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

Budget Impact/Other	Primary		Capital Budget		Secondary			Unscheduled	Total
	Prior Yr.	20-21	21-22	22-23	23-24	24-25			
Labor							\$	-	
Engineering							\$	-	
Parts & Supplies							\$	-	
Chemicals							\$	-	
Utility							\$	-	
Other							\$ 25,000	\$ 25,000	
Total		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 25,000	\$ 25,000

4 FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Lather
 Area Administration

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

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.	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total	
Labor							\$	-	
Engineering							\$	-	
Parts & Supplies							\$	-	
Chemicals							\$	-	
Utility							\$	-	
Other							\$ 6,500	\$ 6,500	
Total		\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,500	\$ 6,500	

5 FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Lather
 Area Administration

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

Asset Type: N/A
 Avg Useful Life: 30 years
 Est Residual Life:
 % Consumed Life:
 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 at this time. 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.	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total	
Labor				\$	-		\$	-	
Engineering							\$	-	
Parts & Supplies							\$	-	
Chemicals							\$	-	
Utility							\$	-	
Other				\$	70,000		\$	70,000	
Total		\$ -	\$ -	\$ -	\$ 70,000	\$ -	\$ -	\$ 70,000	

6 FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Lather
 Area Administration

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

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

Budget Impact/Other	Primary		Capital Budget					Secondary	
	Prior Yr.	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total	
Labor							\$	-	
Engineering							\$	-	
Parts & Supplies							\$	-	
Chemicals							\$	-	
Utility							\$	-	
Other							\$ 35,000	\$ 35,000	
Total		\$ -	\$ -	\$ -	\$ -	\$ -	\$ 35,000	\$ 35,000	

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FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Treanor/Foley
Area Administration

Project Name: Admin Bldg. COVID-19 Modifications for Safety

Dept.: Admin

5 yr. Cap Projection: \$ 35,000

CY Budget \$ 75,000

GL Account:

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 Administration Bldg. was built in 1990 and remains essentially unchanged from original design plan.

Year Built: N/A

Rehabilitation Date (Extending life of Asset): 1990

Rehab Life Extension: N/A

Asset Condition Rating: 4

Justification

COVID-19 and employee safety remain a concern at the Administrative offices. The District is considering a project that would enclose the lobby (e.g. vestibule), close the front counter with plexi-glass, and work on HVAC system to ensure outflow of air from lobby.

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.	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total	
Labor							\$	-	
Engineering							\$	-	
Parts & Supplies							\$	-	
Chemicals							\$	-	
Utility							\$	-	
Other		\$ 75,000					\$	75,000	
Total		\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 75,000	

8 FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Barringer
 Area Administration

Project Name: Codification / Administrative Code
 Dept.: Admin
 5 yr. Cap Projection: \$ -
 CY Budget \$ -
 GL Account:

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 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.	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total	
Labor							\$	-	
Engineering							\$	-	
Parts & Supplies							\$	-	
Chemicals							\$	-	
Utility							\$	-	
Other						\$	50,000	\$ 50,000	
Total		\$ -	\$ -	\$ -	\$ -	\$ -	\$ 50,000	\$ 50,000	

a **FY 2020-21 Budget**
 Carmel Area Wastewater District

Contact: Buikema
 Area Administration

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

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.	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total	
Labor							\$	-	
Engineering		\$0					\$	-	
Parts & Supplies							\$	-	
Chemicals							\$	-	
Utility							\$	-	
Other						\$	10,500	\$ 10,500	
Total		\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,500	\$ 10,500	

b FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Lather
Area Administration

Project Name: Server Replacement
Dept.: Admin
5 yr. Cap Projection: \$ 11,000
CY Budget \$ -
GL Account:

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.	20-21	21-22	22-23	23-24	24-25	Unscheduled	Total	
Labor							\$	-	
Engineering							\$	-	
Parts & Supplies				\$	-		\$	-	
Chemicals							\$	-	
Utility							\$	-	
Other						\$	11,000	\$ 11,000	
Total		\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,000	\$ 11,000	

C FY 2020-21 Budget
Carmel Area Wastewater District

Contact: Lather
 Area Administration

Project Name: General Manager's Sedan
 Dept.: Admin
 5 yr. Cap Projection: \$ 35,000
 CY Budget \$ -
 GL Account:

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

Budget Impact/Other	Primary	Capital Budget					Secondary	Unscheduled	Total
	Prior Yr.	20-21	21-22	22-23	23-24	24-25			
Labor								\$ -	-
Engineering								\$ -	-
Parts & Supplies							\$ 35,000	\$ 35,000	35,000
Chemicals								\$ -	-
Utility								\$ -	-
Other								\$ -	-
Total		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 35,000	\$ 35,000

Budget Maps

Carmel Area Wastewater District - Service Area with Parcels



Appendices

Technical Terms

Technical Terms

Account – A record of a business transaction.

Accounting System – The structure of records and procedures that discovers, records, classifies, summarizes, and reports information on the financial position and results of operations of the District as a governmental entity.

Accrual Basis – The recognition of a revenue or expense in a fiscal year even though the actual cash may not be received or paid until the following year.

Adoption – Formal action by the Board of Directors. The adoption of the budget sets the financial framework for subsequent fiscal year(s).

Agency Treatment Charges – Revenues derived from long-term contracts with other entities to whom the District provides sewage treatment, such as Pebble Beach Community Services District and California State Parks at Point Lobos.

Allocation of Expenses – The manner in which revenues and expenses are accounted for in the different service functions of the District. For example: sewage collection, treatment and disposal. This function is further divided into Operations and Maintenance (O&M), Capital Purchases, and Capital Improvement Program (CIP).

Amortization – The spreading out of capital expenses for intangible assets over a specific period of time (usually over the asset's useful life) for accounting purposes.

Amortization is similar to depreciation, which is used for tangible assets, and to depletion, which is used with natural resources.

Assets – Resources owned by the District

Asset Management – Maintaining a desired level of service for optimal asset performance at the lowest life-cycle cost. Lowest life-cycle cost refers to the best appropriate cost for rehabilitating, repairing or replacing an asset.

Authorized Positions – Number of staff positions authorized for the fiscal year.

Average Dry Weather Flow – The average non-storm flow over 24 hours during the dry months of the year (May through September). It is composed of the average sewage flow and the average dry weather inflow and infiltration.

Biochemical Oxygen Demand – the amount of dissolved oxygen needed (i.e. demanded) by aerobic biological organisms to break down organic material present in in a given water sample at certain temperature over a specific time period. BOD is used as a gauge of the effectiveness of wastewater treatment plants.

Biosolids – Sludge residual from the treatment process.

Budget – The District's financial plan for a given period of time, which includes revenues, expense, and other expenditures that provide funding for services provided to

District customers. It contains an Operating Budget and a Capital Budget.

- Operating Budget – The financial plan for non-capital revenues and expenses.
- Capital Budget – The financial plan of capital expenditures, part of the long-range plan.

Capital Assets – Assets owned by the District that have a useful life of more than 1 year and a cost of over \$10,000. Capital assets include land, buildings, machinery, equipment, and major improvements and rehabilitation that extend the useful life of an asset by 1 year or more.

Capital Improvement Program (CIP) – Accounts for revenues, capital contributions, and repayments, and allocates designated resources for capital improvements such as construction, purchase of new facilities and equipment, or major reconstruction of existing infrastructure.

Clean Water Act (CWA) – The primary federal law in the United States governing water pollution. Its objective is to restore and maintain the chemical, physical, and biological integrity of the nation's waters by preventing point and non point pollution sources, providing assistance to publicly owned treatment works for the improvement of wastewater treatment, and maintaining the integrity of wetlands.

Cogeneration – Production of energy as a result of utilizing the by-products of the solids treatment process.

Computerized Maintenance Management System (CMMS) – A software package that is used for inventory control, procurement management, fixed asset condition assessment and maintenance repair management. The District uses a CMMS product called MainSaver.

Contingency – Reserves included in each fiscal year budget as an allowance for unanticipated expenses.

Connection Fees – Governed by Ordinance No. 85-2. Connection fees represent one-time contributions of resources to the District, imposed on all new connections to the District. The intent of these fees is to recover the capacity cost of sewer facilities within the existing system.

Cost of Living Adjustment (COLA) – An increase in wage compensation to offset the adverse conditions of inflation on salaries, or a provision for price increases based on the historical index of general inflation. Labor negotiation adjustments are based on the Consumer Price Index-Wage Earners San Francisco-Oakland Bay Area (CPI-W) for the period of December of the preceding year through December of the current year.

Depreciation – Loss in asset value over the useful life of a capital asset as a result of wear, deterioration, or obsolescence.

District Service Charges – Revenues received from customers for sewer services, under Ordinance No. 2015-01.

Effluent – Treated wastewater.

Enterprise Fund – Accounts for operations and business activities in a manner similar to

a private business, where the intent is that the costs of providing services to the general public are recovered primarily through user fees.

Fiscal Year (FY) – a 12-month financial measurement period between July 1 and June 30.

Fund – A fiscal accounting entity with a self-balancing set of accounts recording cash and other financial resource, liabilities and equity. Funds are segregated based on specific services or objectives in accordance with special regulations, restrictions, or limitations.

Grants – Contributions by other governmental entities or organizations to provide funding for a specific project.

Interest Income – Revenues received by the District from investments.

Lift Station – facilities to move wastewater from lower to higher elevation.

Long-Range Plan – The District maintains a long-range Construction Plan. It details planned projects by cost and target year. During each budget cycle, the planned projects for the next 2 years are moved into the budget document and the Board approves necessary funds for their implementation. The plan forecasts both capital project requirements and long-term needs for major repairs and maintenance of the sewer system.

Net Position – The difference between assets plus deferred outflow of resources, and liabilities plus deferred inflow of resources.

Non-operating – Enterprise fund revenues or expenses that are not a result of its primary service activities.

National Pollutant Discharge Elimination System (NPDES) – Introduced in 1972, it is a permit system for regulating point sources of pollution. Point sources may not discharge pollutants to surface waters without a permit from the NPDES system. The system is managed by the United States Environmental Protection Agency (EPA) in partnership with state environmental agencies.

Operating Expenses – Costs incurred by the District in the course of service to customers.

Operating Revenues – Funds received by the District through its normal business operations.

Operation & Maintenance (O&M) – Accounts for revenues and expenses related to the day-to-day operations of sewer services.

Ordinance – A local law set forth by the Board of Directors.

Other or Miscellaneous – Revenues or expenses aggregated on the financial statements for accountability purposes.

Overhead Rates – The purpose of overhead rates is to recover the cost of benefits, non-productive time, and other resources, such as administration and engineering services.

Overhead Recovery – Revenues from the application of overhead rates to actual staff salaries, for time spent on projects and

assignments in renewal and replacement and capital improvement projects.

Permits and Inspection Fees – Fees imposed to cover the cost of issuing sewer permits, inspecting sewer work, and maintaining permanent District records. Those fees are governed by Ordinance No. 85-1.

Proposition 218 – Passed by California voters on November 5, 1996 with effective date of July 1, 1997, it requires local governments to obtain the approval of property owners in a local ballot measure before levying a new or increased tax assessment of those property owners. In 2006, the California Supreme Court ruled that Proposition 218 applies to local water, recycling and sewer charges.

Renewal and Replacement (R&R) – Accounts for revenues and expenses associated with repairs on maintenance of collections and treatment facilities or equipment.

Resolution – A special or temporary order of the Board of Directors. A resolution requires less formality than a statute or ordinance.

Revenues – Income received by providing services, or from investment or other sources.

Sewer Rates – Fees paid by customers for sewer services. The District utilizes a rate model that was designed by the State Water Resources Board and includes components for biochemical oxygen demand (BOD), suspended solids (SS) and flow.

Suspended Solids – Refers to small solid particles which remain in suspension in water as a colloid or due to the motion of the water. It is used as one indicator of water quality.