

Budget Committee (final):  
Prelim Budget Board Meeting:  
Final Budget Board Meeting:

March 8, 2018  
March 22, 2018  
June 28, 2018



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# Carmel Area Wastewater District

## Budget – Volume 1

### 2018-19

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# Carmel Area Wastewater District

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2018-19

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Ken White	Board President
Gregory D'Ambrosio	Director (Budget Committee)
Michael Rachel	Director
Robert Siegfried	Director (Budget Committee)
Charlotte F. Townsend	Director

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Irene Bryant	Administrative Services Coordinator
Chris Foley	Maintenance Superintendent
James Grover	Principal Accountant
Drew Lander	Principal Engineer
Daryl Lauer	Collection System Superintendent
Patrick Treanor	Plant Engineer
Ed Waggoner	Operations Superintendent

## 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

## 2018-19

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# Budget Message



# Carmel Area Wastewater District

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## **Message from the General Manager**

On behalf of the Board of Directors and staff of the Carmel Area Wastewater District, I am pleased to present the District's Fiscal Year 2018-19 Budget. This budget serves as the financial plan for FY 18-19 and explains the resource requirements and costs associated with providing safe, effective, and environmentally-sound wastewater services to approximately 11,000 residents, businesses, and government in Carmel and by contract, an additional 4,500 residents in Pebble Beach.

## **Achievements in 2017-18**

The past year has been extraordinarily busy, and yet it seems as if the time once again flew by quickly. By any measure, 2017-18 successfully brought together the efforts of the past few with the completion of Phase I rehabilitation of the plant, but there is, of course, more to report. Some of our achievements over the past year include:

- Once again we had successful "clean" financial audits for both CAWD and the Reclamation Project. Perhaps because we manage this every year some might not think it worthy of note; it's become the expected. I think it's worthwhile to acknowledge the good job that staff does to ensure that we meet this goal every year – they do their job well so it seems routine.
- Phase 1 was completed and a Dedication Ceremony held on January 11, 2018. Final Completion was formally January 14, 2018.
- Phase 2 design proceeds on track. Preliminary scope and estimated costs have been identified. We have received a proposal for design services and plan to bring a proposal before the Board in July 2018.

- We are still working on resolving permit issues with the Coastal Commission; however, after a tour of our facilities this year in March we feel that we are on track. The permit is on hold while we complete a sea level rise study for submission. We look forward to applying for a public works type permit that will cover all the work we routinely do at the facility.
- Regarding the sea level rise study, we have received a draft and anticipate a final report before the end of 2018. This report will not only assist us in renewing our NPDES permit and Coastal Commission permit; but it will become the framework for future planning.
- We have engaged West Yost Engineering to conduct hydraulic modeling and long-term capital planning studies of our Collections system. Ultimately these studies will assist us in planning long term rehabilitation of the system as well as expansion capabilities.
- Fiber optic lines were installed at the treatment plant in January 2018. We have also replaced the older fiber ring inside the plant. This is a significant, and long time coming, upgrade in both service level and reliability.
- The District adopted the Monterey County Multi-Jurisdictional Hazard Mitigation Plan and committed to long-term participation in its maintenance. Participation will allow us to apply for future FEMA/OES grant funding opportunities.
- The District took over as lead agency for the Central Coast Long Term Environmental Assessment Network aka Cclean. We've been members since its inception, but now we are responsible for managing regular meetings, financials, and other administrative tasks. To date, the transition has gone very well and we look forward to serving for some time in the future.
- The District completed its Administration Assessment project with outside consultant Municipal Resource Group, LLC. The Board accepted the report and is working through the recommendations as appropriate.
- One of the recommendations from the Administration Assessment was to hire an additional engineer due to the demanding workload and pace. We have completed that with the addition of an excellent new Plant Engineer on

staff. We're looking forward to the additional expertise he brings to the table.

- The Plant Administrative Coordinator/CMMS position was authorized in October 2017 by the Board and is now a full-time position and a critical component of the CAWD team. We believe CMMS is the
- The District entered the CSRMA Nurse Triage Program in an effort to better manage the worker comp process. We're excited about this product because it enables us to connect staff immediately to qualified medical advice over the phone. We believe it will help us to manage costs in both the short and long term.
- Bi-annual Employee Survey was delivered to the Board and with both good news and areas needing improvement. The Board has ordered that a copy of the report be placed in the front pocket of each monthly board packet – as a reminder that this is a living breathing document that we take seriously.
- We continue to work with neighborhood groups on the potential to connect to the District. We've met with groups in the Highlands, Rio Vista, the roughly 100 homes behind the Carmel High School, and Corona Road and Spindrift neighborhoods in Big Sur. We continue to touch base with the people out in the Quail Lodge area in efforts to convince them to connect. We believe that the Monterey County Local Agency Management Program (LAMP) program makes sewer a very viable alternative to septic.
- We continue to work with the community and other agencies whenever possible. We participate in both CSA 1 and CSA 50 meetings for local flood control issues. We have worked extensively with the County of Monterey both on issues affecting the Carmel Lagoon and the Carmel River Free Project. We participate in Peninsula-wide efforts for the Integrated Regional Water Management program to identify and implement water management solutions. And finally, we have started to participate in local stormwater issues because we believe that we are well positioned to handle stormwater from the City of Carmel-by-the-Sea as well as parts of the County.

## **Making Significant Capital Investments in the District's Infrastructure**

The treatment and disposal of wastewater and reuse of its by-products is a highly regulated enterprise that requires significant capital infrastructure. CAWD operates around-the-clock and the various fixed assets and equipment used in the treatment processes are subjected to heavy usage, sometimes under a challenging operating environment.

The District remains committed to bringing the treatment plant and collection system back to the highest standard. We're well on the way to that goal. District staff monitors new technologies and operational approaches, and evaluates those that will bring improvement to the treatment process, save energy, reduce chemical usage, and meet changing regulatory requirements.

### **Goals for FY 2018-19**

- Continue to improve plant operations – basic training on operations, basic training on maintenance, and focus on the fundamentals. Every operator should be able to run the plant successfully. At the same time look for great efficiencies throughout the system. At a staff level we talk continuously about engineering solutions to everything. The intent is to look at everything.
- Continue implementation of CMMS-Mainsaver. We've made astonishing strides but now we're looking to crank it up even more. CMMS is the backbone that forms our future. When we talk about finding efficiency throughout the system – it starts with CMMS.
- Successfully complete design of Phase 2 of our Plant Rehabilitation and take it to the bid phase. This is part of our long-term plan initiated in 2011, we're on track and continue forward.
- We've applied for a flood mitigation grant from FEMA/OES to repair the Hatton Canyon pipeline and make it impervious to water coming down the water shed. We hope that once the grant is awarded we can go out to bid and begin construction Summer 2019. The Administrative Draft Initial Study/Mitigated Negative Declaration were presented to the Board at our regular June 2018 meeting.

- We have also applied for a flood mitigation grant from FEMA/OES for the Calle la Cruz/Outfall project. The impending Carmel River Free Project poses a potential threat to our pipeline crossing the south finger of the Carmel Lagoon. We've determined that the best solution is to place our pipeline under the lagoon. This is a very significant project for us – and we'll ultimately end up with this 185 feet of pipe as the most costly in the entire District; but we also see it as a permanent solution and one that benefits the community. The final Initial Study/Mitigated Negative Declaration was presented to the Board at our regular June 2018 meeting.
- Continue to follow the Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure and Interim Sandbar Management Plan Project. Collaborate with County and other agencies when possible. The District has a significant interest in this project as it could make the difference between continued flooding at our facility versus a dry environment.
- Our NPDES permit comes up for renewal this coming year so we'll be taking on that project without any outside assistance. As usual, we fully anticipate that we will continue to exceed all NPDES permit requirements and comply with all regulations for current waste discharge permits.
- The County of Monterey has advised us that they are planning to move forward with their “Bio-swale” project on the west side of Rio Road next year. Because we have infrastructure in the area we are planning on how we can work with the County and protect our infrastructure at the same time.
- Initiate and build upon a Management Training series – the first session is planned for end of July and quarterly thereafter. This part of our ongoing efforts to build for the future. We are actively looking at succession planning issues and training. We know that the right people are key to our success.
- Protect the environment – we have always been good stewards of the environment and we take it as our charge improving the plant so that we can continue to be a good neighbor at our current location.

## **A Sustainable Future**

Over the past seven years the District has worked non-stop to provide for a sustainable future at the treatment plant. We have taken steps to make sure that the District is financially stable and positioned for whatever the future may bring. We have identified issues that may adversely impact the District and are working on solutions.

We are also looking at what we internally call the “very long term” viability of the treatment plant. We’ve initiated an analysis of sea level rise in the Carmel Lagoon and its potential impact on the collection system. We’re talking about potential solutions for encroaching sea water on our system and we’re talking about financing. The one thing we know for certain is that the only way to face the challenges of the “very long term” is to start thinking about and planning for it right now.

In closing, our people make us what we are. I am privileged to work with 25 talented, experienced, and dedicated individuals. Whether they have years of experience in the field of wastewater or are new to it, all of them are deeply committed to the field and doing the best job possible. On behalf of staff I would like to express our thanks and appreciation to the CAWD Board of Directors for supporting the goals and objectives of the District and in appropriating the necessary resources to enable us to achieve a high level of performance in safeguarding the public health and environment and provide wastewater service in the most cost-effective manner we possibly can.

Barbara Buikema  
General Manager



# Budget in Brief



FY 2018-19

## Budget in Brief

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### Our Mission

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

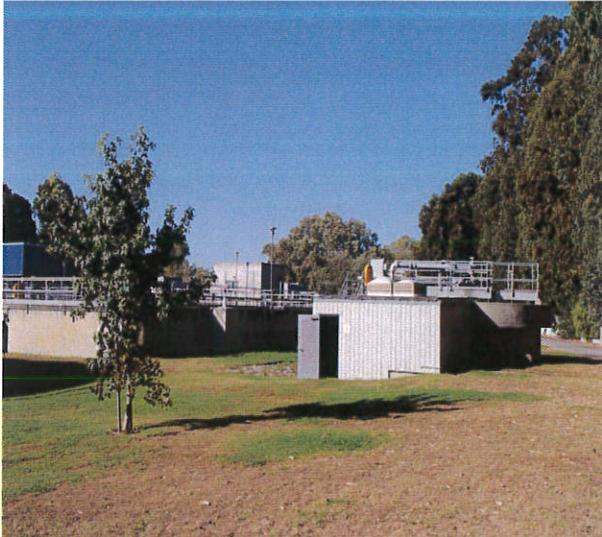
### Who We Are

Formed in 1908, we are one of the oldest sanitary districts in the state. At the time of formation we provided septic facilities for the village of Carmel-by-the-Sea. Today we have grown to provide collection, treatment and disposal of wastewater for 11,000 people within the District and treatment and disposal for an additional 4,500 people in Del Monte Forest as provided for by contract agreement with Pebble Beach Community Services District (PBCSD).

The CAWD collection system is comprised of approximately 83 miles of gravity sewers ranging in size from 6 inches to 27 inches in diameter together with nearly 5 miles of force mains, 7 pump stations, and over 1,500 manholes. This budget is reflective of our 5 year capital improvement program to replace or rehabilitate pipelines.



The District's customer base is split 94% residential and 6% commercial/retail. The community is fully built out and there is little change from year-to-year.



The District is very interested in expanding into Carmel Valley and further into the Highlands area. We believe that publicly treated wastewater operations are the best way to protect public health and the

environment. In this time of scarce water supply, adding to our customer base would greatly help us to reclaim even more water – and at the same time protect help reduce the draw on the Carmel Valley Aquifer.

The treatment plant utilizes the activated sludge process for secondary treatment. The plant has been designed to treat 4.0 million gallons per day of primarily domestic wastewater. At the present time the plant has a permitted capacity of 3.0 MGD. Current average dry weather flow is approximately 1.3 MGD which represents 43% of permitted capacity. Approximately one third of our influent flow is from PBCSD.

The District treats wastewater from Carmel and surrounding areas providing advanced treatment to nearly drinking water standards. We reclaim nearly 75+% of our influent and return it to the Del Monte Forest where it is used to irrigate seven world famous golf courses including Pebble Beach, Poppy Hills, and Spanish Bay. We are currently involved in a capital improvement project to the existing Reverse Osmosis (RO) units to improve performance and recovery. We intend to place the sand filters from the original project back in service after a ten-year period of disuse. This project is very much in line with our mission statement of returning clean water to the environment.

**Note:** We have made a change from previous year in comparing the current year budget to prior year actual. Previous budgets reflect a comparison of current year budget to prior year budget.

### Budget Highlights

- Sewer user fees are budgeted to increase on average 8.62%% in 2018-19. The Preliminary Rate Model details how the costs are allocated across customer categories. The Budget Committee approved the increase; however, there was again acknowledgement that the increases necessary to undertake the capital upgrades utilizing a pay-as-you-go strategy will require a multiple year effort. This increase will bring CAWD to approximately \$2.6M annually allocated to capital replacement and rehabilitation. The long-range goal is to sustain \$3.0M annually in capital (this figure coincides with advice from Kennedy/Jenks in the 2011 Asset Planning report and further analysis on District goals/plans).
- Treatment Fees PBCSD – calculated based on our contract with PBCSD. Charges are based on flow, less source control and legal, plus administrative percentage. Historically, monthly flows vary between 28 – 32%.
- Property tax revenues are anticipated to increase 2.0% from prior year actual. Prior year

budget was \$1.7M; however, actual is closer to \$1.6M.

- Interest income is estimated based on average balance earning 0.935%. On 12-31-16 the County portfolio's net earned income yield for the quarter was 1.07%. We are balancing our estimate based on current yield, projected market rates, and decreasing balances as we spend down reserves.
- Permits and Connection fee revenues are based on 10-year averages.
- \$14.6 million total operating and capital budget for Fiscal Year 2018-19.
- Operations account for 53.1% (\$7.8 million) of the budget, the capital budget is 46.8% (\$6.8 million). Non-operating expenses account for 0.2 million of the fiscal year budget.
- The District's CalPERS Classic plan anticipates an Unfunded Accrued Liability (UAL) of \$13,511 and a PEPRA plan UAL of \$614. CalPERS increases are projected in ramp up "gently" because of efforts to cushion the increase.
- Salaries for FY 2018-19 reflect an increase of 32.18% due to the addition of a full time full time Plant Engineer in February 2018 and a negotiated COLA of 3.0%.
- Health insurance premiums increased 9.0% effective January 2018. Current estimates for January 2019 premium increase are in the double digit.
- Trucks & Auto category increases 32.03% largely because of greater outsourcing or maintenance functions that cannot be efficiently completed inhouse and the purchase of repair parts and tools to facilitate minor repairs inhouse.
- The increase in Audit/Financial Expense is projected by current auditor to increase due to regulatory requirements.
- Engineering Consulting Fees are projected to increase primarily with the inclusion of \$125K for the second sea level rise study. The intent is to further study how we can mitigate for future climate change.
- Office supplies will increase 82.1% due to increase computer replacements and furnishing to address ergonomic issues.
- Operating supplies will increase 44.39% because of conversion to sodium hypochlorite versus chlorine gas, continued efforts to repair/replace aged electrical installations, and purchase of general supplies.
- Contractual services include a user rate study, management training sessions, and continued plant rehabilitation efforts. We have limited staffing so we make use of outside firms when necessary for mechanical and electrical work.
- Travel & Training categories reflects a continued emphasis on training staff for the future. We have been relentless in our pursuit of excellence and consider continued training an important component of our efforts.
- Finally, our NPDES permit will come due this year so we have allocated additional funds to cover any potential studies our outside assistance required.
- There are two major capital projects slated for the Collection System: the Calle la Cruz force main replacement and Hatton Canyon trail rehabilitation.
  - Calle La Cruz Force Main: design and construction of a permanent 6" HDPE replacement force main to cross the Carmel Lagoon to connect with the existing force main. It is approximately 400 feet of new piping.
  - Hatton Canyon Trail Rehabilitation: The District maintains a sewer easement nearly the entire length of Hatton Canyon. We experienced a sewer spill in 2014 and again in 2017.

- At the treatment plant we will continue to work on Phase 2 of our plant rehabilitation efforts. We intend to bring a design proposal to the Board for its consideration in July 2018.
  - There is a Phase II Early Start component for \$1.4M that extends two years. The first year, or 2017-18, includes demolition of existing older small digesters and cleaning and evaluation of Digester #1. Digester #1 was last cleaned in 1999 and one of the draft mixing tubes is out of service.



- The Pre-design of Phase II has been approved by the Board of Directors and will include an update of the asset database to include all work from Phase I and an analysis of Phase II improvement risk. Pre-design will commence for MCC & PLC replacement, Digester #1 replacement cover, and Headworks Screening Improvements. And finally, the expectation is a clear roadmap that allows us to segue way into formal design of Phase II.
- During 2017-18 the District will continue its plan to rehabilitate one clarifier per year until all four are complete. Work will include rehabilitation of the effluent launders, sludge collector mechanisms, repair of center islands, and repair or replacement of the center drives. Three are complete, this will be the fourth clarifier rehab undertaken.
- The District's only outstanding debt is the 2004 California Statewide Communities Development Authority Water and Wastewater Revenue Series 2004-A in the amount of

\$3M. The final payment is in 2025 and is fully reimbursed by the Highlands Sanitary Association.

- The ongoing drought in California and the effort the community has made at conservation has cut influent to the plant dramatically. We are down over the last decade from an average flow of 2MG to 1.3MG. Although, there was a considerable turn around in the drought conditions throughout the state in 2015-16 we do not anticipate that residents will reverse their learned conservation habits.
- The CAWD/PBCSD Reclamation Project is a cooperative effort involving CAWD, the Pebble Beach Community Services District, the Monterey Peninsula Water Management District, the Pebble Beach Company, and the Independent Reclaimed Water Users Group. The Project provides reclaimed wastewater to irrigate golf courses and open space areas within the community of Pebble Beach. Average reclamation production (1994-2017) is 1,000 AF/year. Even with rain this year, the golf courses are still assessing potential further water sources.

CAWD is considering where the District should be in the next 25 – 30 years and are performing plant rehabilitations accordingly.

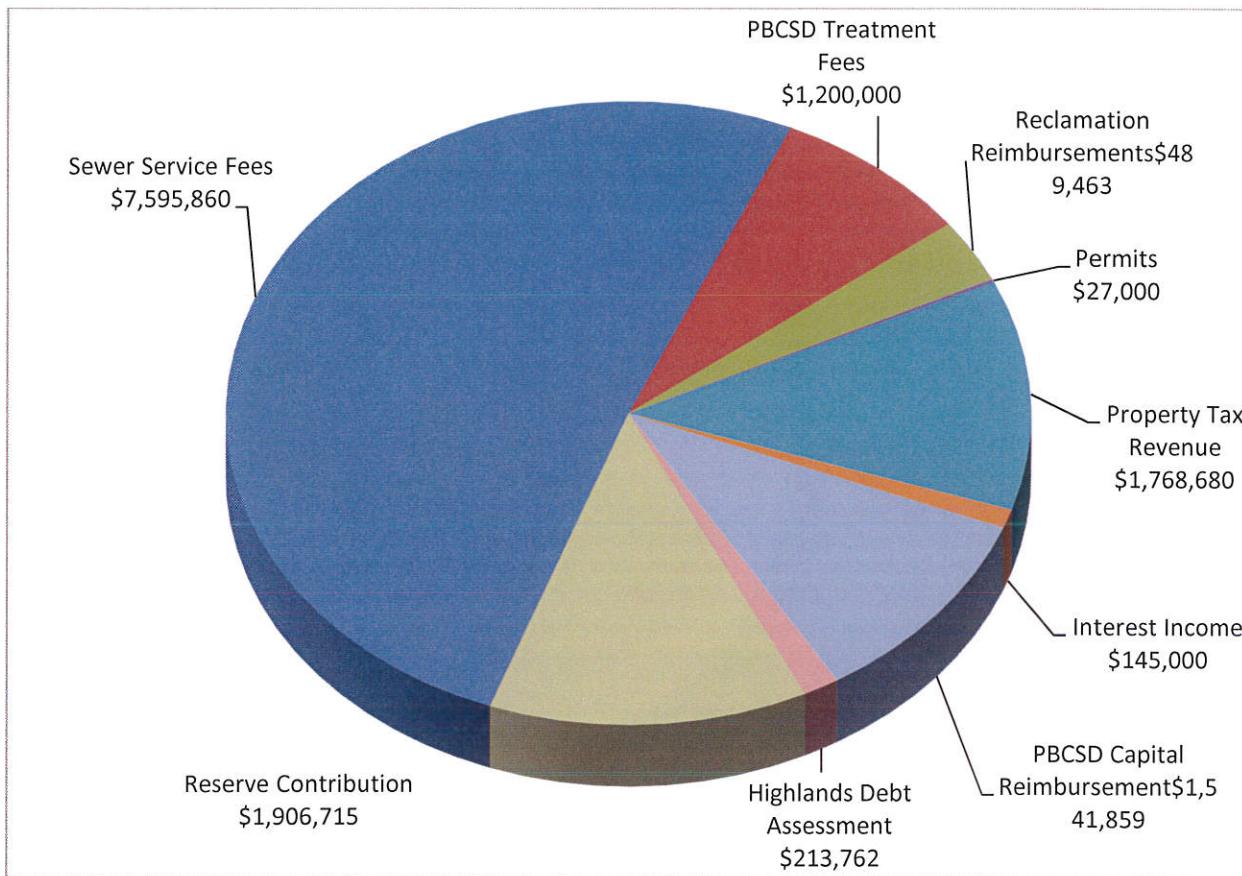
### **Key Deliverables:**

The District's mission statement is the protection of the public health and the environment by the cost-effective collection and treatment of wastewater and the return of clean water to the environment. In both District Operations and in our Capital Program we take that statement seriously and apply it to everything we do. The improvement projects selected by the District were evaluated with a focus on reducing the risk of asset failure while positioning us to achieve our strategic goals, which include:

- Complying with Regulations for current waste discharge permits and positioning for compliance with probable future regulations.
- Protect the Environment through reliable, efficient, and sustainable treatment of wastewater.
- Reduce Energy Consumption to reduce operating costs and reduce the carbon footprint of the Wastewater Treatment Plant.
- Investing in Safety Practices to reduce the potential for injuries and environmental hazards at the Wastewater Treatment Plant.
- Maintaining Reliability through application of asset preservation and redundancy.
- Supporting the Reclamation Project by reliably supplying secondary treated wastewater to the tertiary microfiltration/reverse-osmosis (MF/RO) plant.
- Enhancing Wastewater Treatment Plant Flood Protection by planning and designing mitigation approaches for flood events.

## How is the District Funded?

FY 2018-19 revenue and financing \$14.8 million



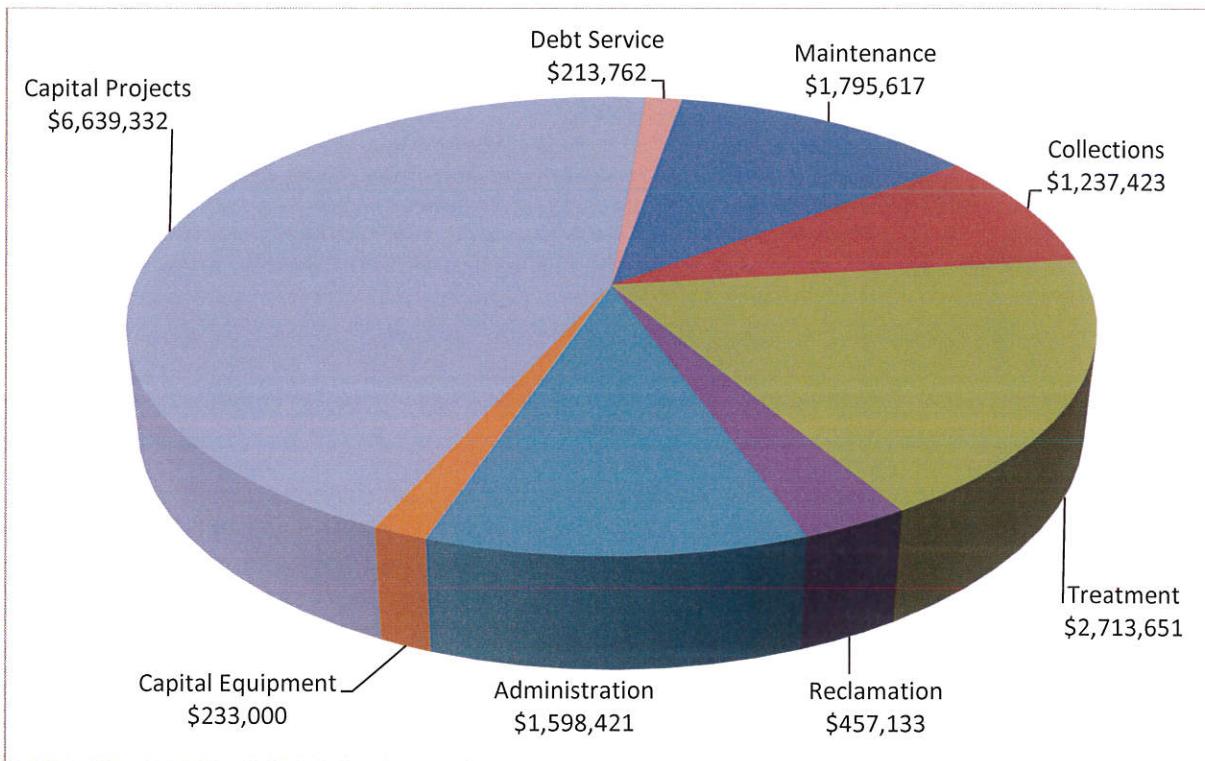
The District receives funding from a variety of sources. They include sewer service fees, treatment fees from PBCSD, reimbursement from the Reclamation Project, property tax revenue, interest income, and funds from the participants in the Highlands Bond issuance that cover all debt service.

Wastewater service fees account for approximately 58.5% of total budgeted revenues for 2018-19. Additional treatment fees from wastewater coming from Pebble Beach account for another 9.2% of total revenues. The combined total of 67.7% represents total revenues from the District's core function of wastewater treatment. The District is also reimbursed from both PBCSD and the Reclamation Project for their share of operations and capital improvements. In the coming fiscal year that amount is 12.1% of total revenues – a clear indicator that we are very much in capital improvement mode. The District does receive a small amount of revenue, 13.6% of total budget, in the form of property taxes for those parcels that were in the District pre-Prop 13. Post Prop 13 all property tax revenues for any parcel annexed into the District belong to the County of Monterey.

This year 12.8% of our revenues are coming from Reserves – we've worked long and hard to be in a position to fund our capital improvement program and that is reflected in our budget. We believe that our current pay-as-you-go strategy is appropriate for the District. It is conservative to be sure, but under current circumstances and because we plan for the very long term, it is working for us. We have taken the position that while debt is not necessarily a bad thing, the costs of

financing is money that can be better spent on capital projects and operations. The District recommended an 8.6% increase in wastewater service fees this year to help fund not only the cost of operations, but also the long-term capital plan. As indicated, we have not taken on any additional debt to fund our capital improvements. We are utilizing reserves and planning for the future. This budget lays out the next 15 years at the treatment plant. We're working on assembling a similar timeline for the collection system. We know that there are challenges ahead; however, we're taking steps now to help us meet those challenges head on. We're grateful to our constituents for the support they have shown in this period of rehabilitation and rehab – it is gratifying to have that community support.

### What does the FY 2018-19 budget pay for?



The District has budgeted 34.0% of its total fiscal year 2018-19 budget for capital projects. As indicated, we have already begun pre-design for Phase II. We have also done significant work on our collection system in the form of a capacity study, GIS project, and the initial work in putting together a formal long term capital plan. We expect to formalize the Collection System 15-year long term plan during the 2018-19 budget period.

Plan Operations this year comprise 38.6% of our expenditures with 2.3% devoted to operation of the Reclamation facility. While operating costs continue to increase, if for no other reason because of inflation, this budget also reflects that we are doing more internal maintenance. Over the long haul we recognize that we must continue make an investment in the plant and the collection system annually in order to maintain what we have. Our long term plan reflects that reality of continued investment in our community.

## District Reserves

As prudent management of our finances dictates, the wastewater district keeps a reserve of money to cover projects and unexpected events. Prior to entering into any capital project the District policy is to ensure that it has all funding available to it.



There are different types of reserves:

*Compensated Accruals Reserve:* set aside to fund accrued liability due employees for their vacation leave. CAWD has taken a conservative position on this and has set aside \$160K. Each year this amount is adjusted to actual records. Employees have negotiated an accrual limit of 320 hours. There is no payout of sick time.

*Defend or Managed Retreat Reserve:* created in 2017 to plan for potential future effects of sea level rise. The District has initiated a sea level rise study by ESA Associates but we are looking at a long-range response for the treatment facilities and collection system. The Board authorized \$500K for this fund for fiscal year 2018-19 bringing the total balance to \$1M.

*Capital Reserve:* These are funds set aside for capital rehabilitation and replacement of the treatment plant and the collection system. The Fiscal Year 2018-19 budget contains \$6.8M in capital projects and equipment, of that amount \$2.9M is CAWD's responsibility. The balance will come from reimbursement through Pebble Beach Community Services District or the Reclamation Project. The District currently has \$16.7M in its capital accounts and can continue its long-range path of pay-as-you-go financing.

## Operations Budget

The Fiscal Year 2018-19 Operations Budget provides for \$7.8M in various expenditures. Once again, Treatment fees from Pebble Beach Community Services District assume roughly 1/3 of treatment expenses. Historically the flows from PBCSD have ranged from 28-32%. They can vary

widely from year-to-year based on usage and drought conditions. Additionally, the CAWD system has to contend with inflow and infiltration that increases the percentage attributable to CAWD.



Employees negotiated a 3.0% Cost of Living Adjustment (COLA) this year. Employees also continue the process of increasing the CalPERS Employee Contribution 1% yearly. For 2018-19 they will contribute 6.0%. We have one third of our employees enrolled in Public Employees' Pension Reform Act (PEPRA) that are already contributing 6.25%.

Health insurance, second only to salaries and pension in scale, increased 9% effective January 2018. The District joined a Joint Powers Association for health insurance in 2015 and has been very pleased with the plan given the market volatility. This budget assumes a 4.0% increase for the coming year. Our agreement with employees is to renegotiate health benefit each fall.

CalPERS Classic contribution rates are projected at 14.63% for 2018-19. The CalPERS PEPRA contribution is projected at 13.09%. The SAM pension contribution has increased to \$103K for the year – the plan is 96% funded as of July 1, 2017.

### **Wastewater Charges raised to Maintain and Rehabilitate Critical Infrastructure**

The District has proposed an increase of 8.62% in its residential user fees. Residential is the largest category in the District and accounts for 94% of our customer base and roughly 70% of revenues. The rate increases are necessary to undertake the capital upgrades and to help us continue on with our strategy of “pay-as-you-go” to fund our improvements.

We offer an accounting of residential rate increases over the last 6 years for review.

	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Residential Rates	11.11%	10.97%	11.89%	12.46%	8.66%	8.62%

# Budget Development

## **BUDGET DEVELOPMENT:** Balanced Budget, Basis of Budgeting, Accounting, Development & Administration

The Board approves and adopts a balanced budget prior to the start of the fiscal year beginning July 1. The Board, General Manager, and Agency staff each has their respective Agency, departmental, and programmatic responsibilities to develop a financially responsible budget each fiscal year. Budget development is guided by financial policies and procedures, the strategic business plan, long and short term organizational goals and objectives, the economic climate, and other external factors.

The budget reflects the costs necessary to provide customers with safe and reliable wastewater service for the budget year and the long term and endeavors to keep rate increases low and yet provide for the District's long-term sustainability. The budget allocates resources, is utilized to develop rates and charges that provide adequate revenues to meet its needs, and encourages efficiency at every level.

Allocation of resources and strategic decision making does not end once the budget is adopted. Throughout the year each department is responsible for implementing the budget and monitoring performance, responding to unforeseen circumstances, and participating in long-range planning.

**Fund Structure:** The District is a single enterprise fund agency. This is an accounting system that emphasizes accountability rather than profitability. Enterprise funds provide goods or services to the general public for a fee or user charge, similar to the operation of a commercial enterprise.

**Balanced Budget:** The Budget is balanced when revenues equal expenditures. When revenues exceed expenditures, surplus funds are transferred into designated reserves in accordance with the District's Reserve Policy. The District's rates and charges are set to ensure that revenues are sufficient to recover the total cash needs in a given fiscal year and meet long-term capital needs.

**Cash Basis of Budgeting:** The District's annual budget is based on the cash method of accounting. Non-Cash depreciation and amortization expenses are included as line items at the request of the District's financial auditor. The District does not budget for depreciation. Revenues are budgeted according to what is expected to be collected during the budget year, and expenditures are budgeted according to what is expected to be spent during the fiscal year. The cash basis recognizes revenue when cash is received and recognizes expenses when cash is spent.

**Accrual Basis of Accounting:** The District is an enterprise fund and accounts for all its financial activity utilizing the accrual method of accounting in accordance with all applicable Government Accounting Standards Board (GASB) pronouncements for accounting, and recognizes revenues, expenses, assets, and liabilities in the proper fiscal year. The accrual method recognizes transactions and events when they occur, regardless of when cash is received or spent. One of the primary differences between the cash basis of budgeting and the accrual basis of accounting is the accrual method matches revenues to expenses which gives a more accurate picture of the District's financial condition.

**Budget Appropriation:** The District Budget covers all expenditures for any given fiscal year. During the year, the budget can be increased through a budget amendment resolution, approved by a majority of the Board of Directors. There is no legal restriction on the amount or frequency that the budget can be amended. Only the Board of Directors can increase the total allowable operating and capital appropriations. The General Manager is authorized to hire regular employees up to the number approved by the Board of Directors, in accordance with the “Designation of Classification Titles” authorized annually.

**Development, Adoption, and Administration:** The annual budget development begins with an analysis of the current year budget compared to projected annual expenditures and long-term capital improvement program funding, and serves as the baseline for the upcoming year’s budget. Unanticipated expenses are identified, and revenue and expenditure patterns are analyzed. During the course of budget development each department is responsible for developing their individual budgets for the year and for developing a long term capital plan with coordination from the Principal Engineer.

This work forms the basis for the “1<sup>st</sup> Draft” that is used as the basis for discussion with the Budget Committee (two Board members are selected annually). The General Manager and Budget Committee meet to review options to balance the budget and reach the District’s strategic goals. Concurrently with the Budget Committee, there is a standing Salary/Benefits Committee that meets to discuss the employee negotiations and other personnel related expenditures. Both of these Board Committees work together to prepare and finalize a Preliminary Budget that is presented to the full Board in March of each year.

The Preliminary Budget forms the basis for the rate model that is publicly noticed under Proposition 218 rules to every parcel holder of record in the District. At the Preliminary Budget meeting stakeholders are encouraged to provide input on the budget for consideration. Any direction provided by the Board in March is incorporated into the final proposed budget. If necessary, the Budget Committee will meet again prior to the completion of the final budget which is presented at the June meeting in a publicly noticed meeting to consider its adoption. Once adopted, the budget serves as the revenue collection and spending plan for the fiscal period.

On a monthly basis, during the fiscal year, staff prepares a detailed budget performance report and brief revenue and expenditure analysis. These monthly reports are available for public review and are available on the District web site at <http://www.cawd.org/board-of-directors.html>.

## **Budget Responsibilities**

Budget decisions are made through a process that involves the Board of Directors, District staff, and the public. The responsibilities for financial management planning and budget control are as follows:

### **Board of Directors**

- Establish both short and long-term financial goals for the District.
- Develop strategic guideline/policies to guide staff in the development of the operating and long term capital budget priorities.
- Ensure sound budgeting policies are in place.
- Ensure the adequacy of District resources. Review proposed cash flow projections.
- Approve user fees and charges.
- Participate, as appropriate, in budget committees.
- Monitor and provide budget oversight throughout the fiscal year.

### **General Manager**

- Review and present to the Board of Directors long range plans, budgets and revisions, schedules of rates and charges, and other financial transactions, as necessary.
- Authorize budget transfers of up to 5% of the fiscal years' budget between the operating and capital budget, provided that the total budget remains unchanged.
- Support the development of the Strategic Plan that included projections of short range and long range financial needs, and recommend methods for meeting those needs.
- Develop procedures and controls to monitor and assure compliance with the budget.
- Assist departments throughout the year with their budgets and financial issues.
- Authorize the allocation of budgeted funds from contingency.
- Implement emergency financial procedures within approved limits, when necessary.

### **Departmental Responsibilities**

- Prepare departmental O&M budget requests.
- Prepare current year Capital Improvement Program requests in conjunction with Principal Engineer.
- Prepare and/or update long term capital requests. The District is committed to a 15-year planning horizon for its capital program.
- Monitor financial performance and take prompt corrective action, as needed.
- Monitor key performance indicator and take corrective action, as appropriate.
- Promptly inform the General Manager when unforeseen circumstances indicate that budget amounts may be exceeded or that expected revenues may be less than planned.

### **Principal Engineer**

- Work with Collections, Maintenance, and Operations Superintendents to review, monitor, and clarify capital budget requests.
- Prepare and/or update long term capital plan for all departments.
- Maintain the District's commitment to a 15-year planning horizon for its capital program.
- Monitor all capital projects under Engineering purview

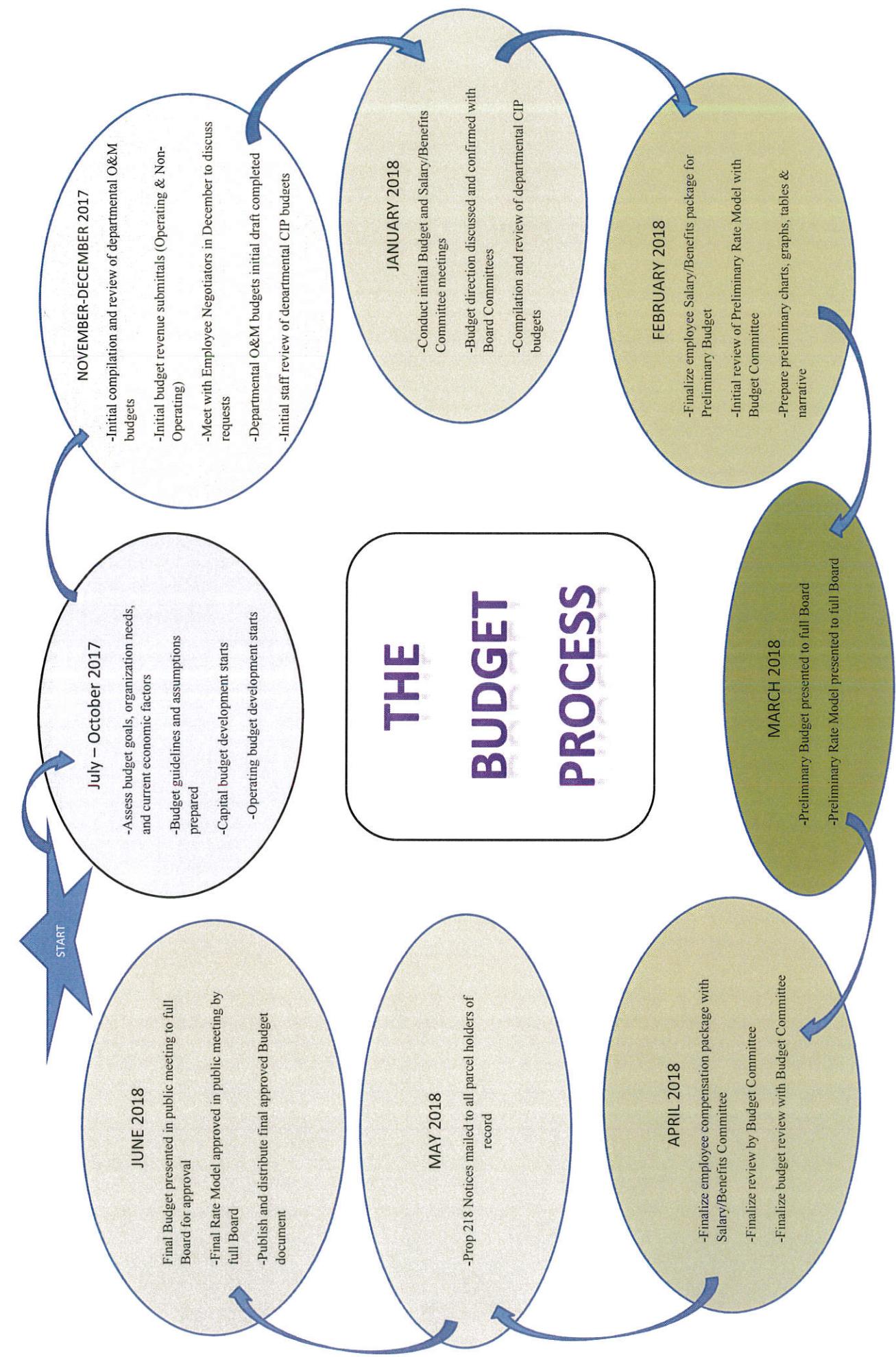
- Promptly inform the General Manager when unforeseen circumstances indicate that budget amounts may be exceeded or that capital/operation planning was incorrect for projects under Engineering purview.

#### **Principal Accountant**

- Prepare financial projections, schedule of rates and charges, and other financial materials.
- Produce monthly expenditure and revenue reports.
- Prepare periodic reports on the status of expenditures, revenues, investments and actions taken to ensure the financial stability of the District
- Prepare information on financial trends to facilitate evaluation of the District's financial position and identify conditions requiring management attention.

## Budget Calendar

July – Oct	<ul style="list-style-type: none"> <li>-Assess budget goals, organization needs, and current economic factors</li> <li>-Budget guidelines and assumptions prepared</li> <li>-Capital budget development starts</li> <li>-Operating budget development starts</li> </ul>
Nov – Dec	<ul style="list-style-type: none"> <li>-Initial compilation and review of departmental O&amp;M budgets</li> <li>-Initial budget revenue submittals (Operating &amp; Non-Operating)</li> <li>-Meet with Employee Negotiators in December to discuss requests</li> <li>-Departmental O&amp;M budgets initial draft completed</li> <li>-Initial staff review of departmental CIP budgets</li> </ul>
January	<ul style="list-style-type: none"> <li>-Conduct initial Budget and Salary/Benefits Committee meetings</li> <li>-Budget direction discussed and confirmed with Board Committees</li> <li>-Compilation and review of departmental CIP budgets</li> </ul>
February	<ul style="list-style-type: none"> <li>-Finalize employee Salary/Benefits package for Preliminary Budget</li> <li>-Initial review of Preliminary Rate Model with Budget Committee</li> <li>-Prepare preliminary charts, graphs, tables &amp; narrative</li> </ul>
March	<ul style="list-style-type: none"> <li>-Preliminary Budget presented to full Board</li> <li>-Preliminary Rate Model presented to full Board</li> </ul>
April	<ul style="list-style-type: none"> <li>-Finalize employee compensation package with Salary/Benefits Committee</li> <li>-Finalize review by Budget Committee</li> <li>-Finalize budget review with Budget Committee</li> </ul>
May	<ul style="list-style-type: none"> <li>-Prop 218 Notices mailed to all parcel holders of record</li> </ul>
June	<ul style="list-style-type: none"> <li>-Final Budget presented in public meeting to full Board for approval</li> <li>-Final Rate Model approved in public meeting by full Board</li> <li>-Publish and distribute final approved Budget document</li> </ul>
July 1 – June 30	<ul style="list-style-type: none"> <li>-Budget Management &amp; Oversight</li> <li>-Budget amendments increasing the overall fiscal year budget are subject to Board review and approval</li> <li>-Monthly Budget-to-Actual reports included in Board agenda packet</li> <li>-Annual Audited Financial Statement prepared in early Fall and presented to Board in Jan</li> </ul>



# Operating Budget

**Carmel Area Wastewater District**  
**Budget Summary**  
**2018-19**

Description	2016-17		Est. 2017-18		Proposed 2018-19		Projected 2019-20		% Chg. Prior Yr. Budget	
	Actual	Budget	% of Budget	Actual	Budget	% of Budget	Budget	Budget	Budget	% Chg. Prior Yr. Budget
Beginning Fund Balance	24,150,206	21,528,095		24,454,990	15,787,494		22,112,381		-9.58%	20,205,666 -8.62%
Operating Revenues	8,651,989	7,947,301	108.87%	8,426,931	8,524,382	98.86%	9,261,993	9.91%	9,456,003	2.09%
	<b>8,651,989</b>	<b>7,947,301</b>	108.87%	<b>8,426,931</b>	<b>8,524,382</b>	98.86%	<b>9,261,993</b>	9.91%	<b>9,456,003</b>	2.09%
Op Expend. (less deprec.)										
Treatment	2,341,173	2,456,006	95.32%	2,335,751	2,613,270	89.38%	2,713,651	16.18%	2,709,517	-0.15%
Maintenance - Plant	1,031,392	1,207,430	n/a	1,015,586	1,207,430	84.11%	1,695,392	66.94%	1,318,881	-22.21%
Maintenance - Field	109,594	111,476	n/a	47,039	111,476	42.20%	100,225	113.07%	68,765	-31.39%
Administration	1,030,078	1,542,042	66.80%	1,113,667	1,542,042	72.22%	1,598,421	43.53%	1,577,111	-1.33%
Collection	1,012,737	1,119,431	90.47%	909,897	1,119,431	81.28%	1,237,423	36.00%	1,205,809	-2.55%
Reclamation Project	448,974	506,100	88.71%	519,945	506,100	102.74%	457,133	-12.08%	471,350	3.11%
Total Operating Exp	<b>5,973,948</b>	<b>6,942,485</b>	86.05%	<b>5,941,885</b>	<b>7,099,749</b>	83.69%	<b>7,802,245</b>	31.31%	<b>7,351,434</b>	-5.78%
Operating Gain/(Loss) (exclusive of depreciation)	2,678,041	1,004,816	266.52%	2,485,045	1,424,633	174.43%	1,459,748	-41.26%	2,104,569	44.17%
Depreciation Expense	2,428,485	2,661,000	91.26%	2,669,000	2,669,000	100.00%	2,669,000	0.00%	2,669,000	0.00%
Amortization Expense	4,860	4,860	100.00%	4,860	4,860	100.00%	4,860	0.00%	4,860	0.00%
<b>Operating Gain/(Loss)</b>	<b>244,696</b>	<b>(1,661,044)</b>	-14.73%	<b>(188,815)</b>	<b>(1,249,227)</b>	15.11%	<b>(1,214,112)</b>	543.02%	<b>(569,291)</b>	-53.11%
Non Operating Revenues	4,931,756	5,653,096	87.24%	3,031,303	4,407,067	68.78%	3,719,631	22.71%	2,769,763	-25.54%
Non Operating Expend.	218,813	218,813	100.00%	216,506	216,506	100.00%	213,762	-1.27%	215,625	0.87%
Net Income/(Loss)	<b>4,957,639</b>	<b>3,773,239</b>	131.39%	<b>2,625,982</b>	<b>2,941,334</b>	89.28%	<b>2,291,757</b>	-12.73%	<b>1,984,847</b>	-13.39%
Capital Budget										
Equipment Purchases	0	0	n/a	7,000	7,000	100.00%	0	-100.00%	12,000	n/a
Administration	0	0	n/a	58,013	58,013	100.00%	200,000	244.75%	0	-100.00%

Carmel Area Wastewater District  
Budget Summary

2018-19

Description	2016-17		Est. 2017-18		Proposed 2018-19		Projected 2019-20		% Chg. Prior Yr.	
	Actual	Budget	% of Budget	Actual	Budget	% of Budget	Budget	Budget	Budget	
Collections	80,000	210,840	37.94%	90,000	90,000	100.00%	0	-100.00%	400,000	n/a
Treatment	144,060	168,601	85.44%	103,438	103,438	100.00%	33,000	-68.10%	38,000	15.15%
Capital Improvement Projects										
Administration	0	12,000	n/a	30,000	30,000	100.00%	0	-100.00%	0	n/a
Maintenance	0	0	n/a	95,000	95,000	100.00%	0	-100.00%	0	n/a
Collections	540,040	1,267,428	42.61%	1,270,000	1,270,000	100.00%	2,210,000	74.02%	1,490,000	-32.58%
Treatment	762,070	1,098,000	69.41%	44,000	44,000	100.00%	164,001	272.73%	0	-100.00%
Treatment Long Term Capit:	5,560,030	9,422,831	59.01%	5,945,000	5,945,000	100.00%	4,265,331	-28.25%	1,765,000	-58.62%
Total Capital Budget	<b>7,086,200</b>	<b>12,179,700</b>	<b>58.18%</b>	<b>7,642,451</b>	<b>7,642,451</b>	<b>100.00%</b>	<b>6,872,332</b>	<b>-10.08%</b>	<b>3,705,000</b>	<b>-46.09%</b>
Ending Fund Balance	<b>24,454,990</b>	<b>15,787,494</b>	<b>154.90%</b>	<b>22,112,381</b>	<b>13,760,237</b>	<b>160.70%</b>	<b>20,205,666</b>	<b>-8.62%</b>	<b>21,159,373</b>	<b>4.72%</b>

**Carmel Area Wastewater District**  
**Revenues Budget 2018-19**

Description	2016-17		Est. YTD 2017-18		% of Budget	Proposed Budget	% Chg. Prior Yr. Actual	Projected 2019-20 Budget	% Chg. Prior Yr. Budget
	Actual	Budget	Actual	Budget					
<b>OPERATING REVENUES</b>									
Sewer service fees - residents	6,746,787	6,436,201	104.83%	6,986,245	6,995,437	99.87%	7,595,860	8.73%	7,975,653 5.00%
Treatment fees - PBCSD	1,377,192	1,000,000	137.72%	1,200,000	1,000,000	120.00%	1,200,000	0.00%	1,000,000 -16.67%
Reclamation Proj O & M reimbursement	518,110	506,100	102.37%	233,486	519,945	44.91%	457,133	95.79%	471,350 3.11%
Permits & inspection fees	9,900	5,900	198.00%	7,200	9,000	80.00%	9,000	25.00%	9,000 0.00%
<i>Total Operating</i>	<i>8,651,989</i>	<i>7,947,301</i>	<i>108.87%</i>	<i>8,426,931</i>	<i>8,524,382</i>	<i>98.86%</i>	<i>9,261,993</i>	<i>9.91%</i>	<i>9,456,003 2.09%</i>
<b>NON OPERATING REVENUES</b>									
Property tax revenue	1,823,473	1,501,830	121.42%	1,731,065	1,734,000	99.83%	1,768,680	2.17%	1,804,054 2.00%
Interest Income	199,913	75,000	266.55%	143,545	140,000	102.53%	145,000	1.01%	145,000 0.00%
Highlands Inn assessment revenue	220,010	218,813	100.55%	216,506	216,506	100.00%	213,762	-1.27%	215,625 0.87%
Reimbursement from PBCSD for 1/3 secondary treatment plant improv.	2,090,686	3,009,648	69.47%	636,759	1,923,083	33.11%	1,541,859	142.14%	582,084 -62.25%
Plant Connection fees	4,351	5,000	87.02%	25,616	18,000	142.31%	18,000	-29.73%	18,000 0.00%
Reclamation Project reimbursement	556,458	842,805	66.02%	272,743	375,478	72.64%	32,330	-88.15%	5,000 -84.53%
Other	36,865	0	n/a	5,069	0	n/a	0	-100.00%	0 n/a
<i>Total Non Operating</i>	<i>4,931,756</i>	<i>5,653,096</i>	<i>87.24%</i>	<i>3,031,303</i>	<i>4,407,067</i>	<i>68.78%</i>	<i>3,719,631</i>	<i>22.71%</i>	<i>2,769,763 -25.54%</i>
<b>TOTAL REVENUES</b>	<b>13,583,745</b>	<b>13,600,397</b>	<b>99.88%</b>	<b>11,458,233</b>	<b>12,931,449</b>	<b>88.61%</b>	<b>12,981,624</b>	<b>13.30%</b>	<b>12,225,766 -5.82%</b>

**Carmel Area Wastewater District  
Non-Operating Expenses Budget  
2018-19**

Description	2016-17		Est. YTD 2017-18		% of Budget	Proposed 2018-19 Budget	% Chg. Prior Yr. Actual	Projected 2019-20 Budget	% Chg. Prior Yr. Budget
	Actual	Budget	Actual	Budget					
<b>NON OPERATING EXPENSES</b>									
Debt Service - Principal*	140,000	100.00%	145,000	145,000	100.00%	150,000	3.45%	160,000	6.67%
Debt Service - Interest	76,213	100.00%	68,906	68,906	100.00%	61,162	-11.24%	53,025	-13.30%
Bond Fees	2,600	100.00%	2,600	2,600	100.00%	2,600	0.00%	2,600	0.00%
<b>TOTAL</b>	<b>218,813</b>	<b>100.00%</b>	<b>216,506</b>	<b>216,506</b>	<b>100.00%</b>	<b>213,762</b>	<b>-1.27%</b>	<b>215,625</b>	<b>0.87%</b>

**Note:**

\* Highlands Bond is charged to project participants annually on property tax statements in addition to annual user fees  
Highlands Bond maturity October 1, 2024

**Carmel Area Wastewater District**  
**Summary Operating Budget 2018-19**

Description	2016-17		Est. YTD 2017-18		% of Budget	Budget	% of Budget	Budget	Proposed	% Chg.	Projected	% Chg.
	Actual	Budget	Actual	Budget					2018-19	Prior Yr.	2019-20	Budget
Total Salaries	2,058,172	2,111,454	97.48%	2,083,094	2,197,787	94.78%	2,425,425	16.43%	2,530,599	4.34%		
Total Payroll Taxes	176,295	159,488	110.54%	159,077	166,115	95.76%	185,545	16.64%	190,871	2.87%		
Total Employee Benefits	691,734	757,084	91.37%	761,609	879,886	86.56%	875,124	14.90%	900,700	2.92%		
Total Directors Fees	29,694	27,200	109.17%	31,650	27,650	114.47%	32,250	1.90%	32,500	0.78%		
Total Trucks & Autos	60,190	106,520	56.51%	34,279	114,030	30.06%	45,260	32.03%	24,850	-45.10%		
Total Insurance	82,392	103,986	79.23%	86,833	89,210	97.34%	93,696	7.90%	100,929	7.72%		
Audit/Financial Expense	28,000	23,000	121.74%	24,300	26,800	90.67%	31,800	30.86%	31,800	n/a		
Total Engineering Fees	133,123	272,000	48.94%	65,549	215,000	30.49%	210,000	220.37%	160,000	-23.81%		
Total Attorney Fees	70,520	71,000	99.32%	58,429	116,000	50.37%	130,500	123.35%	115,500	-11.49%		
Total Office Supplies & Svc.	67,332	79,795	84.38%	48,719	61,400	79.35%	88,715	82.10%	43,630	-50.82%		
Total Operating Supplies	325,565	261,520	124.49%	262,229	370,285	70.82%	378,635	44.39%	370,220	-2.22%		
Total Contractual Services	586,249	817,258	71.73%	556,180	748,230	74.33%	849,075	52.66%	689,667	-18.77%		
Total Maint & Repairs	684,555	683,815	100.11%	525,663	728,865	72.12%	825,457	57.03%	585,970	-29.01%		
Total Utilities	308,560	340,800	90.54%	399,879	373,755	106.99%	387,923	-2.99%	400,283	3.19%		
Total Telephone	30,717	31,400	97.82%	34,884	35,150	99.24%	48,935	40.28%	48,500	-0.89%		
Total Travel & Meetings	44,045	71,520	61.58%	40,476	82,720	48.93%	113,725	180.97%	101,780	-10.50%		
Total Permitting	31,053	41,200	75.37%	38,310	56,335	68.00%	54,615	42.56%	51,285	-6.10%		

**Carmel Area Wastewater District**  
**Summary Operating Budget 2018-19**

Description	2016-17		Est. YTD 2017-18		% of Budget	Proposed 2018-19 Budget	% Chg. Prior Yr. Actual	Projected 2019-20 Budget	% Chg. Prior Yr Budget
	Actual	Budget	Actual	Budget					
Total Membership/Subscrip.	33,724	38,435	87.74%	34,668	39,530	87.70%	38,785	11.88%	38,880 0.24%
Total Safety Expenses	33,938	31,610	107.36%	58,435	41,510	140.77%	59,545	1.90%	38,095 -36.02%
Total Other Expense	49,116	407,300	12.06%	117,678	450,800	26.10%	470,102	299.48%	424,025 -9.80%
<b>CAWD Subtotal</b>	<b>5,524,974</b>	<b>6,436,385</b>	85.84%	<b>5,421,940</b>	<b>6,821,058</b>	79.49%	<b>7,345,112</b>	35.47%	<b>6,880,084</b> -6.33%
Reclamation Project	448,974	506,100	88.71%	444,274	519,945	85.45%	457,133	2.89%	471,350 3.11%
<b>Final Subtotal</b>	<b>5,973,948</b>	<b>6,942,485</b>	86.05%	<b>5,866,214</b>	<b>7,341,003</b>	79.91%	<b>7,802,245</b>	33.00%	<b>7,351,434</b> -5.78%
Depreciation Expense	2,428,485	2,661,000	91.26%	2,669,000	2,669,000	100.00%	2,669,000	0.00%	2,669,000 0.00%
Amortization Expense	4,860	4,860	100.00%	4,860	4,860	100.00%	4,860	0.00%	4,860 0.00%
<b>Total Operating Expense</b>	<b>8,407,293</b>	<b>9,608,345</b>	87.50%	<b>8,540,074</b>	<b>10,014,863</b>	85.27%	<b>10,476,105</b>	22.67%	<b>10,025,294</b> -4.30%

**Carmel Area Wastewater District**  
**Consolidated Departmental Operating Budget 2018-19**

Description	2016-17		Est. YTD 2017-18		Proposed		Projected		% Chg.	
	Actual	Budget	% of Budget	Actual	Budget	% of Budget	Prior Yr. Actual	Budget	2019-20	Prior Yr. Budget
Salaries	1,967,241	2,292,224	85.82%	2,007,609	2,405,537	83.46%	2,653,695	32.18%	2,753,869	3.77%
Salaries - Overtime	47,251	87,200	54.19%	30,029	87,200	34.44%	47,200	57.18%	52,200	10.59%
Salaries - Standby	43,680	43,680	100.00%	45,457	43,680	104.07%	43,680	-3.91%	43,680	0.00%
Temporary Employees	0	0	n/a	0	0	n/a	0	n/a	0	n/a
Allocation to Reclamation	0	(311,650)	0.00%	0	(338,630)	0.00%	(319,150)	n/a	(319,150)	0.00%
<i>Total Salaries</i>	<b>2,058,172</b>	<b>2,111,454</b>		<b>2,083,094</b>	<b>2,197,787</b>	94.78%	<b>2,425,425</b>	16.43%	<b>2,530,599</b>	4.34%
Payroll Taxes	176,295	181,630	97.06%	159,077	192,020	82.84%	208,495	31.07%	210,871	1.14%
Allocation to Reclamation	0	(22,142)	0	0	(25,905)	0	(22,950)	(20,000)	(20,000)	
<i>Total Payroll Taxes</i>	<b>176,295</b>	<b>159,488</b>	110.54%	<b>159,077</b>	<b>166,115</b>	95.76%	<b>185,545</b>	16.64%	<b>190,871</b>	2.87%
<i>Employee Benefits:</i>										
Medical Insurance - Premium	305,731	380,590	80.33%	329,567	400,415	82.31%	458,893	39.24%	477,949	4.15%
Retirement Plan - CaPERS	200,799	211,393	94.99%	247,298	330,558	74.81%	228,449	-7.62%	232,023	1.56%
Pension Contribution - SAM	88,680	88,675	100.01%	89,418	78,940	113.27%	103,790	16.07%	103,791	0.00%
Workers Compensation	93,474	123,585	75.64%	102,427	102,631	99.80%	108,416	5.85%	111,668	3.00%
Life Insurance	7,610	7,645	99.54%	7,650	7,635	100.20%	7,647	-0.04%	7,647	0.00%
PEHP	24,280	23,570	n/a	26,368	24,866	106.04%	26,986	2.34%	27,987	3.71%
Dental Insurance/Claims	40,061	34,450	116.29%	35,214	35,275	99.83%	40,759	15.75%	40,820	0.15%
Vision Insurance	6,734	7,500	89.78%	7,066	7,500	94.21%	7,500	6.15%	7,500	0.00%
Long Term Disability	19,542	20,530	95.19%	20,813	21,700	95.91%	24,409	17.28%	25,340	3.81%
HSA Contributions	31,254	0	n/a	19,864	0	n/a	0	n/a	0	n/a
FSA Contributions	0	0	n/a	0	0	n/a	0	n/a	0	n/a
Tuition reimbursement	5,250	5,250	n/a	5,250	5,250	100.00%	3,000	-42.86%	0	-100.00%
Employee Assistance Program	4,028	3,925	102.62%	3,876	3,925	98.75%	3,925	1.26%	3,925	0.00%
Employee Awards	1,525	0	n/a	1,462	0	n/a	950	n/a	2,150	n/a
Annual District picnic	2,935	0	n/a	2,493	2,500	99.70%	2,500	0.30%	2,500	n/a
Employee BBQ	129	0	n/a	0	0	n/a	500	n/a	0	n/a
Medical Exams	2,898	2,471	117.29%	2,305	2,100	109.76%	1,700	-26.25%	1,700	0.00%
Allocate to Reclamation	(143,196)	(152,500)	93.90%	(139,461)	(143,410)	97.25%	(144,300)	3.47%	(144,300)	0.00%
<i>Total Employee Benefits</i>	<b>691,734</b>	<b>757,084</b>	91.37%	<b>761,609</b>	<b>879,886</b>	86.56%	<b>875,124</b>	14.90%	<b>900,700</b>	2.92%

**Carmel Area Wastewater District**  
**Consolidated Departmental Operating Budget 2018-19**

Description	2016-17		Est. YTD 2017-18		% of Budget	Proposed 2018-19 Budget	% Chg. Prior Yr. Actual	Projected 2019-20 Budget	% Chg. Prior Yr. Budget
	Actual	Budget	Actual	Budget					
<b>Directors Fees</b>									
Regular Board Meetings	8,350	8,800	94.89%	8,800	8,800	100.00%	8,800	0.00%	8,800 0.00%
PBCSD - Directors fees	1,750	1,750	100.00%	1,750	1,750	100.00%	1,750	0.00%	1,750 0.00%
Special Board Meetings	2,400	5,700	42.11%	5,700	5,700	100.00%	5,700	0.00%	5,700 0.00%
Committee meetings	2,000	2,100	95.24%	2,100	2,100	100.00%	2,100	0.00%	2,200 4.76%
WateReuse	1,543	300	514.26%	300	300	100.00%	300	0.00%	300 0.00%
CASA - Directors fees	1,510	750	201.33%	750	750	100.00%	1,350	80.00%	1,500 11.11%
CSDA conference	0	0	n/a	0	0	n/a	0	n/a	n/a
Training	66	0	n/a	250	250	100.00%	250	0.00%	250 n/a
Director's Dental Claims	12,075	7,800	154.81%	12,000	8,000	150.00%	12,000	0.00%	12,000 0.00%
<i>Total Directors Fees</i>	<b>29,694</b>	<b>27,200</b>	<b>109.17%</b>	<b>31,650</b>	<b>27,650</b>	<b>114.47%</b>	<b>32,250</b>	<b>1.90%</b>	<b>32,500 0.78%</b>
 <b>Trucks &amp; Autos</b>									
Gasoline	5,976	16,850	35.46%	8,084	18,200	44.42%	8,150	0.81%	8,250 1.23%
Diesel	10,391	31,040	33.48%	7,916	32,200	24.58%	2,800	-64.63%	2,900 3.57%
Fuelmaster	110	0	n/a	110	0	n/a	0	-100.00%	0 n/a
Oil & Grease	1,672	6,000	27.87%	1,109	7,000	15.84%	2,200	98.44%	1,200 -45.45%
Tires, Batteries, Service	1,226	5,700	21.50%	4,636	6,600	70.25%	2,100	-54.70%	2,600 23.81%
Outside Repair Service	25,614	12,300	208.24%	4,055	13,000	31.19%	8,300	104.68%	3,300 -60.24%
Repair Parts	8,327	19,000	43.83%	3,429	20,000	17.14%	6,500	89.57%	2,500 -61.54%
Tools	224	10,500	2.13%	1,436	10,500	13.68%	6,500	352.58%	500 -92.31%
Vehicle Accessories	5,552	700	793.15%	1,132	1,500	75.48%	6,000	429.92%	500 -91.67%
Driver medical exams	0	350	n/a	0	0	n/a	0	n/a	350 n/a
Smog Check - Vehicles	30	660	4.55%	320	860	37.21%	350	9.38%	360 2.86%
DATCO Drug Testing	702	970	72.37%	1,097	970	113.14%	970	-11.61%	990 2.06%
Cleaning & detailing	109	1,000	10.86%	305	1,250	24.36%	250	-17.91%	260 4.00%
Paint & fluids	0	850	0.00%	200	1,100	18.18%	40	-80.00%	40 0.00%
Waste oil & coolants disposal	259	600	43.08%	450	850	52.94%	1,100	144.44%	1,100 0.00%
<i>Total Trucks &amp; Autos</i>	<b>60,190</b>	<b>106,520</b>	<b>56.51%</b>	<b>34,279</b>	<b>114,030</b>	<b>30.06%</b>	<b>45,260</b>	<b>32.03%</b>	<b>24,850 -45.10%</b>
 <b>Property/Liability/Auto Insurance</b>									
Auto insurance	1,309	1,420	92.17%	1,365	1,475	92.54%	1,502	10.00%	1,652 10.00%
Property Insurance	20,910	23,756	88.02%	17,550	19,300	90.93%	23,405	33.36%	25,165 7.52%
General Liability	53,973	70,510	76.55%	60,293	60,810	99.15%	60,402	0.18%	64,888 7.43%
Errors & Omissions	4,800	4,800	100.00%	4,800	4,800	100.00%	5,280	10.00%	5,810 n/a

**Carmel Area Wastewater District**  
**Consolidated Departmental Operating Budget 2018-19**

Description	2016-17		Est. YTD 2017-18		% of Budget	Proposed 2018-19 Budget	% Chg. Prior Yr. Actual	Projected 2019-20 Budget	% Chg. Prior Yr. Budget
	Actual	Budget	Actual	Budget					
Commerical Crime Policy	700	2,000	35.00%	1,325	1,325	99.99%	1,458	10.00%	1,600
Cyber Crime Insurance	700	1,500	n/a	1,500	1,500	100.00%	1,650	10.00%	1,815
<i>Total Insurance</i>	<b>82,392</b>	<b>103,986</b>	<b>79.23%</b>	<b>86,833</b>	<b>89,210</b>	<b>97.34%</b>	<b>93,696</b>	<b>7.90%</b>	<b>100,929</b>
<i>Audit/Financial Expense</i>	28,000	23,000	121.74%	24,300	26,800	90.67%	31,800	30.86%	31,800
<i>Engineering Fees</i>									
Consulting Fees	133,123	272,000	48.94%	65,549	215,000	30.49%	210,000	220.37%	160,000
<i>Total Engineering Fees</i>	<b>133,123</b>	<b>272,000</b>	<b>48.94%</b>	<b>65,549</b>	<b>215,000</b>	<b>30.49%</b>	<b>210,000</b>	<b>220.37%</b>	<b>160,000</b>
<i>Attorney Fees</i>									
District Counsel	70,520	71,000	99.32%	58,429	116,000	50.37%	70,500	20.66%	55,500
Outside Counsel	0	0	0.00%	0	0	0.00%	60,000	0.00%	60,000
<i>Total Attorney Fees</i>	<b>70,520</b>	<b>71,000</b>	<b>99.32%</b>	<b>58,429</b>	<b>116,000</b>	<b>50.37%</b>	<b>130,500</b>	<b>123.35%</b>	<b>115,500</b>
<i>Office Supplies &amp; Service</i>									
Bank fees	253	0	n/a	2,439	0	n/a	2,050	-15.95%	2,050
Computers & Equip	37,528	50,500	74.31%	17,553	28,750	61.05%	44,500	153.52%	13,650
Furnishings & fixtures	7,696	4,800	160.34%	1,283	2,800	45.82%	8,300	546.92%	2,600
Paper & printing	2,210	8,300	26.63%	4,629	13,500	34.29%	10,950	136.56%	7,050
Postage & shipping	1,305	2,550	51.20%	3,501	2,620	133.61%	3,620	3.41%	3,870
Office supplies	11,685	8,000	146.06%	7,775	8,220	94.58%	12,050	54.99%	7,300
Equipment rent	0	1,000	0.00%	540	1,000	53.97%	500	-7.35%	500
Equipment repairs	1,888	2,000	n/a	1,530	2,060	74.25%	2,120	38.60%	2,180
Copier Supplies	69	450	15.34%	380	250	152.00%	450	18.42%	250
Post Office Box Rental	140	195	71.79%	166	200	83.00%	175	5.42%	180
Temp Services	4,557	2,000	n/a	8,924	2,000	446.21%	4,000	-55.18%	4,000
<i>Total Office Supplies &amp; Svc.</i>	<b>67,332</b>	<b>79,795</b>	<b>84.38%</b>	<b>48,719</b>	<b>61,400</b>	<b>79.35%</b>	<b>88,715</b>	<b>82.10%</b>	<b>43,630</b>
<i>Operating Supplies</i>									
Chemicals	2,808	10,000	28.08%	5,000	10,000	50.00%	5,000	0.00%	5,000
Chlorine	17,327	18,250	94.94%	23,000	90,000	25.56%	0	-100.00%	0
Sodium hypochlorite	0	0	0.00%	0	0	0.00%	90,000	0.00%	90,000
Sodium bisulfite	97,845	45,000	217.43%	60,280	46,350	130.05%	46,350	-23.11%	47,740
Ferric chloride	23,181	15,420	150.33%	23,510	19,080	123.22%	30,000	27.61%	30,000





**Carmel Area Wastewater District**  
**Consolidated Departmental Operating Budget 2018-19**

Description	2016-17		Est. YTD 2017-18		Proposed 2018-19		Projected 2019-20		% Chg. Prior Yr.	
	Actual	Budget	% of Budget	Actual	Budget	% of Budget	Budget	Budget	Budget	Budget
Prog. Cav. Pumps	0	0	n/a	0	0	n/a	0	n/a	0	n/a
Plant Pumps	20,558	12,000	171.32%	16,767	51,000	32.88%	35,000	108.74%	20,000	-42.86%
Standby Generator	731	10,000	7.31%	9,879	10,000	98.79%	10,000	1.22%	10,000	0.00%
Control Panels	0	12,000	0.00%	5,000	15,000	33.33%	120,000	2300.00%	40,000	-66.67%
Instruments	148	5,000	2.96%	16,000	18,800	85.11%	65,050	306.56%	49,000	-24.67%
Boiler Repairs	0	2,000	0.00%	3,710	4,000	92.75%	4,397	18.52%	4,000	-9.03%
Lab Equipment	30,721	39,690	77.40%	3,500	3,740	93.58%	12,260	250.29%	5,880	-52.04%
Headworks - Primary	23,897	20,000	119.48%	59,727	20,000	298.64%	17,750	-70.28%	10,000	-43.66%
IPS/EPS/DAF	15,222	20,000	76.11%	53,714	17,500	306.93%	14,500	-73.00%	9,500	-34.48%
Chlorine/Dechlorinator	17,664	36,375	48.56%	9,386	27,575	34.04%	20,000	113.08%	15,000	-25.00%
Dewatering/DIG	13,646	16,450	82.95%	35,931	21,450	167.51%	17,500	-51.29%	12,500	-28.57%
Plant Valves	804	15,000	5.36%	4,132	15,000	27.54%	15,000	263.06%	8,000	-46.67%
Aeration - Secondary	15,221	15,000	101.48%	35,365	18,000	196.47%	18,000	-49.10%	8,090	-55.06%
Demolition	19,008	50,000	38.02%	0	50,000	0.00%	0	n/a	0	n/a
Buildings	44,549	29,000	153.62%	66,593	52,000	128.06%	50,000	-24.92%	50,000	0.00%
<i>Total Maint &amp; Repairs</i>	<b>684,555</b>	<b>683,815</b>	<b>100.11%</b>	<b>525,663</b>	<b>728,865</b>	<b>72.12%</b>	<b>825,457</b>	<b>57.03%</b>	<b>585,970</b>	<b>-29.01%</b>
<i><b>Utilities</b></i>										
Electricity	255,384	305,900	83.49%	330,095	328,735	100.41%	330,085	0.00%	332,720	0.80%
Less Secondary Costs attributable to Recl										
Gas	36,398	20,100	181.09%	48,110	22,400	214.78%	37,013	-23.07%		
Propane	2,010	2,300	87.39%	712	2,400	29.67%	2,300	223.00%	2,800	21.74%
Water	13,515	10,850	124.57%	19,640	18,445	106.48%	16,725	-14.84%	30,890	84.69%
Garbage	579	1,050	55.15%	662	1,075	61.59%	1,100	66.15%	1,110	0.91%
Cable television	673	600	112.18%	660	700	94.29%	700	6.06%	700	0.00%
<i>Total Utilities</i>	<b>308,560</b>	<b>340,800</b>	<b>90.54%</b>	<b>399,879</b>	<b>373,755</b>	<b>106.99%</b>	<b>387,923</b>	<b>-2.99%</b>	<b>400,283</b>	<b>3.19%</b>
<i><b>Telephone</b></i>										
Fixed Costs	21,565	21,400	100.77%	23,337	22,250	104.89%	34,100	46.12%	34,300	0.59%
Cellular Phones	7,347	9,000	81.64%	9,612	11,900	80.77%	13,835	43.94%	13,200	-4.59%
Repair to Lines	1,805	1,000	180.46%	1,935	1,000	193.50%	1,000	-48.32%	1,000	0.00%
Long Distance	0	0	n/a	0	0	n/a	0	n/a	0	n/a
Direct Line to Plant	0	0	n/a	0	0	n/a	0	n/a	0	n/a
<i>Total Telephone</i>	<b>30,717</b>	<b>31,400</b>	<b>97.82%</b>	<b>34,884</b>	<b>35,150</b>	<b>99.24%</b>	<b>48,935</b>	<b>40.28%</b>	<b>48,500</b>	<b>-0.89%</b>

**Carmel Area Wastewater District**  
**Consolidated Departmental Operating Budget 2018-19**

Description	2016-17			Est. YTD 2017-18			Proposed 2018-19			Projected 2019-20			% Chg. Prior Yr
	Actual	Budget	% of Budget	Actual	Budget	% of Budget	Prior Yr.	Actual	Budget	Prior Yr.	Budget	Budget	Budget
<b>Travel &amp; Training</b>													
Employee Training	26,571	36,570	72.66%	15,537	47,175	32.93%	85,865	452.65%	72,810	-15.20%			
Conferences	13,872	31,750	43.69%	21,567	32,345	66.68%	24,460	13.42%	25,445	4.03%			
Business meetings	3,602	3,200	112.57%	3,372	3,200	105.37%	3,400	0.83%	3,525	3.68%			
<i>Total Travel &amp; Meetings</i>	<b>44,045</b>	<b>71,520</b>	<b>61.58%</b>	<b>40,476</b>	<b>82,720</b>	<b>48.93%</b>	<b>113,725</b>	<b>180.97%</b>	<b>101,780</b>	<b>-10.50%</b>			
<b>Permitting</b>													
State Water Resource Control	2,088	2,300	90.78%	2,088	2,400	87.00%	2,400	14.94%	2,400	0.00%			
MUAPCB	2,826	3,000	94.20%	2,484	3,100	80.13%	3,200	28.82%	3,250	1.56%			
Treatment Plant Permits	15,251	20,000	76.26%	14,884	25,000	59.54%	25,000	67.97%	25,000	0.00%			
Central Coast RWQCB	0	3,500	n/a	9,800	9,800	100.00%	9,800	0.00%	10,035	2.40%			
Air Pollution Control Permit	7,273	6,000	121.22%	4,319	7,500	57.59%	6,970	61.38%	5,600	-19.66%			
Air Resources Board-PERP	0	0	n/a	570	1,000	57.00%	500	-12.28%	500	n/a			
Environmental Health Permit	3,615	3,000	120.51%	1,945	3,090	62.94%	2,000	2.83%	2,000	n/a			
Lab Registration Fees	0	3,400	0.00%	2,220	4,445	49.94%	4,745	113.74%	2,500	-47.31%			
<i>Total Permitting</i>	<b>31,053</b>	<b>41,200</b>	<b>75.37%</b>	<b>38,310</b>	<b>56,335</b>	<b>68.00%</b>	<b>54,615</b>	<b>42.56%</b>	<b>51,285</b>	<b>-6.10%</b>			
<b>Membership/Subscriptions</b>													
Employee Certification	4,032	7,755	51.99%	4,864	7,800	62.36%	7,170	47.41%	6,640	-7.39%			
CWEA	1,958	2,200	89.00%	1,737	3,100	56.04%	2,890	66.34%	2,940	1.73%			
CASA	12,855	13,250	97.02%	12,855	13,250	97.02%	13,000	1.13%	13,500	n/a			
WEF	559	1,490	37.52%	910	1,640	55.49%	650	-28.57%	665	2.31%			
WaterReuse	0	700	0.00%	0	700	0.00%	250	n/a	250	n/a			
Other	11,109	9,590	115.84%	11,558	9,590	120.52%	11,475	-0.72%	11,485	n/a			
Subscriptions/Publications	3,211	3,450	93.08%	2,743	3,450	79.52%	3,350	22.11%	3,400	1.49%			
<i>Total Membership/Subscrip.</i>	<b>33,724</b>	<b>38,435</b>	<b>87.74%</b>	<b>34,668</b>	<b>39,530</b>	<b>87.70%</b>	<b>38,785</b>	<b>11.88%</b>	<b>38,880</b>	<b>0.24%</b>			
<b>Safety</b>													
First Aid Supplies	7	600	1.16%	605	555	109.01%	120	-80.117%	120	0.00%			
First Aid/Medical Services	0	800	0.00%	497	915	54.27%	1,400	181.94%	1,100	-21.43%			
Fire Extinguisher Service	1,388	1,660	83.60%	1,762	1,690	104.24%	3,150	78.80%	3,150	0.00%			
Safety Supplies/Emerg Respon	8,950	6,400	139.84%	19,511	8,705	224.14%	9,700	-50.29%	9,700	0.00%			
Emergency Response Supplies	3,750	3,250	115.38%	644	3,350	19.22%	3,500	443.48%	1,000	-71.43%			
Uniforms/Boots/Gear	3,504	5,400	64.89%	6,041	5,885	102.64%	7,100	17.54%	5,185	-26.97%			
Safety Training	13,715	13,500	101.59%	29,376	20,410	143.93%	31,835	8.37%	15,100	-52.57%			

**Carmel Area Wastewater District**  
**Consolidated Departmental Operating Budget 2018-19**

Description	2016-17		Est. YTD 2017-18		% of Budget	Proposed 2018-19 Budget	% Chg. Prior Yr. Actual	Projected 2019-20 Budget	% Chg. Prior Yr. Budget
	Actual	Budget	Actual	Budget					
Policy & Procedures	2,625	0	n/a	0	n/a	2,740	n/a	2,740	0.00%
<i>Total Safety Expenses</i>	<b>33,938</b>	<b>31,610</b>	<b>107.36%</b>	<b>58,435</b>	<b>41,510</b>	<b>140.77%</b>	<b>59,545</b>	<b>1.90%</b>	<b>38,095</b>
<i>Other Expenses</i>									
LAFCO Admin Fee	15,254	15,500	98.41%	18,855	16,000	117.84%	24,052	27.56%	20,000
Training	151	2,000	n/a	1,500	2,000	75.00%	1,500	0.00%	1,500
Rate Payer Claims	105	2,500	4.21%	10,000	2,500	400.00%	2,500	-75.00%	2,500
CAWD Newsletter	25,994	27,500	94.52%	28,500	28,500	100.00%	28,500	0.00%	29,000
Recruitment	5,796	10,000	57.96%	18,510	10,000	185.10%	15,000	-18.96%	10,000
Legal notices	1,013	3,500	28.93%	1,314	5,500	23.88%	4,000	204.53%	4,000
Miscellaneous	804	66,300	1.21%	4,000	106,300	3.76%	281,980	6949.50%	247,340
Contingency	0	280,000	0.00%	35,000	280,000	12.50%	112,570	221.63%	109,685
<i>Total Other Expense</i>	<b>49,116</b>	<b>407,300</b>	<b>12.06%</b>	<b>117,678</b>	<b>450,800</b>	<b>26.10%</b>	<b>470,102</b>	<b>299.48%</b>	<b>424,025</b>
<b>CAWD Subtotal</b>	<b>5,524,974</b>	<b>6,436,385</b>	<b>85.84%</b>	<b>5,421,940</b>	<b>6,821,058</b>	<b>79.49%</b>	<b>7,345,112</b>	<b>35.47%</b>	<b>6,880,084</b>
Reclamation Project	448,974	506,100	88.71%	444,274	519,945	85.45%	457,133	2.89%	471,350
<b>Final Subtotal</b>	<b>5,973,948</b>	<b>6,942,485</b>	<b>86.05%</b>	<b>5,866,214</b>	<b>7,341,003</b>	<b>79.91%</b>	<b>7,802,245</b>	<b>33.00%</b>	<b>7,351,434</b>
Depreciation Expense	2,428,485	2,661,000	91.26%	2,669,000	2,669,000	100.00%	2,669,000	0.00%	2,669,000
Amortization Expense	4,860	4,860	100.00%	4,860	4,860	100.00%	4,860	0.00%	4,860
<b>Total Operating Expense</b>	<b>8,407,293</b>	<b>9,608,345</b>	<b>87.50%</b>	<b>8,540,074</b>	<b>10,014,863</b>	<b>85.27%</b>	<b>10,476,105</b>	<b>22.67%</b>	<b>10,025,294</b>









**Carmel Area Wastewater District**  
**Treatment Department: Operating Expense Budget 2018-19**

Description	Acct	2016-17		Est. YTD 2017-18		% of Budget	Proposed 2018-19 Budget	% Chg. Prior Yr.	Projected 2019-20 Budget	% Chg. Prior Yr.
		Actual	Budget	Actual	Budget					
Fire Extinguisher Service	6730.006	845	1,000	84.47%	710	1,030	68.93%	1,030	1,030	0.00%
Safety Supplies/Emerg Respon:	6735.006	2,918	3,400	85.81%	16,677	3,505	475.80%	3,500	-79.01%	3,500
Emergency Response Supplies	6740.006	3,750	3,250	115.38%	644	3,350	19.22%	3,500	443.48%	1,000
Uniforms/Boots/Gear	6750.006	2,190	2,800	78.22%	2,585	2,885	89.62%	3,000	16.03%	2,885
Safety Training	6760.006	6,435	5,500	117.00%	19,355	9,080	213.17%	13,720	-29.12%	9,000
Policies and procedures	6770.006	2,100	0	n/a	0	0	n/a	0	n/a	0
<i>Total Safety Expenses</i>	<b>18,244</b>	<b>16,850</b>	<b>108.27%</b>	<b>40,492</b>	<b>20,780</b>	<b>194.86%</b>	<b>24,750</b>	<b>-38.88%</b>	<b>17,415</b>	<b>-29.64%</b>
<i>Other Expenses</i>										
Recruitment	8910.006	5,796	5,000	115.91%	5,000	5,000	100.00%	5,000	0.00%	5,000
Legal notices	8920.006	0	0	n/a	120	2,000	6.00%	2,000	1566.67%	2,000
Miscellaneous/Contingency	8989.006	0	1,000	0.00%	0	51,000	0.00%	104,370	n/a	104,215
<i>Total Other Expense</i>	<b>5,796</b>	<b>6,000</b>	<b>96.59%</b>	<b>5,120</b>	<b>58,000</b>	<b>8.83%</b>	<b>111,370</b>	<b>2075.20%</b>	<b>111,215</b>	<b>-0.14%</b>
<i>Subtotal Operating Expense</i>	<b>2,341,173</b>	<b>2,456,006</b>	<b>95.32%</b>	<b>2,335,751</b>	<b>2,613,270</b>	<b>89.38%</b>	<b>2,713,651</b>	<b>16.18%</b>	<b>2,709,517</b>	<b>-0.15%</b>
Depreciation Expense	8997.006	2,059,995	2,300,000	89.56%	2,300,000	2,300,000	100.00%	2,300,000	0.00%	2,300,000
<i>Total Operating Expense</i>	<b>4,401,168</b>	<b>4,756,006</b>	<b>92.54%</b>	<b>4,635,751</b>	<b>4,913,270</b>	<b>94.35%</b>	<b>5,013,651</b>	<b>8.15%</b>	<b>5,009,517</b>	<b>-0.08%</b>

**Carmel Area Wastewater District**  
**Treatment: 2018-19 Operating Expense Budget**

Note No.	Description	Comments
a	Salaries	Reflects the negotiated CPI based on Oct '17 SF/Oakland/San Jose CPI = 3.0%. In addition, this lines reflects move of Maint Mechanic and Safety Officer to Maintenance Dept., and addition of Plant Engineer. Finally this line item assumes full staffing; movement of staff through step increases; and addition of Plant Engineer. Prior year actual reflects lower than budget due to staff on Worker Comp wages.
b	Salaries - Overtime	Est. \$40K for winter weather call backs and alarms; assumes reduced Comp Time
c	Salaries - Standby	\$280/wk x 52
d	Medical Insurance	Negotiated formula is EE=100% District paid, Dependents= 90% District paid, plus \$265 in additional funds paid to either HSA or defer premium costs. Blue Cross premium increase 9% split 60/40 with employees. This line items reflects changes in staffing level and changes in status from single to married plus dependents along with reallocation among departments. Finally, assumes a 10% increase effective 1-1-19.
e	CalPERS retirement	Reflects increase in employee contribution to 6% in FY 18-19 for Classic members. Employee contribution 6.25% for PEPRA members. Total Classic contribution 14.63%.
f	SAM retirement	Total PEPRA contribution 13.09%. Unfunded accrued liability estimated \$14,125.
g	Worker's Compensation	Actuarial analysis provided 06-30-17 with recommended contribution rates
h	PEHP insurance	Reallocation and additional positions for department. Also reflects Experience mod factor increase to 1.33 and estimated refund of \$10K.
i	Dental reimbursements	Equivalent to 1% of base salary
j	Consulting Fees	Based on last 4 years avg expenditure
k	Legal Fees	\$10K Engineering for Wet well mixing and other areas around the plant; \$20K for assistance with NPDES renewal
l	Computers & Equip	\$15K pretreatment review; \$15K general legal consulting during the year; \$5K misc other
m	Furnishings & fixtures	11 IP Phone at \$800/ea. = \$8,800. Planned replacement by Exceedio. Replacement copier \$7,800. Engineering station \$10K
n	Paper & printing	\$1.2K misc furniture replacement & \$600 new chairs
o	Postage & shipping	Business cards, time off request slips, source forms, \$2K source control brochures
p	Office supplies	Projected misc shipping charges and source control flyer mailing
q	Equipment repairs	Supplies used by both Operations & Maintenance staff
		Misc copier repairs. Added 3%

## Carmel Area Wastewater District

### Treatment: 2018-19 Operating Expense Budget

Note	No.	Description	Comments
r		Copier Supplies	Purchase of copier machine staples
s		Chemicals	Misc chemicals (i.e. Potassium Iodide crystals for chlorine analyzer calibration)
t		Chlorine	Estimated Sodium Hypochlorite solution - new system on-line
u		Sodium bisulfite	Estimated solution with use of new system from Phase I. Bulk of cost is reimbursed by Reclamation Project; includes "catch-up" from prior yrs
v		Ferric chloride	Chemical used for digester H2S removal; reflects new Air Board permit on the new waste burner for sulfide limits
w		Polymer	Expecting an increase in usage with new screw press and DAFT unit
x		Acetic Acid	Chemical used for Chlorine Analyzers. 3% CPI increase
y		Iodine solution	Chemical used for Chlorine Analyzer calibration. Actual costs from 2016-17 plus 3% CPI
z		Potassium iodate	\$1,785 per 25# bucket - depending on timing could order two for the year
aa		Laboratory	Increase due to proposed capital expenditures related to consumables for new equipment (Gallery); \$4K plant process control nutrient testing; 3% CPI increase
bb		Janitorial	Janitorial supplies and paper products (Ops, lunchroom, Lab); 3% CPI increase
cc		Personnel	Increased provisioning for safety materials: Gloves, safety glasses, face shields, earplugs, tyvek suits
dd		Radios & supplies	All allowance for replacing any damaged radios or needed supplies and batteries. 3% CPI inc
ee		Hand tools	All allowance for new and replacement tools for operators and Source Control (primarily small tools) 3% CPI increase
ff		General supplies	General supplies decrease due to shift to other line items. Includes: Equipment boxes \$2,625, Storm water supplies \$1,500, Plant wash down hoses \$1,000 and brooms, shovels, rakes, hoes \$200. Plus assumes 3% CPI increase
gg		Source control	Safety gear \$500; new manhole ladder \$750
hh		Sludge Haul/Disposal	1500 tons @ \$52/ton from screwpress in 2017. Increase due to removing sludge from Digester #2
ii		Network Administration	LIMS \$3,426; ENPDES \$800; Excedio \$44,208; ICOM \$1,500; Ignition \$4,700; Gallery Network \$800; Turf Image \$3,600
jj		Laboratory Analysis	Anticipate 5% increase from contract labs as advised by vendors
kk		Alarm System	Annual fee for new Mission monitoring devices within the Treatment Plant
ll		Equip rent - generator	Transferred to maintenance budget
mm		Janitorial Service	Transferred to maintenance budget

## Carmel Area Wastewater District

### Treatment: 2018-19 Operating Expense Budget

Note	<u>Description</u>	<u>Comments</u>
No.		
nn	Copier Service	Copy usage spans all departments at the facility - increase anticipated with NPDES renewal
oo	Laundry	Replacement of damaged/size change plus 3% CPI increase
pp	Hazard/Green Waste Disposal	Chemicals in the Lab - actual costs reflected in the 2017-18 budget
qq	Grit & Screening Disposal	Expect increase due to plant rehabilitation and clean up
rr	Sewer/pretreatment ordinance	Public notice, Public meetings, & Realtor Notice
ss	Instrumentation Services	Calibration of liquid and air flow meters \$8,184; SCADA changes \$7,000; Suspended solids probes \$5,760; ultra sonic transducer calibration \$5,056
tt	Hazardous chemical disposal	Removal of chemicals no longer used around facility
uu	Outfall Inspection	Annual inspection required in NPDES permit
vv	Ocean Monitoring Program	Cclean no cost due to CAWD acting in lead agency capacity. Twice a year Ocean Toxicity \$5,120 per sample (2x) plus DDT \$1,000 twice a year
ww	Calibration	Balances 4 x \$300 (50% Reclamation); Microscope \$1,500; Weights \$500 (50% Reclamation); Moisture analyzer \$900; TOC \$4,540 (90% Reclamation); IC3000 \$3,100; ICS1100 \$1,500; Gallery \$3,000 (50% Reclamation)
xx	General Repairs	Emergency repairs
yy	Instruments	Emergency instrument replacement \$5K; Hach SC200 replacement controller \$7,750; Influent pH on-line probe \$2,300
zz	Lab Equipment	Hanna Titration Basic System \$1,000 (50% Reclamation); Replace Refrigerated Sampler Grit Tank \$5,880; Replace Refrigerated Sampler secondary Distribution box \$5,880 Supplies \$5,000; Hach SC200 Controller \$2,750, Influent pH on-line probe supplies Polyblend supplies; PPE equipment face shield, proper gloves, signage Chlorine analyzer parts \$7,800; eye wash/drench shower supplies \$500; PPE equipment for SBS and Hypo \$1,700
1	Headworks - Primary IPS/EPS/DAF	Replacement parts for the polyblend \$1,100, polymer cleaning solution \$350 Possible PPE supplies \$600; dissolved oxygen replacement probes \$2,400
2	Chlorine/Dechlorinator	Building repair moved to Maintenance budget
3	Dewatering/DIG	Estimated PG&E usage
4	Aeration - Secondary	Increase natural gas usage due to only running one micro turbine; new 65kw turbine on order and will be installed for 2018-19
5	Buildings	Used for the forklift. Unit used by Collections, Maintenance, & Operations
6	Electricity	
7	Gas	
8	Propane	

**Carmel Area Wastewater District**  
**Treatment: 2018-19 Operating Expense Budget**

Note	No.	Description	Comments
	10	Water	Estimated CalAm water increase of 16.9%. Prior year increased usage due to Phase I use by Anderson Pacific
	11	Telephones - Fixed Costs	\$12K plant fiber optic internet and \$8K VOIP phone system annual service with backup cellular and email integration
	12	Cellular phones	Increase costs due to purchase of additional ipads for Mainsaver
	13	Business meetings	Prior year Actuals reflect mis-codings
	14	Treatment Plant Permits	Per SWRCB website classified as an A2 site
	15	Central Coast RWQCB	Using 2016-17 actual
	16	Air Pollution Control Permit	Based on invoices from previous year
	17	Environmental Health Permit	Based on 2015-16 invoices - added 3%
	18	Lab Registration Fees	ELAP(TNI) fees are expected to increase \$4,445; TNI membership \$300
	19	WEF	Membership renewal
	20	Subscriptions/Publications	Continue to add books/manuals to the library for Maintenance, Lab & Ops for staff
	21	First Aid Supplies	Transferred to maintenance budget
	22	First Aid/Medical Services	Transferred to maintenance budget
	23	Fire Extinguisher Service	Replace extinguishers that do not meet hydro-testing requirements
	24	Safety training	40 hr Hazwoper initial training \$4,720; On site 8 hr Refresher Hazwoper training \$4,860; On site 8 hr Confined space training \$4,140
	25	Legal notices	Source control ordinance
	26	Miscellaneous/Contingency	4% O&M budget

Carmel Area Wastewater District  
Maintenance - Plant: 2018-19 Operating Expense Budget

Description	Acct	2016-17		Est. YTD 2017-18		Proposed 2018-19 Budget	% Chg. Prior Yr. Actual	Projected 2019-20 Budget	% Chg. Prior Yr. Budget	Notes
		Actual	Budget	% of Budget	Actual					
Salaries	5030.004	274,012	277,511	98.7%	306,690	278,499	110.1%	456,950	48.99%	472,446 3.39% a
Salaries - Overtime	5035.004	2,384	0	1,800	0	n/a	0	n/a	0	n/a
	<i>Total Salaries</i>	<b>276,396</b>	<b>277,511</b>	<b>99.6%</b>	<b>308,490</b>	<b>278,499</b>	<b>110.8%</b>	<b>456,950</b>	<b>48.12%</b>	<b>472,446 3.39% b</b>
Payroll Taxes	5045.004	21,214	21,230	99.9%	23,600	21,310	110.7%	34,957	48.12%	36,142 3.39%
Allocation to Reclamation										
	<i>Total Payroll Taxes</i>	<b>21,214</b>	<b>21,230</b>	<b>99.9%</b>	<b>23,600</b>	<b>21,310</b>	<b>110.7%</b>	<b>34,957</b>	<b>48.12%</b>	<b>36,142 3.39%</b>
<i>Employee Benefits:</i>										
Medical Insurance - Premium	5070.004	43,556	45,450	95.8%	64,255	63,885	100.6%	71,976	12.02%	75,118 4.37% c
Retirement Plan - CalPERS	5080.004	21,933	19,994	109.7%	42,760	42,985	99.5%	39,034	-8.71%	39,812 1.99% d
Pension Contribution - SAM	5090.004	4,116	4,120	99.9%	2,425	2,410	100.6%	17,231	610.43%	17,231 0.00% e
Workers Compensation	5100.004	10,955	16,670	65.7%	20,040	11,621	172.5%	18,813	-6.12%	19,377 3.00% f
Life Insurance	5110.004	1,043	915	114.0%	925	916	100.9%	925	0.03%	925 0.00% g
PEHP	5120.004	3,204	2,865	111.8%	4,635	4,606	100.6%	4,720	1.83%	4,875 3.28% g
Dental Insurance/Claims	5130.004	3,570	3,000	119.0%	3,400	3,450	98.6%	3,659	7.62%	3,570 -2.43% h
Vision Insurance	5140.004	947	900	105.2%	925	900	102.8%	900	-2.70%	900 0.00% i
Long Term Disability	5150.004	2,533	2,550	99.3%	2,560	2,560	100.0%	4,200	64.06%	4,350 3.57% j
Employee Assistance Program	5180.004	662	475	139.3%	615	475	129.5%	475	-22.76%	475 0.00% k
Medical Exams	5200.004	783	400	195.7%	185	0	n/a	0	-100.00%	0 n/a l
Allocate to Reclamation	5205.004	(11,254)	0	n/a	(810)	0	n/a	(800)	-1.23%	(800) 0.00% m
	<i>Total Employee Benefits</i>	<b>82,047</b>	<b>97,339</b>	<b>84.3%</b>	<b>141,915</b>	<b>133,808</b>	<b>106.1%</b>	<b>161,133</b>	<b>13.54%</b>	<b>165,833 2.92%</b>
<i>Trucks &amp; Autos</i>										
Gasoline	5310.004	2,757	5,050	54.6%	4,500	6,000	75.0%	1,200	-73.33%	1,300 8.33% i
Diesel	5320.004	644	2,000	32.2%	1,550	2,200	70.5%	1,000	-35.48%	1,100 10.00% j
Fuelmaster software	5325.004	110	0	n/a	110	0	n/a	0	-100.00%	0 n/a k
Oil & Grease	5330.004	140	1,500	9.3%	350	2,000	17.5%	200	-42.86%	200 0.00% l
Tires, Batteries, Service	5340.004	847	1,500	56.4%	1,500	1,500	100.0%	1,500	0.00%	1,500 0.00% m
Outside Repair Service	5345.004	5,385	2,500	215.4%	3,000	3,000	100.0%	3,000	0.00%	2,000 -33.33% n
Repair Parts	5350.004	1,578	4,500	35.1%	1,065	5,000	21.3%	1,500	40.85%	1,500 0.00% o
Tools	5355.004	64	5,000	1.3%	500	5,000	10.0%	6,000	1100.00%	500 -91.67% p
Vehicle Accessories	5360.004	291	200	145.4%	25	500	5.0%	6,000	23,900.00%	500 -91.67% q
Smog Check - Vehicles	5380.004	0	300	0.0%	320	500	64.0%	240	-25.00%	360 50.00% o
Cleaning & detailing	5410.004	23	250	9.2%	250	500	50.0%	0	-100.00%	0 n/a p
Paint & fluids	5420.004	0	250	0.0%	200	500	40.0%	40	-80.00%	40 0.00% q

Carmel Area Wastewater District  
Maintenance - Plant: 2018-19 Operating Expense Budget

Description	Acct	2016-17		Est. YTD 2017-18		Proposed 2018-19 Budget	% Chg. Prior Yr. Actual	Projected 2019-20 Budget	% Chg. Prior Yr. Budget	Notes
		Actual	Budget	% of Budget	Actual					
Waste oil & coolants disposal	5440.004	0	500	0.0%	450	750	60.0%	800	77.78%	r
<i>Total Trucks &amp; Autos</i>	<i>11,837</i>	<i>23,550</i>	<i>50.3%</i>	<i>13,820</i>	<i>27,450</i>	<i>50.3%</i>	<i>21,480</i>	<i>55.43%</i>	<i>9,800</i>	<i>-54.38%</i>
<b>Office Supplies &amp; Service</b>										
Computers & Equip	5540.004	10,287	15,000	68.6%	2,500	3,000	83.3%	3,000	20.00%	s
Furnishings & fixtures	5545.004	1,389	0	n/a	300	0	n/a	300	0.00%	t
Paper & printing	5550.004	512	800	63.9%	672	750	89.6%	300	-55.36%	u
Postage & shipping	5560.004	0	250	0.0%	250	250	100.0%	500	100.00%	v
Office supplies	5570.004	69	250	27.6%	380	250	152.0%	250	-34.21%	w
<i>Total Office Supplies &amp; Svc.</i>	<i>12,256</i>	<i>16,300</i>	<i>75.2%</i>	<i>4,102</i>	<i>4,250</i>	<i>96.5%</i>	<i>4,350</i>	<i>6.05%</i>	<i>4,850</i>	<i>11.49%</i>
<b>Operating Supplies</b>										
Generator fuel	5675.004	4,842	3,000	161.4%	3,700	5,000	74.0%	3,500	-5.41%	x
Lubricants & packing	5680.004	100	5,000	2.0%	2,735	5,000	54.7%	5,000	82.82%	y
Microturbine	5685.004	19	4,000	0.5%	0	4,000	0.0%	0	n/a	z
Electrical Supplies	5690.004	3,029	12,000	25.2%	2,495	20,000	12.5%	20,000	701.60%	aa
Paint & fluids	5710.004	9,552	8,000	119.4%	9,100	10,000	91.0%	10,000	9.89%	bb
Personnel supplies	5740.040	1,830	1,500	122.0%	60	2,000	3.0%	2,000	3233.33%	cc
Welding	5750.004	69	1,000	6.9%	45	1,000	4.5%	1,000	2122.22%	dd
Hand tools	5780.004	14,246	10,000	142.5%	12,679	10,000	126.8%	7,800	-38.48%	ee
General supplies	5790.004	34,101	25,000	136.4%	12,185	25,000	48.7%	15,000	23.10%	ff
<i>Total Operating Supplies</i>	<i>67,789</i>	<i>69,500</i>	<i>97.5%</i>	<i>42,999</i>	<i>82,000</i>	<i>52.4%</i>	<i>64,300</i>	<i>49.54%</i>	<i>56,450</i>	<i>-12.21%</i>
<b>Contractual Services</b>										
Microturbine/Gas Conditioning Service	5850.004	8,946	10,000	89.5%	9,500	10,000	95.0%	6,500	-31.58%	gg
Plant Rehabilitation	5855.004	151,525	150,000	101.0%	42,936	155,000	27.7%	245,000	470.61%	hh
Equip rent - generator	5890.004	0	5,000	0.0%	1,070	5,000	21.4%	0	-100.00%	i
Janitorial	5900.040	0	10,860	0.0%	10,000	11,000	90.9%	11,000	10.00%	ii
Laundry	5940.004	2,564	1,500	170.9%	4,770	2,000	238.5%	4,250	-10.90%	jj
Landscape Maintenance	5980.004	2,728	11,640	23.4%	3,500	12,000	29.2%	6,000	71.43%	kk
Hazard/Green Waste Disposal	5990.004	0	1,500	0.0%	0	1,500	0.0%	1,000	n/a	ll
Pest Control	6010.004	2,016	1,500	134.4%	1,740	1,500	116.0%	3,000	72.41%	mm
Hoist Certification	6030.004	1,276	2,000	63.8%	1,880	2,000	94.0%	3,000	59.57%	nn
Hazardous chemical disposal	6040.004	0	500	0.0%	500	500	100.0%	0	-100.00%	oo
Plant tree trimming	0	10,000	0.0%	0	10,000	0.0%	10,000	n/a	10,000	pp
<i>Total Contractual Services</i>	<i>169,053</i>	<i>204,500</i>	<i>82.7%</i>	<i>75,896</i>	<i>210,500</i>	<i>36.1%</i>	<i>289,750</i>	<i>281.77%</i>	<i>169,500</i>	<i>-41.50%</i>

Carmel Area Wastewater District  
Maintenance - Plant: 2018-19 Operating Expense Budget

Description	Acct	2016-17		Est. YTD 2017-18		Proposed 2018-19 Budget	% Chg. Prior Yr. Actual	Projected 2019-20 Budget	% Chg. Prior Yr. Budget	Notes
		Actual	Budget	% of Budget	Actual					
<b>Repairs &amp; Maintenance</b>										
General Repairs	6095.004	230,368	248,000	92.9%	95,841	250,000	38.3%	180,000	87.81%	
Electric Motors	6150.004	3,277	10,000	32.8%	0	20,000	0.0%	14,000	n/a	14,000 0.00% qq
Microturbine R & M	6160.004	5,798	5,000	116.0%	4,500	5,000	90.0%	5,000	11.11%	5,000 0.00% rr
Plant Pumps	6190.004	20,558	12,000	171.3%	16,767	51,000	32.9%	35,000	108.74%	20,000 -42.86% ss
Standby Generator	6200.004	731	10,000	7.3%	9,879	10,000	98.8%	10,000	1.22%	10,000 0.00% tt
Control Panels	6210.004	0	12,000	0.0%	5,000	15,000	33.3%	120,000	230.00%	40,000 -66.67% uu
Instruments	6220.004	148	5,000	3.0%	4,000	5,000	80.0%	50,000	1150.00%	35,000 -30.00% vv
Boiler Repairs	6230.004	0	2,000	0.0%	3,710	4,000	92.7%	4,397	18.52%	4,000 -9.03% xx
Headworks - Primary	6250.004	23,897	15,000	159.3%	53,998	15,000	360.0%	10,000	-81.48%	5,000 -50.00% yy
IPS/EPS/DAF	6260.004	10,720	15,000	71.5%	49,184	15,000	327.9%	10,000	-79.67%	5,000 -50.00% zz
Chlorine/Dechlorinator	6270.004	0	15,000	0.0%	3,910	15,000	26.1%	10,000	155.73%	5,000 -50.00% 1
Dewatering/DIG	6280.004	8,733	15,000	58.2%	33,210	20,000	166.1%	15,000	-54.83%	10,000 -33.33% 2
Plant Valves	6290.004	804	15,000	5.4%	4,132	15,000	27.5%	15,000	263.06%	8,000 -46.67% 3
Aeration - Secondary	6300.004	9,253	15,000	61.7%	32,365	15,000	215.8%	15,000	-53.65%	5,000 -66.67% 4
Demolition	6310.004	19,008	50,000	38.0%	0	50,000	0.0%	0	n/a	0 n/a 5
Buildings	6320.004	35,443	25,000	141.8%	57,793	50,000	115.6%	50,000	-13.48%	50,000 0.00% 5
<i>Total Maint &amp; Repairs</i>	<i>368,740</i>	<i>469,000</i>	<i>78.6%</i>	<i>374,289</i>	<i>555,000</i>	<i>67.4%</i>	<i>543,397</i>	<i>45.18%</i>	<i>316,000</i>	<i>-41.85%</i>
<b>Utilities</b>										
Propane	6370.004	0	500	0.0%	250	500	50.0%	0	-100.00%	0 n/a
Cellular service	6393.004	1,355	0	n/a	1,400	0	n/a	1,720	22.86%	1,000 -41.86% 6
<i>Total Utilities</i>	<i>1,355</i>	<i>500</i>	<i>271.0%</i>		<i>1,650</i>	<i>500</i>	<i>330.0%</i>	<i>1,720</i>	<i>4.24%</i>	<i>1,000</i> -41.86%
<b>Travel &amp; Training</b>										
Employee Training	6420.004	9,539	6,000	159.0%	3,010	8,000	37.6%	14,130	369.49%	8,000 -43.38% 7
Conferences	6430.004	2,077	5,000	41.5%	4,000	7,000	57.1%	5,100	27.50%	5,100 0.00% 8
Business meetings	6440.004	424	400	106.0%	300	400	75.0%	400	33.33%	400 0.00% 10
<i>Total Travel &amp; Meetings</i>	<i>12,040</i>	<i>11,400</i>	<i>105.6%</i>		<i>7,310</i>	<i>15,400</i>	<i>47.5%</i>	<i>19,630</i>	<i>168.55%</i>	<i>13,500</i> -31.23%
<b>Permitting</b>										
Central Coast RWQCB	6475.004	0	2,000	0.0%	2,000	2,000	100.0%	2,000	0.00%	2,000 0.00% 9
Air Pollution Control Permit	6480.004	0	3,000	0.0%	1,750	3,000	58.3%	4,400	151.43%	3,000 -31.82% 10
<i>Total Permitting</i>	<i>0</i>	<i>5,000</i>	<i>0.0%</i>		<i>3,750</i>	<i>5,000</i>	<i>75.0%</i>	<i>6,400</i>	<i>70.67%</i>	<i>5,000</i> -21.88%
<b>Membership/Subscriptions</b>										
Employee Certification	6550.004	808	2,000	40.4%	1,200	2,000	60.0%	1,470	22.50%	805 45.24% 11

Carmel Area Wastewater District  
Maintenance - Plant: 2018-19 Operating Expense Budget

Description	Acct	2016-17		Est. YTD 2017-18		Proposed 2018-19		Projected 2019-20		% Chg. Prior Yr.		Notes
		Actual	Budget	% of Budget	Actual	Budget	% of Budget	Budget	Budget	% Chg. Actual	Budget	
CWEA	6560.004	614	500	122.8%	345	750	46.0%	540	56.52%	540	0.00%	12
WEF	6580.004	247	400	61.8%	320	500	64.0%	0	-100.00%	0	n/a	
Subscriptions/Publications	6640.004	727	500	145.4%	300	500	60.0%	300	0.00%	300	0.00%	13
<i>Total Membership/Subscrip.</i>	<b>2,396</b>	<b>3,400</b>	<b>70.5%</b>	<b>2,165</b>	<b>3,750</b>	<b>57.7%</b>	<b>2,310</b>	<b>6.70%</b>	<b>1,645</b>	<b>-28.79%</b>		
<i>Safety</i>												
First Aid Supplies	6710.004	0	80	0.0%	85	20	425.0%	100	17.65%	100	0.00%	14
First Aid/Medical Services	6720.004	0	80	0.0%	50	50	100.0%	50	0.00%	50	0.00%	15
Fire Extinguisher Service	6730.004	68	80	85.0%	800	20	400.0%	1,000	25.00%	1,000	0.00%	16
Safety Supplies/Emerg. Response	6735.004	2,849	800	356.2%	200	200	100.0%	2,200	1,000.00%	2,200	0.00%	17
Uniforms/Boots/Gear	6750.004	400	880	45.4%	800	900	88.9%	1,600	100.00%	800	-50.00%	18
Safety Training	6760.004	2,425	1,280	189.5%	1,400	1,625	86.2%	11,115	693.93%	4,100	-63.11%	
Policies and procedures	6770.004	525	0	n/a	0	0	n/a	2,740	n/a	2,740	0.00%	
<i>Total Safety Expenses</i>	<b>6,267</b>	<b>3,200</b>	<b>195.8%</b>	<b>3,335</b>	<b>2,815</b>	<b>118.5%</b>	<b>18,805</b>	<b>463.87%</b>	<b>10,990</b>	<b>-41.56%</b>		
<i>Other Expenses</i>												
Recruitment	8910.004	0	5,000	0.0%	12,265	5,000	245.3%	5,000	-59.23%	5,000	0.00%	
Contingency	8989.004	0	0	n/a	0	0	n/a	65,210	n/a	50,725	-22.21%	19
<i>Total Other Expense</i>	<b>0</b>	<b>5,000</b>	<b>0.0%</b>	<b>12,265</b>	<b>5,000</b>	<b>245.3%</b>	<b>70,210</b>	<b>472.44%</b>	<b>55,725</b>	<b>-20.63%</b>		
<b>Subtotal Operating Expense</b>	<b>1,031,392</b>	<b>1,207,430</b>	<b>85.42%</b>	<b>1,015,586</b>	<b>1,345,282</b>	<b>75.5%</b>	<b>1,695,392</b>	<b>66.94%</b>	<b>1,318,881</b>	<b>-22.21%</b>		
Total Operating Expense	<b>1,031,392</b>	<b>1,207,430</b>	<b>85.42%</b>	<b>1,015,586</b>	<b>1,345,282</b>	<b>75.5%</b>	<b>1,695,392</b>	<b>66.94%</b>	<b>1,318,881</b>	<b>-22.21%</b>		

**Carmel Area Wastewater District**  
**Maintenance - Plant: 2018-19 Operating Expense Budget**

Note <u>No.</u>	Description	Comments
a	Salaries	Reflects the negotiated CPI based on Oct '17 SF/Oakland/San Jose CPI = 3.0%. In addition, this lines reflects move of Maint Mechanic and Safety Officer to Maintenance Dept. Finally this line item assumes full staffing; movement of staff through step increases. Prior year actual reflects lower than budget due to staff on Worker Comp wages. Est. \$40K for winter weather call backs and alarms; assumes reduced Comp Time
b	Salaries - Overtime	Negotiated formula is EE=100% District paid, Dependents= 90% District paid, plus \$265 in additional funds paid to either HSA or defer premium costs. Blue Cross premium increase 9% split 60/40 with employees. This line items reflects changes in staffing level and changes in status from single to married plus dependents along with reallocation among departments. Finally, assumes a 10% increase effective 1-1-19.
c	Medical Insurance	
d	CalPERS retirement	Reflects increase in employee contribution to 6% in FY 18-19 for Classic members. Employee contribution 6.25% for PEPRA members. Total Classic contribution 14.63%. Total PEPRA contribution 13.09%. Unfunded accrued liability estimated \$14,125.
e	SAM retirement	Actuarial analysis provided 06-30-17 with recommended contribution rates
f	Worker's Compensation	Reallocation and additional positions for department. Also reflects Experience mod factor increase to 1.33 and estimated refund of \$10K.
g	PEHP insurance	Equivalent to 1% of salary
h	Dental reimbursements	Based on last 4 years avg expenditure
i	Gasoline	2 plant vehicles \$50/mo @ \$2.50/gal - all other fuel purchases shifted to Collections
j	Diesel	Diesel for plant equipment - all other fuel purchases shifted to Collections
k	Tires, Batteries, Service	New batteries and tires for 1 plant truck and 1 electric cart
l	Outside Repair Service	Brakes and repairs for carts and plant vehicles. Will be outsourced for FY 18/19 with goal of performing internally FY 19/20
m	Tools	2 Post rotary truck lift. Will enable maintenance to perform brake and oil changes for trucks
n	Vehicle Accessories	2 golf cart tool boxes. Will improve efficiency of staff by keeping their tools on their cart.
o	Smog Check - Vehicles	Smog vehicles even license plate. Vehicle # 17, 29, 20 and 36

**Carmel Area Wastewater District**  
**Maintenance - Plant: 2018-19 Operating Expense Budget**

Note	<u>Description</u>	<u>Comments</u>
No.		
p	Cleaning & detailing	Use shop vac and wash at treatment plant
q	Paint & fluids	Washer fluid
r	Waste oil & coolants disposal	Disposal/recycle of waste oil
s	Computers & Equip	Computer accessories
t	Furnishings & fixtures	1 office chair
u	Paper & printing	Copy paper
v	Postage & shipping	Shipping for equipment inspections and to send in parts for repairs
w	Office supplies	Pens, staples, tape, etc.
x	Generator fuel	Diesel fuel and oil for 450kW and 750kW treatment plant standby generators. Will be used for sampling and then fuel may not have to be changed.
y	Lubricants & packing	Packing for pumps, lube oil for motors and pumps
z	Microturbine	Maintenance included in purchase agreement
aa	Electrical Supplies	Electrical wire, wire labels, small breakers, wire nuts, conduit fittings, electrical consumables
bb	Paint & fluids	Epoxy paint for fiberglass panels that will be damaged by UV if not coated, concrete coating touch up
cc	Personnel supplies	Gloves, safety glasses, face shields, earplugs, tyvek suits
dd	Welding	Welding tip for TIG and gas
ee	Hand tools	\$1.3K instrumentation meter for calibration; \$1.7K misc hand tools; \$2K Sheetmetal brake;
ff	General supplies	\$2K Metal fixed band saw; \$300 batteries for drill; & \$500 replace pipe threading dies
gg	Microturbine Service	Reduced due to new LED lights. Additional stainless strut & hardware Proposed contract for 65kW includes maintenance
hh	Plant Rehabilitation	\$20K HVAC annual contract; \$80K Electrical annual contract; \$100K PLC/SCADA system integrator annual contract; \$25K Mechanical annual contract; \$5K Mainsaver annual support; \$5K Rockwell PLC annual support; \$10K Cathodic protection assessment. In 2019-20 reduced System Integrator due to system improvement so primarily maintenance & to provide training to staff
ii	Janitorial	Removed from Ops budget and moved to Maintenance
jj	Laundry	4 staff uniforms. Increased budget due to arc flash rated clothing
kk	Landscape Maintenance	Annual contract

## Carmel Area Wastewater District

### Maintenance - Plant: 2018-19 Operating Expense Budget

Note	<u>Description</u>	<u>Comments</u>
ll	Hazard/Green Waste Disposal	Prior year outsourced with service contract, but we will bring back onsite
mm	Pest Control	Annual contract to control rodent population inside plant fence line
nn	Hoist Certification	Cranes over 3 tons need proof load testing every 4 years. All cranes need annual inspection, testing, and maintenance.
oo	Hazardous chemical disposal	Deleted - no longer utilized
pp	Plant tree trimming	Trim trees twice per year to prevent further damage to fences
qq	General Repairs	\$40K Vault lid repair; \$3K smart manole for effluent and stormwater; \$20K rehab piping and add blind flange; \$40K HVAC repair for exhaust fans and supply fans for influent and effluent drywells; \$5K wetwell exhaust fan repair and maintenance; \$15K spot concrete coating and maintenance; \$22K catwalk repair and rehab; \$20K electrical repairs (boxes, conduit, etc.); and \$15K miscellaneous repairs
rr	Electric Motors	Send 1 influent and 1 effluent motor in for recondition
ss	Microturbine R & M	Maintenance of media and fuel pretreatment system. Not include in microturbine contract
tt	Centrifugal Pumps	Purchase spare pump parts and rebuild kits, pump impellers and couplings
uu	Standby Generator	Annual load bank testing and service for 450 kW and 750 kW generators
vv	Control Panels	Spare PLC parts for each type of card and processor. Install new and improved DC UPS system to improve reliability and decrease maintenance. New PLC controls throughout plant.
ww	Instruments	Moved \$25K for instrument calibration from OPS budget. \$10K to replace obsolete level controls. \$10K new flow monitoring and analyzer to improve process control in plant; and \$5K instrument repair, ph, conductivity, and temperature
xx	Boiler Repairs	Annual boiler service
yy	Headworks - Primary	Repair valves, pump seals, electrical enclosures
zz	IPS/EPS/DAF	Repair valves, pump seals, electrical enclosures
1	Chlorine/Dechlorinator	Repair/rehab valves, pump seals, electrical enclosures, recirc pump, analyzers
2	Dewatering/DIG	Repair valves, pump seals, electrical enclosures. Rehab belt press safety switches
3	Plant Valves	Rebuild and perform preventive maintenance on valves
4	Aeration - Secondary	Remove old #3 water piping. Rehab pumps and piping.
5	Buildings	Painting, door repair, update any old locks. Repair rollup doors and maintenance
6	Cellular service	2 Smart phones annual service and annual Mission cell cost for smart manholes at plant

**Carmel Area Wastewater District**  
**Maintenance - Plant: 2018-19 Operating Expense Budget**

<u>Note No.</u>	<u>Description</u>	<u>Comments</u>
	Employee Training	2018-19: \$2K Ignition SCADA Historian training; \$6.3K Instrumentation boot camp; \$630 CWEA test prep; \$1.6K Industrial Electrical; \$1.6K Pump rebuild school; \$500 Asset Mgmt/CMMSS; \$1K Advanced Excel class
7	Employee Certification	2019-20: \$6.3K ISA Boot camp; Advanced mechanical training
8	Conferences	\$2,650 CWEA annual x 2; \$250 MBW Water Works x 5; \$2K CASA; \$250 Sewer Summit x 5
9	Central Coast RWQCB	Treatment Plant Stormwater permit
10	Air Pollution Control Permit	\$3K Air Board Permit and standby generator permits; \$1.4K Health dept permits
11	Employee Certification	Renewal and new certifications
12	CWEA	3 CWEA memberships
13	Subscriptions/Publications	Intl Society of Automation
14	First Aid Supplies	Restock 1st Aid kits. Liquid based items are expired and restock bandages
15	First Aid/Medical Services	Coverage for 1 initial WC visit
16	Fire Extinguisher Service	Extinguishers for treatment plant and vehicles
17	Safety Supplies/Emerg Response	\$400 2x rescue winch certification; \$899 rescue gear requests (confined space blower, carabiner, spreader bar); \$1K annual SCBA testing
18	Uniforms/Boots/Gear	2018-19: \$800 x 4 high visibility rain gear; \$800 x 4 boots 2019-20: boots only
19	Contingency	4% O&M budget



**Carmel Area Wastewater District**

**Maintenance - Field: 2018-19 Operating Expense Budget**

Description	Acct	2016-17		Est. YTD 2017-18		Proposed 2018-19 Budget	% Chg. Prior Yr. Actual	Projected 2019-20 Budget	% Chg. Prior Yr Budget	Notes
		Actual	Budget	% of Budget	Actual					
First Aid/Medical Services	6720.003	0	20	0.00%	0	50	0.00%	50	n/a	50
Fire Extinguisher Service	6730.003	0	20	0.00%	0	20	0.00%	500	n/a	500
Safety Supplies/Emerg Response	6735.003	0	200	0.00%	0	200	0.00%	500	n/a	500
Uniforms/Boots/Gear	6750.003	0	220	0.00%	0	600	0.00%	0	n/a	0
Safety Training	6760.003	0	120	0.00%	0	1,705	0.00%	2,000	n/a	0
<i>Total Safety Expenses</i>	<b>0</b>	<b>600</b>	<b>0.00%</b>	<b>0</b>	<b>2,595</b>	<b>0.00%</b>	<b>3,070</b>	<b>n/a</b>	<b>1,070</b>	<b>-65.15%</b>
Contingency	0	0	n/a	0	0	n/a	3,855	n/a	2,645	-31.39%
<b>Subtotal Operating Expense</b>	<b>109,594</b>	<b>111,476</b>	<b>98.31%</b>	<b>47,039</b>	<b>136,045</b>	<b>34.58%</b>	<b>100,225</b>	<b>113.07%</b>	<b>68,765</b>	<b>-31.39%</b>
<b>Total Operating Expense</b>	<b>109,594</b>	<b>111,476</b>	<b>98.31%</b>	<b>47,039</b>	<b>136,045</b>	<b>34.58%</b>	<b>100,225</b>	<b>113.07%</b>	<b>68,765</b>	<b>-31.39%</b>

**Carmel Area Wastewater District**  
**Maintenance - Field: 2018-19 Operating Expense Budget**

Note	No.	Description	Comments
	a	Gasoline	Moved to Collection Dept. budget
	b	Diesel	Moved to Collection Dept. budget
	c	Tires, Batteries, Service	Batteries for camera truck
	d	Outside Repair Service	Truck repairs by factory service tech
	e	Repair Parts	Wheel bearing service on portable equipment
	f	Tools	Large vehicle tools so more work can be performed in-house.
	g	Electrical Supplies	Rebuild motor starters. Install updated solid state motor protection relays. Purchase spare pump breakers or replace
	h	General supplies	Conduit, strut, pipe fittings
	i	Electrical Contractor	Outside electrical contractor services
	j	Pump station equipment	Equipment repair: \$5K new electrical panels at Bay & Scenic and 8th & Scenic; \$5K replace valves after assessment and valve exercise; \$8K new backup battery system for all 7 pump stations; and \$2K pump plug disconnect to pumps at Hacienda and Calle la Cruz.
	k	Generators	Annual load bank and service for standby and portable generators
	l	Contingency	4% O&M budget









## Carmel Area Wastewater District

### Administration: 2018-19 Operating Expense Budget

Note	No.	Description	Comments
a	Salaries	Reflected the negotiated CPI based on Oct '17 SF/Oakland/San Jose CPI = 3.0%. In addition, this lines reflects move of Maint Mechanic and Safety Officer to Maintenance Dept., and addition of Plant Engineer. Finally this line item reflects potential changes due to recommendations from Admin Assessment performed in Fall 2017. It assumes full staffing, and movement of staff through step increases.	
b	Medical Insurance	Negotiated formula is EE=100% District paid, Dependents= 90% District paid, plus \$265 in additional funds paid to either HSA or defer premium costs. Blue Cross premium increase 9% split 60/40 with employees. This line items reflects changes in staffing level and changes in status from single to married plus dependents along with reallocation among departments. Finally, assumes a 10% increase effective 1-1-19.	
c	CalPERS retirement	Reflects increase in employee contribution to 6% in FY 18-19 for Classic members. Employee contribution 6.25% for PEPRA members. Total Classic contribution 14.63%.	
d	SAM retirement	Total PEPRA contribution 13.09%. Unfunded accrued liability estimated \$14,125.	
e	Worker's Compensation	Actuarial analysis provided 06-30-17 with recommended contribution rates	
f	PEHP insurance	Reallocation and additional positions for department. Also reflects Experience mod factor increase to 1.33 and estimated refund of \$10K.	
g	Dental reimbursements	Equivalent to 1% of base salary	
h	Tuition Assistance	Based on last 4 years avg expenditure	
i	Annual District picnic	Education reimbursement - 1 course remaining for MPA - Principal Engineer	
j	Employee BBQ	Annual picnic plus longevity awards	
k	Director's Dental Claims	Various during year - employee morale	
l	Total Insurance	Avg over 4 years	
m	Audit/Financial Expense	Recommended 10% increase by CSRMA	
n	Engineering Fees	Annual financial audit \$23.5K plus Grant Single Audit \$7.5K	
o	District Counsel	Misc projects to include Sea Level Rise	
p	Computers & equipment	Retainer plus work on Carmel Lagoon	
q	Furnishings & fixtures	Server replacement plus Engineer computer	
r	Postage & shipping	8 chairs for Board Room @ \$650/ea	
		Regular postage needs plus allowance for neighborhood mailings	

**Carmel Area Wastewater District  
Administration: 2018-19 Operating Expense Budget**

s	Office Supplies	Estimated office supplies - increase to respond to ergonomic evaluation of Administrative Services Coordinator workspace
t	Temp Services	Temp employee to help fill Admin Services position
u	Copier/Fax Service	Usage appears to have increased - budget reflects 2 yr average
v	Actuarial Service	Normal annual report plus one retirement and GASB 68 reports
w	Other Special Studies/Services	Rate Study \$35K and Update of Employee Handbook
x	Employee Training	Long term personnel training course for management \$30K
y	LAFCO Admin Fee	Estimated increase in LAFCO fee
z	Misc Other	Other administration functions
aa	Total Other Expense	4% O&M budget









## Carmel Area Wastewater District

### Collection: 2018-19 Operating Expense Budget

Note	No.	Description	Comments
a		Salaries	Reflects the negotiated CPI based on Oct '17 SF/Oakland/San Jose CPI = 3.0%. It assumes full staffing; and movement of staff through step increases.
b		Salaries - Overtime	Est. \$7,200 for winter weather call backs and alarms; assumes reduced Comp Time
c		Salaries - Standby	\$280/wk x 52
d		Medical Insurance	Negotiated formula is EE=100% District paid, Dependents= 90% District paid, plus \$265 in additional funds paid to either HSA or defer premium costs. Blue Cross premium increase 9% split 60/40 with employees. This line items reflects changes in staffing level and changes in status from single to married plus dependents along with reallocation among departments. Finally, assumes a 10% increase effective 1-1-19.
e		CalPERS retirement	Reflects increase in employee contribution to 6% in FY 18-19 for Classic members. Employee contribution 6.25% for PEPRA members. Total Classic contribution 14.63%.
f		SAM retirement	Total PEPRA contribution 13.09%. Unfunded accrued liability estimated \$14,125.
g		Worker's Compensation	Actuarial analysis provided 06-30-17 with recommended contribution rates
h		PEHP insurance	Reallocation of costs between departments. Also reflects Experience mod factor increase to 1.33 and estimated refund of \$10K.
i		Dental reimbursements	Equivalent to 1% of salary
j		Diesel	Based on last 4 years avg expenditure
k		Fuelmaster software	2500 gallons @ \$2.70 500 gallons @ \$3.60
l		DMV/DATCO fees	\$55/mo for 6 employees plus one test/yr for each employee at \$52 per test. Includes Mike Skinkle - Maintenance
m		Consulting Fees	West Yost Capacity Study Phase 3 \$30K; Golf course line \$25K
n		Computers & equipment	1 desktop @ \$1,500 and printer @ \$400
o		Furnishings & fixtures	6 new office chairs for conference table @ \$180/ea
p		Paper & printing	Public information flyers for Sale of Home \$3K; Public outreach flyers Design consultant \$2.5
q		Postage	Depend on Admin Dept for postage, minimal UPS store shipping charges
r		Office Supplies	Includes toner for 2 desktop printers
s		Electrical Supplies	Misc electrical tools
t		Paint & fluids	Misc paint for pump stations

Carmel Area Wastewater District  
Collection: 2018-19 Operating Expense Budget

Note No.	<u>Description</u>	<u>Comments</u>
u	Janitorial Supplies	Split janitorial supplies with Treatment Plant
v	Personnel Supplies	Nitrile gloves, work gloves, hard hats, safety jackets, etc.
w	Hand Tools	Tools for trucks and work at stations and on sewer line repairs, collection rods
x	General Operating Supplies	Tiger tails, nozzles, hoses, equipment for trucks, new warthog cleaning nozzle \$4,500 ICOM annual fee \$4,500; Exceedio annual fee \$7,000; IT Pipes annual fee \$1,000; Turf Image \$3,600
y	Network Administration	Duke's Root Control: 40K feet @ \$1.32/ft = \$52,800
z	Root foaming	Mission Alarm SCADA system; new Smart Alarm lids
aa	Pump station monitoring	5 flow meters - cell service and batteries for these meters
bb	Collection system capacity monitoring	First Alarm service
cc	Alarm systems	Pump Station pump efficiency testing \$3,500
dd	Other Special Studies	Clear easements for access and tree clearing & repair of Hatton Canyon roadway
ee	Easements	Includes transducer and level floats
ff	Pump station equipment	Emergency repair of sewer lines; 2 yr average \$46K
gg	Sewer lines	Replacement of 30 manhole frame & lids plus 20 frame & lids for road improvements throughout the city and county. \$10K for manhole work Smart manhole purchase for redundancy
hh	Manholes	Special dumpster or hauling
ii	Garbage	5 Collection certifications; 4 Maintenance certifications
jj	Employee Certification	5 CWEA memberships
kk	Memberships - CWEA	1 WEF membership \$270
ll	Memberships - WEF	Hearing tests, respirator tests, and misc visits for poison oak
mm	First Aid Medical Service	5 boots @ \$200/ea; 5 raingear @ \$100/ea
nn	Uniforms, boots & gear	5 Hazwoper training \$2.5K; 5 Confined space training \$2.5K
oo	Safety training	Potential fine for Hatton Cyn sewer spill 2-23-17 145,000 gallons; est minimum \$1/gal
pp	Miscellaneous	4% O&M budget
qq	Contingency	

Carmel Area Wastewater District  
Reclamation: Operations Budget 2018-19

Description	2016-17		Est. YTD 2017-18		Proposed 2017-18		Projected 2018-19	
	Actual	Budget	Actual	Budget	% of Budget	Prior Yr. Actual	Budget	% Chg. Prior Yr.
Plant Salaries, Benefits & OH								
Plant Superintendent	15,776	21,750	72.53%	20,013	22,360	89.51%	20,610	2.98%
Laboratory Supervisor	25,017	32,295	77.46%	37,700	33,200	113.55%	38,830	3.00%
Laboratory Technician	42,441	73,310	57.89%	55,972	75,365	74.27%	57,650	3.00%
Plant Operators	147,322	125,990	116.93%	135,800	129,520	104.85%	139,870	3.00%
Maintenance Mechanics	22,509	41,945	53.66%	2,784	43,120	6.46%	2,865	2.89%
Differential	12,147	15,480	78.47%	11,397	15,915	71.61%	11,735	2.97%
Payroll Taxes, Benefits, & OH	132,606	155,385	85.34%	131,833	159,740	82.53%	135,780	2.99%
<i>subtotal</i>	<b>397,819</b>	<b>466,155</b>	85.34%	<b>395,500</b>	<b>479,220</b>	82.53%	<b>407,340</b>	2.99%
Administrative Salaries								
General Manager	2,897	2,700	107.28%	1,245	2,775	44.86%	1,280	2.83%
Project Accountant	11,122	13,940	79.79%	12,860	14,330	89.74%	13,245	2.99%
Engineering	2,198	340	646.41%	3,029	350	865.52%	3,120	2.99%
Admin. Svcs/Scanner	4,963	1,650	300.78%	6,164	1,695	363.65%	6,350	3.02%
Payroll Taxes, Benefits, & OH	10,590	9,315	113.68%	11,649	9,575	121.66%	11,998	2.99%
<i>subtotal</i>	<b>31,769</b>	<b>27,945</b>	113.68%	<b>34,947</b>	<b>28,725</b>	121.66%	<b>35,993</b>	2.99%
Directors Fees	1,100	1,000	110.00%	1,000	1,000	100.00%	1,000	0.00%
Operating Supplies/Services	9,696	10,000	96.96%	8,503	10,000	85.03%	8,500	-0.04%
Repairs & Maintenance	8,590	1,000	859.03%	4,323	1,000	432.30%	4,300	-0.53%
<i>Total Reimbursable Reclamation</i>	<b>448,974</b>	<b>506,100</b>	88.71%	<b>444,274</b>	<b>510,945</b>	85.45%	<b>457,133</b>	2.89%
<i>Project Expenditures</i>							<b>471,350</b>	3.11%

# Capital Budget Summary

**Carmel Area Wastewater District**  
Capital Budget Summary 2018-19

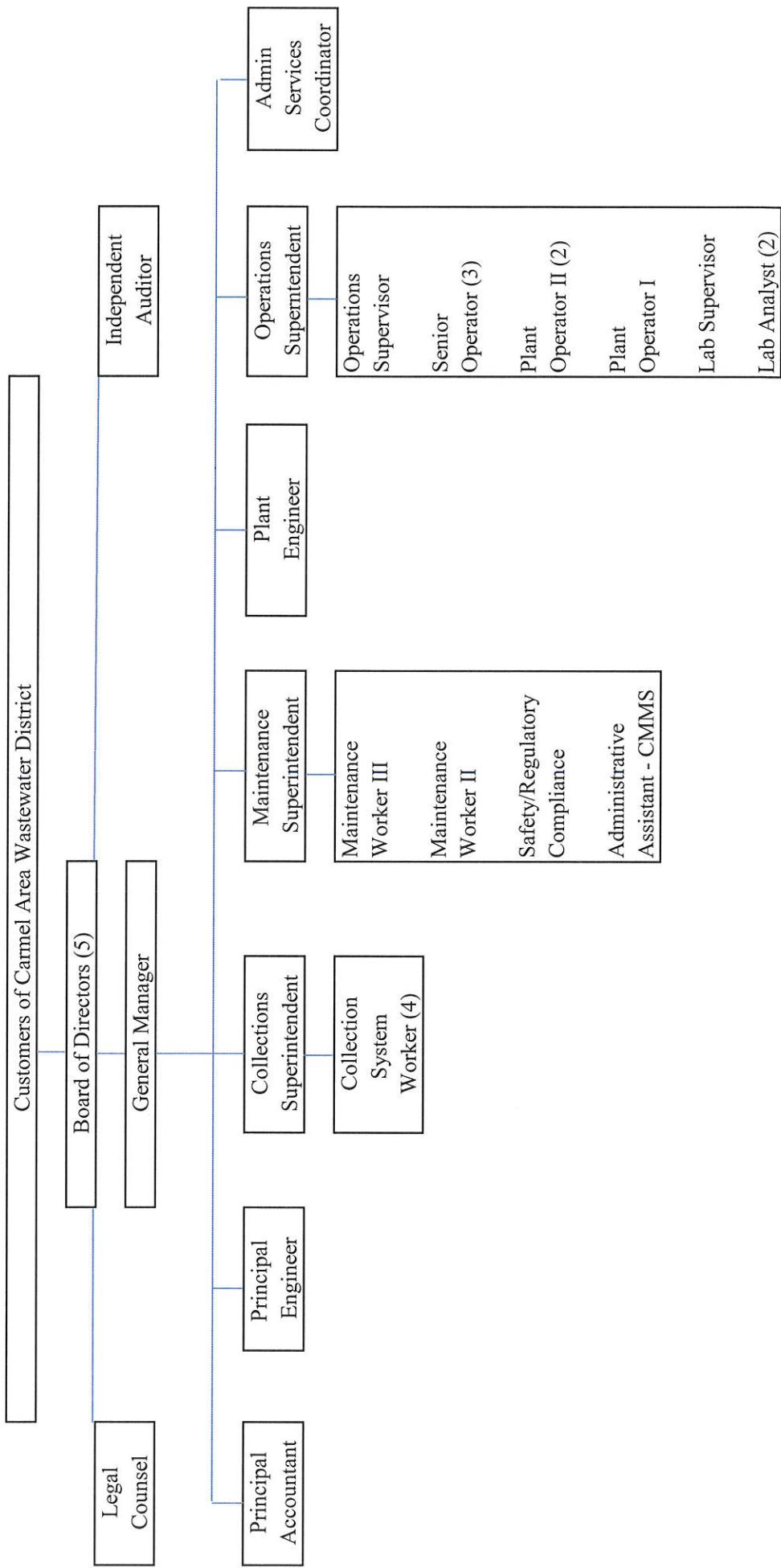
ITEM	ALLOCATION					Recla- mation	Totals
	Admin	Maintenance	Collection	Treatment	PBCSD		
1 CIP Projects for Administration	0	0	2,210,000	97,716	48,785	17,500	0
2 CIP Maintenance - Plant				2,844,976	1,420,336	0	2,210,000
3 CIP Projects for Collection System			0	2,210,000	2,942,692	1,469,141	1,64,001
4 CIP Projects for Treatment & Disposal							4,265,332
5 CIP Long Term Capital Plan for Treatment & Disposal							
<b>Total CIP</b>	<b>0</b>	<b>0</b>	<b>133,333</b>	<b>0</b>	<b>\$66,6667</b>	<b>17,500</b>	<b>6,639,333</b>
1 Capital Equipment - Administration	0	133,333	0	12,119	6,051	14,830	0
2 Capital Equipment - Maintenance							200,000
3 Capital Equipment - Collections							0
4 Capital Equipment - Treatment							33,000
<b>Total Capital Outlay</b>	<b>0</b>	<b>133,333</b>	<b>0</b>	<b>12,119</b>	<b>72,718</b>	<b>14,830</b>	<b>233,000</b>
<b>Total CIP &amp; Capital Outlay 18-19</b>	<b>0</b>	<b>133,333</b>	<b>2,210,000</b>	<b>2,954,811</b>	<b>1,541,859</b>	<b>32,330</b>	<b>6,872,333</b>

**Carmel Area Wastewater District**  
Capital Budget Summary 2019-20

ITEM	ALLOCATION					Recla- mation	Totals
	Admin	Maintenance	Collection	Treatment	PBCSD		
1 CIP Projects for Administration	0	0	1,490,000	0	0	0	0
2 CIP Maintenance - Plant						0	0
3 CIP Projects for Collection System						1,490,000	1,490,000
4 CIP Projects for Treatment & Disposal						0	0
5 CIP Long Term Capital Plan for Treatment & Disposal						1,177,255	1,177,255
<b>Total CIP</b>	<b>0</b>	<b>0</b>	<b>1,490,000</b>	<b>0</b>	<b>1,177,255</b>	<b>587,745</b>	<b>0</b>
1 Capital Equipment - Administration	12,000	0	400,000	22,011	10,989	5,000	12,000
2 Capital Equipment - Maintenance							0
3 Capital Equipment - Collections						400,000	400,000
4 Capital Equipment - Treatment						38,000	38,000
<b>Total Capital Outlay</b>	<b>12,000</b>	<b>0</b>	<b>400,000</b>	<b>22,011</b>	<b>10,989</b>	<b>5,000</b>	<b>450,000</b>
<b>Total CIP &amp; Capital Outlay 19-20</b>	<b>12,000</b>	<b>0</b>	<b>1,890,000</b>	<b>1,199,266</b>	<b>598,734</b>	<b>5,000</b>	<b>3,705,000</b>

# Organizational Structure

# Organization Chart



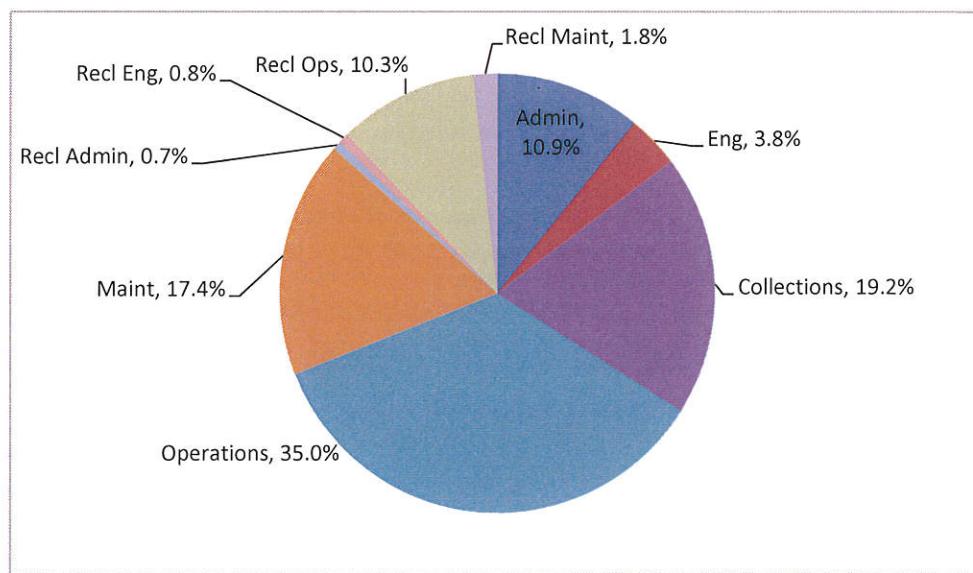
## Staffing Levels - Position Summary Schedule

Department & Position Title	2015-16	2016-17	Current 2017-18	Budget 2018-19	Projected 2018-19
<b>Administration</b>					
* General Manager	1	1	1	1	1
* Principal Accountant	1	1	1	1	1
* Administrative Services Coordinator	1	1	1	1	1
Administrative Assistant	0.5	0	0	0	0
<b>Engineering</b>					
* Principal Engineer	1	1	1	1	1
<b>Collections</b>					
* Collection System Superintendent	1	1	1	1	1
Collection Worker II	3	4	4	4	4
Collection Worker I	1	0	0	0	0
<b>Treatment Plant Operations</b>					
* Wastewater Treatment Superintendent	1	1	1	0	0
* Plant Engineer	0	0	1	1	1
* Operations Superintendent	0	0	0	1	1
* Maintenance Superintendent	0	0	0	0	0
Maintenance Supervisor	0	1	1	0	0
Operations Supervisor	1	1	1	1	1
Laboratory Supervisor	1	1	1	1	1
Senior Operator	3	3	3	3	3
Safety/Regulatory Compliance Admin I	1	1	1	0	0
Lab Analyst/Environmental Compliance	2	2	2	2	2
Plant Operator II	2	2	2	2	2
Maintenance Mechanic II	2	2	2	0	0
Plant Operator I	2	1	1	1	1
Administrative Assistant	0	0.5	1	0	0
<b>Maintenance</b>					
* Maintenance Superintendent	0	0	0	1	1
Maintenance Mechanic III	0	0	0	0	1
Maintenance Mechanic II	0	0	0	2	1
Safety/Regulatory Compliance Admin I	0	0	0	1	1
Administrative Assistant	0	0	0	1	1
Total Positions	24.5	24.5	26	26.0	26.0
Change from prior year		0.0%	6.1%	0.0%	0.0%

\* Management Staff

## Allocation of CAWD & Reclamation Labor 2017-18

	# Positions	Total Annual Hrs	% CAWD	% CAWD	% Recl	% Recl
<b>Administration</b>						
* General Manager	1	2,080	2,048	98.5%	32	1.5%
* Principal Accountant	1	2,080	1,796	86.3%	284	13.7%
* Administrative Services Coordinator	1	2,080	2,038	98.0%	42	2.0%
<b>Engineering</b>						
* Principal Engineer	1	2,080	2,075	99.8%	5	0.2%
* Plant Engineer	1	2,080	1,664	80.0%	416	20.0%
<b>Collections</b>						
* Collection System Superintendent	1	2,080	2,080	100.0%	0	0.0%
Collection Worker II	4	8,320	8,320	100.0%	0	0.0%
<b>Treatment Plant Operations</b>						
* Operations Superintendent	1	2,080	1,703	81.9%	377	18.1%
Operations Supervisor	1	2,080	2,080	100.0%	0	0.0%
Laboratory Supervisor	1	2,080	1,390	66.8%	690	33.2%
Senior Operator	3	6,240	3,489	55.9%	2,751	44.1%
Lab Analyst/Environmental Compliance	2	4,160	2,388	57.4%	1,772	42.6%
Plant Operator II	2	4,160	4,160	100.0%	0	0.0%
Plant Operator I	1	2,080	2,080	100.0%	0	0.0%
<b>Maintenance</b>						
* Maintenance Superintendent	1	2,080	2,080	100.0%	0	0.0%
Maintenance Mechanic III	1	2,080	2,080	100.0%	0	0.0%
Maintenance Mechanic II	1	2,080	1,113	53.5%	967	46.5%
Safety/Regulatory Compliance Admin I	1	2,080	2080	100.0%	0	0.0%
Administrative Assistant	1	2,080	2080	100.0%	0	0.0%



Total CAWD hours = 86.4%

Total Reclamation hours = 13.6%

# Pension Benefits

## **CAWD Pension Benefits**

Starting October 29, 2005, the District provides pension benefits to eligible employees through a cost sharing multiple-employer defined benefit pension plan administered by the California Public Employees Retirement System (CalPERS). CalPERS acts as a common investment and administrative agent for participating public entities within the State of California. Benefit provisions and all other requirements are established by State statute and District ordinance.

CalPERS provides service retirement and disability benefits, annual cost of living adjustments and death benefits to plan members. Benefits are based on years of credited service, equal to one year of full-time employment. Members with five years of total service are eligible to retire at age 50-55 with statutorily reduced benefits

### **I. CalPERS Classic**

The plans provisions are summarized as follows:

Hire date	Prior to January 1, 2013
Benefit formula	2% @ 60
Benefit vesting schedule	5 years service
Benefit payments	Monthly for life
Retirement Age	60
Monthly benefits, as a \$ of eligible compensation	2.0%

### **II. CalPERS PEPRA**

The plans provisions are summarized as follows:

Hire date	On or after January 1, 2013
Benefit formula	2% @ 62
Benefit vesting schedule	5 years service
Benefit payments	Monthly for life
Retirement Age	62
Monthly benefits, as a \$ of eligible compensation	2.0%

### **III. Strategic Asset Management (SAM)**

The District placed a contribution freeze on its single employer defined benefit pension plan effective October 29, 2005 and adopted a new retirement plan with CalPERS. Employees no longer accrue service credits under this plan and the plan does not accept new employees. However, the District continues funding this plan to cover prior service, and the current plan will be paid out as eligible employees (those

hired prior to October 29, 2005) leave District employment. The District is the Plan Administrator.

The plan provisions are summarized as follows:

Hire date:	Prior to October 29, 2005
Eligibility	6 months service and age of 20.5
Benefit formula	2.5% @ 62
Benefit payments	Monthly for life or Lump sum payout
Retirement age	62

## CalPERS - CLASSIC Pension

The District currently has 17 employees under the CLASSIC Formula 2% at 60

### Estimated Future Contribution Rates

Fiscal Year	Employer Normal Cost Rate	Employee Rate	Employer Payment of Unfunded Liability
2018-19	7.63%	7.00%	\$13,511
2019-20 (projected)	8.00%	7.00%	\$22,000
2020-21 (projected)	8.80%	7.00%	\$35,000

### Funding History

The Funding History shows the actuarial accrued liability, the plan's share of the pool's market value of assets, plan's share of the pool's unfunded liability, funded ratio and the annual covered payroll.

Valuation Date	Accrued Liability (AL)	Share of Pool's Market Value of Assets (MVA)	Plan's Share of Pool's Unfunded Liability	Funded Ratio	Annual Covered Payroll
06/30/11	\$2,246,433	\$1,878,958	\$367,475	83.6%	\$1,893,846
06/30/12	\$2,549,434	\$2,034,807	\$514,627	79.8%	\$1,852,453
06/30/13	\$3,359,049	\$2,832,203	\$526,846	84.3%	\$1,599,299
06/30/14	\$3,872,495	\$3,444,687	\$427,808	89.0%	\$1,627,751
06/30/15	\$4,382,102	\$4,287,596	\$94,506	97.8%	\$1,689,374
06/30/16	\$4,830,671	\$4,369,389	\$461,282	90.5%	\$1,468,922

### Projected Employer Contributions

The table shows projected employer contribution rates (before cost sharing) for the next five fiscal years thereafter, and assuming that all other actuarial assumptions will be realized and no further changes to assumptions, contributions, benefits, or funding will occur between now and the beginning of the projection period.

	Required Contribution	Projected Future Employer Contribution Rates					
		2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Normal Cost %	7.634%	8.00%	8.80%	8.80%	8.80%	8.80%	8.80%
UAL \$	\$13,511	\$22,000	\$35,000	\$48,000	\$63,000	\$72,000	

### Analysis of Discount Rate Sensitivity

Sensitivity Analysis

As of June 30, 2016	Plan's Total Normal Cost	Accrued Liability	Unfunded Accrued Liability	Funded Status
7.375% (current discount rate)	14.546%	\$4,830,671	\$461,282	90.50%
6.00%	19.527%	\$5,902,364	\$1,532,975	74.00%
7.00%	15.729%	\$5,093,431	\$724,042	85.80%
8.00%	12.815%	\$4,434,749	\$65,360	98.50%

Show above are various valuation results as of June 30, 2016 assuming alternate discount rates. Results are shown using the current discount rate of 7.375% as well as alternate discount rates of 6.0%, 7.0% and 8.0%. The CalPERS Board has adopted 7.0% as the final discount rate at the end of the three year phase-in of the reduction in this assumption. The analysis shows the potential impacts if the PERF were to realize investment returns of 6.0%, 7.0%, or 8.0% over the long-term.

## Analysis of Future Investment Return Scenarios

Assumed Annual Return from 2017-18 through 2019-20	Projected Employer Contributions			
	2019-20	2020-21	2021-22	2022-23
(3.0%)				
Normal Cost	8.0%	8.8%	8.8%	8.8%
UAL Contribution	\$22,000	\$42,000	\$70,000	\$107,000
3.0% (25th percentile)				
Normal Cost	8.0%	8.8%	8.8%	8.8%
UAL Contribution	\$22,000	\$38,000	\$58,000	\$82,000
Assumed Discount Rate				
Normal Cost	8.0%	8.8%	8.8%	8.8%
UAL Contribution	\$22,000	\$35,000	\$48,000	\$63,000
11.00%				
Normal Cost	8.0%	8.8%	9.0%	9.2%
UAL Contribution	\$22,000	\$32,000	\$40,000	\$47,000
17.00%				
Normal Cost	8.0%	8.8%	9.4%	10.0%
UAL Contribution	\$22,000	\$28,000	\$0	\$0

UAL = Unfunded Accrued Liability

## CalPERS - PEPRA Pension

The District currently has 9 employees under PEPRA formula 2% at 62

### Estimated Future Contribution Rates

Fiscal Year	Employer Normal Cost Rate	Employee Rate	Employer Payment of Unfunded Liability
2018-19	6.84%	6.25%	\$614
2019-20 (projected)	6.80%	6.25%	\$1,200
2020-21 (projected)	7.10%	6.25%	\$2,100

### Funding History

The Funding History shows the actuarial accrued liability, the plan's share of the pool's market value of assets, plan's share of the pool's unfunded liability, funded ratio and the annual covered payroll.

Valuation Date	Accrued Liability (AL)	Share of Pool's Market Value of Assets (MVA)	Plan's Share of Pool's Unfunded Liability	Funded Ratio	Annual Covered Payroll
06/30/13	\$883	\$1,185	(\$302)	134.2%	\$214,323
06/30/14	\$35,509	\$37,442	(\$1,933)	105.4%	\$314,659
06/30/15	\$90,858	\$86,903	\$3,955	95.6%	\$407,015
06/30/16	\$183,618	\$164,479	\$19,139	89.6%	\$494,928

### Projected Employer Contributions

The table shows projected employer contribution rates (before cost sharing) for the next five fiscal years, assuming CalPERS earns 2.4% for the Fiscal Year 2014-15 and 7.50% for every fiscal year thereafter, and assuming that all other actuarial assumptions will be realized and that no further changes to assumption, contributions, benefits, or funding will occur between now and the beginning of the projection period.

	Required Contribution	Projected Future Employer Contribution Rates					
		2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Normal Cost %	6.84%	6.80%	7.10%	7.10%	7.10%	7.10%	7.10%
UAL \$	\$614	\$1,200	\$2,100	\$3,100	\$4,000	\$4,700	

### Analysis of Discount Rate Sensitivity

#### Sensitivity Analysis

As of June 30, 2016	Plan's Total Normal Cost	Accrued Liability	Unfunded Accrued Liability	Funded Status
7.375% (current discount rate)	13.092%	\$183,618	\$19,139	89.6%
6.00%	17.506%	\$242,627	\$78,148	67.8%
7.00%	14.139%	\$197,823	\$33,344	83.1%
8.00%	11.561%	\$162,526	(\$1,953)	101.2%

Show above are various valuation results as of June 30, 2016 assuming alternate discount rates. Results are shown using the current discount rate of 7.375% as well as alternate discount rates of 6.0%, 7.0% and 8.0%. The CalPERS Board has adopted 7.0% as the final discount rate at the end of the three year phase-in of the reduction in this assumption. The analysis shows the potential impacts if the PERP were to realize investment returns of 6.0%, 7.0%, or 8.0% over the long-term.

### Analysis of Future Investment Return Scenarios

Assumed Annual Return from 2017-18 through 2019-20	Projected Employer Contributions			
	2019-20	2020-21	2021-22	2022-23
<b>(3.0%)</b>				
Normal Cost	6.8%	7.1%	7.1%	7.1%
UAL Contribution	\$1,200	\$2,400	\$3,900	\$5,700
<b>3.0% (25th percentile)</b>				
Normal Cost	6.8%	7.1%	7.1%	7.1%
UAL Contribution	\$1,200	\$2,200	\$3,400	\$4,700
<b>Assumed Discount Rate</b>				
Normal Cost	6.8%	7.1%	7.1%	7.1%
UAL Contribution	\$1,200	\$2,100	\$3,100	\$4,000
<b>11.00%</b>				
Normal Cost	6.8%	7.1%	7.2%	7.2%
UAL Contribution	\$1,200	\$2,000	\$2,800	\$3,400
<b>17.00%</b>				
Normal Cost	6.8%	7.1%	7.3%	7.6%
UAL Contribution	\$1,200	\$1,800	\$2,300	\$0

UAL = Unfunded Accrued Liability

## Strategic Asset Management - SAM

Formula 2.5% @ 62

Number of Participants as of July 1, 2017

Retired participants receiving benefits	3
Terminated vested participants entitled to future benefits	5
Active participants	6
Total participants	14

Funding History	2014-15	2015-16	2016-17	2017-18
Recommended Contribution	\$130,567	\$88,667	\$78,940	\$103,838
Covered Compensation	\$756,354	\$806,447	\$681,185	\$683,592
Contribution as a % of Covered Compensation				
Compensation	17.26%	11.00%	11.59%	15.19%

### Funded Status

	<b>6/30/2016</b>	<b>6/30/2016</b>	<b>6/30/2017</b>
Actuarial Value of Assets	\$5,226,222	\$5,285,090	\$5,430,513

### Actuarial Liabilities

Frozen Plan Basis	\$4,854,278	\$4,826,548	\$5,074,705
All Expected Future Plan Benefits	\$5,517,625	\$5,455,005	\$5,639,170

### Funded Status

Frozen Plan Basis	108.00%	110.00%	107.00%
All Expected Future Plan Benefits	95.00%	97.00%	96.00%

### Unfunded Actuarial Accrued Liability

Projected Unit Credit actuarial accrued liability  
as of July 1, 2017

Active Participants	\$2,097,247
Retired Participants	\$2,092,763
Disabled Participants	\$0
Terminated Vested Participants	\$1,449,160
	\$5,639,170

Actuarial Value of Assets as of July 1, 2017                          \$5,430,513

Unfunded actuarial accrued liability as  
of July 1, 2017                                  \$208,657

# Annual Report

## Treatment Plant



## Carmel Area Wastewater District

### Discharge Monitoring Report

2017 Annual

### Operations & Compliance Report

NPDES #CA0047996

ORDER # R3-2014-0012

ADVANCED SECONDARY  
(Ocean Discharge)



## Carmel Area Wastewater District

P.O. Box 221428 Carmel California 93922 • (831) 624-1248 • FAX (831) 624-0811

Barbara Buikema  
General Manager  
Edward Waggoner  
Operations Superintendent  
Robert R. Wellington  
Legal Counsel

Board of Directors  
Gregory D'Ambrosio  
Michael K. Rachel  
Robert Siegfried  
Charlotte F. Townsend  
Ken White

Tuesday, January 16, 2018

Mr. Peter von Langen  
California Regional Water Quality Control Board  
Central Coast Region  
895 Aerovista Place, Suite 101  
San Luis Obispo, CA 93401-7906  
[centralcoast@waterboards.ca.gov](mailto:centralcoast@waterboards.ca.gov)

Subject: 2017 Carmel Area Wastewater District Annual Secondary Operations & Compliance Report -  
ORDER #R3-2014-0012, NPDES #CA0047996

Dear Mr. Von Langen

Enclosed please find the Carmel Area Wastewater District's Annual Report submitted as requested by the California Regional Water Quality Control Board and the State Water Resources Control Board

- Section One (1): Tabular summary of the monitoring data obtained during the previous year -2017  
Section Two (2): Graphical summary of the monitoring data obtained during the previous year -2017  
Section Three (3): Discussion of compliance record and corrective actions taken or requested to bring discharge into full compliance.  
Section Four (4): List of current operating personnel and their grade of certification.  
Section Five (5): Carmel Area Wastewater District's Operation & Maintenance Manual status discussion.  
Section Six (6): Statement concerning the laboratories used by Carmel Area Wastewater District to monitor compliance with effluent limits and summary of performance as required be section B, General Monitoring Requirements.  
Section Seven (7): Summary of sludge quantities, analyses of sludge chemical and moisture content, and ultimate sludge destination not included as there exists a provision for sludge monitoring within the Carmel Area Wastewater District's Monitoring and Reporting Program.  
Section Eight (8): Evaluation of the effectiveness of the local source control or pretreatment program using the State Water Resources Control Board's "Guidelines for Determineg the Effectiveness of Local Pretreatment Program."

Respectfully Submitted,

CARMEL AREA WASTEWATER DISTRICT

*Edward Waggoner*  
Edward Waggoner  
Operations Superintendent

# SECTION ONE

Tabular summary of the monitoring data



**CARMEL AREA WASTEWATER DISTRICT**  
**2017 EFFLUENT NITROGEN SPECIES ANALYSIS**

Month	Nitrate Effluent mg/l	Ammonia Effluent ug/l	Toxicity Conc TU a	Toxicity Conc TU c	
January	10.0	8000			
February	19.5	5600			
March	11.5	10200	0.41	25	
April	10.7	9000			
May	24.3	6000			
June	104.0	22800			
July	62.3	27900			
August	182.0	27700			
September	180.0	22300	0.6	100	
October	157.0	31000			
November	215.0	22600			
December	163.0	21800			

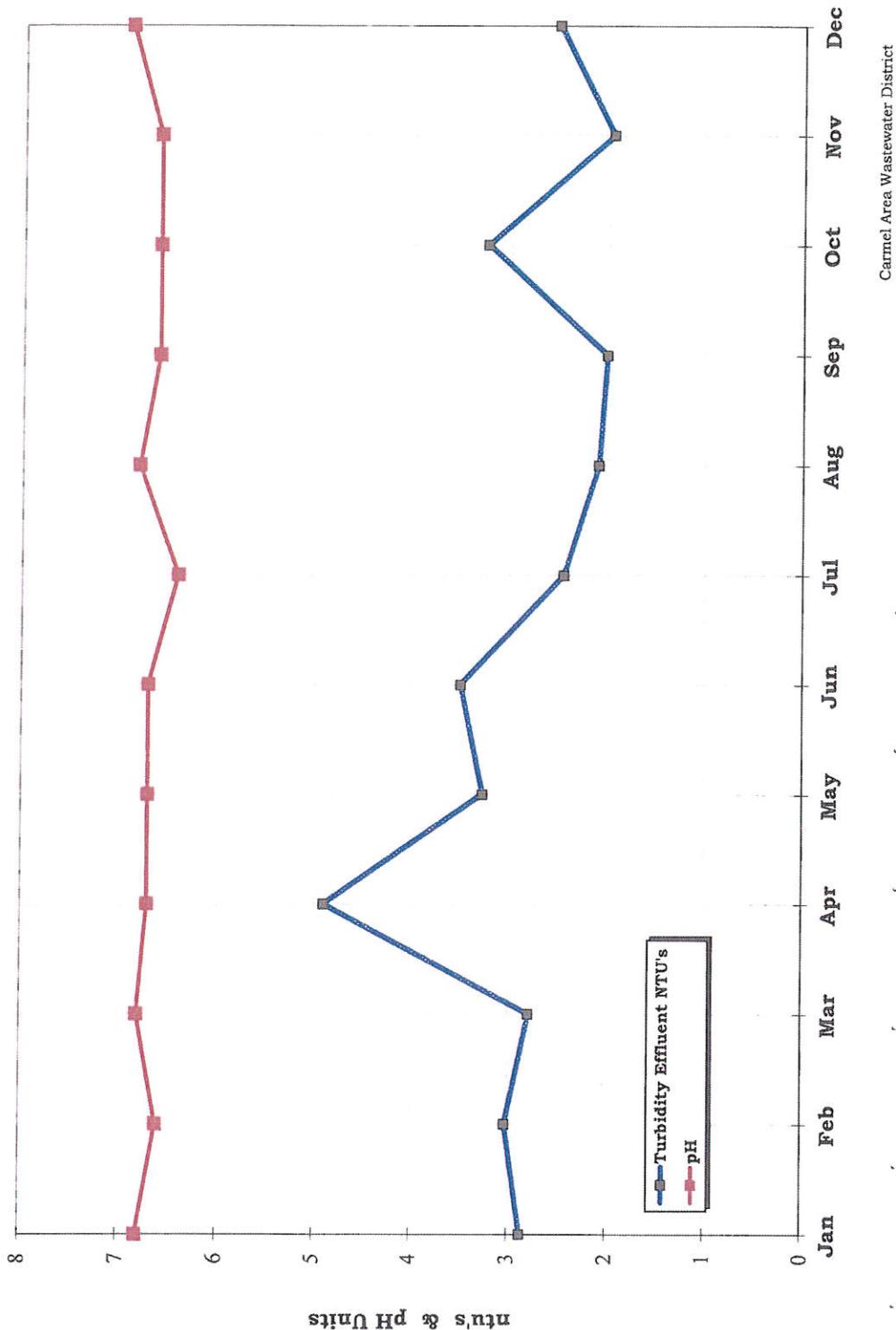
**2017 SEMI-ANNUAL EFFLUENT ANALYSIS**

Constituent	Units	Mar-17	Sep-17	
Acrolein & Acrylonitrile	µg/L	Not Detected	Not Detected	
Ammonia-N	mg/L	10.2	24.2	
Antimony	µg/L	Not Detected	Not Detected	
Arsenic	µg/L	Not Detected	2.8	
Beryllium	µg/L	Not Detected	Not Detected	
Cadmium	µg/L	Not Detected	Not Detected	
Chlorine Residual,Total	mg/L	Not Detected	Not Detected	
Chromium III	µg/L	0.68	Not Detected	
Chromium VI	µg/L	Not Detected	Not Detected	
Chromium, Total	µg/L	2	2.8	
Copper	µg/L	13	48	
Cyanide	µg/L	20	6	
Dioxin	pg/L	Not Detected	Not Detected	
Gross Alpha	pCi/L	3.05	0.000 ± 9.37	
Gross Beta	pCi/L	10.2	165 ± 22.6	
Lead	µg/L	Not Detected	Not Detected	
Mercury by EPA 245.2	µg/L	Not Detected	Not Detected	
Nickel	µg/L	Not Detected	22	
Organochlorine Pest.& PCBs	µg/L	Not Detected	0.045	
Phenolic Compounds	mg/L	1.9	8.3	
Polynuclear Aromatics	µg/L	Not Detected	Not Detected	
Selenium	µg/L	Not Detected	2.9	
Semivolatile Org. Comp.	µg/L	Not Detected	Not Detected	
Silver	µg/L	Not Detected	Not Detected	
Thallium	µg/L	Not Detected	Not Detected	
Tributyltin	µg/L	Not Detected	Not Detected	
Volatile Org. Comp.	µg/L	Not Detected	Not Detected	
Zinc	µg/L	39	370	

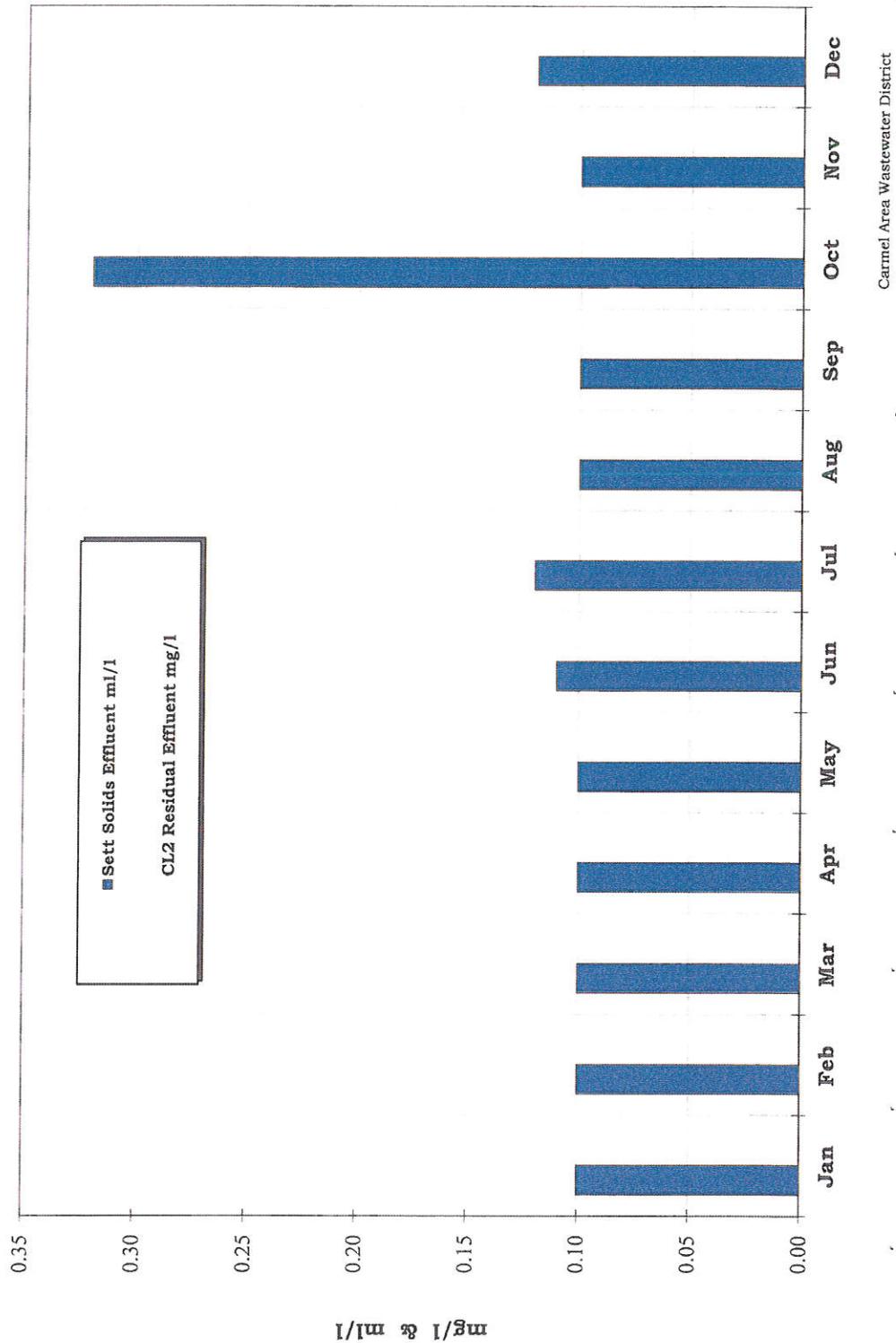
# SECTION TWO

Graphical summary of the monitoring data

## Effluent Turbidity and pH 2017

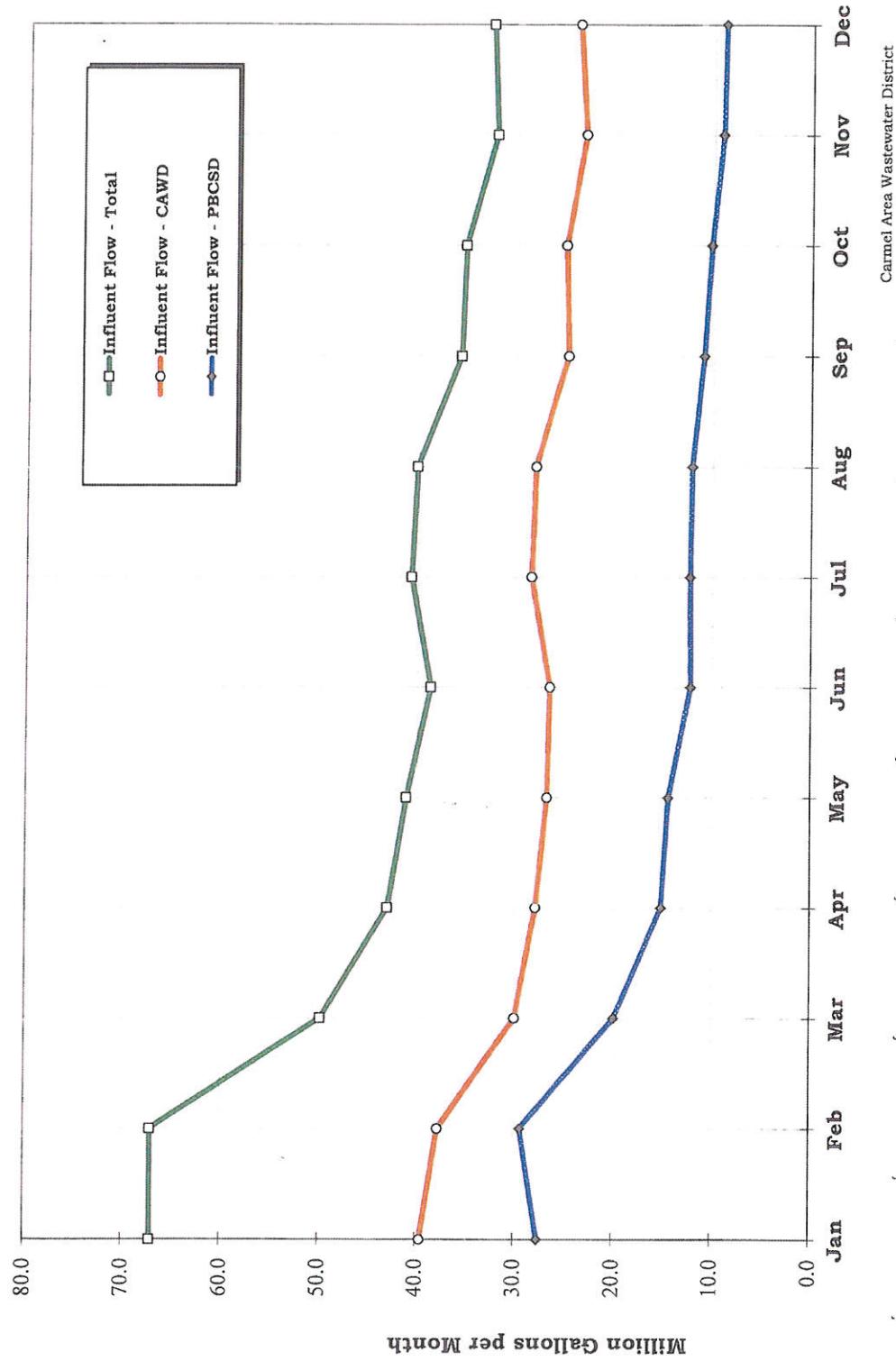


## Effluent Sett Solids & Chlorine Residual 2017

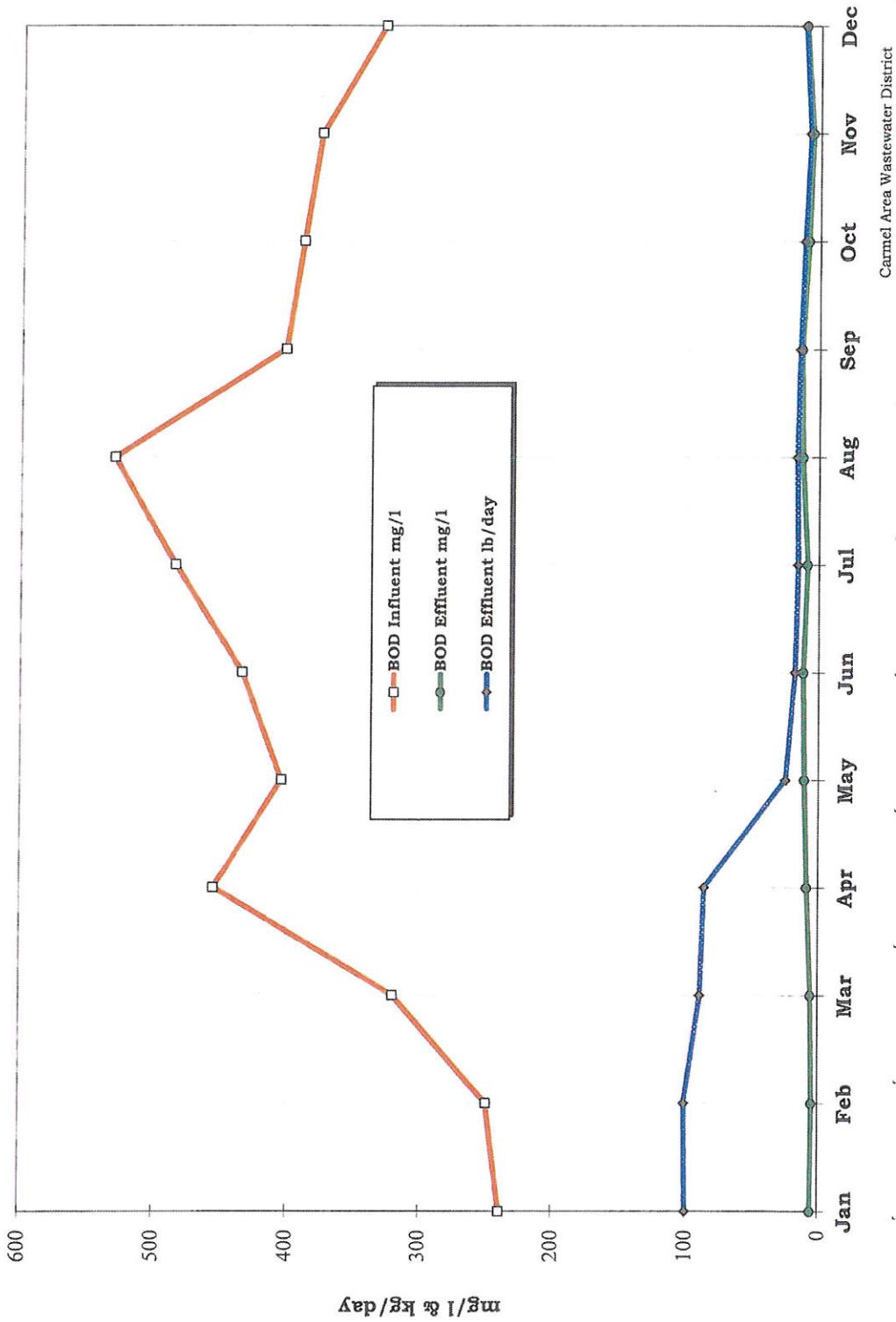


Carmel Area Wastewater District

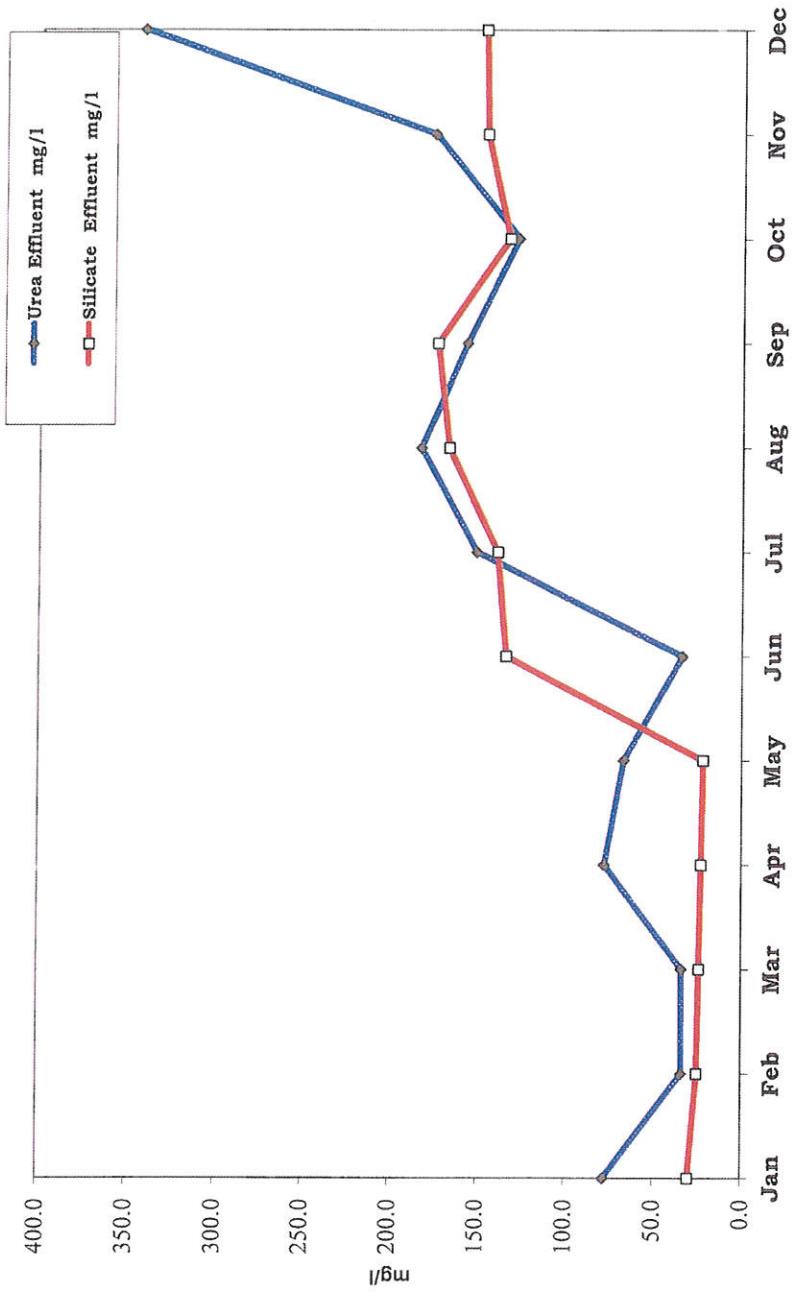
## Annual Influent Flows 2017



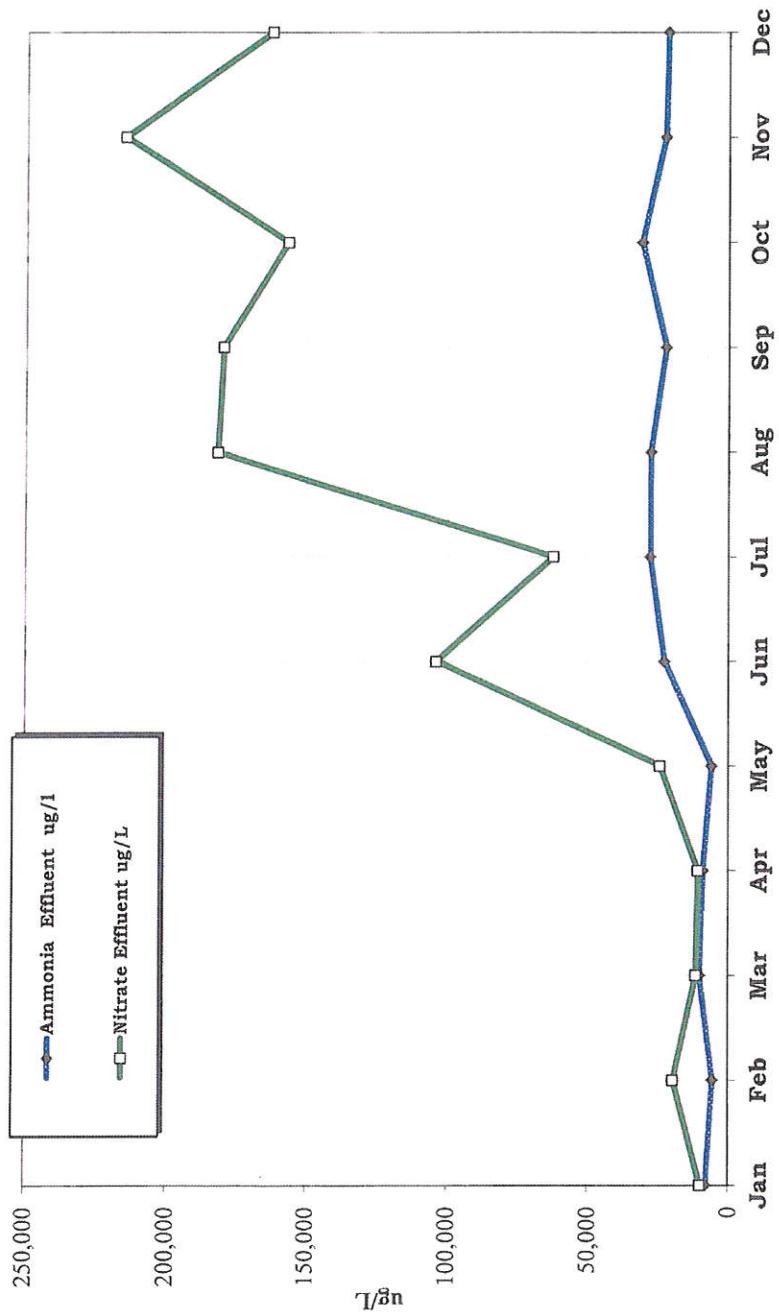
## Influent / Effluent BOD 2017



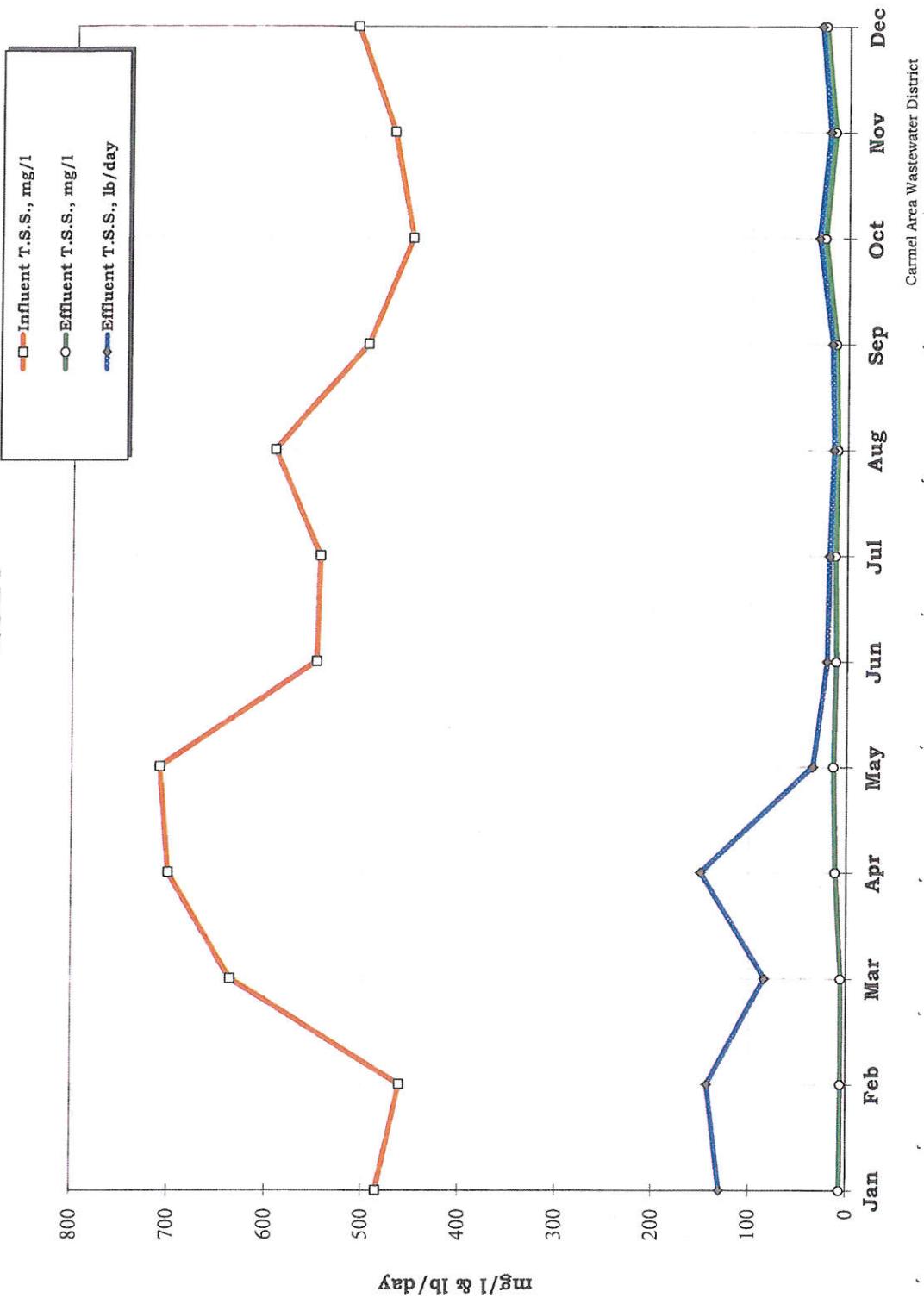
## Effluent Urea / Silicate 2017



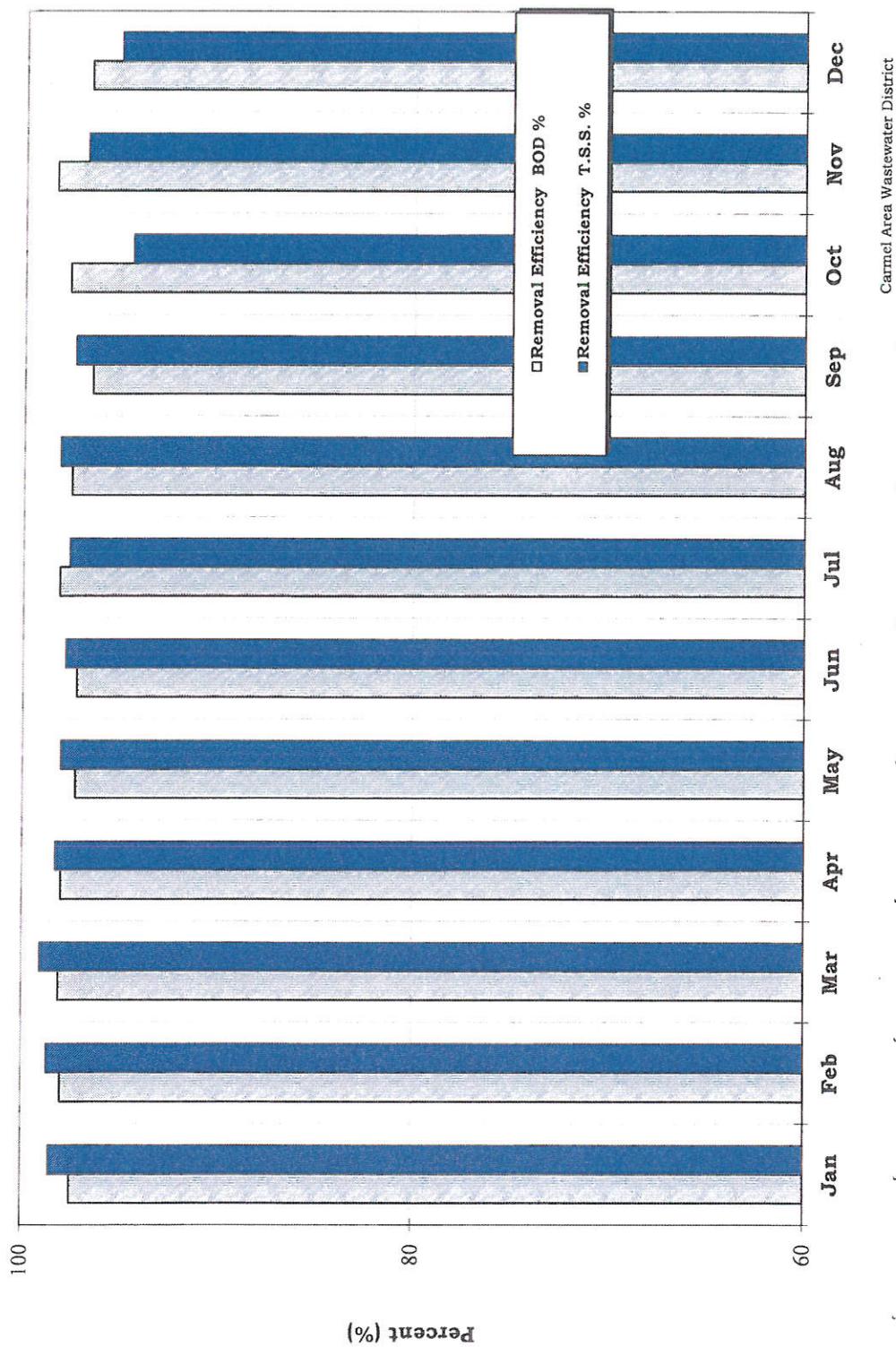
## Effluent Ammonia / Nitrogen 2017



## Influent / Effluent T.S.S. 2017

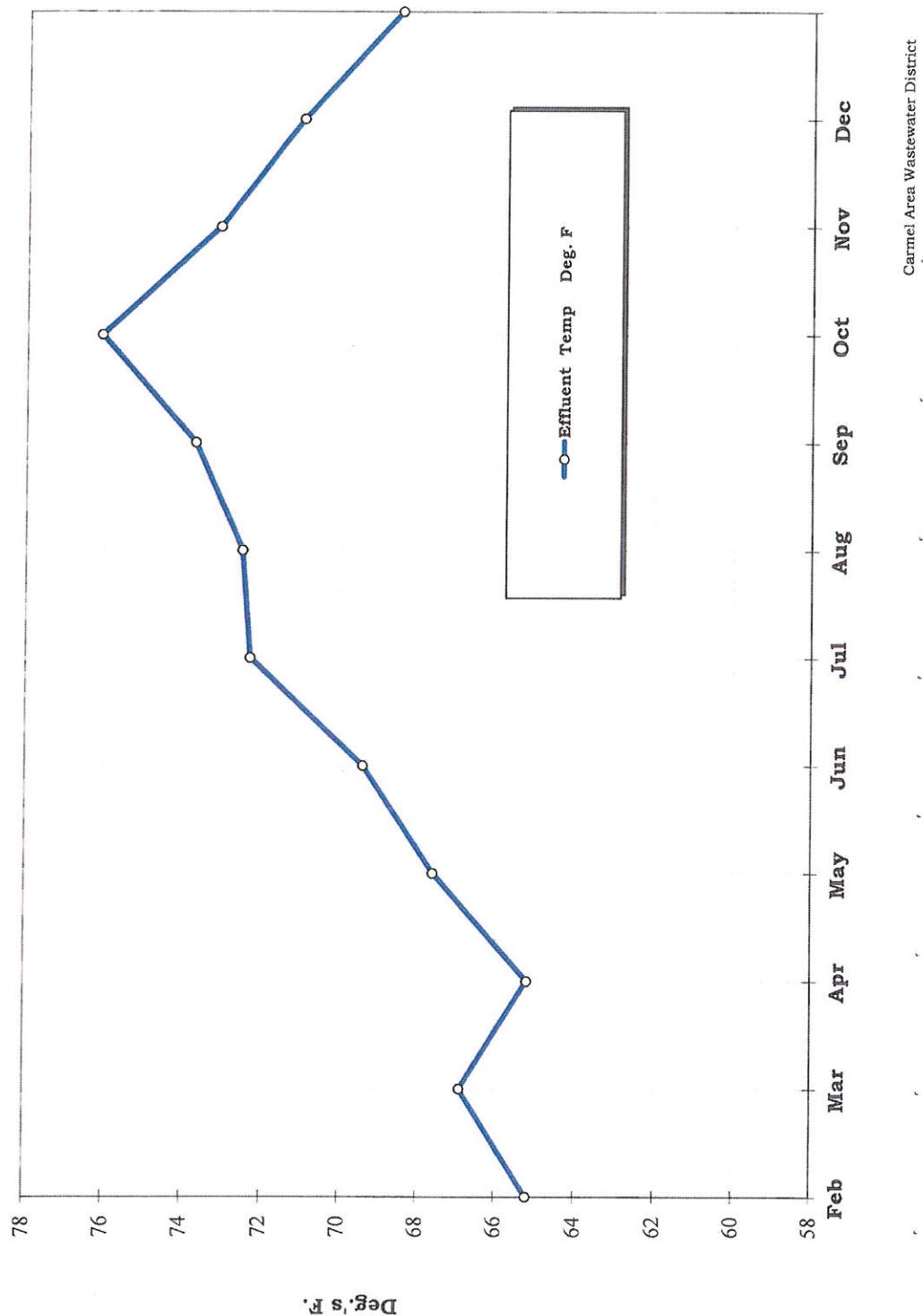


## Effluent BOD & T.S.S Removal Efficiency 2017

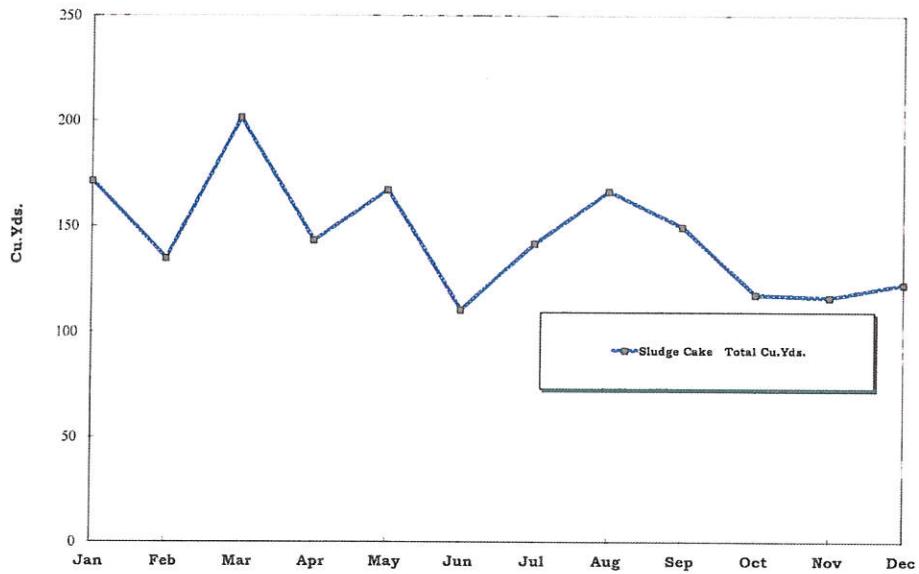


Carmel Area Wastewater District

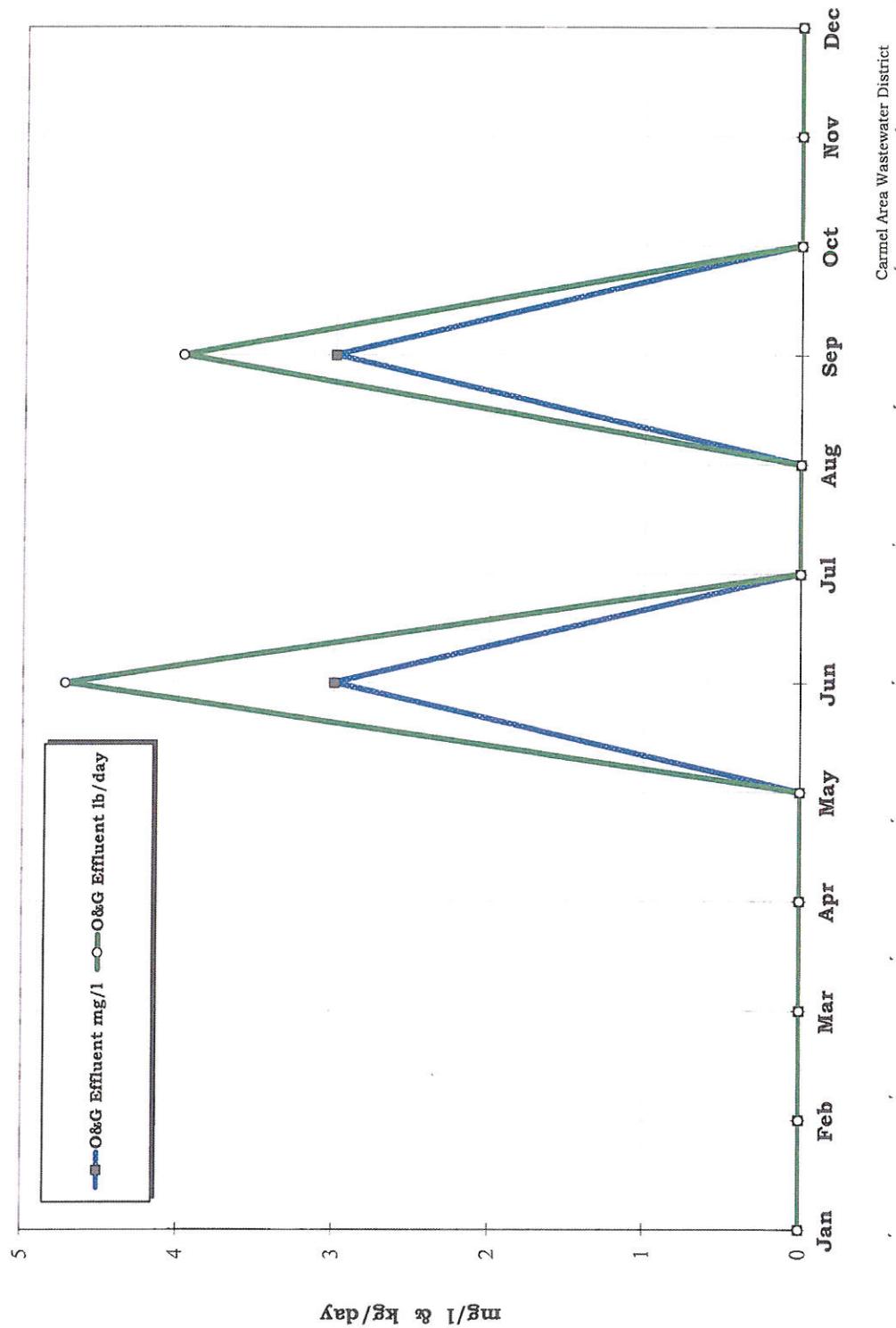
## Effluent Temperature 2017



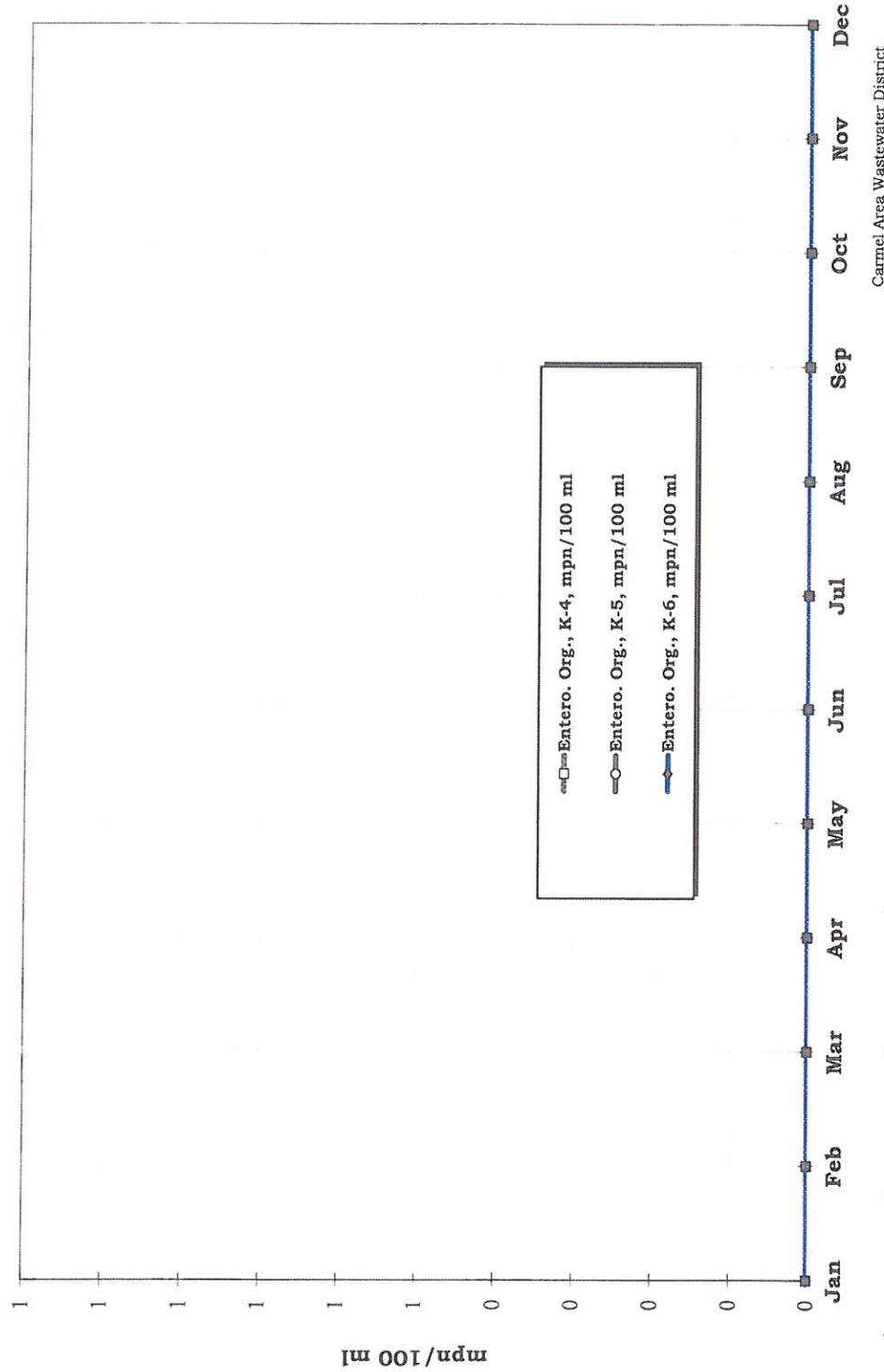
### Sludge Hauling 2017



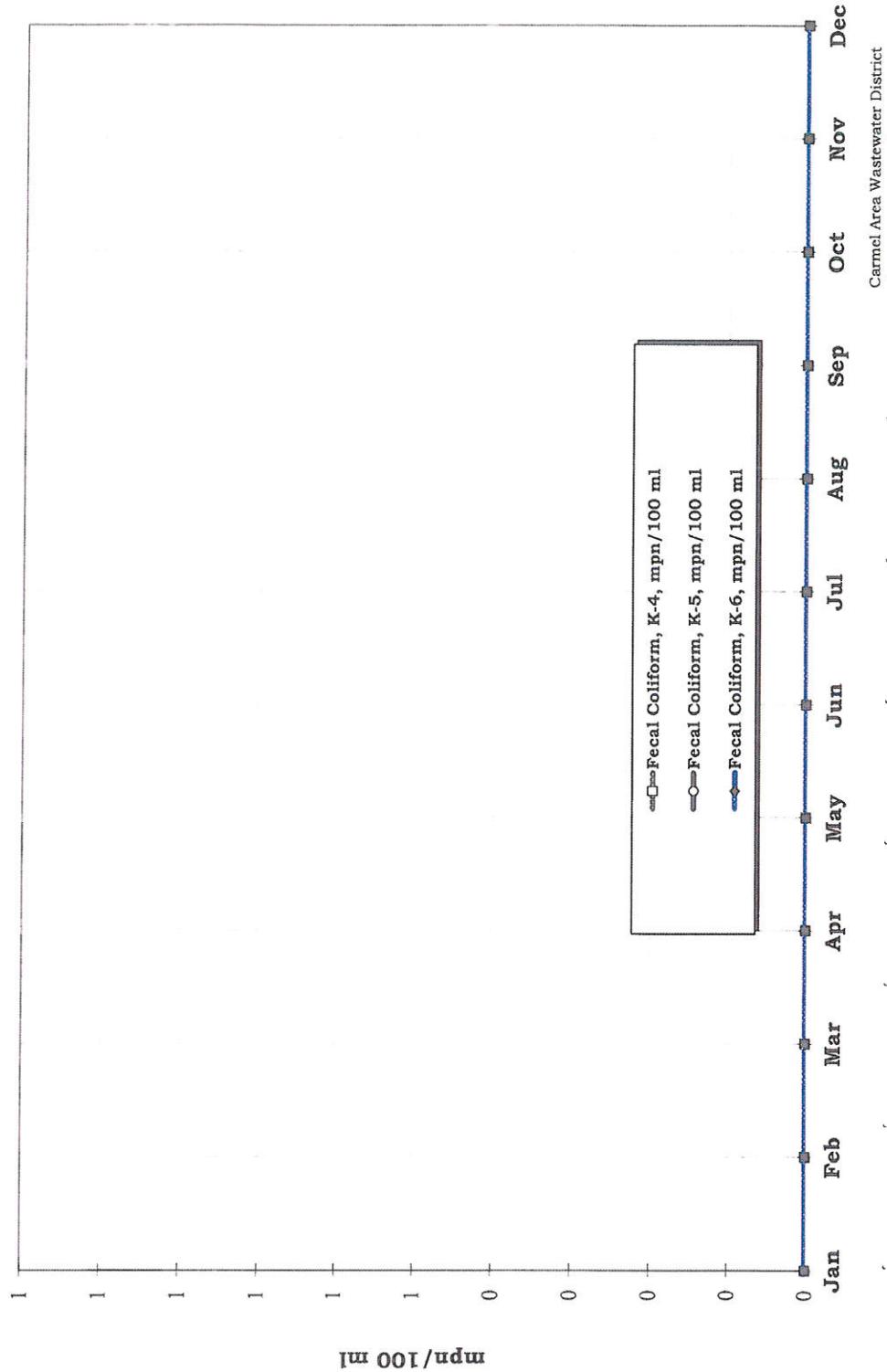
**Effluent Oil & Grease  
2017**



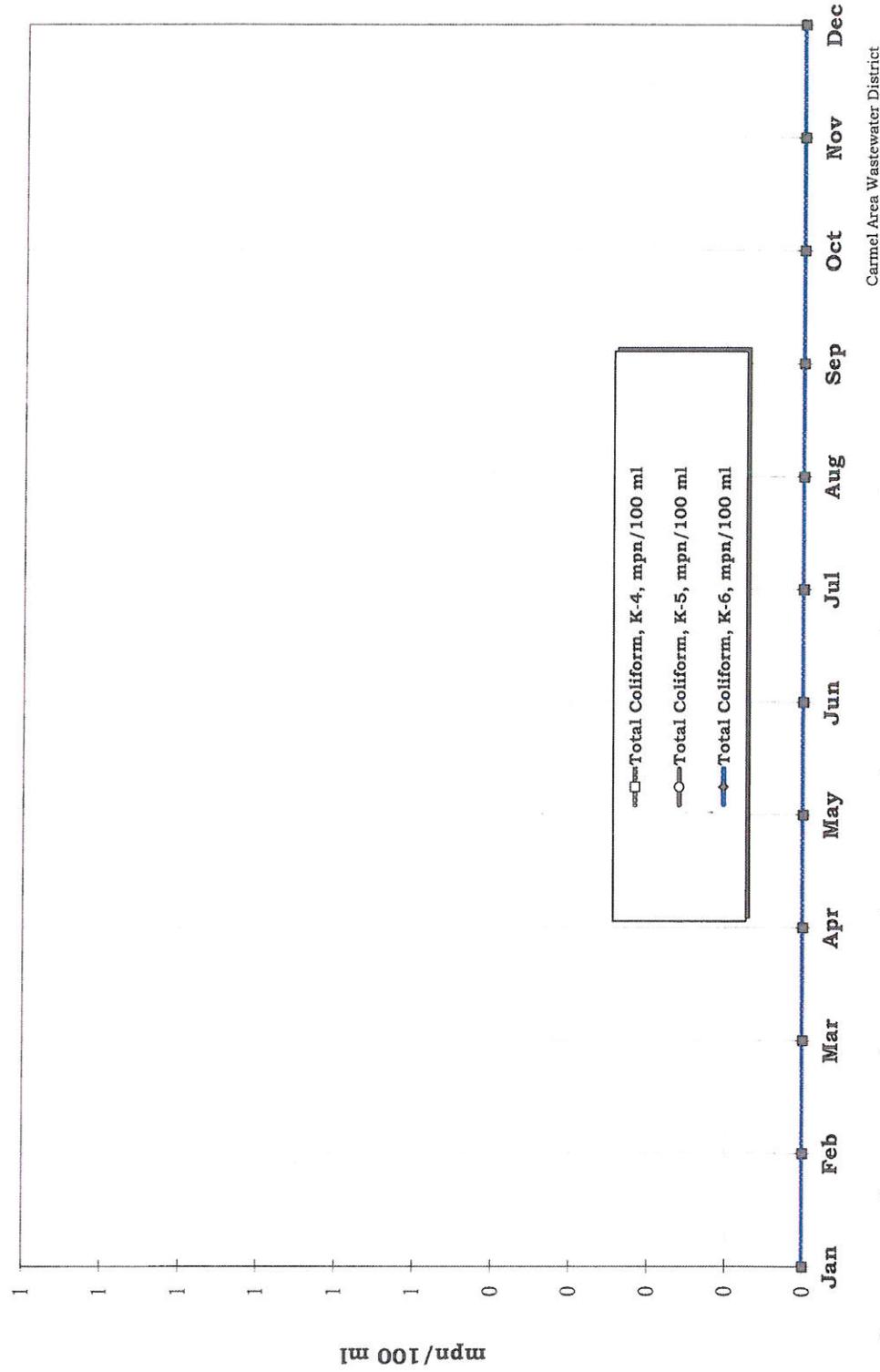
Receiving Water - Enterococcus Organisms  
Monthly Maximum  
2017



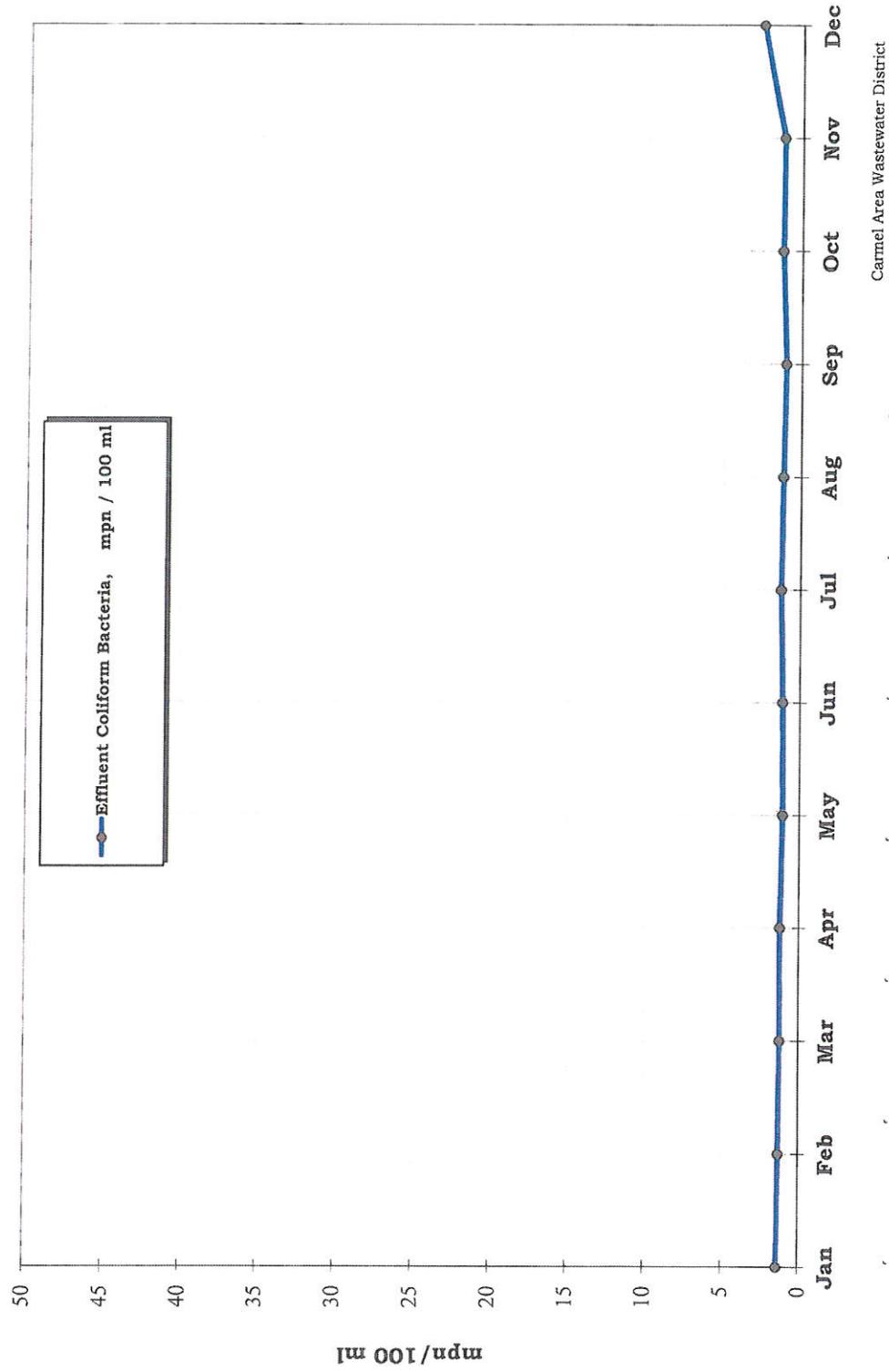
**Receiving Water - Fecal Coliform  
Monthly Maximum  
2017**



**Receiving Water - Total Coliform  
Monthly Maximum  
2017**



**Effluent Coliform  
Monthly Average  
2017**



# SECTION THREE

Discussion of compliance record and  
corrective actions

## **DISCUSSION OF COMPLIANCE RECORD AND CORRECTIVE ACTIONS TAKEN OR REQUESTED TO BRING DISCHARGE INTO FULL COMPLIANCE**

### February 20, 2017: Unanticipated Bypass of Secondary Effluent

During this time the total flow that entered the storm water system was calculated to be 87,400 gallons.

Staff estimated that the “Unanticipated bypass” lasted a total of 50 minutes. There is one flood relief gate on each of the two secondary clarifiers at the same elevation so the flow from each flood relief gate was of equal volume. These gates resemble a rectangular contracted weir which is 27 inches wide, and at maximum flow the water was approximately 8 inches deep. The average depth of water during the discharge was estimated to be 5 inches. From the calculation of a rectangular contracted weir the flow from each flood relief gate is calculated to be 874 gpm. With the two gates

### March 2017: Addition of Influent water by Capital Improvement Project Dewatering Well

For the month of March due to the Capital Improvement Project, dewatering water has been discharged in to the treatment plant Influent.

### March 2017: No sampling or testing for the March semi-annual toxicity

NPDES No. CA0047996, E-4, Section A, Table E-3, Sampling will be performed the week of May 10th, 2017 testing and reporting. See attachments

### October 2017: Total Effluent Suspended Solids-Daily Maximum Settable Solids-Instantaneous

For TSS: On October 26, 2017 reported a violation of 105 mg/L TSS with a limit of 90 mg/L TSS

For Settleable Solids: On October 31, 2017 reported a violation of 5.0 mL/L Settleable Solids with a limit of 3.0 mL/L Settleable Solids

# SECTION FOUR

List of current operating personnel

**SENIORITY DISTRIBUTION & CERTIFICATION LEVELS OF  
CAWD TREATMENT PLANT PERSONNEL**  
**2017**

Name	Position	Certification Level Maintained
Edward Waggoner	Operations Superintendent	V
Kevin Young	Operations Supervisor	V
Joe Gregory	Compliance Administrator	III
Christian Schmidt	Senior Operator	III
Chris Dixon	Senior Operator	III
Charles DayEngel	Operator II	II
Michael Hooks	Operator II	III
Jason Vile	Operator I	II
Michael Garrison	Operator I	III
Greg Ange	OIT Grade I	OIT
Ralph Stevens	Maintenance Superintendent-6/1/2017	IV
Chris Foley	Maintenance Superintendent-12/4/2017	IV
Michael Skinkle	Maintenance Worker	III
Ryan Reynaud	Maintenance Worker	II



# SECTION FIVE

Carmel Area Wastewater District's  
Operation & Maintenance Manual status

**Carmel Area Wastewater District Wastewater District  
Operation Maintenance Manual**

**STATUS**

The Carmel Area Wastewater District's Operation and Maintenance Manual was written and submitted to the District in 1987 following a large expansion project which was completed in 1986.

Modifications to the existing secondary treatment facility in support of tertiary filtration required modifications and updates to the Operations and Maintenance Manual. These modifications were completed and the manual submitted to the District in 1996

Updates to the Operations and Maintenance Manual are currently being completed by Engineering Firm Kennedy Jenks for the facility capital improvement project which is underway.

# SECTION SIX

Laboratories used by Carmel Area  
Wastewater District

**Statement concerning the laboratories used by the Carmel Area  
Wastewater District to monitor compliance with effluent limits and  
summary of performance as required by section B. General  
Monitoring Requirements.**

1       Monterey Bay Analytical Services  
4 Justin Court, Suite D  
Monterey , CA 93940

CA ELAP # 2385

2       Pacific Eco Risk  
Corporate Headquarters  
2250 Cordelia Road  
Fairfield, CA 94534

ORELAP ID 4043

3       Carmel Area Wastewater District (CAWD)  
Highway One & Carmel River  
Carmel, CA 93923  
(831) 624-1249 -Phone  
(831) 624-1478 -Fax

CA ELAP # 1804

# SECTION SEVEN

Summary of sludge quantities and analyses

**CARMEL AREA WASTEWATER DISTRICT**

Annual Biosolids Monitoring Report

Period: January 2017 - June 2017  
 Sample Date: 8-Mar-17

<b>EPA 503 pollution limits for land application</b>			
<b>Name POLLUTANTS</b>	<b>Concentration (mg/kg) Dry Weight unless indicated</b>	<b>Pollutant Concentrations (40 CFR 503.13) (monthly avg.)</b>	<b>Ceiling Concentrations (40 CFR 503.13) (daily maximum)</b>
Arsenic	4.9	41 mg/Kg	75 mg/Kg
Cadmium	3.6	39 mg/Kg	85 mg/Kg
Chromium	29.0	1200 mg/Kg	3000 mg/Kg
Copper	580.0	1500 mg/Kg	4300 mg/kg
Lead	19.0	300 mg/Kg	840 mg/kg
Mercury	0.6	17 mg/Kg	57 mg/Kg
Molybdenum	7.2	18 mg/Kg	75 mg/kg
Nickel	23.0	420 Mg/Kg	420 mg/Kg
Selenium	5.4	100 mg/Kg	100 mg/Kg
Zinc	1300.0	2800 mg/Kg	7500 mg/Kg
Hex Chromium	ND		
Boron	35.0		
Silver	3.7		
Antimony	ND		
Barium	280.0		
Beryllium	ND		
Cobalt	3.9		
Thallium	ND		
Vanadium	20.0		
Cyanide	1.3		
Total Phosphorus	13,000		
Total Kjeldahl Nitrogen	49,000		
Ammonia Nitrogen	4100		
Nitrate Nitrogen	ND		
Total Solids	22.3%		
pH units	6.65		
Grease/Oil	2500		

**Pathogen Reduction (40 CFR 503.32)**

Class B - (PSRP) Anaerobic Digestion at 95 F for minimum of 15 days

**Vector Attraction Reduction (40 CFR 503.33)**

Option 1 - VS reduced by a minimum of 38%

**Certification**

I certify, under penalty of law, that the Class B pathogen requirements in 503.32 and the vector attraction reduction requirement in 503.33 using option (1) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including fine and imprisonment".

Name & Title: Edward Waggoner - Operations Superintendent

Signature: Edward Waggoner

Telephone Number: (831) 624-1249

Date: 1-31-2018

## CARMEL AREA WASTEWATER DISTRICT

### Annual Biosolids Monitoring Report

Period:  
Sample Date:

July 2017 - December 2017  
7-Sep-17

Name POLLUTANTS	Concentration (mg/kg) Dry Weight unless indicated	EPA 503 pollution limits for land application	
		Pollutant Concentrations (40 CFR 503.13) (monthly avg.)	Ceiling Concentrations (40 CFR 503.13) (daily maximum)
Arsenic	ND	41 mg/Kg	75 mg/Kg
Cadmium	ND	39 mg/Kg	85 mg/Kg
Chromium	ND	1200 mg/Kg	3000 mg/Kg
Copper	480.0	1500 mg/Kg	4300 mg/kg
Lead	ND	300 mg/Kg	840 mg/kg
Mercury	ND	17 mg/Kg	57 mg/Kg
Molybdenum	ND	18 mg/Kg	75 mg/Kg
Nickel	ND	420 Mg/Kg	420 mg/Kg
Selenium	ND	100 mg/Kg	100 mg/Kg
Zinc	1400.0	2800 mg/Kg	7500 mg/Kg
Hex Chromium	ND		
Boron	53.0		
Silver	ND		
Antimony	ND		
Barium	ND		
Beryllium	ND		
Cobalt	ND		
Thallium	ND		
Vanadium	ND		
Cyanide	3		
Total Phosphorus	19,000		
Total Kjeldahl Nitrogen	53,000		
Ammonia Nitrogen	6400		
Nitrate Nitrogen	75		
Total Solids	18.7%		
pH units	7.83		
Grease/Oil	1800		

#### Pathogen Reduction (40 CFR 503.32)

Class B - (PSRP) Anaerobic Digestion at 95 F for minimum of 15 days

#### Vector Attraction Reduction (40 CFR 503.33)

Option 1 - VS reduced by a minimum of 38%

#### Certification

I certify, under penalty of law, that the Class B pathogen requirements in 503.32 and the vector attraction reduction requirement in 503.33 using option (1) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including fine and imprisonment".

Name & Title: Edward Waggoner - Operations Superintendent

Signature: Edward Waggoner

Telephone Number: (831) 624-1249

Date: 1-31-2018

**Carmel Area Wastewater District**  
 2017 process data for pathogen reduction and vector attraction reduction

Month	Detention Time (days)	Temperature (F)		Volatile Solids Reduction (%)
		Dig #1	Dig #2	
Jan	32	100.1	0.0	43
Feb	28	99.1	0.0	51
Mar	29	100.8	0.0	51
Apr	28	101.5	0.0	59
May	33	102.4	0.0	62
Jun	41	102.9	0.0	53
Jul	58	101.6	0.0	48
Aug	67	102.4	0.0	63
Sept	69	99.8	0.0	58
Oct	64	99.7	0.0	63
Nov	67	101.7	98.4	47
Dec	79	95.9	96.2	62

All data reported as monthly averages

Pathogen Reduction using anaerobic digestion

**Certification**

*I certify, under penalty of law, that the Class B pathogen requirements in 503.32 and the vector attraction reduction requirement in 503.33 using option (1) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including fine and imprisonment".*

Name and Title: Edward Waggoner - Operations Superintendent

Signature: Edward Waggoner

Phone Number: (831) 624-1249

Date: 1-31-2018

# SECTION EIGHT

Evaluation of the effectiveness of the local  
source control or pretreatment program

**Evaluation of the effectiveness of the local source control or pretreatment program using the State Water Resources Control Board's "Guidelines for Determining the Effectiveness of Local Pretreatment Program."**

<u>1</u>	Influent Characteristics	Date	Result	Units
Arsenic	9/20/2017	ND	ug/L	
Cadmium	9/20/2017	ND	ug/L	
Total Chromium	9/20/2017	ND	ug/L	
Lead	9/20/2017	2	ug/L	
Copper	9/20/2017	70	ug/L	
Mercury	9/20/2017	ND	ug/L	
Nickel	9/20/2017	7	ug/L	
Silver	9/20/2017	ND	ug/L	
Zinc	9/20/2017	318	ug/L	

Cyanide  
 Phenolic compounds  
 Total Chlorinated Hydrocarbon  
 Ammonia-N  
 Radioactivity  
 Toxicity

2 Number of Inspections Performed:  
 Pretreatment Inspections annual-(189)

Number of Enforcement Actions:  
 Notice of Violations of the Pretreatment Ordinance – (5)

3 Number of Major Industry Contributors- None (0)

4 All New dischargers- None (0)

5 All New Dischargers constitute a Major Industry- None (0)

6 Man power and funds to run Source Control Program  
 Environmental Compliance Supervisor (1)  
 Environmental Compliance Inspectors (2)  
 Funds for Source Control Program are from User Fees (Connection Permit,  
 Construction Fees, and Source Control Application/ Permit, and Source Control Fines). -  
 \$450

2017

# Ocean Outfall Survey



Ron Null

---

Owner and General Manager  
15817 Highway 89  
Crescent Mills, CA 95934  
Main: 530-816-0019  
rnull@cdcioffice.com

Carmel Area Wastewater District  
3945 Rio Road, PO Box 221428  
Carmel, California 93922  
Drew Lander P.E., Principal Engineer

17July2017

Mr Lander,

Please find enclosed this letter report and summary dive video, record from our July 6, 2017 underwater survey of the Carmel marine outfall exterior diffuser sections. The letter report (below) describes the field methods, findings, and recommendations while the video file contains highlights recorded from the diver's helmet mounted video camera.

In summary the outfall was found to be in overall satisfactory condition with no visible evidence of damage or significant defects. Probing inside the diffuser sections encountered no obstructions. It is recommended that the existing periodic dive survey continue monitoring these conditions as needed.

Please review the report and video and bring to our attention any questions, errors omissions or new information which may come to light. Thank you for the opportunity to serve your needs for underwater work and we look forward to it again in the future.

Sincerely,

A handwritten signature in black ink that appears to read "Ron Null".

Ron Null  
Crescent Diving & Contracting, Inc.

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"Engineered Solutions for Water in the West"

## LETTER REPORT



### Marine Outfall Survey at Carmel, CA

This letter report describes the July 6, 2017 underwater survey of the Carmel Outfall diffuser sections performed by CDCI for the Carmel Area Wastewater District.

*Prepared for*

Carmel Area Wastewater District  
3945 Rio Road / PO BOX 221428  
Carmel, California 93922  
Drew Lander, P.E.

*Prepared under*

Minor Services or Construction Contract  
Agreement No. 2017-04  
Dated: July 25, 2017

*Prepared by*

Crescent Diving & Contracting Inc.  
15817 Highway 89 / PO Box 160  
Crescent Mills, California 95934  
David Rosenberg, P.E.

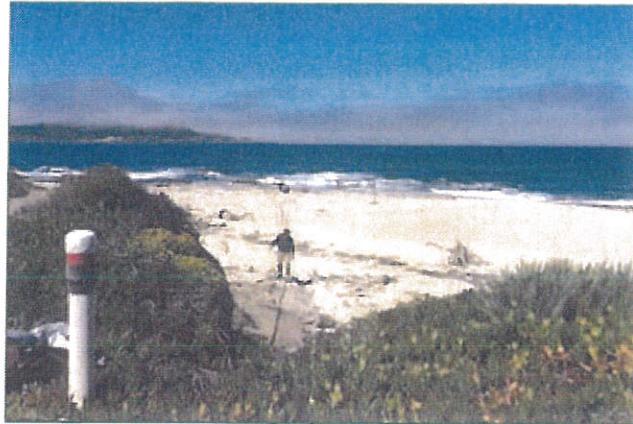
### Executive Summary

The Carmel Outfall Diffusers were found to be in overall satisfactory condition after being visually surveyed and probed using an electrician's metal wire pull. No obstructions were encountered nor were there any other visible signs of damage or significant defects.

A surface-supplied commercial diving crew from CDCI conducted the survey on July 6, 2017 while the CAWD on-site representative was able to monitor the two-way communications a helmet-mounted video and topside screen.

The outfall was located from the beach along its portion where the 10 diffusers rise vertically from the sand/shell bottom with rock outcroppings and heavy kelp. Underwater survey of the outfall exterior diffusers—namely the flanges, piping, and the duckbill type backflow prevention valves—found no visible signs of damage or significant defects. And when probing inside each diffuser section they were found to be clear of major obstructions.

It is recommended that the existing periodic dive survey continue to monitor these conditions and marine growth cleaning be used in order to uncover detail and help collection of additional as-built information.



**Figure 1 -- View looking offshore along the approximate alignment of the Carmel Outfall.**

#### **Introduction & Background**

In July 2017 Carmel Area Wastewater District contracted CDCI to perform an underwater survey of the outfall with a surface-supplied commercial diver. This type of equipment has advantages of two-way communication with the dive station on the beach as well as real time video display from the helmet-mounted camera.

The outfall is a 24 inch diameter reinforced concrete pipe, which extends from shore and branches to a line of 10 diffusers. Each diffuser consists of a 4 inch vertical pipe with flanged connections, a 90-degree elbow and duckbill type backflow prevention valve at the end—typically 4 to 6 feet above the adjacent “natural seabed”.

Drawings indicate varying profile views, but this is the general arrangement (the 4 to 6 foot height that the diver encountered is shown differently in the drawings (see Figure 2).

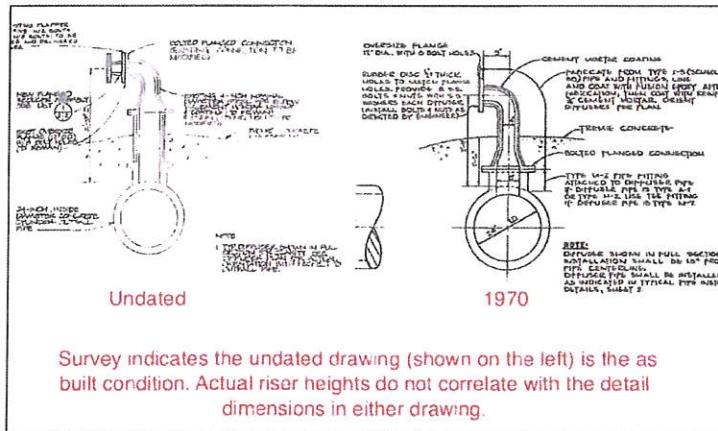


Figure 2 Drawings excerpts of the outfall profile and diffuser details.

### Methods

This was a routine, "Level 1" inspection including visual inspection of 100% of the diffusers (e.g. all of the diffusers along the portions where they are visible to the diver.) Additionally each diffuser was probed with an electrician's metal pull wire, previously marked at length increments, to check for major obstructions (see Figure 4.)

The surface supplied diving crew accessed the site via the beach, using the exposed upland portion of the outfall alignment as a guide. Surface-to-diver communications and LCD display from the helmet-mounted video were available real time and the survey was attended by and completed to the satisfaction of the CAWD on-site representative.

Plant operators moved water and dye through the outfall until shortly after the diver located the first riser, confirmed flow and began the survey. Each tideflex or "duckbill" type riser valve was sounded or probed with a plastic insertion tube and electrician's metal pull-wire to check for obstructions along the vertical pipe diffuser sections. A "go/ no-go" methodology was adopted for the wire soundings, with a "go" meaning at least 7 ft. of wire inserted without encountering resistance. As much as 15 or 20 ft. of the wire was inserted on the first couple of trials, more than sufficient to demonstrate that the pipe is free of major obstructions along the entire length of the diffuser and in to the junction with the 24 inch diameter outfall. The remaining diffusers were then checked using the wire inserted to a length of approximately 7 ft. or more.



Figure 3 -- Overall view underwater of diffuser No. 4 showing the extent of kelp and marine growth.  
A rapid assessment of the diffuser is still possible, but finer detail is hidden by the growth.

#### Findings

All 10 of the diffusers were surveyed by the diver using these methods, and recorded from a helmet-mounted camera and surface to diver communications (See Appendix A - Video Log). Overall the diffusers appear to be in satisfactory condition with no apparent damage or significant deterioration or obstructions found in the pipe sections, flanged connections elbows or duckbill type backflow prevention valves.



Figure 4 -- View underwater of the probe setup with an electrician's pull wire, introduced through the backflow prevention valve via a small piece of plastic pipe.



Figure 5 View underwater of a typical duckbill type backflow prevention valve and riser.

Dye indicator was detected along with positive flow at the diffusers, beginning at the furthest riser (labeled as No. 1. No dye was visible elsewhere along the alignment (which would indicate a major breach of the outfall.) The probing wire and plastic introducer passed easily through each duckbill valve and several feet into the diffuser pipe at each location.

Hard marine growth of up to 3" thickness is typical of 50% or more of the overall area including the bolted flanged connections, riser pipes elbows and the backflow prevention valves. Soft growth is even heavier—up to 100% of the overall area and 6 inches thick maximum.

Kelp also grows alongside the diffusers and in beds throughout the surrounding seabed. For example, it is difficult to discern around each location whether this material is hard coral growth, tremie encasement or the reinforced concrete pipe itself (see Figure 6).



Figure 6 -- Typical view underwater of the diffuser pipe at the seabed. Typically the 24 in. pipe was not visible and appeared to be encased in either tremie concrete or hard coral.

#### Recommendations

It is recommended that these conditions continue to be monitored as required by a periodic dive survey. Marine growth cleaning can help to reveal details and collect additional as-built or baseline information.

## Appendix A – Video Log

CAWD 17-203, 7-6-17

<u>Run Time</u>	<u>Description</u>
00:00	Start Diver Survey
00:30	Introduction
01:30	Diver inspecting Diffuser #1 (furthest downstream)
01:45	Flow demonstrated at Diffuser #1
03:15	Drawing Comparison of Undated vs. 1970 Profiles Diffuser Plan and Details, Misc. Sheet 4, Carmel Sanitary District 1970.
03:20	Outfall Diffuser Modifications Sheet 2, Carmel Sanitary District.
03:30	Comparison of Undated vs. 1970 details. (profile views.) 2'-9" dimension shown is more like 5 ft. approx. (by diver's estimate)
04:10	Location Map (Carmel Sanitary District.) Lean towards southeast
04:20	Diver Probing with electrician's pull wire
06:50	Diffuser # 2
09:40	Diffuser # 3
12:05	Diffuser # 4
15:15	Diffuser # 5
16:50	Diffuser # 6
18:25	Diffuser # 7
20:00	Diffuser # 8
21:50	Diffuser # 9
23:15	Diffuser #10
24:40	Drawing- Outfall Sewer (Location Map, List of Drawings and Alignment Plan), Final Credits
25:11	End





## Carmel Area Wastewater District

2017 Annual

### Operations & Compliance Report

ORDER # 93-72

TERTIARY  
(RECLAMATION)



Barbara Bulkema  
General Manager  
Edward Waggoner  
Operations Superintendent  
Robert R. Wellington  
Legal Counsel

## Carmel Area Wastewater District

P.O. Box 221428 Carmel California 93922 • (831) 624-1248 • FAX (831) 624-0811

### Board of Directors

Gregory D'Ambrugio  
Michael K. Rachel  
Robert Siegfried  
Charlotte F. Townsend  
Ken White

Tuesday, January 16, 2018

California Regional Water Quality Control Board  
Central Coast Region  
895 Aerovista Place, Suite 101  
San Luis Obispo, CA 93401-7906  
[centralcoast@waterboards.ca.gov](mailto:centralcoast@waterboards.ca.gov)

Subject: 2017 Carmel Area Wastewater District Annual Tertiary Operations & Compliance Report - ORDER #93-72

Dear To Whom It May Concern,

Enclosed please find the Carmel Area Wastewater District's Annual Report submitted as requested by the California Regional Water Quality Control Board and the State Water Resources Control Board

- Section One (1): Tabular summary of the monitoring data obtained during the previous year -2017  
Section Two (2): Graphical summary of the monitoring data obtained during the previous year -2017  
Section Three (3): Discussion of compliance record and corrective actions taken or requested to bring discharge into full compliance.  
Section Four (4): List of current operating personnel and their grade of certification.  
Section Five (5): Carmel Area Wastewater District's Operation & Maintenance Manual status discussion.  
Section Six (6): Statement concerning the laboratories used by Carmel Area Wastewater District to monitor compliance with effluent limits and summary of performance as required be section B, General Monitoring Requirements.

Respectfully Submitted,

CARMEL AREA WASTEWATER DISTRICT

*Edward Waggoner*  
Edward Waggoner  
Operations Superintendent

# SECTION ONE

Tabular summary of the monitoring data

TERTIALY

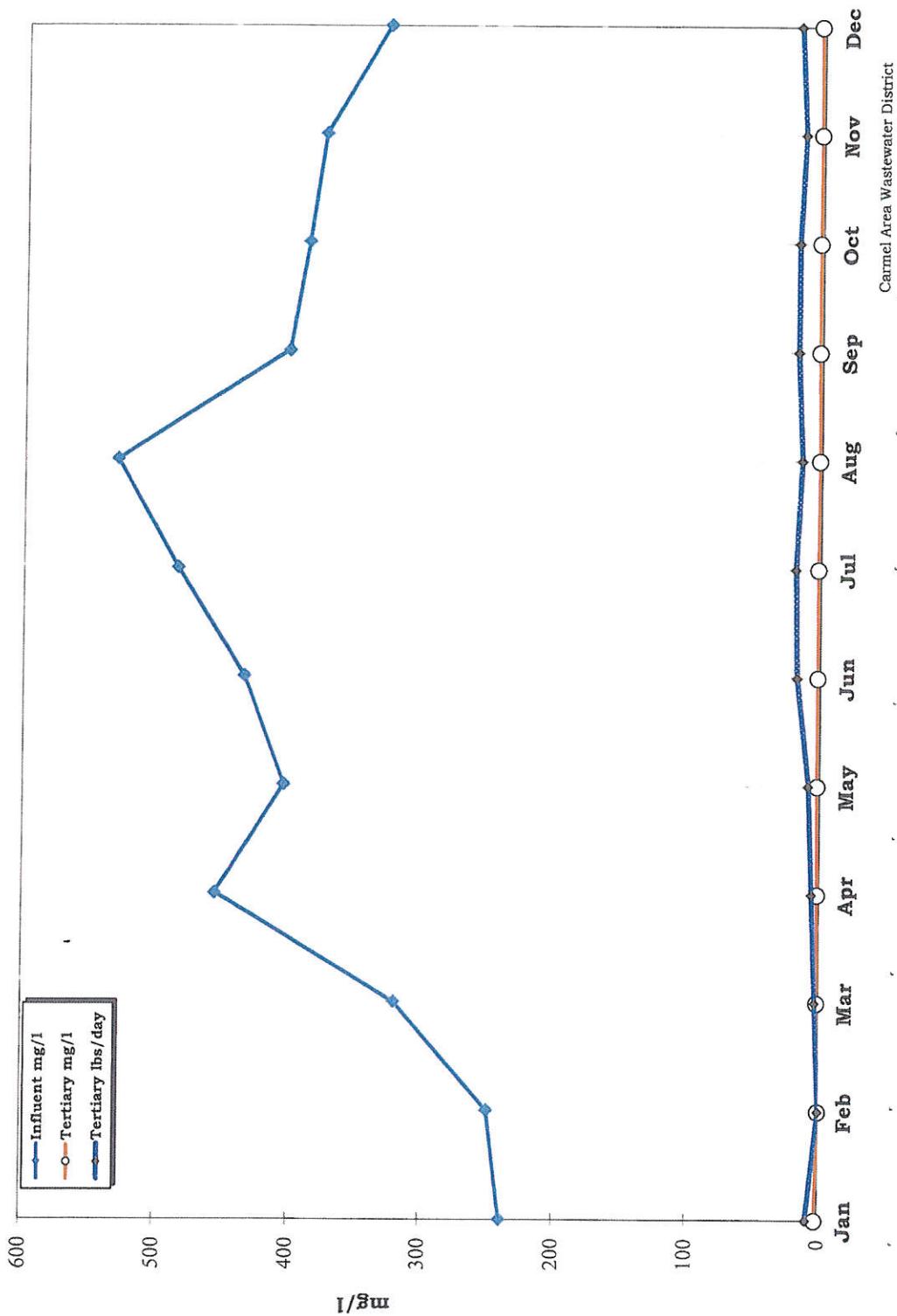
**TABULAR SUMMARY OF 2017 NPDES REPORTABLE DATA**

Reclaimed Flows		BOD			Total Suspended Solids			CL2 Residual			Removal Efficiency		Turbidity		pH	
Month	Total Flow	Daily Avg	Influent mg/l	Tertiary mg/l	Influent mg/l	Tertiary mg/l	Influent mg/l	Tertiary mg/l	Influent mg/l	Tertiary mg/l	BOD %	T.S. %	Tertiary NTU's	Tertiary Units	Tertiary Units	
Jan	17,404	0.561	239	1.9	9.0	0.3	1.4	<0.1	6.6	9.1	99.2	99.9	0.02	0.04	7.1	
Feb	N/A	N/A	249	N/A	N/A	461	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<1.0	
Mar	8,453	0.273	320	1.3	2.9	636	0.4	0.9	<0.1	6.3	9.2	99.6	99.9	0.03	0.03	7.3
Apr	15,002	0.502	455	1.4	6.0	700	0.2	0.7	<0.1	6.8	8.5	99.7	100.0	0.02	0.07	7.2
May	36,012	0.561	404	1.9	8.9	709	0.5	2.3	<0.1	7.1	8.2	99.5	99.9	0.03	0.04	7.2
Jun	33,091	1,103	434	1.9	17.8	548	0.2	1.8	<0.1	6.8	8.3	99.6	100.0	0.02	0.04	7.1
Jul	34,608	1,116	484	2.1	19.2	545	0.2	1.9	<0.1	7.0	8.0	99.6	100.0	0.02	0.04	7.1
Aug	34,856	1,124	530	1.6	15.1	592	0.3	3.0	<0.1	6.7	7.9	99.7	99.9	0.02	0.05	7.2
Sep	30,686	1,023	402	2.2	18.5	497	0.2	1.6	<0.1	6.7	8.1	99.5	100.0	0.02	0.03	7.3
Oct	29,870	0,964	388	2.3	18.1	450	0.2	1.6	<0.1	6.6	7.9	99.4	100.0	0.02	0.04	7.2
Nov	28,225	0.941	376	1.8	14.1	471	0.2	1.3	<0.1	6.7	8.7	99.5	100.0	0.02	0.03	7.2
Dec	29,017	0.936	328	2.3	17.9	510	0.2	1.7	<0.1	6.8	8.5	99.3	100.0	0.02	0.04	7.3
															<1.0	

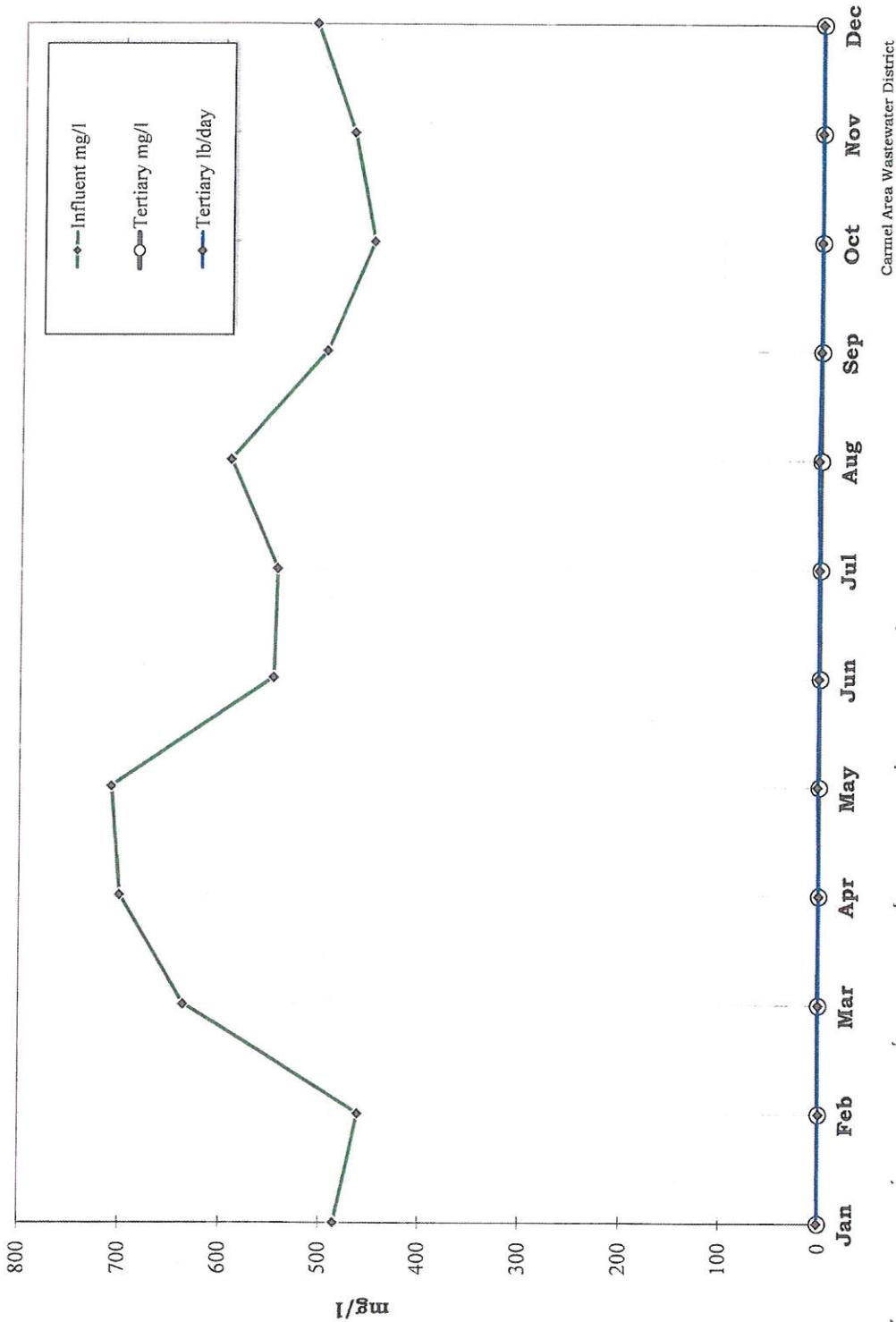
# SECTION TWO

Graphical summary of the monitoring data

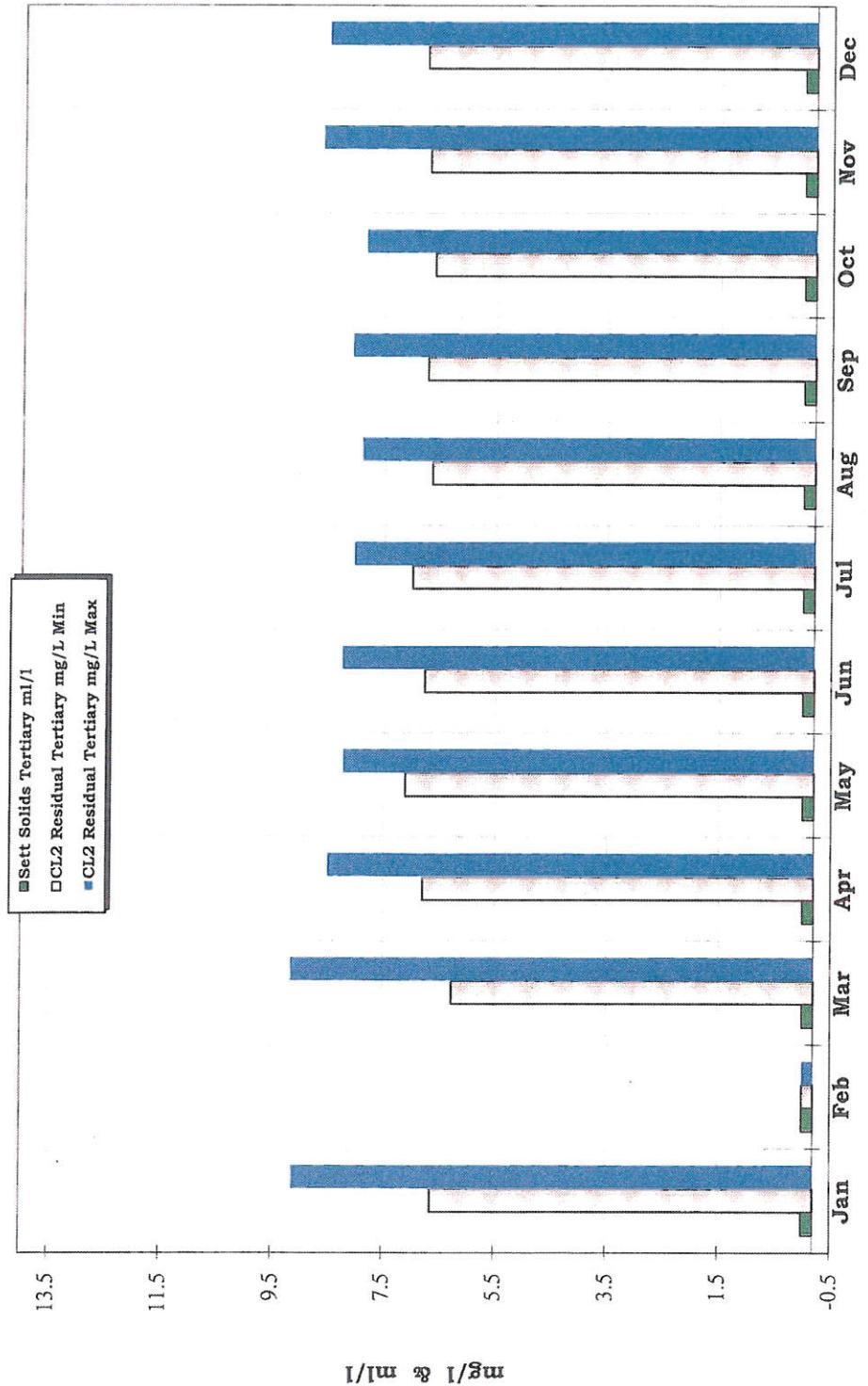
## Tertiary Influent / Effluent BOD 2017



Tertiary Influent / Effluent T.S.S.  
2017

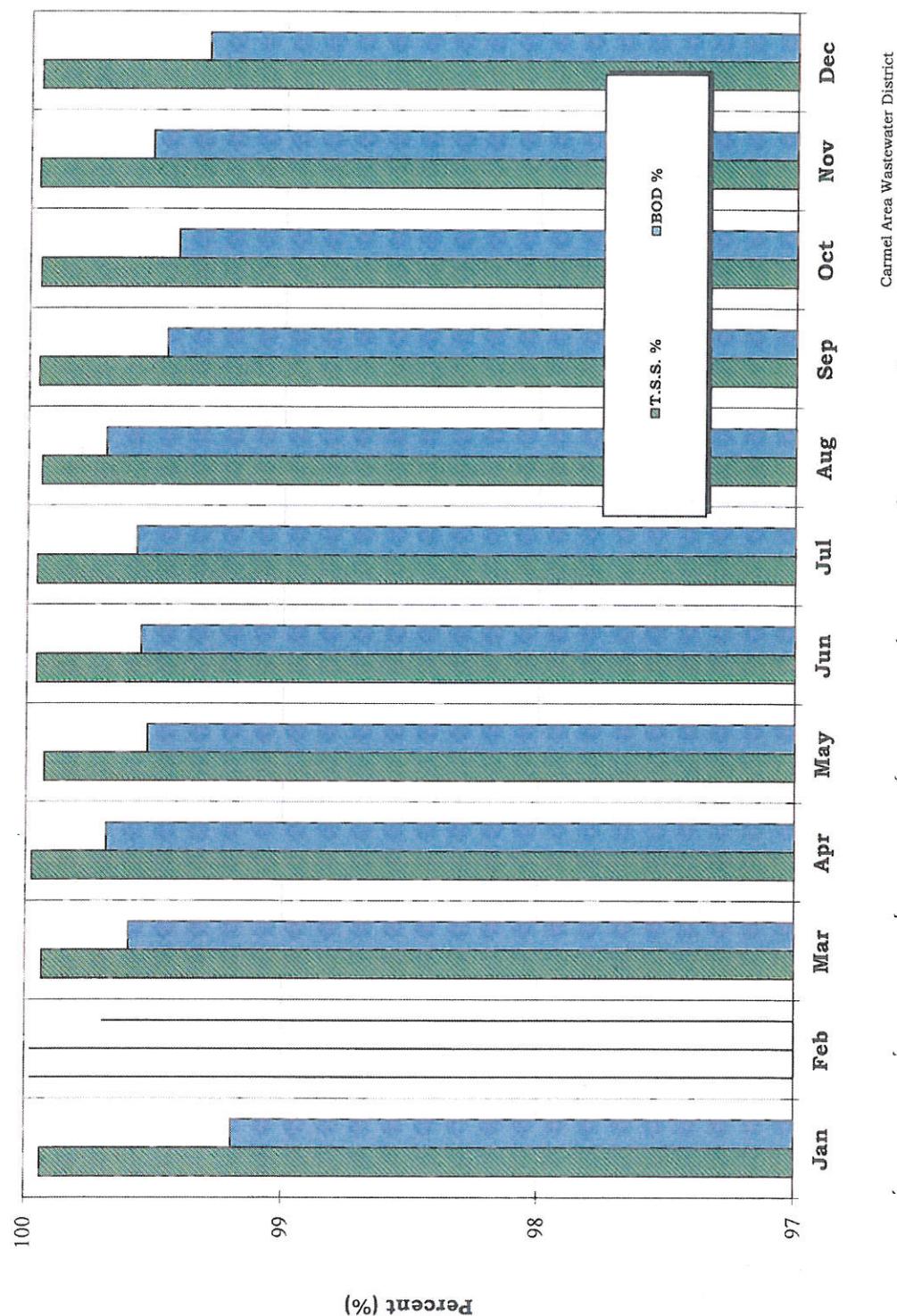


## Tertiary Effluent Sett Solids & Chlorine Residual 2017



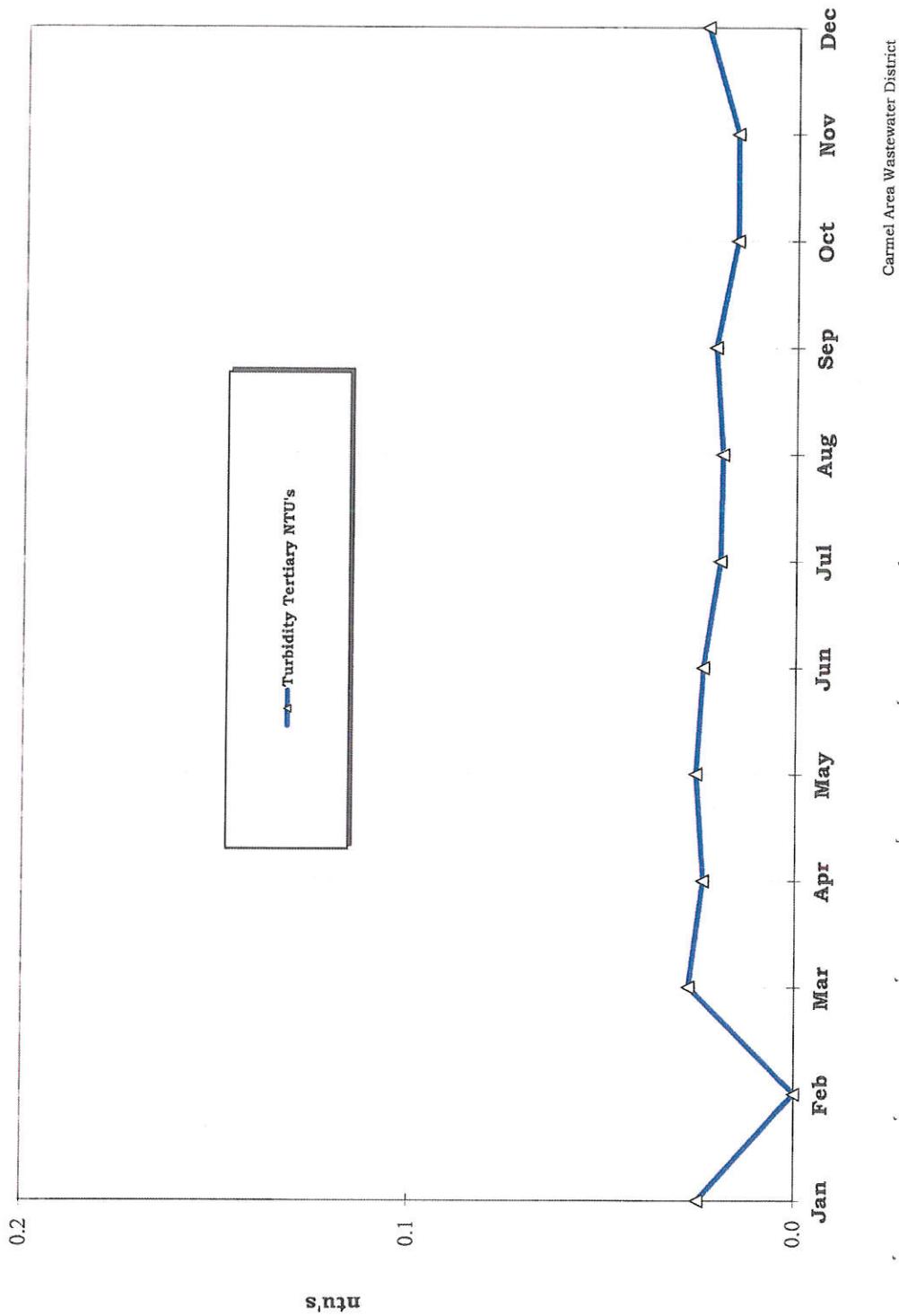
Carmel Area Wastewater District

## Tertiary Effluent BOD & T.S.S Removal Efficiency 2017

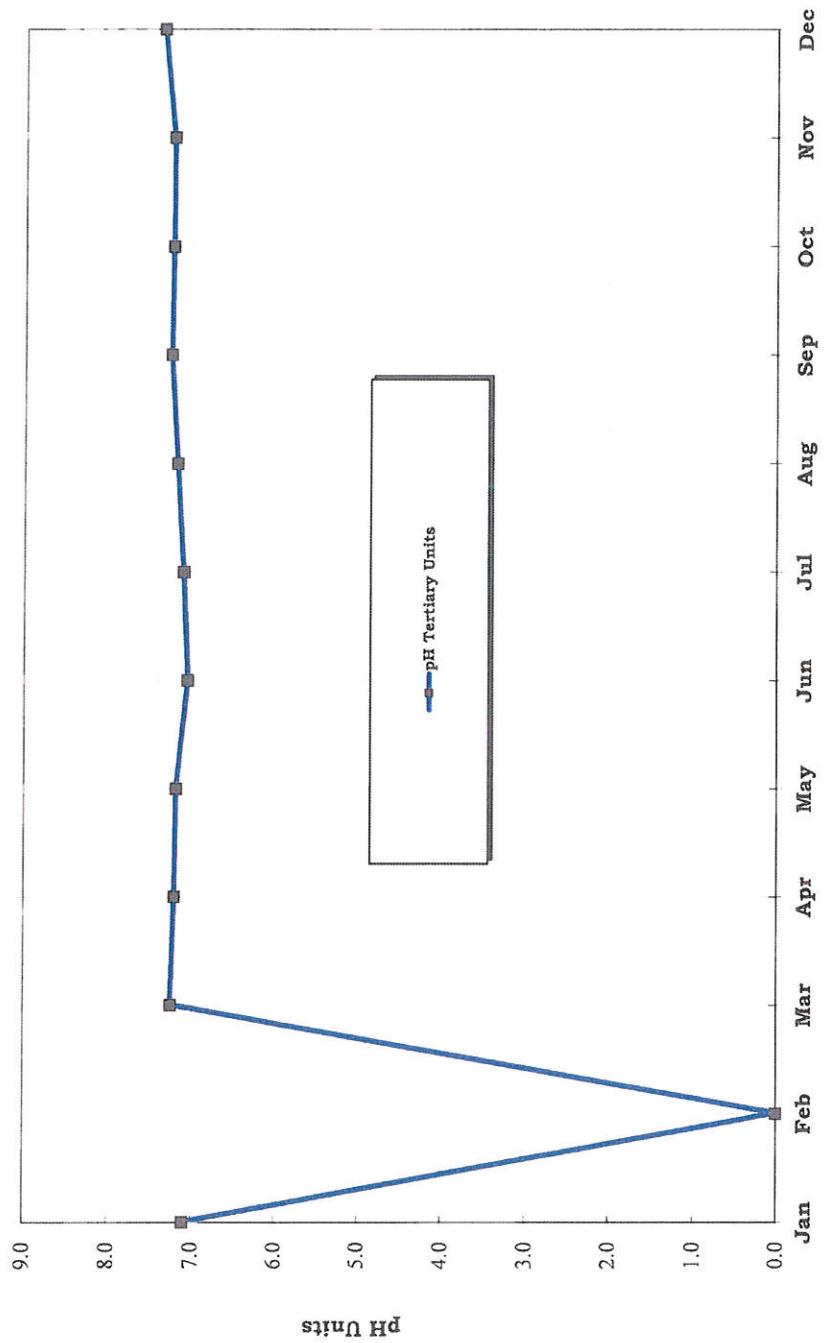


Carmel Area Wastewater District

## Tertiary Effluent Turbidity 2017



Tertiary Effluent pH  
2017



# SECTION THREE

Discussion of compliance record and  
corrective actions

**DISCUSSION OF COMPLIANCE RECORD AND CORRECTIVE ACTIONS TAKEN OR  
REQUESTED TO BRING DISCHARGE INTO FULL COMPLIANCE**

January 2017: No Reclamation Discharge

During the month of January we had no reclaim water discharge from January 14th thru January 31st. This was due to a full reservoir and no water demand by the golf courses. Also, operational staff will be performing maintenance on all Reclamation equipment thru March.

February 2017: No Reclamation Discharge

During the month of February we had no reclaim water discharge from February 1 thru February 28. This was due to maintenance on all Reclamation equipment.

March 2017: No Reclamation Discharge

During the month of March we had no reclaim water discharge from March 1st thru March 17th 2017. This was due to maintenance on all Reclamation equipment.

January 2017: Automatic Sampler Failure and Replacement

Between January and March, we experienced a failure of the Reclaim water composite sampler. A temporary unit was installed. The cause of the failure has been determined and has been repaired.

# SECTION FOUR

List of current operating personnel

**SENIORITY DISTRIBUTION & CERTIFICATION LEVELS OF  
CAWD TREATMENT PLANT PERSONNEL**  
**2017**

Name	Position	Certification Level Maintained
Edward Waggoner	Operations Superintendent	V
Kevin Young	Operations Supervisor	V
Joe Gregory	Compliance Administrator	III
Christian Schmidt	Senior Operator	III
Chris Dixon	Senior Operator	III
Charles DayEngel	Operator II	II
Michael Hooks	Operator II	III
Jason Vile	Operator I	II
Michael Garrison	Operator I	III
Greg Ange	OIT Grade I	OIT
Ralph Stevens	Maintenance Superintendent-6/1/2017	IV
Chris Foley	Maintenance Superintendent-12/4/2017	IV
Michael Skinkle	Maintenance Worker	III
Ryan Reynaud	Maintenance Worker	II



# SECTION

# FIVE

Carmel Area Wastewater District's  
Operation & Maintenance Manual status

**Carmel Area Wastewater District Wastewater District  
Operation Maintenance Manual**

**STATUS**

The Carmel Area Wastewater District's Tertiary Operation and Maintenance Manual was first written and submitted to the District 12 August, 1994 following a review and comment period, corrections/amendments were made and the final version of the Tertiary Operations and Maintenance Manual was submitted to the Carmel Area

The Tertiary Operations and Maintenance Manual was updated in 2007 as part of the Micro Filtration Reverse Osmosis (MF RO) Project. This was done by a joint effort with the Pebble Beach Community Service District.

The Tertiary Operations and Maintenance Manual, as submitted to the District by the design engineer, exist, by contract, as a hardbound copy as well as in an electric version such that Carmel Area Wastewater District Operations/Maintenance/Lab staff can modify procedures/drawings as required by experience/knowledge and system modifications. Thusly modifications occur on an on-going basis.

# SECTION SIX

Laboratories used by Carmel Area  
Wastewater District

**Statement concerning the laboratories used by the Carmel Area  
Wastewater District to monitor compliance with effluent limits and  
summary of performance as required by section B. General  
Monitoring Requirements.**

1       Monterey Bay Analytical Services  
4 Justin Court, Suite D  
Monterey , CA 93940

CA ELAP # 2385

2       Pacific Eco Risk  
Corporate Headquarters  
2250 Cordelia Road  
Fairfield, CA 94534

ORELAP ID 4043

3       Carmel Area Wastewater District (CAWD)  
Highway One & Carmel River  
Carmel, CA 93923  
(831) 624-1249 -Phone  
(831) 624-1478 -Fax

CA ELAP # 1804

# Annual Report

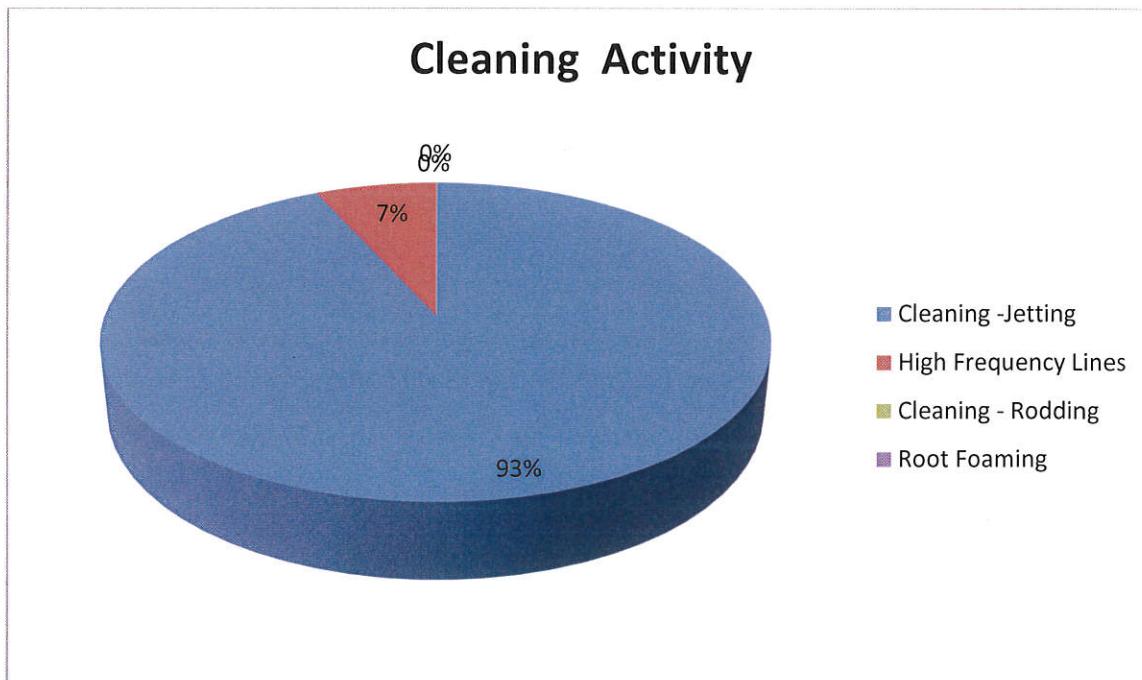
## Collection System

## CAWD Collection Annual Report For 2017

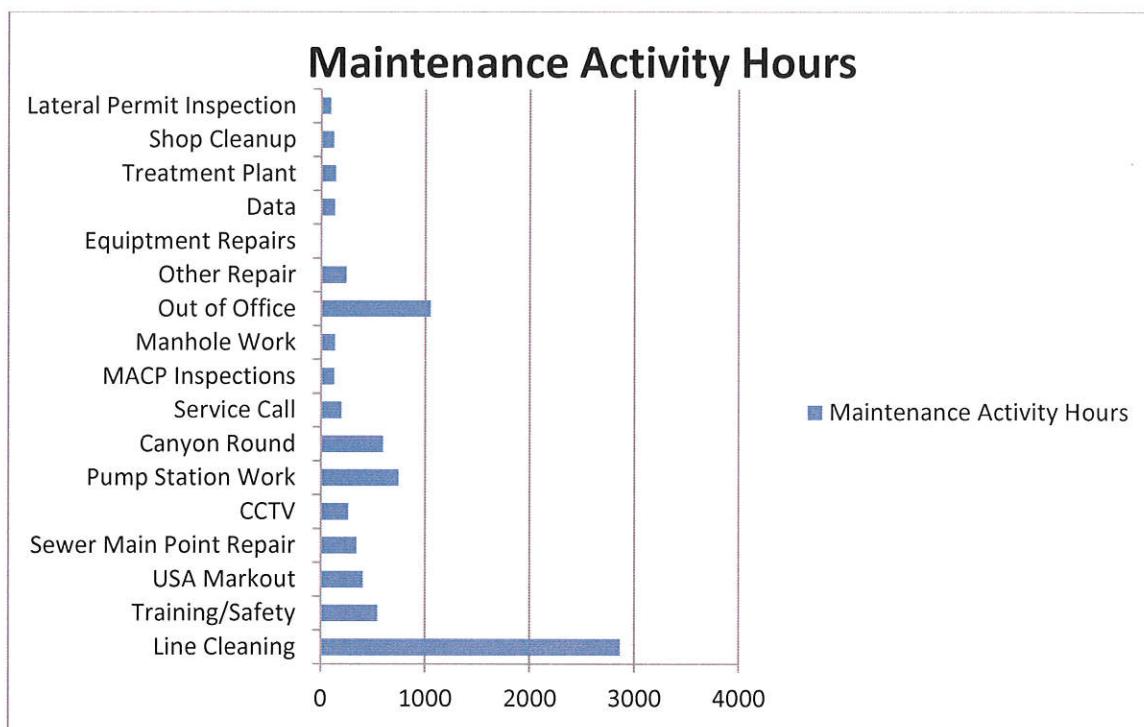
This report provides an overall summary of cleaning activity, construction, and Sanitary Sewer Overflow (SSO) information for the year of 2017.

**Cleaning Activity:** The Collection crew maintains 408,581 feet of gravity sewer lines and 21,600 feet of force mains in the District. During 2017 staff cleaned the equivalent to the entire system in little over 8 months. The types of cleaning methods used are hydro-cleaning, power rodding and root foaming.

Activity	Feet Cleaned
Cleaning - Jetting	626,979 ft.
High Frequency Lines	46,163 ft.
Cleaning - Rodding	0 ft.
Root Foaming	0 ft.
<b>Total</b>	<b>673,142 ft.</b>



**Maintenance Activity:** Collection crews responded to 88 service calls in 2017, with private lateral problems being the majority of the calls. The remaining calls were for odor complaints, pump station related problems, backed-up plumbing, and rattling manholes. Crews inspected 113 private lateral repairs, ranging from complete lateral replacement to spot repairs. There were 928 Underground Service Alerts mark outs for 2017. Collection crews were able to CCTV inspect 30,599 feet of sewer line. The District's root foaming program ended up with budget year 17/18 work to be completed in calendar year 2018.



**Construction Activity:** During 2017 there were several projects that were completed, starting with the replacement of the power service to the Bay & Scenic pump station. This project replaced 600 feet of corroded electrical conduit with new PVC conduit and electrical wire. This upgrade was approved by PG&E, who then took ownership of the

line up to the station. This action eliminated the District's responsibility for the 600 foot run to the station.

Line segment R736 to R796 which is located in an easement behind 3650 Lazarro Drive was replaced in February. This was the replacement of a damaged sewer line that had 3 previous SSO's.

Staff installed 12 lockable manhole frame and lids made of a composite material to prevent frame and lid corrosion throughout the district.

The City of Carmel paving project happened at the end of 2016. The City did not pave during 2017, however they have a paving project starting in the spring of 2018 where the District will supply the contractor with new manhole frames and lids.

The Larson Field trunk main rehabilitation was a success during the summer of 2017. The District went with a CIPP (Cure in Place Pipe) rehabilitation method to fix severely damaged asbestos concrete pipe. This project consisted of the by-pass of a 600 ft., 27-inch, 350,000 GPD trunk main for two days and the installation of a cured fiberglass pipe.

The installation of a new manhole in the intersection of 14<sup>th</sup> & 15<sup>th</sup> will repair defects in the 12-inch pipe line and give the District redundant capacity. This project could not be completed in 2017 due to the level of the lagoon and the water table at the location of the new manhole so construction will begin in the spring of 2018.

**Other Notable Activity:** The Staff in Collections completed all of the necessary week long training courses in Confined Space Rescue and Hazwopper this year. Staff assisted the Operations and Maintenance staff during the final year of the Phase One Treatment Plant CIP. These

tasked included the cleaning of wet wells, installation of sewer lines, water line repairs, general plumbing, and potholing.

The GIS location of all District sewer assets was completed in the beginning of 2017 and is currently being used for the District's Capacity model and to build the District's Long Term CIP. Staff has spent a large amount of time gathering data for the Capacity Study, Long Term CIP, and FEMA documentation during 2017. The District currently has two applications in progress for grant funding, one for the Hatton Canyon sewer line replacement project, and the other for the outfall/force main lagoon crossing. I would like to congratulate the Collection Staff in finishing year 2017 with zero work time lost.

### **SSO Summary:**

DATE	SPILL LOCATION	GALLONS SPILLED	GALLONS RECOVERED	CAUSE OF SPILL
2/6/2017	3650 Lazarro Dr.	1650	0	Roots
2/23/2017	Hatton Canyon	145,000	0	Pipe Failure
6/29/2017	3327 Camino Del Monte	17	0	Roots
8/17/2017	11 <sup>th</sup> & Torres	780	250	Free Flowing Root

SSO #1 occurred at 3650 Lazarro Dr. and was caused by roots growing in from a joint in the pipe. Staff used CCTV to inspect the line segment and locate the defect following the SSO. The line segment was replaced following the SSO due to the history of overflows on this line segment.

SSO #2 occurred on the Hatton Canyon easement. California experienced several large rain events that led to the access road being washed away in most areas in Hatton Canyon. The erosion around MH

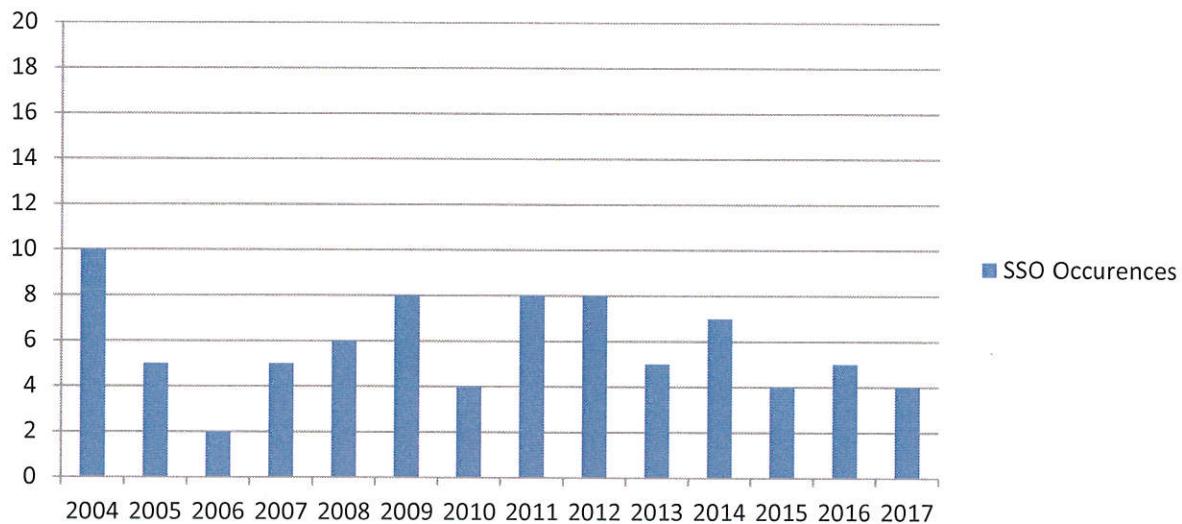
P802 led to a collapse of the pipe on the downstream side of the manhole. Staff had to carry by-pass equipment into the canyon to stop the SSO. A contractor was called in for repairs of the road and the sewer pipe. A pipeline design is currently underway for a Summer/Fall 2018 replacement of the entire Hatton Canyon pipeline. Staff has completed a FEMA grant application for assistance on the pipeline replacement as well as the road replacement.

SSO #3 occurred at 3327 Camino Del Monte and was caused by a root growing in at the pipe joint. An inspection was made following the SSO of this line segment and a large tree is located above the location of the root mass. Since there is only one lateral connected above the location of the roots staff added this line segment to the District's root foaming program and will continue to monitor this line segment. Additionally, a spot repair could be made there in the future.

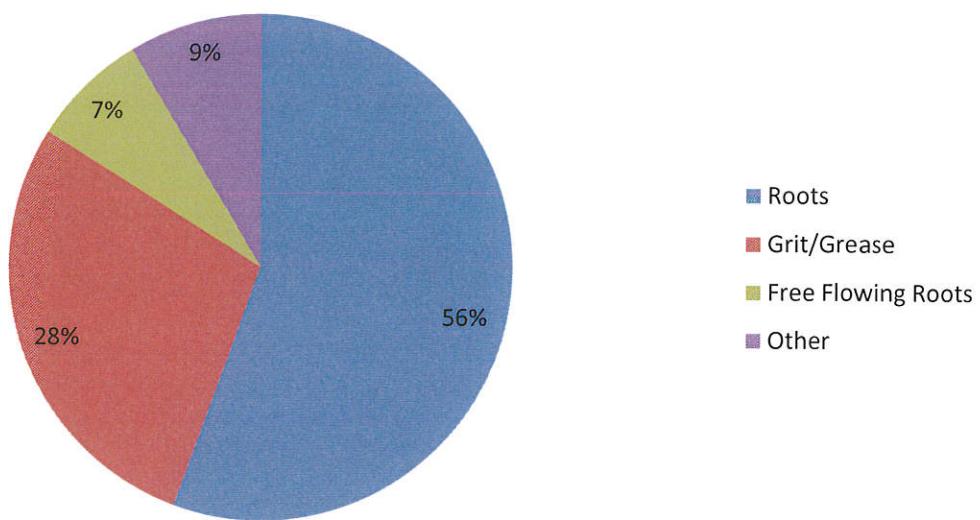
SSO #4 occurred at a manhole just inside the gate of the entrance to Doolittle Park at 11<sup>th</sup> & Torres and was caused by free flowing roots that a plumber cut loose and then became hung up on an offset joint in the pipe. A CCTV inspection was made following the SSO of that line segment and no defects were found other than the offset in the District's main line. Staff was unable to determine the location of the resident that had their drain cleaned.

A map of all spill locations is attached to this report.

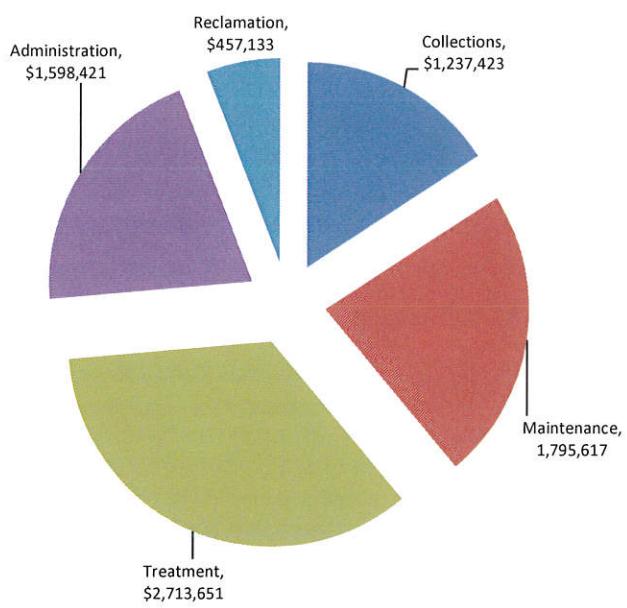
## Sewer Main SSO History - Frequency



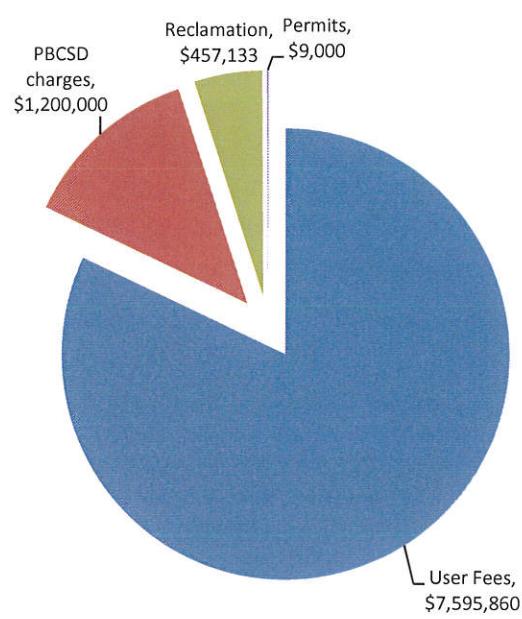
## Cause of Spills Since 2004



# Budget Graphs

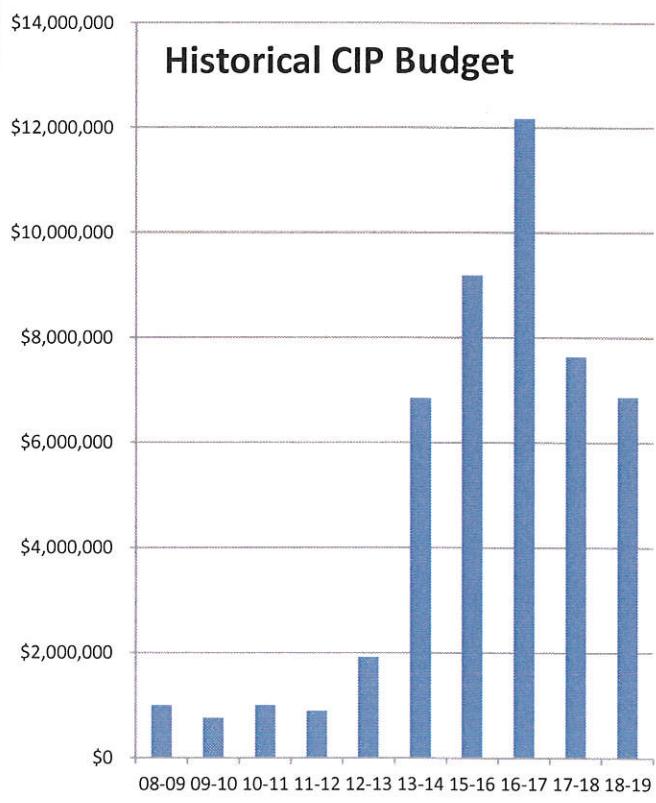
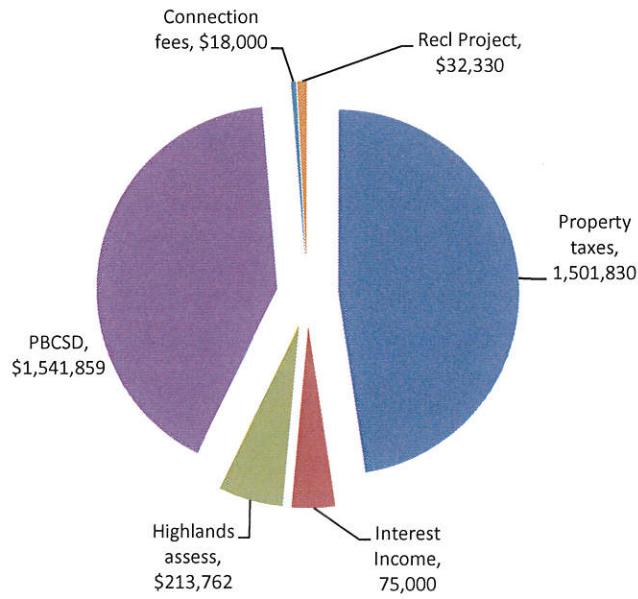


**2018-19 Operating Expense Budget**

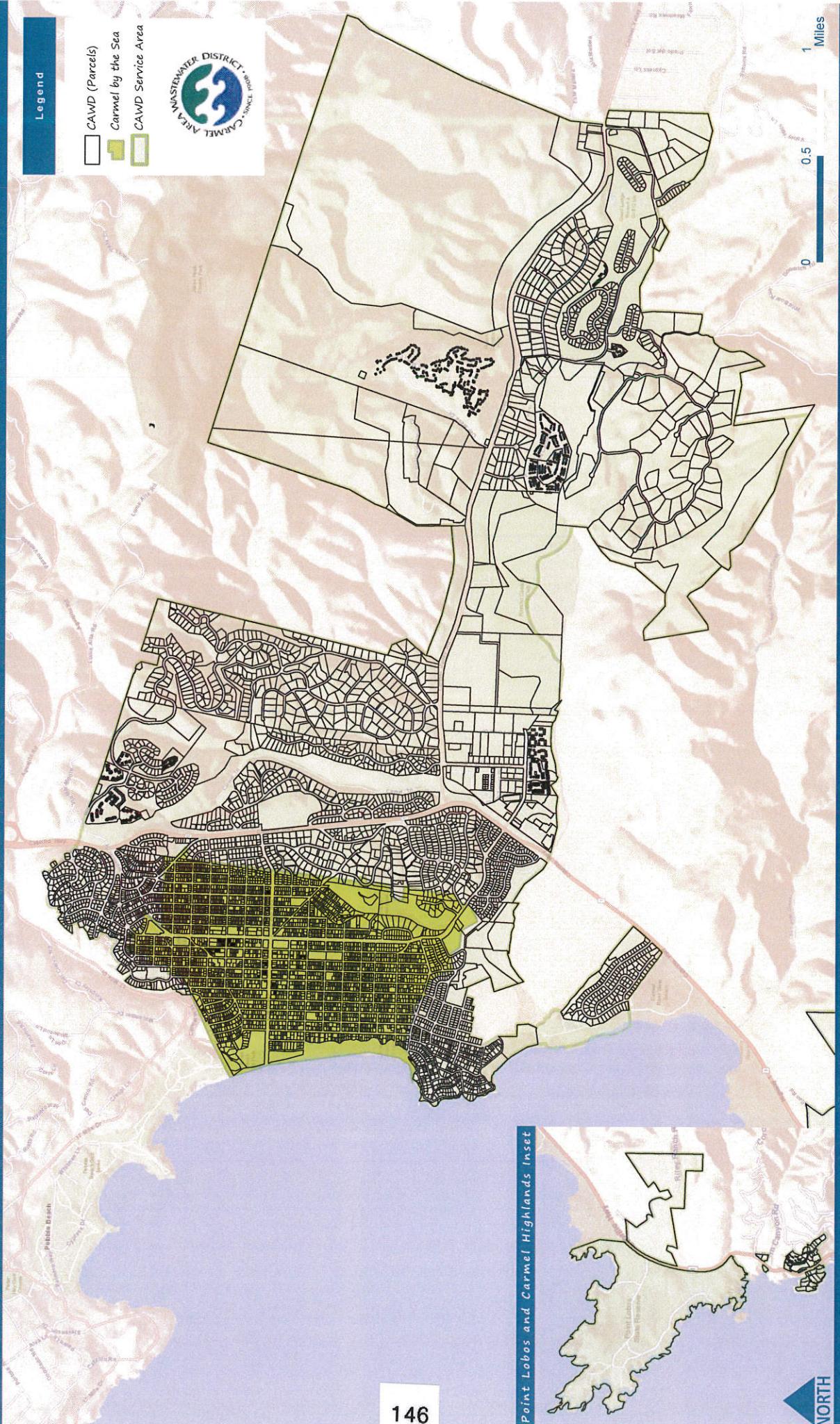


**2018-19 Operating Revenues**

**2018-19 Non Operating Revenues**

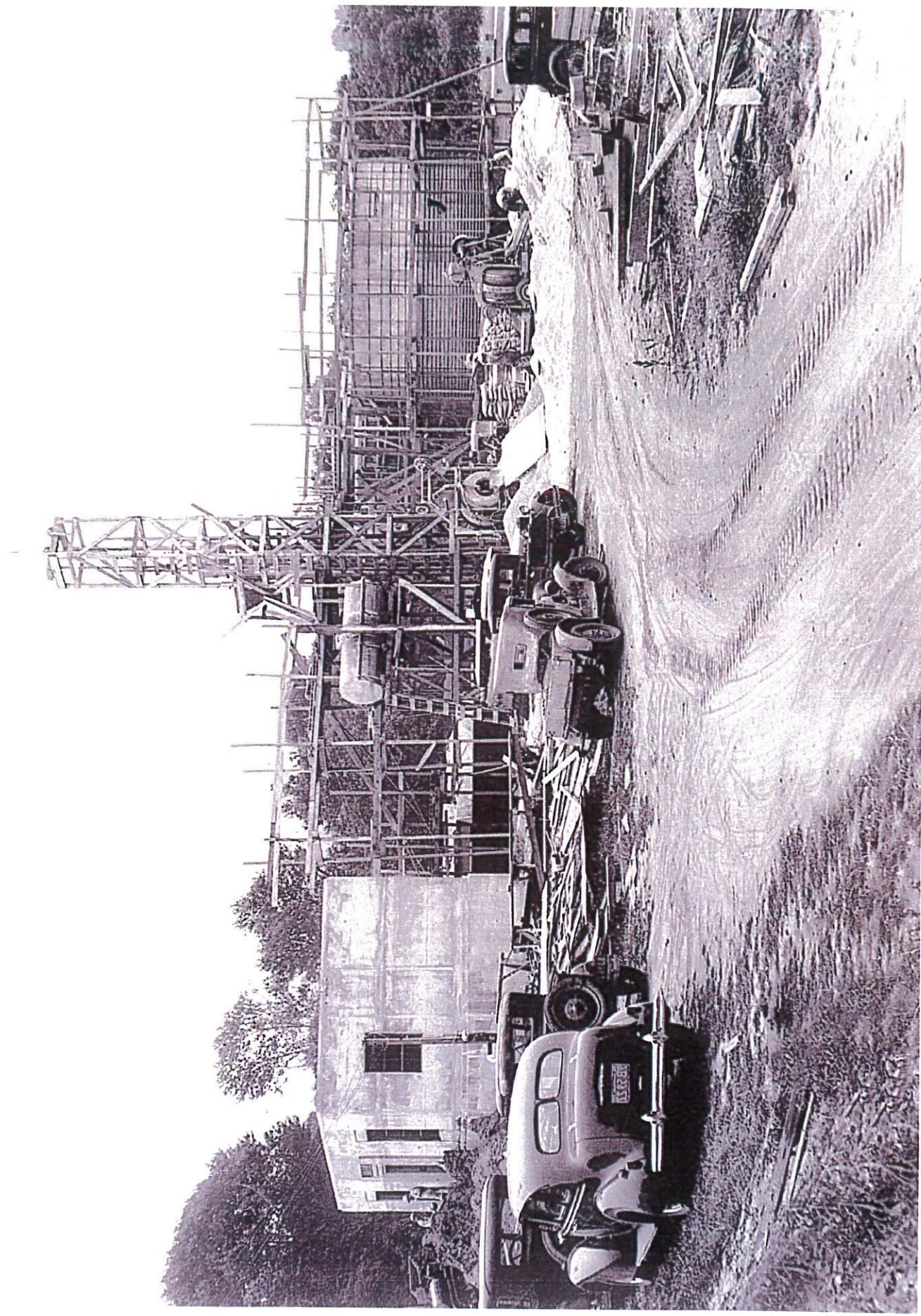


## Carmel Area Wastewater District - Service Area with Parcels



# Historical Photographs

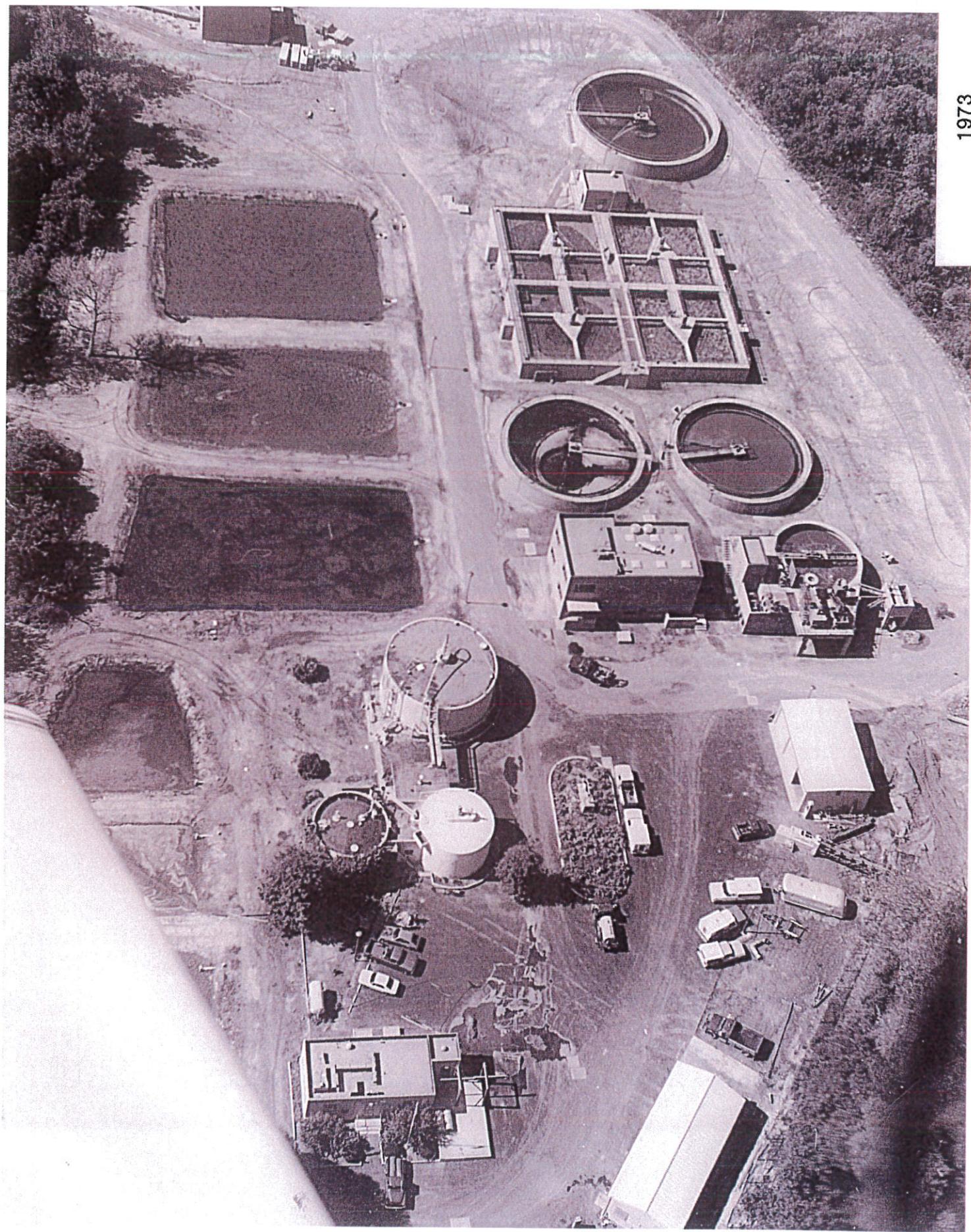
1939



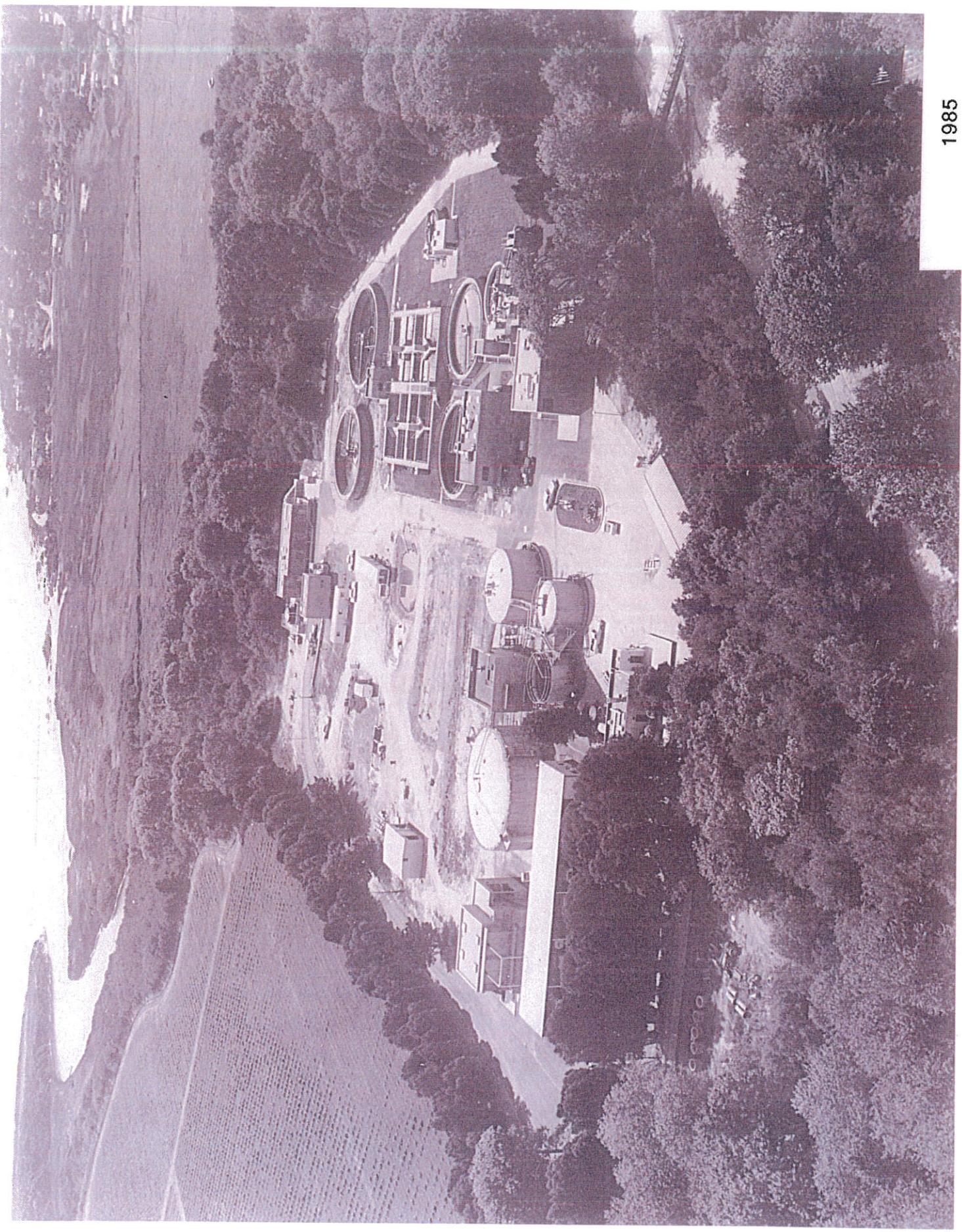
1955



1973



1985





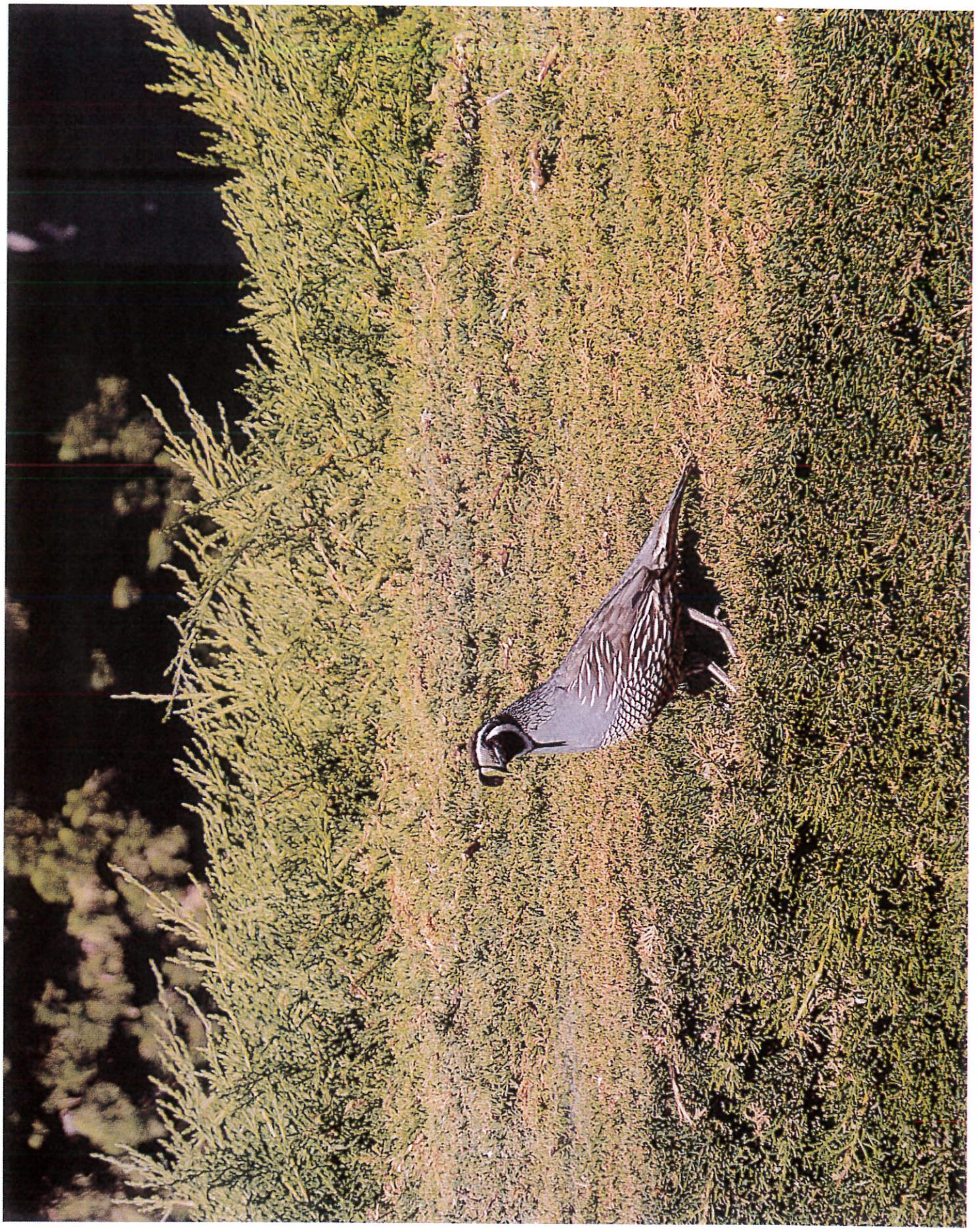
2011



2011

Some of our neighbors!





# Appendices

# List of Common Acronyms

## 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 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.

## List of Common Acronyms

ACWA	Assoc of California Water Agencies	MF/RO	Microfiltration/Reverse Osmosis
AF	Acre Feet	MG/L	Milligrams per Liter
APWA	American Public Works Assoc	MGD	Million Gallons per Day
AWWA	American Water Works Assoc	MLSS	Mixed Liquor Suspended Solids
BFE	Base Flood Elevation (FEMA)	MLVSS	Mixed Liquor Volatile Suspended Solids
BMP	Best Management Practice	MOU	Memorandum of Understanding
BOD	Biochemical Oxygen Demand	MPN	Most Probable Number (of coliform organisms)
BTU	British Thermal Units	MPWMD	Monterey Peninsula Water Management District
C&I	Calcium & Ion	MSL	[Elevation above] Mean Sea Level
Cal OES	California Office of Emergency Services	NEC	National Electric Code
Cal/OSHA	California Occupational Safety and Health Administration	NELAC	National Environmental Laboratory Accreditation Council
CALPERS	California Public Employees Retirement System	NEPA	National Environmental Policy Act
CASA	California Association of Sanitation Agencies	NMFS	National Marine Fisheries Service (NOAA)
CAWD	Carmel Area Wastewater District	NOAA	National Oceanic & Atmospheric Administration
CCAMP	Central Coast Ambient Monitoring Program	NPDES	National Pollutant Discharge Elimination System
CCLEAN	Central Coast Long Term Environ Assess Network	NPS	Non-Point Source [Pollution]
CCTV	Closed Circuit Television	OM&R	Operations, Maintenance, and Replacement
CECs	Constituents of Emerging Concern	OSHA	Occupational Safety & Health Act
CEQA	California Environmental Quality Act	PBC	Pebble Beach Company
CFR	Code of Federal Regulations	PBCSD	Pebble Beach Community Services District
CIP	Capital Improvement Project/Plan	PCB's	Polychlorinated Biphenyls
CL2	Chlorine	PEHP	Post Employment Health Plan
CMMS	Computerized Maintenance Mgmt Software	pH	Hydrogen Ion Concentration (Potential of Hydrogen)
CMOM	Capacity, Management, Operations & Maintenance	POTW	Publicly Owned Treatment Works
COD	Chemical Oxygen Demand	PPM	Parts per Million
CPI	Consumer Price Index	PS	Point Source [Pollution]
CRWQCB	Calif Regional Water Quality Control Board	PS	Pump Station
CSDA	California Special District Association	PSI	Pounds per Square Inch
CSO	Combined Sewer Overflow	QA/QC	Quality Assurance/Quality Control
CSS	Combined Sewer System	RAS	Return Activated Sludge
CU FT	Cubic Feet	RFP	Request for Proposals
CWA	Clean Water Act (EPA)	RFQ	Request for Qualifications
CWEA	California Water Environment Assoc	RMP	Risk Management Program
DAF	Dissolved Air Flotation	RO	Reverse Osmosis
DEG	Degrees	RPM	Revolutions per Minute
DEIS	Draft Environmental Impact Statement (NEPA/EPA)	RWQCB	Regional Water Quality Control Board
DHS	Department of Health Services	SAR	Sodium Absorption Ratio
DO	Dissolved Oxygen	SBS	Sodium Bisulfite
DWF	Dry Weather Flow	SCADA	Supervisory Control and Data Acquisition
EA	Environmental Assessment (NEPA/EPA)	SOR	Standard Oxygen Requirement
EFT	Electronic Funds Transfer	SOUR	Specific Oxygen Uptake Rate
EIS/EIR	Environmental Impact Statement/Report	SRF	State Revolving Loan Fund
ELAP	Environmental Laboratory Accreditation Program	SRT	Solids Retention Time (same as MCRT)
EPA	[U.S.] Environmental Protection Agency	SRV	Sewer Relief Valve
ESMP	Electronic Self-Monitoring Report	SS	Suspended Solids (same as TSS)
F/M	Food to Microorganism ratio	SSMP	Sewer System Management Plan
FEB	Flow Equalization Basin	SSO	Sanitary Sewer Overflow
FEMA	Federal Emergency Management Agency	SVI	Sludge Volume Index
FOG	Fats, Oils and Grease	SWRCB	State Water Resources Control Board
GAL	Gallon	TDML	Total Maximum Daily Load

## List of Common Acronyms

GASB	Government Accounting Standards Board	TMP	Trans Membrane Pressure
GPD	Gallons per Day	TDS	Total Dissolved Solids
HP	Horsepower	TOC	Total Organic Carbon
I/I	Infiltration and Inflow	TS/TSS	Total Suspended Solids
IPR	Indirect Potable Reuse	UV	Ultraviolet Treatment
IRWUG	Independent Reclaimed Water Users Group	VFD	Variable Frequency Drive
kw	Kilowatt	VS	Volatile Solids
kWh	Kilowatt hour	VSS	Volatile Suspended Solids
LAFCO	Local Agency Formation Commission	WAS	Waste Activated Sludge
LAMP	Local Area Management Plan	WDR	Waste Discharge Requirements
lbs	Pounds	WEF	Water Environment Federation
LIMS	Laboratory Information Management Software	WPCF	Water Pollution Control Federation
MCC	Motor Control Center	WWTP	Waste Water Treatment Plant
MCRT	Mean Cell Retention Time		