AGENDA FOR A REGULAR MEETING OF THE BOARD OF DIRECTORS
OF THE VALLECITOS WATER DISTRICT
WEDNESDAY, SEPTEMBER 4, 2019, AT 5:00 P.M.
AT THE DISTRICT OFFICE
201 VALLECITOS DE ORO, SAN MARCOS, CALIFORNIA

CALL TO ORDER – PRESIDENT MARTIN

PLEDGE OF ALLEGIANCE

ROLL CALL

In the case of an emergency, items may be added to the Agenda by a majority vote of the Board of Directors. An emergency is defined as a work stoppage; a crippling disaster; or other activity which severely imperils public health, safety, or both. Also, items which arise after the posting of the Agenda may be added by a two-thirds vote of the Board of Directors.

ADOPT AGENDA FOR THE REGULAR MEETING OF SEPTEMBER 4, 2019

PUBLIC COMMENT

Persons wishing to address a matter not on the Agenda may be heard at this time; however, no action will be taken until the matter is placed on a future agenda in accordance with Board policy. Public comments are limited to three minutes. A Request to Speak form is required to be submitted to the Executive Secretary prior to the start of the meeting, if possible. Public comment should start by stating name, address and topic. The Board is not permitted during this time to enter into a dialogue with the speaker.

NOTICE TO THE PUBLIC

All matters listed under the Consent Calendar will be voted upon by one motion. There will be no separate discussion of these items, unless a Board member or member of the public requests that a particular item(s) be removed from the Consent Calendar, in which case it will be considered separately under Action Items.

CONSENT CALENDAR

1.1 APPROVAL OF MINUTES (pp. 5-22)

A. REGULAR BOARD MEETING – AUGUST 7, 2019
B. REGULAR BOARD MEETING – AUGUST 21, 2019

Approved minutes become a permanent public record of the District.

Recommendation: Approve Minutes

1.2 WARRANT LIST THROUGH SEPTEMBER 4, 2019 – $4,174,459.29 (pp. 23-25)

Recommendation: Approve Warrant List

1.3 FALL 2019 BETWEEN THE PIPES – VALLECITOS WATER DISTRICT QUARTERLY NEWSLETTER (pp. 26-29)

Recommendation: Approve Fall 2019 Between the Pipes Newsletter

*******END OF CONSENT CALENDAR*******

PUBLIC HEARING

2.1 PUBLIC HEARING REGARDING A REPORT ON DISTRICT WATER QUALITY RELATIVE TO PUBLIC HEALTH GOALS (pp. 30-67)

The law requires that a public hearing be held for the purpose of accepting and responding to public comment on the report.

Recommendation: Accept the Public Health Goals Report

ACTION ITEMS

3.1 REQUEST FOR APPROVAL OF A PURCHASE ORDER TO INFRASTRUCTURE ENGINEERING CORPORATION FOR PIPE ASSESSMENT SERVICES AT HIGH POINT SUBDIVISION (pp. 68-70)

A pipe condition assessment is required to determine the condition of the existing ductile iron water main.

Recommendation: Approve Purchase Order

3.2 EMERGENCY REPAIR OF 8" WATER MAIN ON STEPHANIE COURT AND SAN ELIJO ROAD (pp. 71-74)

On May 16 staff responded to a water main break at the intersection of Stephanie Court and San Elijo Road.

Recommendation: Approve Payment to Cass Arrieta

3.3 CONSIDERATION OF THE DEVELOPMENT OF A POLICY REGARDING THE ELIMINATION OF THE USE OF SINGLE-USE PLASTICS (pp. 75)

The Public Awareness/Personnel/Policy Committee recommended this item be placed on the agenda for the Board's consideration.

Recommendation: Request Board direction

3.4 OVERNIGHT HOTEL STAYS WITHIN SAN DIEGO COUNTY (pp. 76-80)

It has been the District's practice to not reimburse overnight lodging costs when events take place in San Diego County.

Recommendation: Request Board direction

3.5 RESOLUTION CONCURRING IN NOMINATION OF ACWA STATE-WIDE ELECTION FOR PRESIDENT AND VICE PRESIDENT (pp. 81-92)

The Association of California Water Agencies will be holding an election for President and Vice President at their Fall Conference.

Recommendation: Request Board direction

*******END OF ACTION ITEMS*******

REPORTS

4.1 GENERAL MANAGER

4.2 DISTRICT LEGAL COUNSEL

4.3 SAN DIEGO COUNTY WATER AUTHORITY

4.4 ENCINA WASTEWATER AUTHORITY
- Capital Improvement Committee
- Policy and Finance Committee

4.5 STANDING COMMITTEES

4.6 DIRECTORS REPORTS ON MEETINGS/CONFERENCES/SEMINARS ATTENDED

*******END OF REPORTS*******

OTHER BUSINESS

5.1 MEETINGS

*******END OF OTHER BUSINESS*******

6.1 DIRECTORS COMMENTS/FUTURE AGENDA ITEMS

*******END OF DIRECTORS COMMENTS/FUTURE AGENDA ITEMS*******

7.1 ADJOURNMENT

*******END OF AGENDA*******

If you have any disability which would require accommodation in order to enable you to participate in this meeting, please call the Executive Secretary at 760.744.0460 ext. 264 at least 48 hours prior to the meeting.

Audio and video recordings of all Board meetings are available to the public at the District website www.vwd.org

AFFIDAVIT OF POSTING

I, Diane Posvar, Executive Secretary of the Vallecitos Water District, hereby certify that I caused the posting of this Agenda in the outside display case at the District office, 201 Vallecitos de Oro, San Marcos, California by 5:00 p.m., Friday, August 30, 2019.

Diane Posvar

MINUTES OF A REGULAR MEETING OF THE BOARD OF DIRECTORS
OF THE VALLECITOS WATER DISTRICT
WEDNESDAY, AUGUST 7, 2019, AT 5:00 PM AT THE DISTRICT OFFICE,
201 VALLECITOS DE ORO, SAN MARCOS, CALIFORNIA

President Martin called the Regular meeting to order at the hour of 5:00 p.m.

Director Hernandez led the pledge of allegiance.

Present: Director Elitharp
Director Evans
Director Hernandez
Director Sannella
Director Martin

Staff Present: General Manager Pruim
Legal Counsel Gilpin
Administrative Services Manager Emmanuel
District Engineer Gumpel
Finance Manager Owen
Operations & Maintenance Manager Pedrazzi
Accounting Supervisor Glenn
Development Services Senior Engineer Scholl
Financial Analyst Arthur
Executive Secretary Posvar

Others Present: Scott Goldman, Woodard & Curran
Erica Wolski, Woodard & Curran

ADOPT AGENDA FOR THE REGULAR MEETING OF AUGUST 7, 2019

19-08-03 MOTION WAS MADE by Director Sannella, seconded by Director Evans, and carried unanimously, to adopt the agenda for the Regular Board Meeting of August 7, 2019.

PUBLIC COMMENT

Mike Hunsaker, member of the public, addressed the Board stating he wanted to correct three errors, one of which was his. He previously mentioned that from 2011 to 2019 the budget tripled. It actually more than doubled from $99 Million to $213 Million. The mistake that was not his was that it was reported that the budget was almost entirely unchanged over these eight years, but that did not include the capital projects costs which more than doubled. As a consequence, there is a 10% a year average increase. Regarding the water quality report, staff indicated the boron content was an error as shown on the report by a factor of a 1,000. In the quality analysis report, the 2018 water quality report is a little misleading. It indicated the District was receiving desalinated water directly from the plant. That was not what happened at the end of 2017, all of 2018, and part of 2019. He assumes the District is wrestling with refunds that will be coming should this be protested strong enough.

CONSENT CALENDAR

Director Evans requested clarification on several dates listed in the Raftelis proposal for the Cost of Service Study on page 41 of the Board packet: Finance Committee meeting on September 16, 2018, final report on January 8, 2019, and Board adoption January 14. It was clarified that the September date is in 2019 and the January dates are in 2020.

19-08-04 MOTION WAS MADE by Director Evans, seconded by Director Elitharp, and carried unanimously, to approve the Consent Calendar as presented.

1.1 Approval of Minutes

A. Regular Board Meeting – July 17, 2019
B. Finance/Investment Committee Meeting – July 29, 2019

1.2 Warrant List through August 7, 2019 - $7,167,672.79

1.3 Operations & Maintenance Metrics Quarterly Report – June 30, 2019

1.4 Construction Contract Acceptance for Solar Panel Inverter Replacement

1.5 Notice of Draft Initial Study and Mitigated Negative Declaration for the District Wide Solar Project

1.6 Water Cost of Service Study Consultant Selection

ACTION ITEMS

PRESENTATION OF SAN MARCOS GROUNDWATER BASIN SUPPLY OPTIONS EVALUATION

Development Services Senior Engineer Scholl stated that on October 17, 2018, the Board approved a professional services agreement with Woodard & Curran in the amount of $77,590 to evaluate and develop groundwater basin options. This item was presented to the Engineering/Equipment Committee on May 30, 2019. The Committee's suggestions were incorporated into today's presentation. He introduced Scott Goldman of Woodard & Curran who provided a presentation on the Evaluation of San Marcos Groundwater Basin Supply Options as follows:

- San Marcos Basin
- Groundwater Production
- Groundwater Quality
- Water Balance
- Options Development
- Option 1 – Non-Potable Use

- Option 2 – Desalter
- Option 3 – Potable Reuse
- Estimated Costs
- Desalter Production Cost Sensitivity at 100 gpm
- Conclusions

Mr. Goldman stated the project feasibility is dependent on the amount of extraction from wells and how many wells would have to be constructed. The potable desalter option appears to be feasible if production over 100 gallons per minute or more could be obtained. The other two options require higher production. Additional studies would be necessary to better estimate the quantity and quality of the water being withdrawn.

General discussion took place regarding what additional steps would be necessary to move forward and the cost, possible grant funding, potential yield from the basin, and the high expense of the water produced.

The consensus of the Board was to note and file this item.

Mike Hunsaker, member of the public, addressed the Board expressing his concern about supply uncertainty and suggesting any further evaluation should take at least a year, testing should be done every two weeks, and the cost of water would need to include the District's 15% bond covenant requirement. All of the options are very power cost related. The basin is under some very high future development. Would the District have to pay a surcharge to the developers for use of the groundwater underneath their new properties?

MODIFICATION OF WATER AND WASTEWATER CAPITAL FACILITY FEES

General Manager Pruim stated staff is seeking to obtain Board approval of proposed water and wastewater capital facility fees (Cap Fees) increases.

District Engineer Gumpel provided background information on the origin of the Cap Fees and how it relates to the District's 2018 Water, Wastewater, and Recycled Water Master Plan (Master Plan). The District's Master Plan is 100% based on growth to ensure that growth pays for growth and that rate payers are not burdened with the costs associated with growth. As the District does not make land use decisions, it must rely on other documents adopted by the San Diego Association of Governments (SANDAG), a regional agency that projects population growth, local cities, and San Diego County. The District hired a third-party consultant to perform a water/sewer study utilizing data collected to determine the Cap Fees.

District Engineer Gumpel stated staff initially presented the proposed Cap Fees to the Finance/Investment Committee on February 20, 2019, and three financing options ("A", "B", and "C") to the Board on May 15, 2019. Staff met with all interested stakeholders including members of the Building Industry Association (BIA) and individual developers. On July 29, 2019, the Cap Fees were presented to the Board based on concerns from the BIA and recommendations from the District's consultant and financial advisors to reduce interest rates

on short-term and future debt. District Engineer Gumpel discussed the components of the three Cap Fees options in detail, with Finance Manager Owen explaining that the shortfall component is a result of collecting less than what the District expended since the last Cap Fees study.

District Engineer Gumpel stated that at the July 29 Finance/Investment Committee meeting, staff and the Committee recommended bringing Option "C" to the Board for consideration. With Option "C", the Cap Fees for water would increase from $7,756 to $8,254, and from $9,963 to $16,570 for sewer.

Finance Manager Owen provided information on the proposed Cap Fees and how they affect the District's overall financial condition. Staff incorporated the three options into the District's five-year financial plan ending in Fiscal Year 2023/24 to forecast the resulting shortfall for each option. District Engineer Gumpel noted that the current shortfall of approximately $14 Million would be reduced with either Option "B" or Option "C" to $7.6 Million and 8.4 Million respectively.

District Engineer Gumpel provided a comparison of the District's proposed water and sewer Cap Fees to other local agencies.

President Martin stated that the BIA requested 10 minutes to speak. In fairness, all speakers were limited to five minutes and no bundling of time was permitted.

Michael McSweeney, representative of the BIA, addressed the Board requesting the Board postpone adoption of new fees until the District completes a legally sufficient nexus study. He stated the District's former Assistant General Manager is spreading falsehoods and misinformation, it is appropriate for organizations such as the BIA to meet with the District's management team and members of the community, there is no give away allowing the developer to defer fees until the unit is finished as this is allowed under state law, and that previous management tried to impose an excess sewer capacity fee without proper justification and rescinded those fees after they were legally challenged. He further stated that since 2006, the City of San Marcos has averaged approximately 400 residential units per year over those 13 years after a spike in the early 2000's, and that a building permit to remodel a kitchen, reroof a house, or an office tenant improvement doesn't impact the water or sewer system.

Mr. McSweeney stated the proposed fees do not have a true nexus study resulting in many unanswered questions. He requested the Board direct staff to hire a consultant to prepare a legally sufficient nexus study with fresh data and not rely on data that goes back to 2008. The BIA requested the Board postpone action tonight, and when action is taken on fees, that fees be phased in so the market can adjust to this new large cost.

Dave Lanferman, member of the public, addressed the Board stating he is a land use partner at Rutan & Tucker specializing in development fees and mitigation of environmental impacts. He was asked to review the documentation that has been provided to the public in connection

with the proposed increase in these fees. His client, the BIA of San Diego County, and its members are very concerned not just about the increase in these fees, but also on a legal level, with the absence of necessary information to bridge the gap between the District's Master Plan approved earlier this year that identifies capital improvement programs and facilities needed to accommodate both existing development and replacement of aging facilities and to accommodate anticipated needs from future growth. What is missing and legally required is evidence that the cost of building the capital improvement facilities identified in the Master Plan is being allocated fairly and legally between existing users and the cost of replacing equipment or upgrading equipment to meet new regulatory standards which cannot be funded by fees on new development. Only the portion of the capital facilities that is truly caused by needs generated by new housing can be funded through the proposed new fees. He is not disputing the Master Plan's projections of the needs and costs of the facilities, but there is no evidence that shows what portion of those new facilities are costs that can be transferred by way of fees to home builders and new home buyers to meet their needs.

Mr. Lanferman further stated the Master Plan report concedes that there is roughly a 3.57 million gallon per day deficiency at peak water flow in the land outfall system. That deficiency exists now whether or not another a new home is built in the District. Some part of that cost of replacing or upgrading the outfall has to be shared with existing rate payers, property owners, or tax payers. That information can be provided. There is an attempt to do so in Appendix B and C in which footnotes have been added to the end of the Keze report, but those do not describe or explain on what basis portions of these costs were shifted back and forth. This should be easily fixable to demonstrate to the public that these costs are being fairly allocated. This is not the BIA complaining. The state legislature has written it in to the government code 66013 and it's in Proposition 26 approved by the voters in 2010 that a development fee has to be shown to be reasonable with relation to the overall cost of what is being built and it has to be shown to be fairly and proportionately allocated among those who would bear the fees. That's what is missing. He asked the Board to take its time and direct staff to complete and provide the public with the information that is missing to demonstrate to everyone concerned that the cost of building new facilities is being fairly and equitably shared in accordance to the manner required by law. Mr. Lanferman stated he updated a letter he had provided to the Executive Secretary on August 5 and requested the updated letter be included in the record.

Director Evans asked for clarification of cap fee and development fee. General Manager Pruim responded that development fee is a generic term commonly used. From a water and wastewater perspective, the correct term is Capital Facility Fee, which is money the District collects from developers to pay for the impacts their development has on the District's infrastructure. Director Evans asked Mr. Lanferman what he meant when he said development fee. Mr. Lanferman agreed with General Manager Pruim's explanation; however, both terms require a nexus to demonstrate a connection between needs caused by new development and that the cost of meeting those needs is being allocated fairly.

Dr. Lee Brown, member of the public, addressed the Board stating he is rate payer and well-

known hydrologist in the Western United States for 45 years working with hundreds of water districts. He commented on his positive experience working with Tom Scaglione at Cal State San Marcos on the water management program. He has been asked to serve as a scientist consultant to review the documentation concerning the District's Cap Fees.

Jim Simmons, member of the public, addressed the Board stating he has several projects moving forward; however, the high cost of doing the projects is delaying progress and it looks like rates are going to increase to the point where it will kill projects. He expressed his concerns regarding growth rates projected by SANDAG. If the District raises these rates and the growth doesn't happen, what happens to the money? He commented on a nexus situation a few years ago for a project in which a developer said the District was wrong and sued the District, resulting in a settlement. What happens now? We go back into exactly the same nexus study, update it, put a new date on it. It's the same study that was rejected then and it's going to get rejected again. The request from the BIA and people who work in this industry is to be a little more careful this time. Let's look at things directly, see whether or not the projections are accurate, don't overestimate those projections, figure out a mechanism that will collect the fees in a manner that will fit the growth pattern, don't overpay for it and put us in a situation where the District will have money for facilities they don't build. He requested time for the developers to bring some alternatives to the table and let's see if we can get it right this time.

Matt Simmons, member of the public, addressed the Board stating staff is projecting approximately 750 units per year based on the SANDAG numbers and the City of San Marcos' Master Plan versus the reality of the permits that have been released, which is about 400 permits per year. That is a big difference in numbers. He is concerned about how that gets applied. As a local land use developer, he has never seen a point where they've had 750 units come forward per year. Numbers are being used that have never been achieved. He also questioned past debt. It appears that new growth is paying for past dept. If new growth is being asked to pay for its impact on the system, then that's what it should do, not paying for past debt. He noted that this could be a misunderstanding on his part, but it is something he is concerned about and would like to know how exactly that works. He stated he currently has several projects approved by the City of San Marcos, and in moving through the process with Vallecitos, he is not clear on how the implementation of the fees will be handled and how those particular projects are going to be affected. Will there be some sort of grace period for existing projects that have run all their numbers and information off of existing numbers? In some cases, this will turn projects into unbuildable projects which is not anyone's goal. What will the cutoff be for those particular projects to implement the new fee on new development that is not approved, entitled, or shown in the zoning map but actual maps that are approved?

Matt Simmons read statements that Mr. McSweeney did not make earlier. Very little backup has been provided for the treatment plant improvements at Encina which totals over $50 Million. The sewer fee has a component, the pipeline that incorporates a phase five improvement that does not include phase five EDU counts in its calculation. If calculated correctly, this should drop the price per EDU by approximately $3,300. Furthermore, no

backup documentation has been provided stating that infrastructure built for phases one through four will not continue to be used by future development during phase five. Vallecitos is proposing to collect fees for phase five wastewater improvements that have an undefined timeframe of being needed beyond 2035. Vallecitos also identifies water expansion improvements in phase five and is now proposing to include those in the fee calculations. Why does Vallecitos take a different approach on water and sewer? A couple of years ago they were told that the phase five improvements for neither water or sewer were going to be in the fee calculation.

Marlene Walder, member of the public, addressed the Board stating she is a resident of San Marcos since the early 80's and had several different properties, one being a nursery which was connected to the City's water line. When new homes were being built in 1987, she was going to be charged a minimum of $5,000 to move her water line because the existing water line would not hold the number of houses that were to be built. She is neither for or against the rate. Her concern as a rate payer is the General Plan for the City of San Marcos that is being updated now. They are talking about reaching their capacity in the next two to three years of building out the city. What she perceives for the future is not what city planners seem to see. More and more families are doubling up. Ms. Walder lives in a mobile home park that was supposed to limit two people per mobile home per space, built originally single wide, and has now has double and triple wides. As many as seven people are living in the mobile homes which means excessive use of city sewer lines. The infrastructure of her mobile home park has not been upgraded. She's been in other cities where upgrading didn't get done and then it's turned back to all of the home owners. If we have no more houses, how are we dividing up all the expenses to everyone in a good, equitable manner? Houses are being built with 800 square feet for two people, some with more than one bathroom. That puts stress on the sewer as well as the water. Even if they cut back on water, it's still using more. Rate payers are really feeling the pinch right now and yet we're saying so are the developers. The developers need to at least bring all the sewer and water lines and pay for that much to the main sewer and water lines. Every time you add 100 houses, how much larger does the sewer facility have to be? Someone has to pay for it, and it shouldn't be the rate payers who've been paying all along for the existing sewer line.

Mike Hunsaker addressed the Board as President of the Twin Oaks Valley Property Owners Association stating he shares some of the BIA's concerns about the nexus. There is no backup information on fire service and water lines for fire sprinklers or documentation on mobile home park consumption. He is concerned that if new developments use facilities, are they paying their proper share of which there are two components. What needs to be built in the future for their needs and what has been built and paid for ahead of need? There are 416 apartments in a village. One two-inch meter is supposed to serve 10 apartments and there are only 11 meters. How does the District recapture the costs through these service fees if there are not enough meters and the whole study is based on EDUs? A nexus study needs to recapture all costs to include the Twin Oaks Reservoirs, the San Marcos Interceptors, and all other projects that are being started and funded to be built today for the far future. He didn't understand the shortfall argument and thinks it needs to be presented carefully. He is very concerned that the District will be adjusting capacity fees annually. If there is any

increase, a 60-day notice to the public is required. If costs decrease, staff can do that right away on their own volition. How is that legal under Prop 218? Is it policy to cut fees without notice to the public at any point in time? What is the nexus? Why isn't the District charging enough? Why is the District only looking forward and ignoring what people have invested for the future already and should be recompensed?

Director Sannella stated that as Chairman of the Finance Committee, he attended the meeting Mr. Hunsaker referred to when speaking about the annual adjustment of capacity fees. He clarified that the Committee discussed monitoring interest rates more closely and frequently.

Tom Scaglione, member of the public, addressed the Board stating that as proposed, if all assumptions of the rate calculation are correct, the deficit in the developer funds will be paid back to rate payers by 2035, 16 years from now. Only if all the assumptions are correct, will customers get paid back. Significant assumptions include the following: 1) In the first phase, 4,400 water EDUs will be paid for by July 1, 2020 at the higher proposed rate. Less than 1,400 have been paid for to date at the lower existing rate. That means the District needs to collect on 3,000 EDUs within the next 10 months. The District hasn't collected on 3,000 EDUs in the last ten years. 2) Same for sewer, 4,800 EDUs, sewer EDUs will be paid for by July 1, 2020 at the proposed rate but less than 1,600 have been paid for to date at the lower existing rate. 3) The assumed finance rate of Option 3 is less than possible for Vallecitos to obtain according to the District's financial advisor. These aggressive and unachievable assumptions have created a revenue shortfall of scores of millions of dollars. This revenue shortfall is in addition to the developer fund deficit that the District calls a shortfall now and has not been adjusted for in the proposed rates. If these rates, as proposed are adopted, rate payers will never be paid back. Particularly in water CIP, there are no projects to push beyond the planning period to mitigate a revenue shortfall. He further stated it is this agency's explicit intent to continue to finance developer obligations with rate payer cash. There's been no reimbursement resolutions adopted during the budget process that is intent not to debt finance. He sent a letter to the District on May 28 in anticipation of the public hearing then scheduled for June 5 detailing and supporting deficiencies in the rate calculations. The public hearing was postponed. His letter was not responded to while meetings were held in private with developers and the District was in "constant communication with the BIA." As unwilling creditors, rate payers are stakeholders but were excluded from private meetings with developers that resulted in the reduction of the proposed rates. Rates, that before the reduction, were not sufficient to pay back rate payers. Rate payers do not receive the benefit for the money they pay toward developer obligations. Money that rate payers pay toward developer obligations is not a cost of service. Mr. Scaglione asked the Board to make the adjustments suggested in his May 28 letter. He provided a copy of that letter and a copy of his comments for the record.

President Martin stated that due to comments heard today, he would like to continue this item to October 2 when a decision will be made. He stated a workshop meeting will be held on August 29 at 5:00 p.m. for all interested parties.

Director Sannella stated that as the Board must consider staff's recommendation, the BIA's thoughts and disagreements with that recommendation, and members of the public who have their own opinions, a workshop meeting would be prudent to bring all parties together for further discussion and to give staff an opportunity to respond.

19-08-05 MOTION WAS MADE by President Martin, seconded by Director Sannella, and carried unanimously, to continue this item to the October 2, 2019 Regular Board meeting.

ORDINANCE ESTABLISHING ADMINISTRATIVE CHARGES TO RECOVER INDIRECT COSTS FOR FISCAL YEAR 2019-20

Finance Manager Owen stated this item is brought to the Board annually to adopt the ordinance for the overhead rate. The rate was calculated using the same methodology used the previous year which combines the budgeted indirect costs plus employee benefits and divides that number by the direct labor costs. As a result of direct labor costs increasing by more than indirect costs, the proposed overhead rate is going to decrease from 219% in the current year to 217%.

Staff recommended the Board adopt the ordinance establishing the new overhead rate for Fiscal Year 2019-20.

19-08-06 MOTION WAS MADE by Director Hernandez, seconded by Director Evans, and carried unanimously, to adopt the Ordinance.

Ordinance No. 211 - The roll call vote was as follows:

AYES: Elitharp, Evans, Hernandez, Martin, Sannella
NOES:
ABSTAIN:
ABSENT:

SET PUBLIC HEARING FOR REPORT ON DISTRICT WATER QUALITY RELATIVE TO PUBLIC HEALTH GOALS

Operations & Maintenance Manager Pedrazzi stated California Health and Safety Code §116470 requires water utilities with more than 10,000 service connections prepare a special report once every three years if their water quality constituents have exceeded any Public Health Goals (PHGs). PHGs are non-enforceable goals established by the California EPA's Office of Environmental Health Hazard Assessment (OEHHA). The law also requires that where OEHHA has not adopted a PHG for a constituent, the water suppliers are to use the Maximum Contaminant Level Goals (MCLGs) adopted by USEPA. Only constituents which have a California primary drinking water standard and for which a PHG or MCLG has been established need to be addressed.

Operations & Maintenance Manager Pedrazzi further stated the law requires a public hearing be held for the purpose of accepting and responding to public comment on the report. The law also requires the report be made available to the public at least 15 days prior to the acceptance of the report. The report will be available at the District office for public review.

Staff recommended the Board set the public hearing for September 4 as part of the Regular Board meeting.

19-08-07 MOTION WAS MADE by Director Sannella, seconded by Director Evans, and carried unanimously, to set the public hearing for September 4.

CALL FOR BALLOTS - SAN DIEGO COUNTY CONSOLIDATED REDEVELOPMENT OVERSIGHT BOARD

General discussion took place regarding the nominees listed on the ballot for the San Diego County Consolidated Redevelopment Oversight Board. Director Evans endorsed Mitch Thompson of Otay Water District.

19-08-08 MOTION WAS MADE by Director Evans, seconded by President Martin, and carried unanimously, to support Mitch Thompson for the San Diego County Consolidated Redevelopment Oversight Board.

REPORTS

GENERAL MANAGER

General Manager Pruim reported the following:

- On August 4 District wastewater crews started routine sewer cleaning along San Marcos Boulevard. The City of San Marcos requires work on high volume roads be performed at night between 6:00 p.m. to 3:00 a.m. Night sewer cleaning will also be done in Rancho Santa Fe, Mission, Los Posas, and a few other areas, and should be completed by the end of this week.
- Fallbrook Public Utility District (FPUD) and Rainbow Municipal Water District (RMWD) have expressed their desire to detach from the San Diego County Water Authority's (SDCWA) service area. He recently received an email from the SDCWA's Interim General Manager, Sandy Kerl, to all General Managers of the member agencies expressing what the cost impacts to those remaining member agencies may be. The SDCWA performed a worse-case analysis in which FPUD and RMWD don't pay an exit tax and the cost for the facilities that were built to support all of the member agencies, including FPUD and RMWD, are now borne by the remaining agencies. The SDCWA estimates it would be a $13.5 Million per year total impact to the remaining agencies. Vallecitos alone would pay approximately $.5 Million extra per year if the FPUD and RMWD departures go through and they don't pay any exit tax.

- There is a potential leak in SDCWA's Pipeline 4 located in Aqueduct 2 which distributes treated water. Vallecitos receives the majority of its treated water through that connection. A firm shutdown of Pipeline 4 has not been scheduled yet. In the meantime, affected agencies are filling their reservoirs. The shutdown will last approximately ten days. In addition to filing the District's reservoirs, staff is replacing a valve connection that goes to Aqueduct 1.

DISTRICT LEGAL COUNSEL

Legal Counsel Gilpin offered to provide the Board further information about the possible impacts from the de-annexation of FPUD and RMWD as outlined in the SDCWA's email if they so desired. It will be a lengthy process during which LAFCO will need to assess the impacts on the remaining agencies.

Legal Counsel Gilpin stated President Trump signed the American Water Infrastructure Act last October which will trigger the District's compliance with assessing different sources of vulnerability to its system.

SAN DIEGO COUNTY WATER AUTHORITY

Director Evans reported the Imported Water Committee updated the SDCWA's Bay Delta policy to include the portfolio approach that Governor Newsom is considering. SDCWA awarded a contract to Black & Veatch to implement the first scope of work for the new conveyance system which will include three possible routes. Metropolitan updated their emergency storage after the recent earthquake and determined that a 7.8 earthquake will now cause a longer than six-month duration in a break. Metropolitan is recommending increasing emergency storage to 124,000-acre feet in storage capacity which put us at 750,000 in total. The SDCWA wants to increase its outreach to their member agencies and has amended its contract with Strategic Communications and contracted with two other communications firms in this regard.

ENCINA WASTEWATER AUTHORITY

Director Hernandez stated the Capital Improvement Committee meeting has not met since the last Board meeting.

President Martin stated the Policy and Finance Committee will meet on August 13.

STANDING COMMITTEES

Director Sannella stated the Finance/Investment Committee met on July 29 at which the Committee discussed capacity fees, the Cost of Service Study, status of PERS payments, and received an update on the overhead rate.

President Martin stated that the Ad Hoc Committee met on July 23 during which they toured the hillside property adjacent to the District office.

DIRECTORS REPORTS ON TRAVEL/CONFERENCES/SEMINARS ATTENDED

President Martin reported on his attendance to the Meet the Elected Officials event at Palomar College on July 25 and the ACWA Region 10 Program on July 30.

Director Hernandez reported on his attendance to the Southern California Water Coalition luncheon on July 19.

Directors Evans reported on her attendance to the ACWA Region 10 Program on July 30.

OTHER BUSINESS

None.

DIRECTORS COMMENTS/FUTURE AGENDA ITEMS

None.

ADJOURNMENT

There being no further business to discuss, President Martin adjourned the Regular Meeting of the Board of Directors at the hour of 7:09 p.m.

A Regular Meeting of the Vallecitos Water District Board of Directors has been scheduled for Wednesday, August 21, 2019, at 5:00 p.m. at the District office, 201 Vallecitos de Oro, San Marcos, California.

_____

Hal J. Martin, President
Board of Directors
Vallecitos Water District

ATTEST:

_____

Glenn Pruim, Secretary
Board of Directors
Vallecitos Water District

MINUTES OF A REGULAR MEETING OF THE BOARD OF DIRECTORS
OF THE VALLECITOS WATER DISTRICT
WEDNESDAY, AUGUST 21, 2019, AT 5:00 PM AT THE DISTRICT OFFICE,
201 VALLECITOS DE ORO, SAN MARCOS, CALIFORNIA

President Martin called the Regular meeting to order at the hour of 5:00 p.m.

Director Hernandez led the pledge of allegiance.

Present: Director Elitharp
Director Evans
Director Hernandez
Director Sannella
Director Martin

Staff Present: Legal Counsel Gilpin
Administrative Services Manager Emmanuel
District Engineer Gumpel
Operations & Maintenance Manager Pedrazzi
Development Services Senior Engineer Scholl
Accounting Supervisor Glenn
Information Technology Supervisor Labarrere
Risk Management Supervisor, Trisha Woolslayer
Source Control Technician, Corey Harrell
Public Information/Conservation Supervisor Robbins
Executive Secretary Posvar

ADOPT AGENDA FOR THE REGULAR MEETING OF AUGUST 21, 2019

19-08-09 MOTION WAS MADE by Director Sannella, seconded by Director Evans, and carried unanimously, to adopt the agenda for the Regular Board Meeting of August 21, 2019.

PUBLIC COMMENT

Mike Hunsaker, member of the public, addressed the Board stating SB 606 is passed which requires plans for a 55 gallon per day per capita rationing. This affects the Master Water Plan and the Urban Water Plan greatly. This is regulatory nightmare, especially since single family dwellings are going to be the most impacted. There is immediate plans to start fining districts. I think it is imperative that the District start indicating to the public how it wants to proceed, that plays into the Master Water and the Urban Water Plans.

PRESENTATION

Public Information/Conservation Supervisor Robbins presented a series of videos developed by the San Elijo Joint Powers Authority and customized for the Vallecitos Water District.

CONSENT CALENDAR

19-08-10 MOTION WAS MADE by Director Hernandez, seconded by Director Elitharp, and carried unanimously, to approve the Consent Calendar as presented.

1.1 Approval of Minutes

A. Closed Session Board Meeting – August 7, 2019

1.2 Warrant List through August 21, 2019 - $1,147,729.21

1.3 Financial Reports

A. Water Meter Count – July 31, 2019
B. Water Production/Sales Report – 2019/2020
C. Per Capita Water Consumption – July 31, 2019
D. Water Revenue and Expense Report – July 31, 2019
E. Sewer Revenue and Expense Report – July 31, 2019
F. Reserve Funds Activity – June 30, 2019 (Revised)
G. Reserve Funds Activity – July 31, 2019
H. Investment Report – July 31, 2019

1.4 Sewer System Management Plan (SSMP) Update

1.5 Authorization to Execute a Purchase Agreement for Microsoft Enterprise Licensing

1.6 Final Acceptance of Water Improvements for Rancho Coronado MU-4 Site Sunstone Drive – APNs 222-170-36, 222-170-37 & 222-190-17 (Brookfield Homes – Rancho Coronado, LLC)

1.7 Request for Water and Sewer Annexation for Certain Property Designated as "John de Maria Water and Sewer Annexation" APN 219-062-27 into Vallecitos Water and Sewer Improvement District "A"

Mr. Hunsaker addressed item 1.4, Sewer System Management Plan Update, stating the plan is State mandated. The District has one main sewer line that is in poor repair, which is the emergency overflow system. Have had failures in two years, one is truly massive and two other failures in this line. There has been an incredible lack of response. Some of the underground breaks managed to be identified by staff. Only 2,000 gallons was spilled. Somehow all of this was recovered with an underground pipe next to a creek. The original break in 2017 was covered in great detail, but no real detail on subsequent breaks. One section of the line is made of Tech Tight with massive manufacturing problems that needs to be replaced immediately. Another section of the line is corroded metal. These three should had been reported somewhere in the Master

Sewer Plan and documented carefully and some remedial action taken other than making patches. This pipeline needs to be replaced now and more transparency is needed in this Master Plan.

Mr. Hunsaker addressed item 1.7, Request for Water and Sewer Annexation for Certain Property Designated as "John De Maria Water and Sewer Annexation into Vallecitos Water and Sewer Improvement District "A" stating VWD has been considering doing some annexations as is Vista Irrigation and it is his understanding if boundaries are adjusted with annexations you have to go through LAFCO. He didn't see any reference to that in the staff report. He liked that fees are paid at the close time of purchase. It also indicates delays can cost real money for developers and rate payers.

ACTION ITEMS

THE ASSOCIATION OF CALIFORNIA WATER AGENCIES (ACWA) COMMITTEE APPOINTMENT NOMINATIONS FOR THE 2020-2021 TERM

President Martin indicated that Director Hernandez has participated on the Groundwater Committee, Director Elitharp has participated on the Energy and Water Quality Committees, and President Martin has participated on the Membership Committee.

MOTION WAS MADE by Director Evans, seconded by Director Hernandez, and carried unanimously, to approve Directors Hernandez, Elitharp and Martin remaining on their respective committees.

ASSOCIATION OF CALIFORNIA WATER AGENCIES REGION 10 ELECTION FOR THE 2020-2021 TERM

Director Evans indicated that she would like to remain her position on the ACWA Region 10 Board.

MOTION WAS MADE by Director Martin, seconded by Director Hernandez, and carried unanimously, to approve Director Evans remaining on the ACWA Region 10 Board.

CALL FOR NOMINATIONS TO THE LOCAL AGENCY FORMATION COMMISSION (LAFCO) SPECIAL DISTRICTS ADVISORY COMMITTEE

The Board took no action on this item.

ORDINANCE NO. 210, BUSINESS OF THE BOARD

District Engineer Gumpel stated that at the August 7 Board meeting, the Board requested that the Southern California Water Coalition be added to the District's list of approved memberships for membership as well as per diem purposes. There are various membership levels ranging from founding member to a basic member.

19-08-11 MOTION WAS MADE by President Martin, seconded by Director Hernandez, and carried unanimously, to select the basic membership.

Ordinance No. 212 - The roll call vote was as follows:

AYES: Elitharp, Evans, Hernandez, Sannella, Martin
NOES:
ABSTAIN:
ABSENT:

REPORTS

GENERAL MANAGER

District Engineer Gumpel provided on update on the leak in pipeline number 4 as well as the location. SDCWA is scheduled to start the shutdown on September 9 unless they do not get the material in time. The pipe will be blocked at both ends so the actual leak can be repaired. This will allow them to get raw water from the Twin Oaks Treatment Plant and produce potable water for the county. It's a ten-day shutdown and is scheduled to start on September 9, however, if they do not have the material in hand by September 4th or 5th, they will reschedule. Operations Manager Ed Pedrazzi, General Manager Pruim, and Chris Robbins are working on information to provide to the public indicating this is a SDCWA event. The initial step will be for voluntary cutback during this period of time. Staff will monitor the situation as this moves forward.

DISTRICT LEGAL COUNSEL

Legal Counsel Norvell provided a brief overview regarding prevailing wage requirements and when they do and do not apply. The public works prevailing wage requirement is broader than general public bidding requirements. There are a lot of projects that can be done that do not require bidding but do require prevailing wage. The prevailing wage requirement applies to everything that is considered a public work under the labor code. That's work that is done under contract, it's construction, alteration, demolition, installation, and repair work as well as maintenance. It is paid for in whole or in part out of public funds. Public funding is extremely broad and the legislature has gone back time and time again to make sure that it's written very broadly. This includes things such as a transfer for less than fair market value, providing a loan with an interest rate that's below market, essentially any subsidy of any kind that is not deminimous when considering the whole scope of the project.

SAN DIEGO COUNTY WATER AUTHORITY

Director Evans stated that the Board meeting is tomorrow. The SDCWA sent out key points regarding the pipeline fix.

ENCINA WASTEWATER AUTHORITY

Director Hernandez reported on his attendance to the Capital Improvement Committee this morning at which discussion took place on the 84" outfall prep line repairs with little delamination of the liner and some minor exposed concrete. The time table is being moved up on inspections from the mandatory six years to three years. Talked about the bypass – a change order was made. Got a wall that was weeping out of a bit. They will have to take out a 60 foot, a 15 foot, wall, concrete, grout, rebar and the support beam. A workshop will take place on the South Parcel and an update on the Bio management plan in October. Staff is asking the City of Carlsbad for a variance because there is a $60,000 maximum expense on the improvements before they have to go to the Coastal Commission. They have asked for a waiver.

President Martin reported on his attendance to the Policy and Finance Committee on August 13. Have had an amount of interest in the South Parcel as to who wants to use it and what they want to use it for. They are still in negotiations with many but there are certain parameters of what they can or cannot do.

STANDING COMMITTEES

None.

DIRECTORS REPORTS ON TRAVEL/CONFERENCES/SEMINARS ATTENDED

Director Hernandez reported on his attendance to the Urban Water Institute Conference, and the CSDA S.D. Chapter Quarterly Meeting.
Directors Sannella, Elitharp and Martin reported on their attendance to the Urban Water Institute Conference.

OTHER BUSINESS

None.

DIRECTORS COMMENTS/FUTURE AGENDA ITEMS

None.

ADJOURNMENT

There being no further business to discuss, President Martin adjourned the Regular Meeting of the Board of Directors at the hour of 5:37 p.m.

A Board Workshop Meeting of the Vallecitos Water District Board of Directors has been scheduled for Thursday, August 29, 2019, at 5:00 p.m. at the District office, 201 Vallecitos de Oro, San Marcos, California.

Hal J. Martin, President
Board of Directors
Vallecitos Water District

ATTEST:

Glenn Pruim, Secretary
Board of Directors
Vallecitos Water District

VALLECITOS WATER DISTRICT
WARRANTS LIST
September 4, 2019

PAYEE	DESCRIPTION	CHECK#	AMOUNT
CHECKS			
AT&T	Internet Svc - Aug	117076	93.58
AT&T	Phone Svc - Jul	117077	1,914.51
Home Depot Credit Services	Hardware Supplies - Jul	117078	1,707.29
San Diego Gas & Electric	Power - Jul	117079	5,251.44
Staples Advantage	Office Supplies - Jul	117080	394.66
Union Bank	Meetings & Travel - Jul	117081	4,301.78
Union Bank	Meetings & Travel - Jul	117082	5,725.28
Union Bank	Meetings & Travel - Jul	117083	4,978.17
Verizon Wireless	Ipads 3 Prj 20201-4	117084	970.08
Action Mail	Fall Splash Prj 20201-40	117085	6,960.60
ACWA	Region 10 Meeting - Betty Evans	117086	80.00
ACWA/Joint Powers Insurance	Group Insurance Sep	117087	213,864.05
Airgas USA LLC	Cylinder Rental	117088	125.92
Allied Universal Security Svcs	Weekly Deposit Svc - Jun	117089	72.08
Ambius	Plant Maintenance - Jul	117090	263.00
AT&T	Phone Svc SCADA - Aug	117091	362.39
AT&T	Phone Svc - Aug	117092	21.67
Backflow Solutions, Inc.	Backflow Tests Jul - Qty 280	117093	3,626.00
Best Best & Krieger	Legal Svcs - May & Jun	117094	37,624.64
Bombardier Mass Transit Corporation	Roadway Protection Training - 2 Employees - R Kincaid, R Rodarte	117095	324.12
Boncor Water Systems	Soft & Drinking Water Svc - Aug	117096	1,726.00
Bonsall Petroleum Constr Inc	Fuel Island Annual Testing	117097	1,742.41
Boot Barn	Safety Boots	117098	295.44
BRG Consulting Inc	District Wide Solar Project	117099	3,860.00
Brookfield Land Construction Inc.	Paving Svcs - South Lake Pump Station	117100	10,405.82
Burtech Pipeline Incorporated	Rock Springs Sewer Prj 90003	117101	122,132.50
California Special Dist Assn.	Meeting 8-15-19, Sannella, Hernandez, Martin	117102	90.00
City of Carlsbad	Quarterly Sewer Svcs	117103	6,674.40
City of Carlsbad	Overpayment Refund	117104	7,781.71
Chandler Asset Management, Inc.	Investment Management Svcs- Jul	117105	3,832.09
Jeffrey Colwell	Video Production Svcs Prj 20201-41	117106	577.50
Core Logic Information Solutions Inc	Real Quest Svc - Engineering Maps - Jul	117107	206.00
Coro Data Media Storage Inc	Back Up Storage Tape - Jul	117108	193.75
County of San Diego	Recording Fees - Jul	117109	56.00
CWEA	Membership & Electrical Instrumentation Cert - D Joiner	117110	286.00
DirecTV Inc	Satellite Svc - Aug	117111	190.53
EDCO Waste & Recycling Serv	Trash Svc & Tree Disposal - Jul	117112	1,411.78
Emcor Service	HVAC Preventive Maintenance	117113	3,562.50
Encina Wastewater Authority	Sewer Testing	117114	19,804.00
Eurofins Eaton Analytical Inc	Algae Analysis Mahr	117115	210.00
Freeway Trailer Sales	Fleet Supplies	117116	109.48
G & R Auto & Truck Repair Inc	Repairs & Belt Veh 213	117117	367.17
G & W Truck Accessories	Steps - Small Dump Trucks - Veh 283 & 282	117118	541.25
Global Equipment Company Inc.	Water Bottle Refilling Station	117119	1,163.65
Harris	GEMS Upgrade	117120	500.00
Harris	Utilization Review -NorthStar	117121	2,977.50
James R Hernandez	COWU Meeting 7-16-19, CSDA Meeting 8-15-19	117122	65.12
Infrastructure Engr Corp	Rock Springs Sewer Prj 90003	117123	1,562.50
Interstate Batteries	Vault Batteries 11, Backup Batteries for SCADA System 6	117124	746.93
JCI Jones Chemicals Inc	Chlorine	117125	6,129.63
Justin Shutt	Class A CDL License Renewal	117126	78.00
Ken Grody Ford	Thermostat Repairs - Veh 254 - MRF	117127	410.14
Knight Security & Fire Systems	Answering, Patrol, Monitoring Svc - Aug	117128	588.19
Lito Santos	Self Improvement Program	117129	970.85
Lloyd Pest Control	Pest Control - Jul	117130	1,281.00
Major League Pest	Bee Removals - 2	117131	250.00
Mallory Safety & Supply, LLC	Safety Supplies, Suspension Equipment Replacement - MRF	117132	4,195.48
Hal Martin	ACWA Region 10 Meeting 7-30-19	117133	54.52

VALLECITOS WATER DISTRICT
WARRANTS LIST
September 4, 2019

PAYEE	DESCRIPTION	CHECK#	AMOUNT
Matheson Tri-Gas Inc	Cylinder Rental	117134	56.74
Mike Arthur	Prop 218 Training 7-25-19	117135	70.76
Morton Salt, Inc.	Industrial Salt - MRF	117136	3,496.66
North County Auto Parts	Fleet Supplies - Jul	117137	2,839.65
Ostari Inc	IT Support & Duo Software Support - Aug	117138	3,204.48
Parkhouse Tire Inc	Tires 4 -Veh 200	117139	586.43
Pencco, Inc.	Sulfend RT	117140	30,400.36
Plumbers Depot Inc	Sewer Hose, Hardware Supplies	117141	2,474.12
Raymond Allyn Business Supplies	Monitor Arm & Ergonomic Chair	117142	970.77
Rely Environmental	Plant Maintenance - Jul	117143	399.00
Rick Post Welding	Welding Svcs	117144	3,250.00
Rusty Wallis Inc	Soft Water Svc - Aug	117145	220.00
Safety-Kleen Systems Inc	Parts Washer Rental - Aug	117146	402.44
SDG&E	Power - Jul	117147	67,909.61
Shred-It US JV LLC	Shredding Svcs - Jul	117148	192.58
Southern Counties Lubricants, LLC	Diesel Fuel	117149	1,265.72
Spatial Wave Inc	Field Mapplet Annual Support 19-20	117150	3,400.00
Standard Insurance Company	LIFE, LTD & ADD Insurance - Aug	117151	6,920.53
Terra Verde Energy LLC	District Solar Project Jul	117152	13,830.63
Total Resource Mgt Inc	Maximo Support - Jul, Maximo Subscription & Support Renewal 19-20	117153	76,069.00
Uline Inc	Hardware Supplies	117154	160.26
Underground Service Alert	Dig Alert Svc, CA State Fee/Regulatory Costs - Jul	117155	545.17
Union-Tribune Publishing Co.	Advertising Svcs - Jul	117156	238.80
Univar USA Inc	Sodium Bisulfite, Caustic Soda	117157	5,520.87
Versatile Systems Inc.	Water Tank Fall Support Protection System Prj 20191-4	117158	64,307.20
Vortex Industries Inc	Employee Gate Repair	117159	420.00
Walters Wholesale Electric	Hardware Supplies	117160	218.04
Waxie Sanitary Supply	Cleaning Supplies	117161	359.35
Wearever Inspection Products, Inc	CCTV Wheels - 6	117162	606.80
Tri-City Emergency Medical Group	Medical Svcs - Jul	117163	95.00
Xerox Corporation	Copier Lease - Jul	117164	5,281.32
Garnishments	Payroll Garnishment	117165	-
Ababa Bolt Inc	Hardware Supplies	117166	22.67
Aqua-Metric Sales Co	Meters 69, Meter Registers 100	117167	25,721.25
Garnishments	Payroll Garnishment	117168	-
Blue Wave Security	Warehouse Door Access Reader, Door Access Control System - MRF & Mahr	117169	2,472.49
CDW Government Inc	Varonis Software Subscription & Support 19-20, Monitor Prj 20151-2	117170	7,915.44
Electrical Sales Inc	Fan - LS 1, Fans 7- MRF, Hardware Supplies Prj 20181-9, 20201-4	117171	4,069.03
Employment Screening Services Inc	Employment Screening	117172	80.50
Fisher Scientific LLC	Lab Supplies - MRF	117173	611.48
Grainger Inc	Safety T-Shirts - 155, Air Compressor, Pressure Washer - MRF, Hardware Supplies	117174	5,230.78
Grangetto's Farm Garden Supply	Weed Killer Herbicide	117175	488.56
Haaker Equipment Co.	Vactor Switch & Bearing Repair, Hardware Supplies	117176	3,611.46
Hach Company	Solids Line Probe - MRF	117177	9,781.55
Garnishments	Payroll Garnishment	117178	-
Laser Cut Concrete Cutting Inc	Core Drilling - MRF Influent Pump Replacements Prj 20181-09	117179	400.00
Mission Resource Conservation District	Water Use Evaluations 11 Prj 20201-43	117180	637.50
One Source Distributors LLC	Canvas Tool Buckets 6, Memory Cards 6	117181	1,235.88
Pacific Pipeline Supply	Carlsbad Line Valve Replacement Parts Prj 20161-4, Warehouse Brass Supply Restock	117182	12,294.18
Schmidt Fire Protection Co Inc	Quarterly Sprinkler Maintenance	117183	975.00
Hadronex, Inc	Smart Cover 2 Year Support Agreement	117184	10,594.55
Steel-Toe-Shoes.com	Safety Boots	117185	94.81
Traffic Safety Solutions LLC	Traffic Control - Multi Lane Closure - San Marcos Blvd & Rancho Santa Fe Rd	117186	1,650.00
Traffic Supply Inc	Traffic Control Supplies	117187	354.50
Unifirst Corporation	Uniform Delivery	117188	2,390.55
Weck Analytical Environmental Services, Inc.	Regulatory Sampling - Water	117189	690.00
ACWA/Joint Powers Insurance	Property Insurance 19-20	117190	49,888.59
Left Coast Window Cleaning	Janitorial Svcs Aug - MRF	117191	553.13

VALLECITOS WATER DISTRICT
WARRANTS LIST
September 4, 2019

PAYEE	DESCRIPTION		CHECK#	AMOUNT
Major League Pest	Bee Removal		117192	125.00
Petty Cash Custodian	Petty Cash		117193	900.14
Trugrit Traction, Inc.	Wheels 6 - CCTV Vehicle		117194	606.80
Weck Analytical Environmental Services, Inc.	Regulatory Sampling - Water		117195	2,340.00
Total Disbursements (117 Checks)				937,139.23
WIRES				
San Diego County Water Authority	July Water Bill		Wire	2,771,969.86
Public Employees Retirement System	Retirement Contribution - August 28, 2019 Payroll		Wire	75,214.00
Total Wires				2,847,183.86
PAYROLL				
Total direct deposits			Wire	243,275.60
VWD Employee Association			117165	564.00
Payroll & Garnishments		117168 ar	117178	1,074.76
IRS	Federal payroll tax deposits		Wire	96,096.41
Employment Development Department	California payroll tax deposit		Wire	18,571.42
CalPERS	Deferred compensation withheld		Wire	22,471.69
VOYA	Deferred compensation withheld		Wire	8,082.32
Total August 28, 2019 Payroll Disbursements				390,136.20
TOTAL DISBURSEMENTS				4,174,459.29

BETWEEN THE PIPES

VALLECITOS WATER DISTRICT
Water and Wastewater Specialists since 1955
FALL 2019

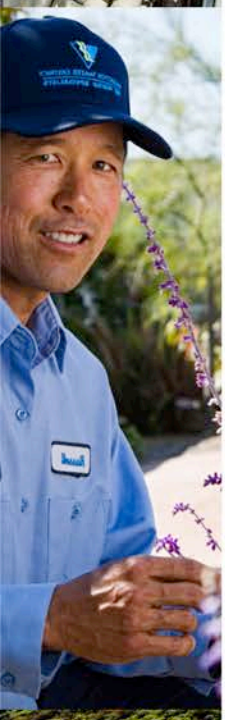
Vallecitos Water District Invokes Water Shortage Contingency Plan Level 1 Asking for Voluntary Water Conservation Efforts Due to SDCWA Repairs to 90-inch Diameter Drinking Water Pipe

As “Between the Pipes” goes to press, the Vallecitos Water District (VWD) is preparing for a large water supply shut down which will impact customers. The San Diego County Water Authority is preparing to launch a major project to fix a leak in Pipeline 4 in the Moosa Canyon area of Bo - sall. Pipeline 4 is a 90-inch diameter pipeline that provides treated water throughout San Diego County, including the Vallecitos Water District. Pipeline 4 will be shut down for up to 10 days. The shutdown likely will start on September 9, 2019, however, these dates may be adjusted depending on the severity of the pipeline leak or dangerous weather conditions.

VWD is asking customers to restrict outdoor irrigation to the MAXIMUM EXTENT POSSIBLE beginning September 9, 2019, through the duration of the shutdown. Customers should also refrain from other outdoor water uses such as: washing vehicles and filling fountains, pools, spas or ponds. Please remember to turn off all outside irrigation/lawn timers during the water use restriction time period. Livestock can continue to be watered.

VWD has already implemented strategies to mitigate the impacts of this shutdown. The District filled its 19 reservoirs with over 120 million gallons of water to get the District and our customers through this difficult shutdown. To learn more about the District’s water storage facilities, please consider attending our Fall 2019 Water Academy. Information about the Water Academy can be found on Page 2.

Additionally, in August, staff replaced an aging 18-inch valve to insure a separate drinking water supply pipe would have full flow during the shutdown. Information and updates regarding the shutdown can be found on our Facebook and Twitter accounts as well as at www.vwd.org.



VALLECITOS WATER DISTRICT
Water and Wastewater Specialists since 1955

'Water Academy' Tour

Vallecitos Behind-the-Scenes 'Water Academy' Tour
October 10, 2019 from 8:30am - 4:30pm.

Have you ever wondered how your drinking water is treated and delivered to your home or business, or how the water from your toilets and sinks is recycled to such high standards that it can be used for irrigation? You can have these and more questions answered by getting a behind-the-scenes look during our FREE award winning Water Academy tour.

Our certified water and wastewater specialists offer customers a first-hand look at what it takes to operate the Vallecitos Water District and provide reliable, exceptional and sustainable water and wastewater services to the more than 100,000 residents in our service area. Participants board a chartered bus for a first-hand look at the District's 33-million-gallon and 40-million-gallon capacity Twin Oaks Reservoirs, currently said to be the largest of their kind in the world. The grand finale of the tour is a visit to the District's Meadowlark Water Reclamation Facility in Carlsbad, capable of recycling up to 74% of the wastewater generated in our service area. At this facility, participants learn how microorganisms help clean the water and see how increased capacity from the recent plant upgrade benefits the community by lowering the overall demand for limited, imported water.

In addition to these destinations, other tour highlights include seeing how specialized equipment is used in the field to keep the wastewater flowing, visiting the Water Operations Department's computerized control room to see how the District ensures that the drinking water is safe, and touring the Sustainable Demonstration Garden where participants will learn easy steps to conserve water. Various presentations will also be given at the beginning of the tour where participants

District staff takes customers on a tour of Meadowlark Reclamation Facility

will hear an overview of the District and have an opportunity to have questions answered by staff and District Board members.

From conservation-leading, forward-thinking projects like the Meadowlark plant upgrade to the unique educational aspect of the Water Academy tour itself, Vallecitos Water District has proven itself a community leader ready to use out-of-the-box thinking to meet its customers' demands.

The tour begins at the District's Administrative Offices located at 201 Vallecitos de Oro, San Marcos.

Vallecitos customers or members of the media interested in participating in the next Water Academy tour are welcome to contact Alicia Yerman at (760) 752-7123 or register online at www.vwd.org/wateracademy.

We Are Your Water and Wastewater Specialists

providing exceptional and sustainable services

Vallecitos employees were recently recognized for reaching milestone service anniversaries. Thirty employees had a combined total of 355 years of service to the District with three of these employees having 90 years of service among them. Many also have additional public service experience with other agencies.

This exemplifies that our sta f have extensive experience delivering reliable water and wastewater service to our customers, are happy with their careers at Vallecitos, take pride in their work, and love to work in the water industry.

Thank you to all District employees for your continued dedication to our community!

From left to right: Michael Simmons, Construction Inspector II; Corey Harrell, Source Control Technician; and Ed Pedrazzi, Operations and Maintenance Manager have a combined 90 years of experience at Vallecitos.

The District will continue to provide exceptional and sustainable services by:

- Proactively, innovatively, and continuously improving the quality and efficiency of ou operations and service;
- Supporting and retaining highly trained staff that is knowledgeable, engaged, team oriented and responsive to the community and other agencies;
- Providing support for the good of the region to remain a respected and active industry partner, and;
- Providing continuous outreach and education to our customers on issues and topics that impact the services we provide and our role as water and wastewater specialists.

VALLECITOS WATER DISTRICT
Water and Wastewater Specialists since 1955

201 Vallecitos de Oro
San Marcos, CA 92069
(760) 744-0460
www.vwd.org

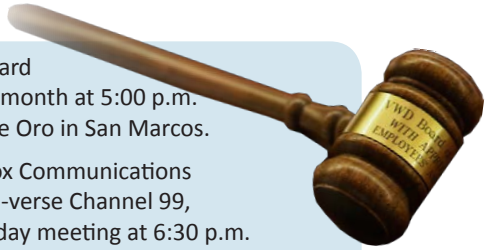
BETWEEN THE PIPES

Between the Pipes is a publication of information and interest to Vallecitos water and sewer customers. If you receive water or sewer services from another district, please disregard any information that does not apply to you.

PRSRT STD
U.S. Postage
PAID
San Diego, CA
Permit no 906

ECRWSS

Postal Customer



The public is welcome to attend the Vallecitos Board Meetings the first and third Wednesday of each month at 5:00 p.m. in the Administration building—201 Vallecitos de Oro in San Marcos.

Meetings are also aired on San Marcos TV on Cox Communications Channel 19, Time Warner Channel 24 or AT&T U-verse Channel 99, which air on the Monday following the Wednesday meeting at 6:30 p.m. Visit www.san-marcos.net/smtv for programming schedule.

"Like us" on Facebook or follow us on Twitter @vallecitoswater

Seasonal Adjustments for Sprinklers

Many people do not realize that plants have different irrigation needs depending on the time of year and the corresponding season. During the spring, grass and plants need a lot of water to help them grow. In the summer, they need even more water to sustain the growth that was put on in the spring, and the extra water helps to keep the plant cool.

As autumn approaches, plants and grass need less water due to reduced solar radiation. Plants are preparing to go into the winter dormancy phase of their life. So, don't forget to reduce the run times on your irrigation timer. Doing this can save money on your monthly utility bill by reducing unnecessary water consumption.

If you need help doing this, sign up for a free landscape irrigation audit. For more information, go to www.vwd.org/landscapeaudit.

DATE: SEPTEMBER 4, 2019
TO: BOARD OF DIRECTORS
SUBJECT: PUBLIC HEARING REGARDING A REPORT ON DISTRICT WATER QUALITY RELATIVE TO PUBLIC HEALTH GOALS

BACKGROUND:

The California Health and Safety Code §116470[1] specifies that water utilities with more than 10,000 service connections prepare a special report by July 1, 2019 if their water quality measurements have exceeded any Public Health Goals (PHGs). PHGs are non-enforceable goals established by the Cal-EPA's Office of Environmental Health Hazard Assessment (OEHHA). The law also requires that where OEHHA has not adopted a PHG for a constituent, the water suppliers are to use the Maximum Contaminant Level Goals (MCLGs) adopted by USEPA. Only constituents which have a California primary drinking water standard and for which either a PHG or MCLG has been established need to be addressed[4].

The PHG Report was provided to the public for their review at the regular Board meeting on August 7th. The Board set the required Public Hearing for September 4th for the purpose of accepting and responding to public comment on the Report.

DISCUSSION:

There are several constituents that are routinely detected in water systems at levels usually well below the drinking water standards for which no PHG nor MCLG has yet been adopted by OEHHA or USEPA including Total Trihalomethanes. These will be addressed in a future required report after a PHG has been adopted. California Health and Safety Code §116470 specifies what information is to be provided in the report.

If a constituent was detected in the District's water supply between 2016 and 2018 at a level exceeding an applicable PHG or MCLG, this report provides the information required. Included is the numerical public health risk[2] associated with the Maximum Contaminant Level (MCL) and the PHG or MCLG, the category or type of risk to health that could be associated with each constituent, the best treatment technology available that could be used to reduce the constituent level, and an estimate of the cost to install that treatment if it is appropriate and feasible.

What Are PHGs?

PHGs are set by the Cal-EPA's OEHHA and are based solely on public health care considerations. None of the practical risk-management factors that are considered by the USEPA or the State Water Resources Control Board (SWRCB) in setting drinking water standards (MCLs) are considered in setting the PHGs. These factors include analytical detection capability, treatment technology availability, benefits and costs. The PHGs are not enforceable and are not required to be met by any public water system. MCLGs are the federal equivalent of PHGs.

Water Quality Data Considered:

All of the water quality data collected by our water system, including data provided by the Metropolitan Water District of Southern California, the San Diego County Water Authority, Olivenhain Municipal Water District, Carlsbad Desalination Plant and the City of Oceanside, between 2016 and 2018 for determining compliance with drinking water

standards was considered. This data was summarized in our 2016, 2017 and 2018 Consumer Confidence Reports which were mailed to and/or made available electronically for all of our customers in compliance with the California Health and Safety Code §116470[1].

Guidelines Followed:

The Association of California Water Agencies (ACWA) formed a workgroup which prepared guidelines for water utilities to use in preparing these required reports. The ACWA guidelines were used in preparation of this report. No guidance was available from or provided by state regulatory agencies.

Best Available Treatment Technology and Cost Estimates:

Both the USEPA and SWRCB adopt what are known as BATs or Best Available Technologies which are the best known methods of reducing contaminant levels to the MCL. Implementation of these technologies can be extremely expensive and, depending on the water available, can be cost prohibitive. Costs can be estimated by utilizing various pilot studies and reports. However, since many PHGs and all MCLGs are set much lower than the MCL, it is not always possible or feasible to determine what treatment is needed to further reduce a constituent downward to or near the PHG or MCLG, many of which are set at zero. Estimating the costs to reduce a constituent to zero is difficult, if not impossible because it may not be possible to verify, by analytical means, that the level has been lowered to zero. In some cases, installing treatment to reduce very low levels of one constituent may have adverse effects on other aspects of water quality.

Constituents Detected That Exceed a PHG or an MCLG:

The following is a discussion of constituents that were detected in one or more of our drinking water sources at levels above the PHG, or if no PHG, above the MCLG.

Arsenic:

Arsenic is a naturally occurring element in the earth's crust and is very widely distributed in the environment. All humans are exposed to microgram quantities of arsenic (inorganic and organic) largely from food (25 to 50 µg/day) and to a lesser degree from drinking water and air. In certain geographical areas, natural mineral deposits may contain large quantities of arsenic and this may result in higher levels of arsenic in water. Waste chemical disposal sites may also be a source of arsenic contamination of water supplies. The main commercial use of arsenic in the U.S. is in pesticides, mostly herbicides and in wood preservatives. Misapplication or accidental spills of these materials could result in contamination of nearby water supplies. Arsenic does not have a tendency to accumulate in the body at low environmental exposure levels.

Studies in humans have shown considerable individual variability in arsenic toxicity. The levels of arsenic that most people ingest in food and water (ca. 50 µg/day) have not usually been considered to be of health concern for non-cancer effects.

The MCL for arsenic is 10 parts-per-billion (ppb), the PHG and MCLG for arsenic is 0.004 ppb. The San Diego County Water Authority (SDCWA), detected arsenic above the Detection Limit for Reporting Purposes of 2 ppb. The San Diego County Water Authority (SDCWA) detected it in 2016, 2017 and 2018. The maximum level detected was 3.0 ppb[3]. The health risk associated with arsenic, and the reason that a drinking water standard was adopted for it, is that people who drink water containing arsenic above the MCL throughout their lifetime could experience an increased risk of getting cancer. OEHHA has set the PHG at 4 parts-per-trillion (ppt) (0.004 ppb). The PHG is based on a level that will result in not more than 1 excess cancer in 1 million people who drink 2 liters daily of this water for 70 years. The actual cancer risk may be lower or zero.

The arsenic in our water system comes from our already treated water from SDCWA. It is not required for SDCWA to lower arsenic levels to the PHG and MCLG levels because it already meets federal and state health-based standards. The best available technology (BAT) cited in literature to remove arsenic is reverse osmosis. According to the Association of California Water Agencies (ACWA) Cost Estimates for Treatment Technology BAT, it would cost approximately $2.01-$7.33 per 1000 gallons to treat arsenic using RO treatment. These values were assessed using ACWA's 2018 'Suggested Guidelines' for reverse osmosis treatment technology and includes annualized capital and O&M costs[5].

Bromate:

Bromate is formed when naturally occurring bromide reacts with ozone during the disinfection process. The District's water wholesalers, the Metropolitan Water District (MWD) and the San Diego County Water Authority (SDCWA) use ozone in their treatment plants to treat drinking water. Since the treatment plants' source water contains naturally occurring bromide, bromate is formed during this process.

The MCL for bromate is 10 ppb and the PHG for bromate is 0.1 ppb. SDCWA and MWD detected bromate above the Detection Limit for Reporting Purposes (DLR) of 5.0. The San Diego County Water Authority (SDCWA) detected it in 2016, 2017 and 2018. The Metropolitan Water District detected it in 2016, 2017 and 2018. The maximum level detected from both agencies was 15.0 ppb[3]. One of the most effective best available technologies for bromate reduction is reverse osmosis (RO). RO treatment reduces the naturally occurring bromide in source water by reducing the natural organic matter (NOM) in water. When this is reduced, the demand for ozone decreases, therefore reducing bromate formation. Because the DLR for bromate is greater than the PHG, it would be difficult to assess the effectiveness of RO treatment on reaching the PHG level.

The bromate in our water system comes from our already treated water from MWD and SDCWA. It is not required for either agency to lower bromate levels to the PHG and MCLG levels because it already meets federal and state health-based standards. The best available technology (BAT) cited in literature to remove bromate is reverse osmosis. According to the Association of California Water Agencies (ACWA) Cost Estimates for Treatment Technology BAT, it would cost approximately $1.85-$3.55 per 1000 gallons to treat bromate using RO treatment. These values were assessed using

ACWA's 2018 'Suggested Guidelines' for reverse osmosis treatment technology and includes annualized capital and O&M costs[5].

Coliform Bacteria:

The MCL for coliform bacteria is 5% positive samples of all samples per month. The MCLG is zero. The reason for the coliform drinking water standard is to minimize the possibility of the water containing pathogens, which are organisms that can cause waterborne disease. Because coliform is only a surrogate indicator of the potential presence of pathogens, it is not possible to state a specific numerical health risk. While USEPA normally sets MCLGs "at a level where no known or anticipated adverse effects on persons would occur", they indicate that they cannot do so with coliforms. Therefore, the MCLG for coliform bacteria has been set at zero by the USEPA.

In the month of May 2017, the District collected 133 samples from our distribution system for coliform analysis. Of these samples, one tested positive for coliform bacteria (0.75%)[3].

The District re-tested the source noted above in accordance with SWRCB guidelines and all sources tested negative for coliform bacteria. The District collected a total of 4059 samples for all three years in this report with only the one sample in 2017 testing positive for coliform bacteria (0.02% over 3 years).

Coliform bacteria are an indicator organism that are ubiquitous in nature and are not generally considered harmful. They are used because of the ease in monitoring and analysis. If a positive sample is found, it indicates a potential problem that needs to be investigated and follow up sampling done. It is not at all unusual for a system to have an occasional positive sample. It is difficult, if not impossible, to assure that a system will never have a positive sample.

The District operates its distribution system in a manner that assures the best possible water quality. Important measures that have been implemented include: supplemental injection of chlorine at the Twin Oaks Reservoir Facility to increase chloramine disinfectant residual in the distribution system, a comprehensive nitrification control program, an effective cross-connection control program, maintenance of a disinfectant residual throughout our system, an effective monitoring program using an advanced SCADA system and maintaining positive pressures in our distribution system. Our system has already taken all of the steps described by SWRCB as "best available technology" for coliform bacteria in Section 64447, Title 22, CCR. Therefore, no estimate of cost has been included.

Copper:

There is no MCL for copper. Instead, the 90th percentile value of all samples from household taps in the distribution system cannot exceed an Action Level of 1.3 mg/l for copper. The PHG for copper is 0.3 mg/l.

The category of health risk for copper is gastrointestinal irritation. Numerical health risk data on copper has not yet been provided by OEHHA, the State agency responsible for providing that information.

The District is required to sample for copper every three years. Our latest sampling period was in 2018. Based on extensive sampling of our distribution system in 2018, our 90th percentile value for copper was 0.270 mg/l[3]. The highest level of copper detected during our sampling was 0.430 mg/l. Our water system is in full compliance with the Federal and State Lead and Copper Rule. Based on our sampling, it was determined according to State regulatory requirements that we meet the Action Level for copper. Therefore, we are deemed by SWRCB to have "optimized corrosion control" for our system.

In general, optimizing corrosion control is considered to be the best available technology to deal with corrosion issues and with any lead or copper findings. We continue to monitor our water quality parameters that relate to corrosivity, such as the pH, hardness, alkalinity, total dissolved solids, and will take action if necessary to maintain our system in an "optimized corrosion control" condition.

Since we are meeting the "optimized corrosion control" requirements, it is not prudent to initiate additional corrosion control treatment as it involves the addition of other chemicals and there could be additional water quality issues raised. Therefore, no estimate of cost has been included.

Lead:

There is no MCL for lead. Instead, the 90th percentile value of all samples from household taps in the distribution system cannot exceed an Action Level of 0.015 mg/l for lead. The PHG for lead is 0.0002 mg/l.

The category of health risk for lead is developmental neurotoxicity. Numerical health risk data on lead has not yet been provided by OEHHA, the State agency responsible for providing that information.

The District is required to sample for lead every three years. Our latest sampling period was in 2018. Based on extensive sampling of our distribution system in 2018, our 90th percentile value for lead was 0.0012 mg/l[3]. The highest level of lead detected during our sampling was 0.0020 mg/l. Our water system is in full compliance with the Federal and State Lead and Copper Rule. Based on our sampling, it was determined according to State regulatory requirements that we meet the Action Level for lead. Therefore, we are deemed by SWRCB to have "optimized corrosion control" for our system.

In general, optimizing corrosion control is considered to be the best available technology to deal with corrosion issues and with any lead or copper findings. We continue to monitor our water quality parameters that relate to corrosivity, such as the pH, hardness, alkalinity, total dissolved solids, and will take action if necessary to maintain our system in an "optimized corrosion control" condition.

Since we are meeting the "optimized corrosion control" requirements, it is not prudent to initiate additional corrosion control treatment as it involves the addition of other chemicals and there could be additional water quality issues raised. Therefore, no estimate of cost has been included.

Radiologicals:

The water delivered to Vallecitos by MWD, OMWD and SDCWA exceeded the PHG for several of the radiologicals in 2016, 2017 and 2018[3]. Radiological contaminants are considered by USEPA and SWRCB as carcinogenic or capable of producing cancer.

At the present time, there are no plans by MWD, OMWD or SDCWA to treat their water to remove the radiologicals. If the agencies were to treat their water to remove the radiologicals, they would likely use reverse osmosis, and the cost of the treated water would increase by approximately $2.57-$4.10 per 1000 gallons. This cost estimate is in addition to the current wholesale cost of treated water to the District. These values were assessed using ACWA's 2018 'Suggested Guidelines' for reverse osmosis treatment technology and includes annualized capital and O&M costs[5].

MWD, and other Southern California water agencies, have successfully lobbied for federal legislation that should result in the removal or containment of one or more of the sources of radiologicals in our Colorado River supplies. The primary source of radiologicals is a pile of mine tailings in Moab, Utah. The water from the MWD, OMWD, the SDCWA and the City of Oceanside to Vallecitos is on average approximately 70-80% Colorado River Water with the remaining 20-30% from the State Water Project.

Presently, the District proposes that all affected water agencies continue to pursue the removal/containment of the major source of the radiological contamination from mine tailings in Moab, Utah.

Hexavalent Chromium:

Hexavalent chromium is a chemical compound that can occur naturally in the environment or be introduced from industrial activities such as corrosion control or metal plating.

The category of health risk for hexavalent chromium is carcinogenicity (cancer causing). Numerical health risk data on hexavalent chromium has not yet been provided by OEHHA, the State agency responsible for providing that information.

The MCL for hexavalent chromium is 10 ppb and the PHG for hexavalent chromium is 0.02 ppb. The Detection Limit for Reporting Purposes (DLR) is 1.0 ppb[3]. The highest level of hexavalent chromium reported was 0.17 ppb. One of the most effective best available technologies for hexavalent chromium reduction is additional treatment facility filtration.

The hexavalent chromium in our water system comes from our already treated water. It is not required for agencies to lower hexavalent chromium levels to the PHG and MCLG levels because it already meets federal and state health-based standards. The best

available technology (BAT) cited in literature to remove hexavalent chromium is additional treatment. According to the Association of California Water Agencies (ACWA) Cost Estimates for Treatment Technology BAT, it would cost approximately $1.74-$10.97 per 1000 gallons to treat hexavalent chromium using additional treatment with coagulation and filtration. These values were assessed using ACWA's 2018 'Suggested Guidelines' for coagulation filtration treatment technology and includes annualized capital and O&M costs[5].

N-Nitrosodimethylamine (NDMA):

NDMA is a chemical that is a byproduct of manufacturing processes; component of tobacco smoke. Formerly used as a component of rocket fuels.

The category of health risk for NDMA is carcinogenicity (cancer causing). Numerical health risk data on NDMA has not yet been provided by OEHHA, the State agency responsible for providing that information. This contaminant isn't currently regulated in drinking water.

The Notification Level (NL) for NDMA is 10 ppt and the PHG for NDMA is 3 ppt. The Detection Limit for Reporting Purposes (DLR) is 2 ppt[3]. The highest level of NDMA reported was 5.1 ppt. One of the most effective best available technologies for NDMA reduction is additional treatment facility filtration.

The NDMA in our water system comes from our already treated water. It is not required for agencies to lower NDMA levels to the PHG and MCLG levels because it already meets federal and state health-based standards. NDMA is a new contaminant monitored in drinking water. The Association of California Water Agencies has not established a best available technology (BAT) to remove NDMA. This information was assessed using ACWA's 2018 'Suggested Guidelines'.

The drinking water of the Vallecitos Water District meets all State of California, State Water Resources Control Board, Department of Drinking Water and USEPA drinking water standards set to protect public health. To further reduce the levels of the constituents identified in this report that are already significantly below the health-based Maximum Contaminant Levels established to provide "safe drinking water", additional costly treatment processes would be required. The effectiveness of the treatment processes to provide any significant reductions in constituent levels at these already low values is uncertain. The health protection benefits of these further hypothetical reductions are not at all clear and may not be quantifiable. Therefore, no action is proposed.

FISCAL IMPACT:

There is no fiscal impact associated with the recommended action.

RECOMMENDATIONS:

No additional action by the District is recommended at this time and staff recommends that the board accept and file this report.

References:

1 Excerpt from California Health and Safety Code: Section §116470(b) (SWRCB)

2 Health Risk Information for PHG Exceedance Reports (OEHHA)

3 Excerpts from the 2016, 2017 and 2018 Metropolitan Water District of Southern California - Water Quality Reports; Excerpts from the 2016, 2017 and 2018 San Diego County Water Authority - Water Quality Reports; Excerpts from 2016, 2017 and 2018 Oceanside Treatment Plant – Water Quality Reports; Excerpts from the 2016, 2017 and 2018 Olivenhain Municipal Water District – Water quality Reports; Excerpts from the 2016, 2017 and 2018 Carlsbad Desalination Plant – Water Quality Reports; Excerpts from 2016, 2017 and 2018 Vallecitos Water District - Monthly Summary of Distribution System Coliform Monitoring for May 2017; Vallecitos Water District – Lead and Copper Report: 2018.

4 California MCLs and PHGs and Federal MCLGs (ACWA)

5 Cost Estimates for Treatment Technologies (ACWA)

Reference No. 1

Health and Safety Code §116470

a) As a condition of its operating permit, every public water system shall annually prepare a consumer confidence report and mail or deliver a copy of that report to each customer, other than an occupant, as defined in Section 799.28 of the Civil Code, of a recreational vehicle park. A public water system in a recreational vehicle park with occupants as defined in Section 799.28 of the Civil Code shall prominently display on a bulletin board at the entrance to or in the office of the park, and make available upon request, a copy of the report. The report shall include all of the following information:

(1) The source of the water purveyed by the public water system.

(2) A brief and plainly worded definition of the terms "maximum contaminant level," "primary drinking water standard," and "public health goal."

(3) If any regulated contaminant is detected in public drinking water supplied by the system during the past year, the report shall include all of the following information:

(A) The level of the contaminant found in the drinking water, and the corresponding public health goal and primary drinking water standard for that contaminant.

(B) Any violations of the primary drinking water standard that have occurred as a result of the presence of the contaminant in the drinking water and a brief and plainly worded statement of health concerns that resulted in the regulation of that contaminant.

(C) The public water system's address and phone number to enable customers to obtain further information concerning contaminants and potential health effects.

(4) Information on the levels of unregulated contaminants, if any, for which monitoring is required pursuant to state or federal law or regulation.

(5) Disclosure of any variances or exemptions from primary drinking water standards granted to the system and the basis therefor.

(b) On or before July 1, 1998, and every three years thereafter, public water systems serving more than 10,000 service connections that detect one or more contaminants in drinking water that exceed the applicable public health goal, shall prepare a brief written report in plain language that does all of the following:

(1) Identifies each contaminant detected in drinking water that exceeds the applicable public health goal.

(2) Discloses the numerical public health risk, determined by the office, associated with the maximum contaminant level for each contaminant identified in paragraph (1) and the numerical public health risk determined by the office associated with the public health goal for that contaminant.

(3) Identifies the category of risk to public health, including, but not limited to, carcinogenic, mutagenic, teratogenic, and acute toxicity, associated with exposure to the contaminant in drinking water, and includes a brief plainly worded description of these terms.

(4) Describes the best available technology, if any is then available on a commercial basis, to remove the contaminant or reduce the concentration of the contaminant. The public water system may, solely at its own discretion, briefly describe actions that have been taken on its own, or by other entities, to prevent the introduction of the contaminant into drinking water supplies.

(5) Estimates the aggregate cost and the cost per customer of utilizing the technology described in paragraph (4), if any, to reduce the concentration of that contaminant in drinking water to a level at or below the public health goal.

(6) Briefly describes what action, if any, the local water purveyor intends to take to reduce the concentration of the contaminant in public drinking water supplies and the basis for that decision.

(c) Public water systems required to prepare a report pursuant to subdivision (b) shall hold a public hearing for the purpose of accepting and responding to public comment on the report. Public water systems may hold the public hearing as part of any regularly scheduled meeting.

(d) The department shall not require a public water system to take any action to reduce or eliminate any exceedance of a public health goal.

(e) Enforcement of this section does not require the department to amend a public water system's operating permit.

(f) Pending adoption of a public health goal by the Office of Environmental Health Hazard Assessment pursuant to subdivision (c) of Section 116365, and in lieu thereof, public water systems shall use the national maximum contaminant level goal adopted by the United States Environmental Protection Agency for the corresponding contaminant for purposes of complying with the notice and hearing requirements of this section.

(g) This section is intended to provide an alternative form for the federally required consumer confidence report as authorized by 42 U.S.C. Section 300g-3(c).

Health Risk Information for Public Health Goal Exceedance Reports

Prepared by

Office of Environmental Health Hazard Assessment
California Environmental Protection Agency

February 2019

Under the Calderon-Sher Safe Drinking Water Act of 1996 (the Act), public water systems with more than 10,000 service connections are required to prepare a report every three years for contaminants that exceed their respective Public Health Goals (PHGs).[1] This document contains health risk information on regulated drinking water contaminants to assist public water systems in preparing these reports. A PHG is the concentration of a contaminant in drinking water that poses no significant health risk if consumed for a lifetime. PHGs are developed and published by the Office of Environmental Health Hazard Assessment (OEHHA) using current risk assessment principles, practices and methods.[2]

The water system's report is required to identify the health risk category (e.g., carcinogenicity or neurotoxicity) associated with exposure to each regulated contaminant in drinking water and to include a brief, plainly worded description of these risks. The report is also required to disclose the numerical public health risk, if available, associated with the California Maximum Contaminant Level (MCL) and with the PHG for each contaminant. This health risk information document is prepared by OEHHA every three years to assist the water systems in providing the required information in their reports.

Numerical health risks: Table 1 presents health risk categories and cancer risk values for chemical contaminants in drinking water that have PHGs.

The Act requires that OEHHA publish PHGs based on health risk assessments using the most current scientific methods. As defined in statute, PHGs for non-carcinogenic

[1] Health and Safety Code Section 116470(b)
[2] Health and Safety Code Section 116365

chemicals in drinking water are set at a concentration "at which no known or anticipated adverse health effects will occur, with an adequate margin of safety." For carcinogens, PHGs are set at a concentration that "does not pose any significant risk to health." PHGs provide one basis for revising MCLs, along with cost and technological feasibility. OEHHA has been publishing PHGs since 1997 and the entire list published to date is shown in Table 1.

Table 2 presents health risk information for contaminants that do not have PHGs but have state or federal regulatory standards. The Act requires that, for chemical contaminants with California MCLs that do not yet have PHGs, water utilities use the federal Maximum Contaminant Level Goal (MCLG) for the purpose of complying with the requirement of public notification. MCLGs, like PHGs, are strictly health based and include a margin of safety. One difference, however, is that the MCLGs for carcinogens are set at zero because the US Environmental Protection Agency (US EPA) assumes there is no absolutely safe level of exposure to such chemicals. PHGs, on the other hand, are set at a level considered to pose no *significant* risk of cancer; this is usually no more than a one-in-one-million excess cancer risk (1×10^{-6}) level for a lifetime of exposure. In Table 2, the cancer risks shown are based on the US EPA's evaluations.

For more information on health risks: The adverse health effects for each chemical with a PHG are summarized in a PHG technical support document. These documents are available on the OEHHA website (http://www.oehha.ca.gov). Also, technical fact sheets on most of the chemicals having federal MCLs can be found at http://www.epa.gov/your-drinking-water/table-regulated-drinking-water-contaminants.

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category[1]	California PHG (mg/L)[2]	Cancer Risk[3] at the PHG	California MCL[4] (mg/L)	Cancer Risk at the California MCL
Alachlor	carcinogenicity (causes cancer)	0.004	NA[5,6]	0.002	NA
Aluminum	neurotoxicity and immunotoxicity (harms the nervous and immune systems)	0.6	NA	1	NA
Antimony	digestive system toxicity (causes vomiting)	0.02	NA	0.006	NA
Arsenic	carcinogenicity (causes cancer)	0.000004 (4×10^{-6})	1×10^{-6} (one per million)	0.01	2.5×10^{-3} (2.5 per thousand)
Asbestos	carcinogenicity (causes cancer)	7 MFL[7] (fibers >10 microns in length)	1×10^{-6}	7 MFL (fibers >10 microns in length)	1×10^{-6} (one per million)
Atrazine	carcinogenicity (causes cancer)	0.00015	1×10^{-6}	0.001	7×10^{-6} (seven per million)

[1] Based on the OEHHA PHG technical support document unless otherwise specified. The categories are the hazard traits defined by OEHHA for California's Toxics Information Clearinghouse (online at: http://oehha.ca.gov/multimedia/green/pdf/GC_Regtext011912.pdf).
[2] mg/L = milligrams per liter of water or parts per million (ppm)
[3] Cancer Risk = Upper bound estimate of excess cancer risk from lifetime exposure. Actual cancer risk may be lower or zero. 1×10^{-6} means one excess cancer case per million people exposed.
[4] MCL = maximum contaminant level.
[5] NA = not applicable. Cancer risk cannot be calculated.
[6] The PHG for alachlor is based on a threshold model of carcinogenesis and is set at a level that is believed to be without any significant cancer risk to individuals exposed to the chemical over a lifetime.
[7] MFL = million fibers per liter of water.

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category[1]	California PHG (mg/L)[2]	Cancer Risk[3] at the PHG	California MCL[4] (mg/L)	Cancer Risk at the California MCL
Barium	cardiovascular toxicity (causes high blood pressure)	2	NA	1	NA
Bentazon	hepatotoxicity and digestive system toxicity (harms the liver, intestine, and causes body weight effects[8])	0.2	NA	0.018	NA
Benzene	carcinogenicity (causes leukemia)	0.00015	1×10^{-6}	0.001	7×10^{-6} (seven per million)
Benzo[a]pyrene	carcinogenicity (causes cancer)	0.000007 (7×10^{-6})	1×10^{-6}	0.0002	3×10^{-5} (three per hundred thousand)
Beryllium	digestive system toxicity (harms the stomach or intestine)	0.001	NA	0.004	NA
Bromate	carcinogenicity (causes cancer)	0.0001	1×10^{-6}	0.01	1×10^{-4} (one per ten thousand)
Cadmium	nephrotoxicity (harms the kidney)	0.00004	NA	0.005	NA
Carbofuran	reproductive toxicity (harms the testis)	0.0007	NA	0.018	NA

[8] Body weight effects are an indicator of general toxicity in animal studies.

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category[1]	California PHG (mg/L)[2]	Cancer Risk[3] at the PHG	California MCL[4] (mg/L)	Cancer Risk at the California MCL
Carbon tetrachloride	carcinogenicity (causes cancer)	0.0001	1×10^{-6}	0.0005	5×10^{-6} (five per million)
Chlordane	carcinogenicity (causes cancer)	0.00003	1×10^{-6}	0.0001	3×10^{-6} (three per million)
Chlorite	hematotoxicity (causes anemia) neurotoxicity (causes neurobehavioral effects)	0.05	NA	1	NA
Chromium, hexavalent	carcinogenicity (causes cancer)	0.00002	1×10^{-6}	none	NA
Copper	digestive system toxicity (causes nausea, vomiting, diarrhea)	0.3	NA	1.3 (AL[9])	NA
Cyanide	neurotoxicity (damages nerves) endocrine toxicity (affects the thyroid)	0.15	NA	0.15	NA
Dalapon	nephrotoxicity (harms the kidney)	0.79	NA	0.2	NA
Di(2-ethylhexyl) adipate (DEHA)	developmental toxicity (disrupts development)	0.2	NA	0.4	NA
Diethylhexyl-phthalate (DEHP)	carcinogenicity (causes cancer)	0.012	1×10^{-6}	0.004	3×10^{-7} (three per ten million)

[9] AL = action level. The action levels for copper and lead refer to a concentration measured at the tap. Much of the copper and lead in drinking water is derived from household plumbing (The Lead and Copper Rule, Title 22, California Code of Regulations [CCR] section 64672.3).

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category[1]	California PHG (mg/L)[2]	Cancer Risk[3] at the PHG	California MCL[4] (mg/L)	Cancer Risk at the California MCL
1,2-Dibromo-3-chloropropane (DBCP)	carcinogenicity (causes cancer)	0.0000017 (1.7×10^{-6})	1×10^{-6}	0.0002	1×10^{-4} (one per ten thousand)
1,2-Dichloro-benzene (*o*-DCB)	hepatotoxicity (harms the liver)	0.6	NA	0.6	NA
1,4-Dichloro-benzene (*p*-DCB)	carcinogenicity (causes cancer)	0.006	1×10^{-6}	0.005	8×10^{-7} (eight per ten million)
1,1-Dichloro-ethane (1,1-DCA)	carcinogenicity (causes cancer)	0.003	1×10^{-6}	0.005	2×10^{-6} (two per million)
1,2-Dichloro-ethane (1,2-DCA)	carcinogenicity (causes cancer)	0.0004	1×10^{-6}	0.0005	1×10^{-6} (one per million)
1,1-Dichloro-ethylene (1,1-DCE)	hepatotoxicity (harms the liver)	0.01	NA	0.006	NA
1,2-Dichloro-ethylene, cis	nephrotoxicity (harms the kidney)	0.013	NA	0.006	NA
1,2-Dichloro-ethylene, trans	immunotoxicity (harms the immune system)	0.05	NA	0.01	NA
Dichloromethane (methylene chloride)	carcinogenicity (causes cancer)	0.004	1×10^{-6}	0.005	1×10^{-6} (one per million)

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category[1]	California PHG (mg/L)[2]	Cancer Risk[3] at the PHG	California MCL[4] (mg/L)	Cancer Risk at the California MCL
2,4-Dichloro-phenoxyacetic acid (2,4-D)	hepatotoxicity and nephrotoxicity (harms the liver and kidney)	0.02	NA	0.07	NA
1,2-Dichloro-propane (propylene dichloride)	carcinogenicity (causes cancer)	0.0005	1×10^{-6}	0.005	1×10^{-5} (one per hundred thousand)
1,3-Dichloro-propene (Telone II®)	carcinogenicity (causes cancer)	0.0002	1×10^{-6}	0.0005	2×10^{-6} (two per million)
Dinoseb	reproductive toxicity (harms the uterus and testis)	0.014	NA	0.007	NA
Diquat	ocular toxicity (harms the eye) developmental toxicity (causes malformation)	0.006	NA	0.02	NA
Endothall	digestive system toxicity (harms the stomach or intestine)	0.094	NA	0.1	NA
Endrin	neurotoxicity (causes convulsions) hepatotoxicity (harms the liver)	0.0003	NA	0.002	NA
Ethylbenzene (phenylethane)	hepatotoxicity (harms the liver)	0.3	NA	0.3	NA
Ethylene dibromide (1,2-Dibromoethane)	carcinogenicity (causes cancer)	0.00001	1×10^{-6}	0.00005	5×10^{-6} (five per million)

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category[1]	California PHG (mg/L)[2]	Cancer Risk[3] at the PHG	California MCL[4] (mg/L)	Cancer Risk at the California MCL
Fluoride	musculoskeletal toxicity (causes tooth mottling)	1	NA	2	NA
Glyphosate	nephrotoxicity (harms the kidney)	0.9	NA	0.7	NA
Heptachlor	carcinogenicity (causes cancer)	0.000008 (8×10^{-6})	1×10^{-6}	0.00001	1×10^{-6} (one per million)
Heptachlor epoxide	carcinogenicity (causes cancer)	0.000006 (6×10^{-6})	1×10^{-6}	0.00001	2×10^{-6} (two per million)
Hexachloroben-zene	carcinogenicity (causes cancer)	0.00003	1×10^{-6}	0.001	3×10^{-5} (three per hundred thousand)
Hexachloro-cyclopentadiene (HCCPD)	digestive system toxicity (causes stomach lesions)	0.002	NA	0.05	NA
Lead	developmental neurotoxicity (causes neurobehavioral effects in children) cardiovascular toxicity (causes high blood pressure) carcinogenicity (causes cancer)	0.0002	$<1\times10^{-6}$ (PHG is not based on this effect)	0.015 (AL[8])	2×10^{-6} (two per million)
Lindane (γ-BHC)	carcinogenicity (causes cancer)	0.000032	1×10^{-6}	0.0002	6×10^{-6} (six per million)
Mercury (inorganic)	nephrotoxicity (harms the kidney)	0.0012	NA	0.002	NA

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category[1]	California PHG (mg/L)[2]	Cancer Risk[3] at the PHG	California MCL[4] (mg/L)	Cancer Risk at the California MCL
Methoxychlor	endocrine toxicity (causes hormone effects)	0.00009	NA	0.03	NA
Methyl tertiary-butyl ether (MTBE)	carcinogenicity (causes cancer)	0.013	1×10^{-6}	0.013	1×10^{-6} (one per million)
Molinate	carcinogenicity (causes cancer)	0.001	1×10^{-6}	0.02	2×10^{-5} (two per hundred thousand)
Monochloro-benzene (chlorobenzene)	nephrotoxicity (harms the kidney)	0.07	NA	0.07	NA
Nickel	developmental toxicity (causes increased neonatal deaths)	0.012	NA	0.1	NA
Nitrate	hematotoxicity (causes methemoglobinemia)	45 as nitrate	NA	10 as nitrogen (=45 as nitrate)	NA
Nitrite	hematotoxicity (causes methemoglobinemia)	3 as nitrite	NA	1 as nitrogen (=3 as nitrite)	NA
Nitrate and Nitrite	hematotoxicity (causes methemoglobinemia)	10 as nitrogen[10]	NA	10 as nitrogen	NA

[10] The joint nitrate/nitrite PHG of 10 mg/L (10 ppm, expressed as nitrogen) does not replace the individual values, and the maximum contribution from nitrite should not exceed 1 mg/L nitrite-nitrogen.

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category[1]	California PHG (mg/L)[2]	Cancer Risk[3] at the PHG	California MCL[4] (mg/L)	Cancer Risk at the California MCL
N-nitroso-dimethyl-amine (NDMA)	carcinogenicity (causes cancer)	0.000003 (3×10^{-6})	1×10^{-6}	none	NA
Oxamyl	general toxicity (causes body weight effects)	0.026	NA	0.05	NA
Pentachloro-phenol (PCP)	carcinogenicity (causes cancer)	0.0003	1×10^{-6}	0.001	3×10^{-6} (three per million)
Perchlorate	endocrine toxicity (affects the thyroid) developmental toxicity (causes neurodevelop-mental deficits)	0.001	NA	0.006	NA
Picloram	hepatotoxicity (harms the liver)	0.166	NA	0.5	NA
Polychlorinated biphenyls (PCBs)	carcinogenicity (causes cancer)	0.00009	1×10^{-6}	0.0005	6×10^{-6} (six per million)
Radium-226	carcinogenicity (causes cancer)	0.05 pCi/L	1×10^{-6}	5 pCi/L (combined $Ra^{226+228}$)	1×10^{-4} (one per ten thousand)
Radium-228	carcinogenicity (causes cancer)	0.019 pCi/L	1×10^{-6}	5 pCi/L (combined $Ra^{226+228}$)	3×10^{-4} (three per ten thousand)
Selenium	integumentary toxicity (causes hair loss and nail damage)	0.03	NA	0.05	NA

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category[1]	California PHG (mg/L)[2]	Cancer Risk[3] at the PHG	California MCL[4] (mg/L)	Cancer Risk at the California MCL
Silvex (2,4,5-TP)	hepatotoxicity (harms the liver)	0.003	NA	0.05	NA
Simazine	general toxicity (causes body weight effects)	0.004	NA	0.004	NA
Strontium-90	carcinogenicity (causes cancer)	0.35 pCi/L	1×10^{-6}	8 pCi/L	2×10^{-5} (two per hundred thousand)
Styrene (vinylbenzene)	carcinogenicity (causes cancer)	0.0005	1×10^{-6}	0.1	2×10^{-4} (two per ten thousand)
1,1,2,2-Tetrachloro-ethane	carcinogenicity (causes cancer)	0.0001	1×10^{-6}	0.001	1×10^{-5} (one per hundred thousand)
2,3,7,8-Tetra-chlorodibenzo-*p*-dioxin (TCDD, or dioxin)	carcinogenicity (causes cancer)	5×10^{-11}	1×10^{-6}	3×10^{-8}	6×10^{-4} (six per ten thousand)
Tetrachloro-ethylene (perchloro-ethylene, or PCE)	carcinogenicity (causes cancer)	0.00006	1×10^{-6}	0.005	8×10^{-5} (eight per hundred thousand)
Thallium	integumentary toxicity (causes hair loss)	0.0001	NA	0.002	NA

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category[1]	California PHG (mg/L)[2]	Cancer Risk[3] at the PHG	California MCL[4] (mg/L)	Cancer Risk at the California MCL
Thiobencarb	general toxicity (causes body weight effects) hematotoxicity (affects red blood cells)	0.042	NA	0.07	NA
Toluene (methylbenzene)	hepatotoxicity (harms the liver) endocrine toxicity (harms the thymus)	0.15	NA	0.15	NA
Toxaphene	carcinogenicity (causes cancer)	0.00003	1×10^{-6}	0.003	1×10^{-4} (one per ten thousand)
1,2,4-Trichloro-benzene	endocrine toxicity (harms adrenal glands)	0.005	NA	0.005	NA
1,1,1-Trichloro-ethane	neurotoxicity (harms the nervous system), reproductive toxicity (causes fewer offspring) hepatotoxicity (harms the liver) hematotoxicity (causes blood effects)	1	NA	0.2	NA
1,1,2-Trichloro-ethane	carcinogenicity (causes cancer)	0.0003	$1x10^{-6}$	0.005	2×10^{-5} (two per hundred thousand)
Trichloro-ethylene (TCE)	carcinogenicity (causes cancer)	0.0017	1×10^{-6}	0.005	3×10^{-6} (three per million)

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category[1]	California PHG (mg/L)[2]	Cancer Risk[3] at the PHG	California MCL[4] (mg/L)	Cancer Risk at the California MCL
Trichlorofluoro-methane (Freon 11)	accelerated mortality (increase in early death)	1.3	NA	0.15	NA
1,2,3-Trichloro-propane (1,2,3-TCP)	carcinogenicity (causes cancer)	0.0000007 (7×10^{-7})	$1x10^{-6}$	0.000005 (5×10^{-6})	7×10^{-6} (seven per million)
1,1,2-Trichloro-1,2,2-trifluoro-ethane (Freon 113)	hepatotoxicity (harms the liver)	4	NA	1.2	NA
Tritium	carcinogenicity (causes cancer)	400 pCi/L	$1x10^{-6}$	20,000 pCi/L	$5x10^{-5}$ (five per hundred thousand)
Uranium	carcinogenicity (causes cancer)	0.43 pCi/L	1×10^{-6}	20 pCi/L	5×10^{-5} (five per hundred thousand)
Vinyl chloride	carcinogenicity (causes cancer)	0.00005	1×10^{-6}	0.0005	1×10^{-5} (one per hundred thousand)
Xylene	neurotoxicity (affects the senses, mood, and motor control)	1.8 (single isomer or sum of isomers)	NA	1.75 (single isomer or sum of isomers)	NA

Table 2: Health Risk Categories and Cancer Risk Values for Chemicals without California Public Health Goals

Chemical	Health Risk Category[1]	US EPA MCLG[2] (mg/L)	Cancer Risk[3] @ MCLG	California MCL[4] (mg/L)	Cancer Risk @ California MCL
Disinfection byproducts (DBPs)					
Chloramines	acute toxicity (causes irritation) digestive system toxicity (harms the stomach) hematotoxicity (causes anemia)	4[5,6]	NA[7]	none	NA
Chlorine	acute toxicity (causes irritation) digestive system toxicity (harms the stomach)	4[5,6]	NA	none	NA
Chlorine dioxide	hematotoxicity (causes anemia) neurotoxicity (harms the nervous system)	0.8[5,6]	NA	none	NA
Disinfection byproducts: haloacetic acids (HAA5)					
Monochloroacetic acid (MCA)	general toxicity (causes body and organ weight changes[8])	0.07	NA	none	NA
Dichloroacetic acid (DCA)	carcinogenicity (causes cancer)	0	0	none	NA

[1] Health risk category based on the US EPA MCLG document or California MCL document unless otherwise specified.
[2] MCLG = maximum contaminant level goal established by US EPA.
[3] Cancer Risk = Upper estimate of excess cancer risk from lifetime exposure. Actual cancer risk may be lower or zero. 1×10^{-6} means one excess cancer case per million people exposed.
[4] California MCL = maximum contaminant level established by California.
[5] Maximum Residual Disinfectant Level Goal, or MRDLG.
[6] The federal Maximum Residual Disinfectant Level (MRDL), or highest level of disinfectant allowed in drinking water, is the same value for this chemical.
[7] NA = not available.
[8] Body weight effects are an indicator of general toxicity in animal studies.

Table 2: Health Risk Categories and Cancer Risk Values for Chemicals without California Public Health Goals

Chemical	Health Risk Category[1]	US EPA MCLG[2] (mg/L)	Cancer Risk[3] @ MCLG	California MCL[4] (mg/L)	Cancer Risk @ California MCL
Trichloroacetic acid (TCA)	hepatotoxicity (harms the liver)	0.02	NA	none	NA
Monobromoacetic acid (MBA)	NA	none	NA	none	NA
Dibromoacetic acid (DBA)	NA	none	NA	none	NA
Total haloacetic acids (sum of MCA, DCA, TCA, MBA, and DBA)	general toxicity, hepatotoxicity and carcinogenicity (causes body and organ weight changes, harms the liver and causes cancer)	none	NA	0.06	NA
Disinfection byproducts: trihalomethanes (THMs)					
Bromodichloro-methane (BDCM)	carcinogenicity (causes cancer)	0	0	none	NA
Bromoform	carcinogenicity (causes cancer)	0	0	none	NA
Chloroform	hepatotoxicity and nephrotoxicity (harms the liver and kidney)	0.07	NA	none	NA
Dibromo-chloromethane (DBCM)	hepatotoxicity, nephrotoxicity, and neurotoxicity (harms the liver, kidney, and nervous system)	0.06	NA	none	NA

Table 2: Health Risk Categories and Cancer Risk Values for Chemicals without California Public Health Goals

Chemical	Health Risk Category[1]	US EPA MCLG[2] (mg/L)	Cancer Risk[3] @ MCLG	California MCL[4] (mg/L)	Cancer Risk @ California MCL
Total trihalomethanes (sum of BDCM, bromoform, chloroform and DBCM)	carcinogenicity (causes cancer), hepatotoxicity, nephrotoxicity, and neurotoxicity (harms the liver, kidney, and nervous system)	none	NA	0.08	NA
Radionuclides					
Gross alpha particles[9]	carcinogenicity (causes cancer)	0 (^{210}Po included)	0	15 pCi/L[10] (includes ^{226}Ra but not radon and uranium)	up to $1x10^{-3}$ (for ^{210}Po, the most potent alpha emitter
Beta particles and photon emitters[9]	carcinogenicity (causes cancer)	0 (^{210}Pb included)	0	50 pCi/L (judged equiv. to 4 mrem/yr)	up to $2x10^{-3}$ (for ^{210}Pb, the most potent beta-emitter)

[9] MCLs for gross alpha and beta particles are screening standards for a group of radionuclides. Corresponding PHGs were not developed for gross alpha and beta particles. See the OEHHA memoranda discussing the cancer risks at these MCLs at http://www.oehha.ca.gov/water/reports/grossab.html.

[10] pCi/L = picocuries per liter of water.

Contaminants Exceeding the Public Health Goals & Maximum Contaminant Level Goals

2016 Water Quality Effluent Report from SDCWA, MWD, OTP, Carlsbad Desal, OMWD and VWD Distribution												
						SDCWA	MWD	OTP	Desal	OMWD	VWD	
Parameter	Units	State or Federal MCL [MRDL]	PHG (MCLG) [MRDLG]	State DLR	Range Average							
					Range	2.7 - 3.1	1 - 2	NA	2.189	2 - 3	NA	
Uranium	pCi/L	20	0.43	1	Average	2.9	2	3.6	2.189	2	NA	Erosion of natural deposits
					Range	Single Sample	ND	NA	ND	NR	NA	Natural deposits erosion, glass
Arsenic	ppb	10	0.004	2	Average	2.4	ND	ND	ND	NR	NA	and electronics production wastes
					Range	3.0 - 8.2	ND - 9.1	NR	NA	NR	NA	
Bromate	ppb	10	0.1	5.0	High RAA	5.9	4.2	NR	NA	NR	NA	By-product of drinking water ozonation
					Range	Single Sample	ND - 2.3	NR	NA	NR	NA	By-product of drinking water
NDMA	ppt	NL = 10	3	2	Average	ND	ND - 5.1	NR	NA	NR	NA	chloramination; industrial processes
					90th	ND	ND	NA	ND	322	NA	House pipes internal corrosion;
Copper	ppb	AL = 1,300	300	5	Percentile							erosion of natural deposits; leaching
					90th	ND	ND	NA	ND	ND	NA	House pipes internal corrosion;
Lead	ppb	AL = 15	0.2	5	Percentile							erosion of natural deposits; leaching
					Range	ND	ND - 0.3	ND	ND	ND	ND	Naturally present in the environment
Total Coliforms	%	5.0	(0)	NA	Average	ND	ND	ND	ND	ND	ND	
					Range	4 - 7	ND - 5	NA	-0.50 - 0.74	ND - 6	NA	Erosion of natural deposits
Gross Alpha	pCi/L	15	(0)	3	Average	5	ND	2.3	0.118	ND	NA	
					Range	4 - 6	5	NA	0.0 - 28.61	ND - 5	NA	Decay of natural and man - made
Gross Beta	pCi/L	20	0.43	4	Average	5	5	NA	10.19	ND	NA	deposits
					Range	ND - 0.09	ND	NR	NA	NR	NA	By-product of industrial process
Chromium, Hex	ppb	10	0.02	1	Average	0.06	ND	NR	NA	NR	NA	

Contaminants Exceeding the Public Health Goals & Maximum Contaminant Level Goals

2017 Water Quality Effluent Report from SDCWA, MWD, OTP, Carlsbad Desal, OMWD and VWD Distribution												
						SDCWA	MWD	OTP	Desal	OMWD	VWD	
Parameter	Units	State or Federal MCL [MRDL]	PHG (MCLG) [MRDLG]	State DLR	Range Average							
					Range	2.7 - 3.1	ND - 3	NA	0.029 - 0.161	NR	NA	
Uranium	pCi/L	20	0.43	1	Average	2.9	ND	2	0.085	NR	NA	Erosion of natural deposits
					Single		ND	NA	ND	NR	NA	Natural deposits erosion, glass
Arsenic	ppb	10	0.004	2	Sample	2.0	ND	ND	ND	NR	NA	and electronics production wastes
					Range	2 - 13	ND - 12	NR	NA	NR	NA	
Bromate	ppb	10	0.1	5.0	Average	6	4.1	NR	NA	NR	NA	By-product of drinking water ozonation
					Range	Single Sample	ND - 3.1	NR	NA	NR	NA	By-product of drinking water
NDMA	ppt	NL = 10	3	2	Average	ND	NR	NR	NA	NR	NA	chloramination; industrial processes
					90th	ND	ND	NA	ND	NA	NA	House pipes internal corrosion;
Copper	ppb	AL = 1,300	300	5	Percentile							erosion of natural deposits; leaching
					90th	ND	ND	NA	ND	NA	NA	House pipes internal corrosion;
Lead	ppb	AL = 15	0.2	5	Percentile							erosion of natural deposits; leaching
					Range	ND	0	ND	ND	ND - 1.09	ND - Present	Naturally present in the environment
Total Coliforms	%	5.0	(0)	NA	Average	ND	0	ND	ND	ND	0.07%	
					Range	4 - 7	ND - 4	NA	0 - 2.265	NR	NA	Erosion of natural deposits
Gross Alpha	pCi/L	15	(0)	3	Average	5	ND	2.1	0.075	NR	NA	
					Range	4 - 6	ND - 5	NA	0 - 3.56	NR	NA	Decay of natural and man - made
Gross Beta	pCi/L	20	0.43	4	Average	5	ND	NA	1.59	NR	NA	deposits
					Range	NR	NR	NR	0 - 1.01	NR	NR	Erosion of natural deposits
Radium-226	pCi/L	NA	0.05	1	Average	NR	NR	NR	0.37	NR	NR	
					Range	NR	NR	NR	0 - 0.894	NR	NR	Erosion of natural deposits
Radium-228	pCi/L	NA	0.019	1	Average	NR	NR	NR	0.261	NR	NR	
Combined					Range	NR	NR	NR	0 - 1.01	NR	NR	Erosion of natural deposits
Radium-226 + 228	pCi/L	5	(0)	NA	Average	NR	NR	NR	0.313	NR	NR	
					Range	NR	NR	NR	0 - 0.5	NR	NR	Decay of natural and man - made
Strontium-90	pCi/L	8	0.35	2	Average	NR	NR	NR	0.112	NR	NR	deposits
					Range	0.03 - 0.16	ND	NR	NA	NR	NA	By-product of industrial process
Chromium, Hex	ppb	NA	0.02	1	Average	0.11	ND	NR	NA	NR	NA	

Contaminants Exceeding the Public Health Goals & Maximum Contaminant Level Goals

2018 Water Quality Effluent Report from SDCWA, MWD, OTP, Carlsbad Desal, OMWD and VWD Distribution												
						SDCWA	MWD	OTP	Desal	OMWD	VWD	
Parameter	Units	State or Federal MCL [MRDL]	PHG (MCLG) [MRDLG]	State DLR	Range Average							
					Range	Sample	ND - 3	NA	ND	NR	NA	
Uranium	pCi/L	20	0.43	1	Average	2.2	ND	2.0	ND	NR	NA	Erosion of natural deposits
					Single		ND	NA	ND	NR	NA	Natural deposits erosion, glass
Arsenic	ppb	10	0.004	2	Sample	3	ND	ND	ND	NR	NA	and electronics production wastes
					Range	1 - 15	ND -5.9	NR	NA	NR	NA	
Bromate	ppb	10	0.1	5.0	Average	5	3.7	NR	NA	NR	NA	By-product of drinking water ozonation
					Range	Single Sample	4.1	NR	NA	NR	NA	By-product of drinking water
NDMA	ppt	NL = 10	3	2	Average	2		NR	NA	NR	NA	chloramination; industrial processes
					90th	ND	ND	0.138	ND	NA	270	House pipes internal corrosion;
Copper	ppb	AL = 1,300	300	5	Percentile							erosion of natural deposits; leaching
					90th	ND	ND	0	ND	NA	1.2	House pipes internal corrosion;
Lead	ppb	AL = 15	0.2	5	Percentile							erosion of natural deposits; leaching
					Range	ND	NA	ND	ND	ND	ND - Present	Naturally present in the environment
Total Coliforms	%	5.0	(0)	NA	Average	ND	NA	ND	ND	ND	ND	
					Range	4 - 7	ND - 4	NA	ND	NR	NA	Erosion of natural deposits
Gross Alpha	pCi/L	15	(0)	3	Average	5	ND	2.1	ND	NR	NA	
					Range	4 - 6	ND - 5	NA	ND	NR	NA	Decay of natural and man - made
Gross Beta	pCi/L	20	0.43	4	Average	5	ND	NA	ND	NR	NA	deposits
					Range	ND	ND	NR	ND	NR	NR	Erosion of natural deposits
Radium-226	pCi/L	NA	0.05	1	Average	ND	ND	NR	ND	NR	NR	
					Range	ND	ND	NR	ND	NR	NR	Erosion of natural deposits
Radium-228	pCi/L	NA	0.019	1	Average	ND	ND	NR	ND	NR	NR	
Combined					Range	ND	ND	NR	0.1804-0.7080	NR	NR	Erosion of natural deposits
Radium-226 + 228	pCi/L	5	(0)	NA	Average	ND	ND	NR	0.4494	NR	NR	
					Range	ND	ND	NR	ND	NR	NR	Decay of natural and man - made
Strontium-90	pCi/L	8	0.35	2	Average	ND	ND	NR	ND	NR	NR	deposits
					Range	0.04 - 0.17	ND	NR	NA	NR	NA	By-product of industrial process
Chromium, Hex	ppb	NA	0.02	1	Average	0.09	ND	NR	NA	NR	NA	

MCLs, DLRs, and PHGs for Regulated Drinking Water Contaminants

(Units are in milligrams per liter (mg/L), unless otherwise noted.)

Last Update: December 26, 2018

This table includes:

California's maximum contaminant levels (MCLs)

Detection limits for purposes of reporting (DLRs)

Public health goals (PHGs) from the Office of Environmental Health Hazard Assessment (OEHHA)

Also, the PHG for NDMA (which is not yet regulated) is included at the bottom of this table.

Regulated Contaminant	MCL	DLR	PHG	Date of PHG
Chemicals with MCLs in 22 CCR §64431—Inorganic Chemicals				
Aluminum	1	0.05	0.6	2001
Antimony	0.006	0.006	0.001	2016
Arsenic	0.010	0.002	0.000004	2004
Asbestos (MFL = million fibers per liter; for fibers >10 microns long)	7 MFL	0.2 MFL	7 MFL	2003
Barium	1	0.1	2	2003
Beryllium	0.004	0.001	0.001	2003
Cadmium	0.005	0.001	0.00004	2006
Chromium, Total - OEHHA withdrew the 0.0025-mg/L PHG	0.05	0.01	withdrawn Nov. 2001	1999
Chromium, Hexavalent - 0.01-mg/L MCL & 0.001-mg/L DLR repealed September 2017	--	--	0.00002	2011
Cyanide	0.15	0.1	0.15	1997
Fluoride	2	0.1	1	1997
Mercury (inorganic)	0.002	0.001	0.0012	1999 (rev2005)*
Nickel	0.1	0.01	0.012	2001
Nitrate (as nitrogen, N)	10 as N	0.4	45 as NO3 (=10 as N)	2018
Nitrite (as N)	1 as N	0.4	1 as N	2018
Nitrate + Nitrite (as N)	10 as N	--	10 as N	2018
Perchlorate	0.006	0.004	0.001	2015
Selenium	0.05	0.005	0.03	2010
Thallium	0.002	0.001	0.0001	1999 (rev2004)
Copper and Lead, 22 CCR §64672.3				
Values referred to as MCLs for lead and copper are not actually MCLs; instead, they are called "Action Levels" under the lead and copper rule				
Copper	1.3	0.05	0.3	2008

Lead	0.015	0.005	0.0002	2009
Radionuclides with MCLs in 22 CCR §64441 and §64443—Radioactivity				
[units are picocuries per liter (pCi/L), unless otherwise stated; n/a = not applicable]				
Gross alpha particle activity - OEHHA concluded in 2003 that a PHG was not practical	15	3	none	n/a
Gross beta particle activity - OEHHA concluded in 2003 that a PHG was not practical	4 mrem/yr	4	none	n/a
Radium-226	--	1	0.05	2006
Radium-228	--	1	0.019	2006
Radium-226 + Radium-228	5	--	--	--
Strontium-90	8	2	0.35	2006
Tritium	20,000	1,000	400	2006
Uranium	20	1	0.43	2001
Chemicals with MCLs in 22 CCR §64444—Organic Chemicals				
(a) Volatile Organic Chemicals (VOCs)				
Benzene	0.001	0.0005	0.00015	2001
Carbon tetrachloride	0.0005	0.0005	0.0001	2000
1,2-Dichlorobenzene	0.6	0.0005	0.6	1997 (rev2009)
1,4-Dichlorobenzene (p-DCB)	0.005	0.0005	0.006	1997
1,1-Dichloroethane (1,1-DCA)	0.005	0.0005	0.003	2003
1,2-Dichloroethane (1,2-DCA)	0.0005	0.0005	0.0004	1999 (rev2005)
1,1-Dichloroethylene (1,1-DCE)	0.006	0.0005	0.01	1999
cis-1,2-Dichloroethylene	0.006	0.0005	0.013	2018
trans-1,2-Dichloroethylene	0.01	0.0005	0.05	2018
Dichloromethane (Methylene chloride)	0.005	0.0005	0.004	2000
1,2-Dichloropropane	0.005	0.0005	0.0005	1999
1,3-Dichloropropene	0.0005	0.0005	0.0002	1999 (rev2006)
Ethylbenzene	0.3	0.0005	0.3	1997
Methyl tertiary butyl ether (MTBE)	0.013	0.003	0.013	1999
Monochlorobenzene	0.07	0.0005	0.07	2014
Styrene	0.1	0.0005	0.0005	2010
1,1,2,2-Tetrachloroethane	0.001	0.0005	0.0001	2003
Tetrachloroethylene (PCE)	0.005	0.0005	0.00006	2001
Toluene	0.15	0.0005	0.15	1999
1,2,4-Trichlorobenzene	0.005	0.0005	0.005	1999
1,1,1-Trichloroethane (1,1,1-TCA)	0.2	0.0005	1	2006
1,1,2-Trichloroethane (1,1,2-TCA)	0.005	0.0005	0.0003	2006
Trichloroethylene (TCE)	0.005	0.0005	0.0017	2009
Trichlorofluoromethane (Freon 11)	0.15	0.005	1.3	2014

1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	1.2	0.01	4	1997 (rev2011)
Vinyl chloride	0.0005	0.0005	0.00005	2000
Xylenes	1.75	0.0005	1.8	1997
(b) Non-Volatile Synthetic Organic Chemicals (SOCs)				
Alachlor	0.002	0.001	0.004	1997
Atrazine	0.001	0.0005	0.00015	1999
Bentazon	0.018	0.002	0.2	1999 (rev2009)
Benzo(a)pyrene	0.0002	0.0001	0.000007	2010
Carbofuran	0.018	0.005	0.0007	2016
Chlordane	0.0001	0.0001	0.00003	1997 (rev2006)
Dalapon	0.2	0.01	0.79	1997 (rev2009)
1,2-Dibromo-3-chloropropane (DBCP)	0.0002	0.00001	0.0000017	1999
2,4-Dichlorophenoxyacetic acid (2,4-D)	0.07	0.01	0.02	2009
Di(2-ethylhexyl)adipate	0.4	0.005	0.2	2003
Di(2-ethylhexyl)phthalate (DEHP)	0.004	0.003	0.012	1997
Dinoseb	0.007	0.002	0.014	1997 (rev2010)
Diquat	0.02	0.004	0.006	2016
Endothal	0.1	0.045	0.094	2014
Endrin	0.002	0.0001	0.0003	2016
Ethylene dibromide (EDB)	0.00005	0.00002	0.00001	2003
Glyphosate	0.7	0.025	0.9	2007
Heptachlor	0.00001	0.00001	0.000008	1999
Heptachlor epoxide	0.00001	0.00001	0.000006	1999
Hexachlorobenzene	0.001	0.0005	0.00003	2003
Hexachlorocyclopentadiene	0.05	0.001	0.002	2014
Lindane	0.0002	0.0002	0.000032	1999 (rev2005)
Methoxychlor	0.03	0.01	0.00009	2010
Molinate	0.02	0.002	0.001	2008
Oxamyl	0.05	0.02	0.026	2009
Pentachlorophenol	0.001	0.0002	0.0003	2009
Picloram	0.5	0.001	0.166	2016
Polychlorinated biphenyls (PCBs)	0.0005	0.0005	0.00009	2007
Simazine	0.004	0.001	0.004	2001
Thiobencarb	0.07	0.001	0.042	2016
Toxaphene	0.003	0.001	0.00003	2003
1,2,3-Trichloropropane	0.000005	0.000005	0.0000007	2009
2,3,7,8-TCDD (dioxin)	$3x10^{-8}$	$5x10^{-9}$	$5x10^{-11}$	2010
2,4,5-TP (Silvex)	0.05	0.001	0.003	2014
Chemicals with MCLs in 22 CCR §64533—Disinfection Byproducts				
Total Trihalomethanes	0.080	--	--	--
Bromodichloromethane	--	0.0010	0.00006	2018 draft

ATTACHMENT NO. 1
2019 PHG Triennial Report: Calendar Years 2016-2017-2018

Bromoform	--	0.0010	0.0005	2018 draft
Chloroform	--	0.0010	0.0004	2018 draft
Dibromochloromethane	--	0.0010	0.0001	2018 draft
Haloacetic Acids (five) (HAA5)	0.060	--	--	--
Monochloroacetic Acid	--	0.0020	--	--
Dichloroacetic Adic	--	0.0010	--	--
Trichloroacetic Acid	--	0.0010	--	--
Monobromoacetic Acid	--	0.0010	--	--
Dibromoacetic Acid	--	0.0010	--	--
Bromate	0.010	0.0050**	0.0001	2009
Chlorite	1.0	0.020	0.05	2009
Chemicals with PHGs established in response to DDW requests. These are not currently regulated drinking water contaminants.				
N-Nitrosodimethylamine (NDMA)	--	--	0.000003	2006
*OEHHA's review of this chemical during the year indicated (rev20XX) resulted in no change in the PHG.				
**The DLR for Bromate is 0.0010 mg/L for analysis performed using EPA Method 317.0 Revision 2.0, 321.8, or 326.0.				

Reference No. 5

Table 2
Reference: Other Agencies

COST ESTIMATES FOR TREATMENT TECHNOLOGIES

(INCLUDES ANNUALIZED CAPITAL AND O&M COSTS)

No.	Treatment Technology	Source of Information	**Estimated 2012 Unit Cost Indexed to 2018*** ($/1,000 gallons treated)
1	Reduction - Coagulation-Filtration	Reference: February 28, 2013, Final Report Chromium Removal Research, City of Glendale, CA. 100-2000 gpm. Reduce Hexavalent Chromium to 1 ppb.	1.74 - 10.97
2	IX - Weak Base Anion Resin	Reference: February 28, 2013, Final Report Chromium Removal Research, City of Glendale, CA. 100-2000 gpm. Reduce Hexavalent Chromium to 1 ppb.	1.79 - 7.47
3	IX	Golden State Water Co., IX w/disposable resin, 1 MGD, Perchlorate removal, built in 2010.	0.55
4	IX	Golden State Water Co., IX w/disposable resin, 1000 gpm, perchlorate removal (Proposed; O&M estimated).	1.19
5	IX	Golden State Water Co., IX with brine regeneration, 500 gpm for Selenium removal, built in 2007.	7.81
6	GFO/Adsorption	Golden State Water Co., Granular Ferric Oxide Resin, Arsenic removal, 600 gpm, 2 facilities, built in 2006.	2.04 - 2.18
7	RO	Reference: Inland Empire Utilities Agency : Chino Basin Desalter. RO cost to reduce 800 ppm TDS, 150 ppm Nitrate (as NO3); approx. 7 mgd.	2.67
8	IX	Reference: Inland Empire Utilities Agency : Chino Basin Desalter. IX cost to reduce 150 ppm Nitrate (as NO3); approx. 2.6 mgd.	1.49

Reference No. 5 (Continued)

9	Packed Tower Aeration	Reference: Inland Empire Utilities Agency : Chino Basin Desalter. PTA-VOC air stripping, typical treated flow of approx. 1.6 mgd.	0.45
10	IX	Reference: West Valley WD Report, for Water Recycling Funding Program, for 2.88 mgd treatment facility. IX to remove Perchlorate, Perchlorate levels 6-10 ppb. 2008 costs.	0.62 - 0.88
11	Coagulation Filtration	Reference: West Valley WD, includes capital, O&M costs for 2.88 mgd treatment facility- Layne Christensen packaged coagulation Arsenic removal system. 2009-2012 costs.	0.41
12	FBR	Reference: West Valley WD/Envirogen design data for the O&M + actual capitol costs, 2.88 mgd fluidized bed reactor (FBR) treatment system, Perchlorate and Nitrate removal, followed by multimedia filtration & chlorination, 2012. NOTE: The capitol cost for the treatment facility for the first 2,000 gpm is $23 million annualized over 20 years with ability to expand to 4,000 gpm with minimal costs in the future. $17 million funded through state and federal grants with the remainder funded by WVWD and the City of Rialto.	1.84 - 1.94

*Costs were adjusted from date of original estimates to present, where appropriate, using the Engineering News Record (ENR) annual average building costs of 2018 and 2012. The adjustment factor was derived from the ratio of 2018 Index/2012 Index, or 1.188.
For the indexed 2015 costs, please refer to the ACWA PHG Guidance published in March 2016.

ATTACHMENT NO. 3
Table 3
Reference: Updated 2012 ACWA Cost of Treatment Table

COST ESTIMATES FOR TREATMENT TECHNOLOGIES
(INCLUDES ANNUALIZED CAPITAL AND O&M COSTS)

No.	Treatment Technology	Source of Information	Estimated 2012 Unit Cost Indexed to 2018* ($/1,000 gallons treated)
1	Granular Activated Carbon	Reference: Malcolm Pirnie estimate for California Urban Water Agencies, large surface water treatment plants treating water from the State Water Project to meet Stage 2 D/DBP and bromate regulation, 1998	0.63 - 1.19
2	Granular Activated Carbon	Reference: Carollo Engineers, estimate for VOC treatment (PCE), 95% removal of PCE, Oct. 1994,1900 gpm design capacity	0.29
3	Granular Activated Carbon	Reference: Carollo Engineers, est. for a large No. Calif. surf. water treatment plant (90 mgd capacity) treating water from the State Water Project, to reduce THM precursors, ENR construction cost index = 6262 (San Francisco area) - 1992	1.38
4	Granular Activated Carbon	Reference: CH2M Hill study on San Gabriel Basin, for 135 mgd central treatment facility for VOC and SOC removal by GAC, 1990	0.54 - 0.78
5	Granular Activated Carbon	Reference: Southern California Water Co. - actual data for "rented" GAC to remove VOCs (1,1-DCE), 1.5 mgd capacity facility, 1998	2.47
6	Granular Activated Carbon	Reference: Southern California Water Co. - actual data for permanent GAC to remove VOCs (TCE), 2.16 mgd plant capacity, 1998	1.60
7	Reverse Osmosis	Reference: Malcolm Pirnie estimate for California Urban Water Agencies, large surface water treatment plants treating water from the State Water Project to meet Stage 2 D/DBP and bromate regulation, 1998	1.85 - 3.55
8	Reverse Osmosis	Reference: Boyle Engineering, RO cost to reduce 1000 ppm TDS in brackish groundwater in So. Calif., 1.0 mgd plant operated at 40% of design flow, high brine line cost, May 1991	4.38
9	Reverse Osmosis	Reference: Boyle Engineering, RO cost to reduce 1000 ppm TDS in brackish groundwater in So. Calif., 1.0 mgd plant operated at 100% of design flow, high brine line cost, May 1991	2.70
10	Reverse Osmosis	Reference: Boyle Engineering, RO cost to reduce 1000 ppm TDS in brackish groundwater in So. Calif., 10.0 mgd plant operated at 40% of design flow, high brine line cost, May 1991	2.92

COST ESTIMATES FOR TREATMENT TECHNOLOGIES

(INCLUDES ANNUALIZED CAPITAL AND O&M COSTS)

No.	Treatment Technology	Source of Information	Estimated 2012 Unit Cost Indexed to 2018* ($/1,000 gallons treated)
11	Reverse Osmosis	Reference: Boyle Engineering, RO cost to reduce 1000 ppm TDS in brackish groundwater in So. Calif., 10.0 mgd plant operated at 100% of design flow, high brine line cost, May 1991	2.26
12	Reverse Osmosis	Reference: Arsenic Removal Study, City of Scottsdale, AZ - CH2M Hill, for a 1.0 mgd plant operated at 40% of design capacity, Oct. 1991	7.33
13	Reverse Osmosis	Reference: Arsenic Removal Study, City of Scottsdale, AZ - CH2M Hill, for a 1.0 mgd plant operated at 100% of design capacity, Oct. 1991	4.33
14	Reverse Osmosis	Reference: Arsenic Removal Study, City of Scottsdale, AZ - CH2M Hill, for a 10.0 mgd plant operated at 40% of design capacity, Oct. 1991	3.24
15	Reverse Osmosis	Reference: Arsenic Removal Study, City of Scottsdale, AZ - CH2M Hill, for a 10.0 mgd plant operated at 100% of design capacity, Oct. 1991	2.01
16	Reverse Osmosis	Reference: CH2M Hill study on San Gabriel Basin, for 135 mgd central treatment facility with RO to remove nitrate, 1990	2.02 - 3.55
17	Packed Tower Aeration	Reference: Analysis of Costs for Radon Removal... (AWWARF publication), Kennedy/Jenks, for a 1.4 mgd facility operating at 40% of design capacity, Oct. 1991	1.16
18	Packed Tower Aeration	Reference: Analysis of Costs for Radon Removal... (AWWARF publication), Kennedy/Jenks, for a 14.0 mgd facility operating at 40% of design capacity, Oct. 1991	0.62
19	Packed Tower Aeration	Reference: Carollo Engineers, estimate for VOC treatment (PCE) by packed tower aeration, without off-gas treatment, O&M costs based on operation during 329 days/year at 10% downtime, 16 hr/day air stripping operation, 1900 gpm design capacity, Oct. 1994	0.31
20	Packed Tower Aeration	Reference: Carollo Engineers, for PCE treatment by Ecolo-Flo Enviro-Tower air stripping, without off-gas treatment, O&M costs based on operation during 329 days/year at 10% downtime, 16 hr/day air stripping operation, 1900 gpm design capacity, Oct. 1994	0.32
21	Packed Tower Aeration	Reference: CH2M Hill study on San Gabriel Basin, for 135 mgd central treatment facility - packed tower aeration for VOC and radon removal, 1990	0.50 - 0.82

COST ESTIMATES FOR TREATMENT TECHNOLOGIES

(INCLUDES ANNUALIZED CAPITAL AND O&M COSTS)

No.	Treatment Technology	Source of Information	Estimated 2012 Unit Cost Indexed to 2018* ($/1,000 gallons treated)
22	Advanced Oxidation Processes	Reference: Carollo Engineers, estimate for VOC treatment (PCE) by UV Light, Ozone, Hydrogen Peroxide, O&M costs based on operation during 329 days/year at 10% downtime, 24 hr/day AOP operation, 1900 gpm capacity, Oct. 1994	0.61
23	Ozonation	Reference: Malcolm Pirnie estimate for CUWA, large surface water treatment plants using ozone to treat water from the State Water Project to meet Stage 2 D/DBP and bromate regulation, *Cryptosporidium* inactivation requirements,1998	0.14 - 0.29
24	Ion Exchange	Reference: CH2M Hill study on San Gabriel Basin, for 135 mgd central treatment facility - ion exchange to remove nitrate, 1990	0.67 - 0.88

*Costs were adjusted from date of original estimates to present, where appropriate, using the Engineering News Record (ENR) annual average building costs of 2018 and 2012. The adjustment factor was derived from the ratio of 2018 Index/2012 Index, or 1.188.
For the indexed 2015 costs, please refer to the ACWA PHG Guidance published in March 2016.

DATE: SEPTEMBER 4, 2019
TO: BOARD OF DIRECTORS
SUBJECT: REQUEST FOR APPROVAL OF A PURCHASE ORDER TO INFRASTRUCTURE ENGINEERING CORPORATION FOR PIPE ASSESSMENT SERVICES AT HIGH POINT SUBDIVISION

BACKGROUND:

The 500-acre High Point Subdivision began construction of water and sewer facilities to serve 38 residential lots in 2007. When construction was nearly complete in 2008, the developer walked away from the project. The water and sewer facilities were not accepted by Vallecitos Water District.

DISCUSSION:

CalWest and TrueLife Communities are interested in developing the project. However, since the facilities have been dormant over 10 years, VWD must be satisfied that they are in good condition prior to the District's acceptance of those facilities. In order to determine the condition of the existing ductile iron water main, a pipe condition assessment is required. Infrastructure Engineering Corporation (IEC) and their subcontractor PICA have provided a scope of work and cost estimate to test and assess the integrity of the water main. This includes the pipeline appurtenance (blow-offs, air vacs and fire hydrants) connections to the main.

FISCAL IMPACT:

All costs for the pipe assessment as well as staff time for inspection and engineering review will be paid by the Developer. CalWest and TrueLife Communities have paid a deposit of $135,027.00 towards the total costs. The Purchase Order amount for IEC's portion of the work is $102,685.00. The amount of the Purchase Order exceeds the authority of the General Manager and must be approved by the Board.

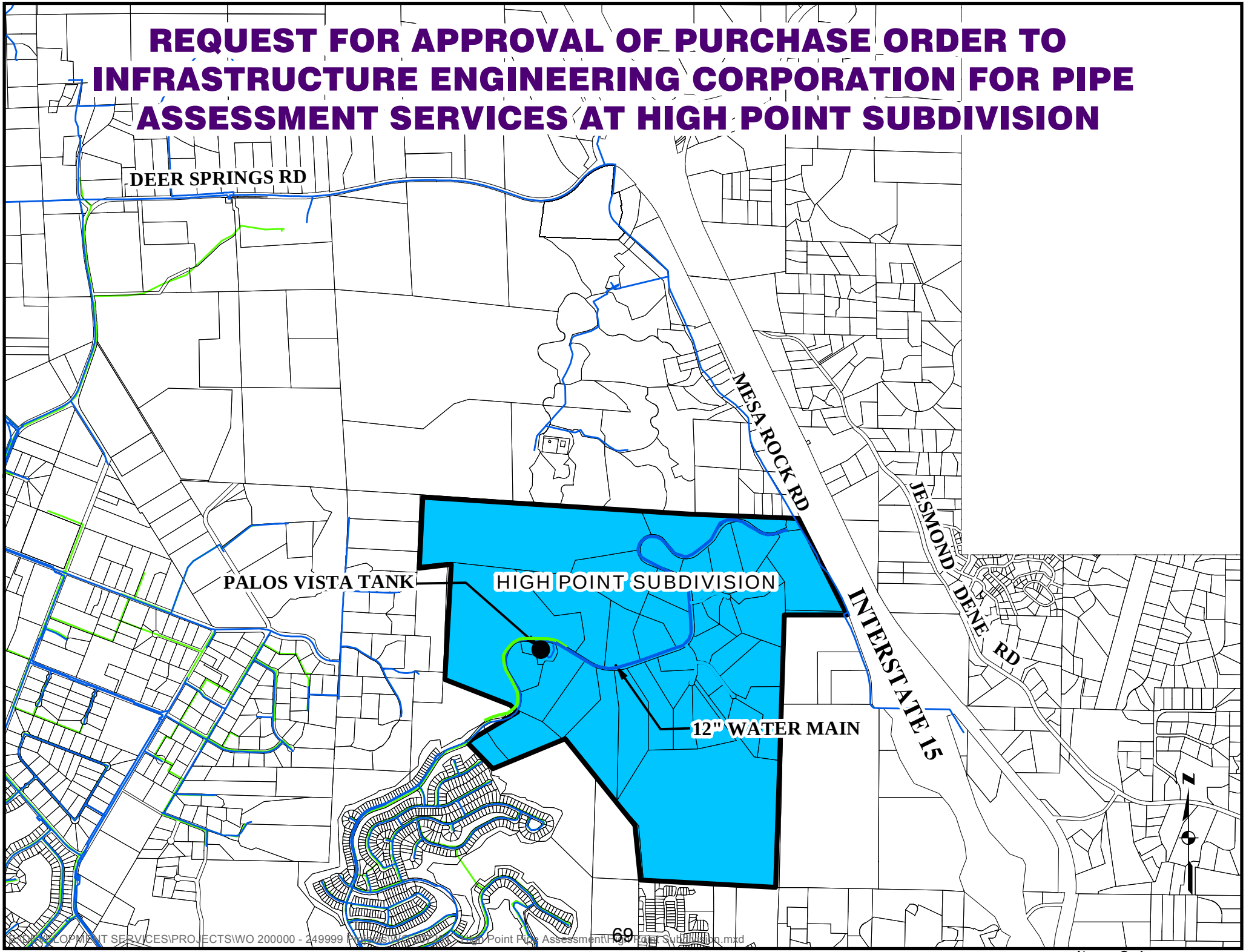
RECOMMENDATION:

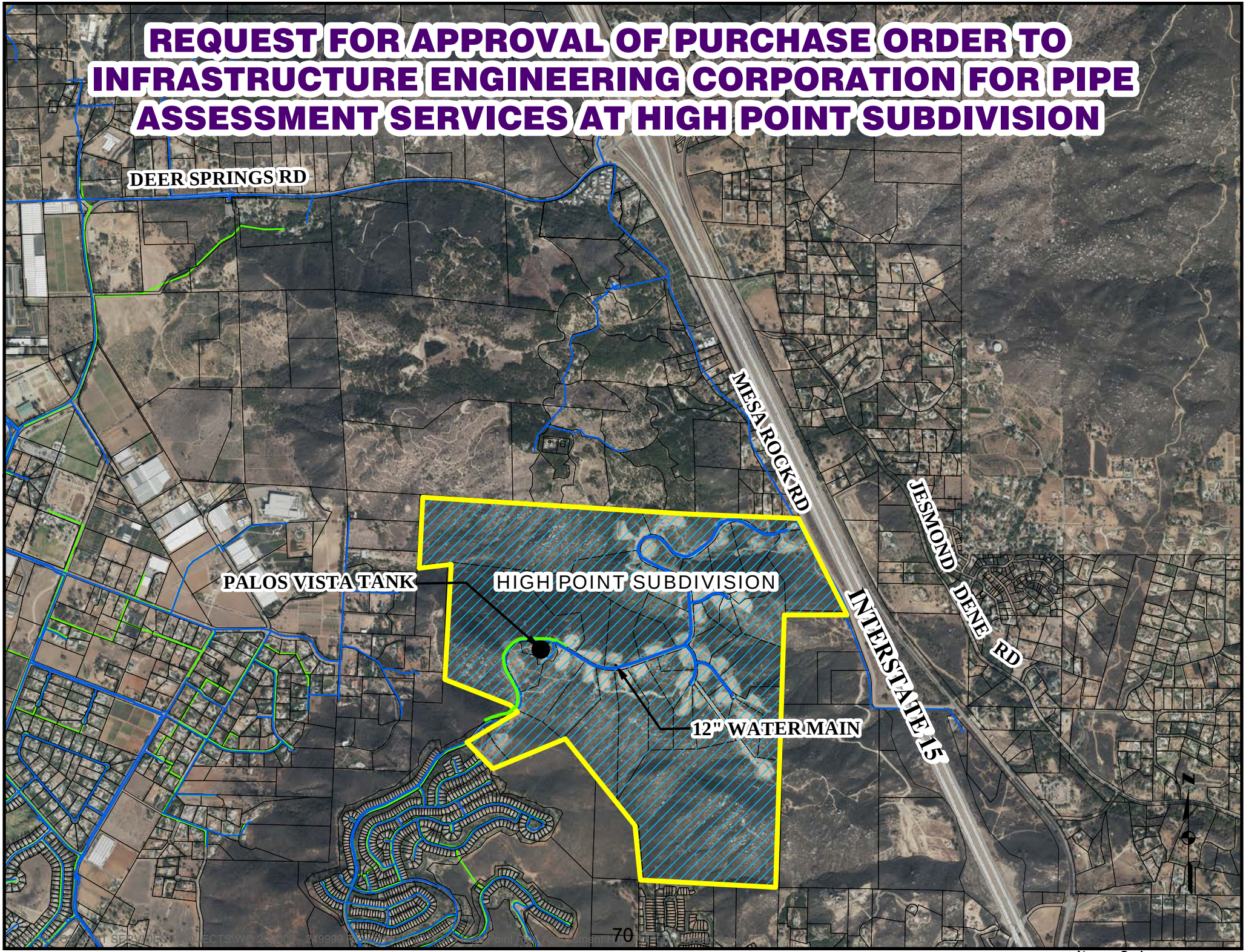
Approve the Purchase Order to Infrastructure Engineering Corporation in the amount of $102,685.00.

ATTACHMENTS:

2 Map Exhibits - 1 Plat & 1 Aerial

REQUEST FOR APPROVAL OF PURCHASE ORDER TO INFRASTRUCTURE ENGINEERING CORPORATION FOR PIPE ASSESSMENT SERVICES AT HIGH POINT SUBDIVISION




REQUEST FOR APPROVAL OF PURCHASE ORDER TO INFRASTRUCTURE ENGINEERING CORPORATION FOR PIPE ASSESSMENT SERVICES AT HIGH POINT SUBDIVISION
DEER SPRINGS RD
MESA ROCK RD
JESMOND DENE RD
INTERSTATE 15
PALOS VISTA TANK
HIGH POINT SUBDIVISION
12" WATER MAIN
N

DATE: SEPTEMBER 4, 2019
TO: BOARD OF DIRECTORS
SUBJECT: EMERGENCY REPAIR OF 8" WATER MAIN ON STEPHANIE COURT AND SAN ELIJO ROAD

BACKGROUND:

Water from Sage Canyon Water Tank is gravity fed through a 16-inch concrete mortar lined concrete (CMLC) pipe to School House Pump Station. School House Pump Station has the ability to pump water to Double Peak Tank. This is part of the backbone system that delivers water to the San Elijo Hills Community.

DISCUSSION:

On May 16th around 12 p.m., staff responded to a water main break at the intersection of Stephanie Court and San Elijo Road. After careful investigation, it was determined the main break was on a smaller 8-inch ductile iron pipe (DIP) on Stephanie Court that comes off the larger 16-inch DIP main on San Elijo Road. Staff was able to isolate the 8-inch water main on Stephanie Court, which limited the impacted customers to 84 town homes.

The contracting company, Cass Arrieta, was retained to perform the repair on the 8-inch DIP under the District's emergency purchasing policy. Under normal conditions, Resolution No. 1481 requires Board approval for construction above $50,000. However, under Section 8 of this Resolution, the General Manager can authorize emergency purchases above $50,000 if it is required "for the health, safety and welfare of the customers of the District, for the protection of the District's property, or if there is an immediate need or emergency which could not be reasonably foreseen."

Cass Arrieta was selected due to their previous performance with the District on emergency repairs, and their ability to mobilize quickly. The extent of the roadway damage, school traffic, and location of the 8-inch repair made it appropriate to bring outside help on board to perform the repairs. Cass Arrieta was able to make repairs on the 8-inch DIP on the same day the main break was discovered and customers were back in service at 8 p.m.

Cass Arrieta performed the following:

- Excavated 6' to expose the 8-inch DIP on Stephanie Court.
- Discovered excessive exterior corrosion in an isolated area, typically found in dry utility crossings caused during probing for water line location and puncturing exterior lining.
- Removed section of broken pipe and replaced section with PVC C900.
- Installed cathodic protection systems to the existing DIP pipe on both sides of the damaged section to help prevent further corrosion
- Backfilled excavation and installed temporary asphalt, City requested permanent asphalt repair be completed when school was out of session
- Repaired traffic loops and damaged asphalt.

Cass Arrieta completed the repair and rehabilitation work in 7 working days. Operations staff assisted in the repair, locating the broken section of pipe, and providing materials. Construction management and inspection was performed by District engineering staff. Soils consultant Christian Wheeler performed backfill and compaction testing, as required by the City. All final paving and landscape rehabilitation have been completed.

FISCAL IMPACT:

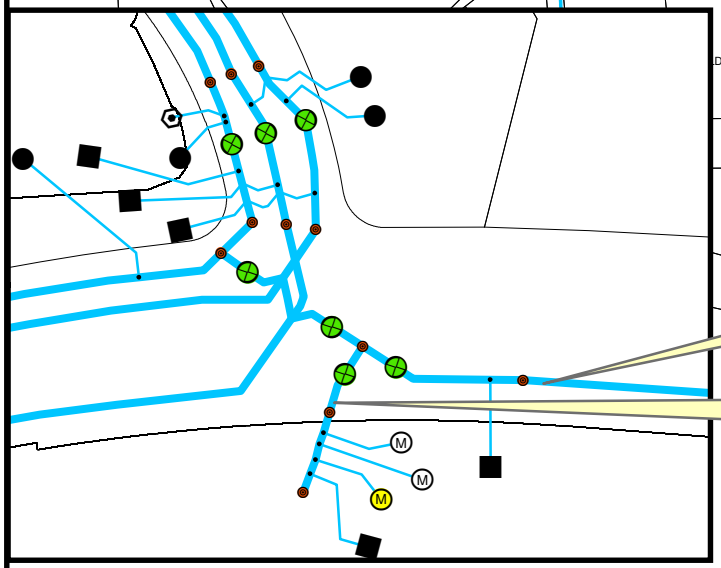
Cass Arrieta repair construction	$ 160,985.15
Christian Wheeler	$ 2,490.00
VWD Furnished Material	$ 3,608.72
Staff/Equipment & Overhead	$ 42,291.83
Total	$ 209,375.70

Christian Wheeler has already been paid under current purchasing policy guidelines.

Funding for the repairs will be from the Water Operating budget.

RECOMMENDATION:
Approve payment to Cass Arrieta in the amount of $160,985.15.

EMERGENCY REPAIR OF 8" WATER MAIN ON STEPHANIE COURT AND SAN ELIJO RD



DOUBLE PEAK TANK

16" WATER MAIN TO DOUBLE PEAK

16" WATER MAIN

LOCATION OF 8" WATER MAIN BREAK

SAGE CANYON INSERT

SAGE CANYON TANK

SCHOOL HOUSE PUMP STATION

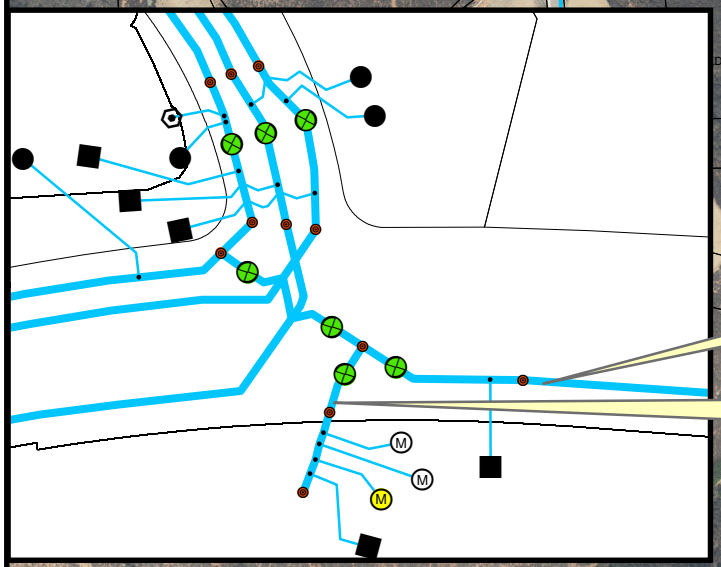
LOCATION OF 8" WATER MAIN BREAK

SEE INSERT ABOVE

16" WATER MAIN

ASPHALT PAVEMENT DAMAGE

EMERGENCY REPAIR OF 8" WATER MAIN ON STEPHANIE COURT AND SAN ELIJO RD



DOUBLE PEAK TANK

16" WATER MAIN

16" WATER MAIN TO DOUBLE PEAK

LOCATION OF 8" WATER MAIN BREAK

INSERT

SAGE CANYON TANK

SCHOOL HOUSE PUMP STATION

LOCATION OF 8" WATER MAIN BREAK

SEE INSERT ABOVE

16" WATER MAIN

ASPHALT PAVEMENT DAMAGE

DATE: SEPTEMBER 4, 2019
TO: BOARD OF DIRECTORS
SUBJECT: CONSIDERATION OF THE DEVELOPMENT OF A POLICY REGARDING THE ELIMINATION OF THE USE OF SINGLE-USE PLASTICS

BACKGROUND:

At the request of one of the Board's Directors, an item was placed on the June 25, 2019, Public Awareness/Personnel/Policy (PAPP) Committee agenda to discuss whether the District should consider eliminating the use of single-use plastics. Single-use plastics, or disposable plastics, are items that are used only once before they are thrown away, replaced or recycled. This includes items such as plastic bags, straws, utensils and beverage containers. The focus of the conversation at the PAPP Committee meeting was directed at plastic water bottles. Upon completion of the discussion, the Committee recommended this item be brought before the entire Board for consideration of the development of a policy regarding the use of single-use plastics.

DISCUSSION:

The District does use single-use plastics. The primary items used include plastic utensils and beverage containers, such as water bottles and plastic cups. Plastic utensils are used by staff in the lunchroom and coffee stations and are provided for public outreach events involving Vallecitos customers. Plastic water bottles are provided for District meetings and events as well as for customers impacted by water outages.

One of the biggest concerns with single-use plastics is the impact on the environment. Research indicates that nearly one third of plastic packaging and products are not disposed of properly and can find their way into streams, lagoons and the ocean. Alternatives to single-use plastics are readily available. For example, there are disposable, compostable utensils; paper drinking cups; and boxed water, as opposed to water in plastic bottles.

Although alternatives exist to items produced from single-use plastics, their cost is typically significantly higher. District staff did perform an analysis on the cost of bottled water to derive an estimate of the cost to provide alternative products. For the last full fiscal year of data, the District spent approximately $1,350 on bottled water. Based on research, to obtain the same amount of boxed water, in similar sized containers, would cost the District approximately $14,700. This is an increase of $13,350/year or nearly 990%. It's possible that competitive procurement would decrease the price differential. Additionally, as pressure to eliminate single-use plastics mounts globally, their cost will increase and alternative product costs may decrease, due to the benefits of economies of scale. At this time, however, the cost differential is significant.

FISCAL IMPACT:

There is no fiscal impact associated with the consideration of a policy. Should a policy be brought forward for the Board's consideration, an estimate of the fiscal impact of the policy would be addressed at that time.

RECOMMENDATION:

Request Board direction regarding the development of a policy regarding single-use plastics.

DATE: SEPTEMBER 4, 2019
TO: BOARD OF DIRECTORS
SUBJECT: OVERNIGHT HOTEL STAYS WITHIN SAN DIEGO COUNTY

BACKGROUND:

When attending District-approved events, Directors and staff are typically reimbursed for their travel-related expenses. These expenses normally include transportation, meals, lodging and other miscellaneous costs. In order to minimize travel-related costs, it has been the District's practice to not reimburse overnight lodging costs when events take place within San Diego County.

DISCUSSION:

In response to a request from a Director, an item was placed on the June 25, 2019, agenda of the Public Awareness/Personnel/Policy (PAPP) Committee to discuss overnight hotel stays within San Diego County for District-approved events. At the PAPP Committee meeting, it was discussed that the District does not appear to have a formal policy addressing the issue of reimbursement of costs for overnight stays within the county. The District does have a section in the Employee Handbook (see attached) entitled "Meetings, Seminars and Conferences Attendance Policy." This section applies to both staff and Directors but does not specifically address overnight lodging within San Diego County.

The Committee discussed the item at length and recommended the item be brought before the entire Board for discussion and direction. Some of the issues that were discussed by the Committee that may want to be considered by the Board should it desire to develop a formal policy on this issue include:

- Should lodging reimbursement be based on County geographical limits or should a mileage limitation be defined? The City of San Clemente, for example, is in Orange County yet is actually closer to the District's offices than is the City of San Diego.
- Should conference/event activities that end later in the evening or start very early in the morning be a consideration for whether overnight lodging is reimbursable?
- Should a policy allow for at least one overnight stay during multi-day conferences?
- Should the District factor in the avoided costs when considering whether overnight lodging is reimbursable? For example, if an attendee did not stay overnight between consecutive days of a conference, he/she would be eligible for transportation costs such as mileage and tolls.

If the Board were inclined to direct staff to develop a policy for their consideration regarding overnight stays in San Diego County, it may be advisable to develop a broader policy regarding District-related travel, including lodging, meal reimbursement, transportation, miscellaneous expenses, etc.

FISCAL IMPACT:
There is no fiscal impact associated with the consideration of a policy. Should a policy be brought forward for the Board's consideration, the fiscal impact of the policy would be addressed at that time.

RECOMMENDATION:
Request Board direction regarding the development of a policy regarding travel expenses.

ATTACHMENT:
VWD Employee Handbook – Supplement No. 7, Meetings, Seminars and Conferences Attendance Policy

Vallecitos Water District

MEETINGS, SEMINARS, AND CONFERENCES ATTENDANCE POLICY

Introduction

Directors and employees may attend conferences, meetings, seminars, training, and other functions for the purpose of furthering the interests of the District. Cost for travel and associated expenses for these events will be paid or reimbursed by the District under this policy. Directors' travel and payment of per diems for attendance at meetings, seminars, trainings, or conferences is authorized by District ordinance.

Policy

All travel should be prudently planned, ensuring the best interests of the public are served at the most reasonable cost. Expenses should be ordinary and necessary in order to conduct District business. Directors and employees are expected to abide by this policy, and exercise the same economy as a practical person when traveling, bearing in mind that public funds are in use.

The General Manager or designee will review expenses for compliance with this policy, and only those considered reasonable and necessary will be approved. Costs incurred for travel companions, pleasure tours, unrelated social events or side trips, and extended travel days are examples of expenses that are not allowed. If travel or registration expenses are incurred by the District and not used, the attendee may be required to reimburse the District unless the reason was due to personal illness, or events that prevented a good faith effort to attend. These events could include transportation delays or cancellations, meeting cancellations or date changes, or a sudden event within the District that requires the employee's presence.

Travel Arrangements

All travel arrangements for Directors will be made through the office of the General Manager. Employees must obtain department manager approval before registering or requesting travel arrangements. All overnight travel arrangements for employees will be made by the designated staff in Finance and Operations. Non-overnight travel arrangements for employees will be coordinated with the respective department staff. Attendees may, at the time of making travel arrangements, request a travel expense advance, not to exceed three hundred ($300) dollars to cover incidental travel costs not prepaid by the District. The advance must be declared on the expense claim form and the attendee is responsible for reimbursing the District if the amount exceeds the total eligible expenses. Registration fees should take advantage of early registration discounts and be paid beforehand when possible. If registration fees cannot be paid ahead of time, a check will be delivered to the attendee for payment upon arrival.

Expense Claim Form

To properly track and verify all travel-related expenses, an expense claim form will be turned in by Directors for all travel, regardless of whether an expense was incurred. Employees must submit an expense claim form for overnight travel. For non-overnight travel, employees are responsible for submitting an expense claim form if reimbursement is requested for an expense that was not paid for by the District, including mileage. Claim forms with adequate supporting documentation must be submitted to Finance within 30 calendar days from the end of the travel.

Transportation

Travel should be by the most economical direct route considering the mode of transportation used. In all cases, if an attendee prefers one means of transportation over another for any reason, reimbursement or advance payment will be made for the lower cost option and the attendee is responsible for paying the difference in cost. Air transportation must be coach or economy class, utilizing frequent flyer mile credits, and promotional, corporate, or other discounts. Train transportation may be used when reasonable. Mileage for travel to an airport or train station may be reimbursable. A rental car may be used if local transportation by shuttle, bus, or taxi is not reasonably available. Multiple attendees are encouraged to share the use of rental cars, taxis, and shuttles when practical. Rental car insurance is not necessary and will not be reimbursed. Parking fees necessary to travel, such as airport, hotels, or event parking, are reimbursable.

The District will reimburse for approved mileage according to the IRS established rate. All mileage will be calculated based on the roundtrip distance between the District office and the event, if travel commences from the District. If travel commences from the employee's home, resulting in less mileage traveled to the event, the employee is responsible for adjusting the claimed mileage to reflect the lesser amount. District Managers may not claim mileage for travel within San Diego County. When multiple staff are attending and driving to the same event, a District vehicle will be utilized if available, and gasoline costs incurred will be reimbursed.

Lodging

Lodging will be paid by the District, for single occupancy, at the group or government rate established for the conference. Lodging for an overnight stay prior to the beginning or after the end of the function may be paid by the District if the function starts too early or ends too late to permit reasonable travel. The cost for all nonessential items charged to the lodging bill, such as movies, valet or laundry service, beverages and snacks (unless consumed as a regular meal), etc., are not eligible for reimbursement. The costs of basic travel amenities, such as shampoo, toothpaste, etc., are not eligible for reimbursement. Telephone calls to conduct District business, reasonable and necessary personal calls to attendee's residence, or local calls to arrange transportation, meals, and other related expenses are eligible for reimbursement.

Meals

The District will pay or reimburse Directors for actual and necessary meal expenses incurred in the performance of official duties while attending approved meetings, conferences, and seminars. Expenses include non-alcoholic beverages and reasonable tips. Meal expenses for employees while attending education courses, conferences & seminars, or on other District business, will follow the IRS regulations relating to meal reimbursements for government employees. Alcoholic beverages are not eligible for reimbursement. For overnight stays, the District will pay or reimburse reasonable costs for meals, including tips. For day trips, where the employee drives to and from the event in one day, the District will not pay or reimburse meal expenses unless it is determined that the meal is directly related to, or associated with, the active conduct of the District's business. Active conduct is when an employee is directly involved in the organization or presentation of the event, or when District business is the main focus.

DATE: **SEPTEMBER 4, 2019**
TO: **BOARD OF DIRECTORS**
SUBJECT: **RESOLUTION CONCURRING IN NOMINATION OF ACWA STATE-WIDE ELECTION FOR PRESIDENT AND VICE PRESIDENT**

BACKGROUND:
The Association of California Water Agencies (ACWA) will be holding an election for President and Vice President at their Fall Conference on Wednesday, December 4, 2019.

DISCUSSION:
Only elected or appointed members of the governing body of a member agency are eligible for election to the officer positions. All nominations for the positions of President and Vice President must be accompanied by a nominating resolution of support from the member agency on whose Board the nominee serves. A résumé of the candidate highlighting qualifications for the position is also required with the nomination. The term of office begins January 1 following the election and is a 2-year term. The ACWA Nominating Committee will announce a slate of candidates at their Board meeting on September 27.

The San Juan Water District Board of Directors is requesting Vallecitos Water District concur in the nomination of Director Pam Tobin by adopting a resolution endorsing her for Vice President of ACWA.

Ms. Sarah Palmer of the Zone 7 Water Agency Board of Directors is also requesting Vallecitos adopt a resolution concurring in her nomination for Vice President of ACWA.

Resolutions of support for those two candidates have been prepared should the Vallecitos Board choose to support either candidate.

RECOMMENDATION:
Request Board direction.

ATTACHMENTS:
Resolutions of support for prospective Vice President candidates Tobin and Palmer

P.O. Box 2157 | 9935 Auburn Folsom Road | Granite Bay, CA 95746 | 916-791-0115 | sjwd.org

SAN JUAN WATER
SINCE 1854

August 16, 2019

Glenn Pruim
General Manager
Vallecitos Water District
201 Vallecitos de Oro
San Marcos, CA 92069

Dear Glenn Pruim:

It is my pleasure to inform you that the Board of Directors of the San Juan Water District (San Juan) took action at its June 26, 2019, board meeting to nominate Director Pam Tobin to be elected Vice-President of the Association of California Water Agencies (ACWA).

As noted in the enclosed Resolution of Support from the San Juan Board, Director Tobin "possesses all of the qualities needed to fulfill the duties of the office of ACWA Vice-President" – e.g. knowledge of the water industry, strength of character and leadership capabilities, and the ability to dedicate her time and energy to effectively serve. Moreover, Director Tobin has served ACWA in various capacities during her 15-year tenure as a San Juan Director, including:

- Current Chair of Region 4 and member of the Board of Directors, including being an appointee to the Steering Committee for Long-Term Strategic Planning;
- Board Member of ACWA JPIA since 2016; and
- Long-time active participant on the Federal Affairs and Local Government committees.

Director Tobin has also been a leader in regional water management efforts, including as a Board Member and multiple terms as Chair of both the Sacramento Regional Water Authority (RWA) and the Sacramento Groundwater Authority. In 2018, she was the recipient of the RWA's Distinguished Service Award.

In addition to informing you of Director Tobin's candidacy, we respectfully request your agency's support of Director Tobin's nomination by adopting a resolution endorsing her nomination to be ACWA's next Vice-President. Also enclosed you will find a sample resolution of support. If your board takes action, please forward your resolution of support to me by September 12th and also to ACWA c/o Donna Pangborn, 910 K Street, Suite 100, Sacramento, CA 95814.

Thank you very much for your consideration.

Sincerely,

Paul Helliker

Paul Helliker
General Manager

RESOLUTION NO. 19-03

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE SAN JUAN WATER DISTRICT TO NOMINATE AND SUPPORT PAMELA TOBIN AS A CANDIDATE FOR THE POSITION OF ACWA VICE PRESIDENT

WHEREAS, ACWA has announced that a Nominating Committee has been formed to develop a slate for the Association's statewide positions of President and Vice President; and

WHEREAS, the individual who fills an officer position will need to have a working knowledge of water industry issues and concerns, possess strength of character and leadership capabilities, and be experienced in matters related to the performance of the duties of the office; and

WHEREAS, this person must be able to provide the dedication of time and energy to effectively serve in this capacity; and

WHEREAS, Pamela Tobin has served in a leadership role as a member of the San Juan Water District Board of Directors since December 2004; and

WHEREAS, Pamela Tobin has served in a leadership role as a member of the ACWA Board of Directors since 2018; has served on the ACWA Region 4 Board since 2016 and is currently Region 4 Chair; has served on the ACWA Federal Affairs Committee and the ACWA Local Government Committee since 2014; and has served on the ACWA Board of Directors' Steering Committee for Long-Term Strategic Planning in 2019.

WHEREAS, Pamela Tobin has served on the Board of the Sacramento Regional Water Authority (RWA) since 2004, has previously served as RWA Board Chair, has served on the RWA Executive Committee for a number of years and received the RWA "Distinguished Service" Award for 2018.

WHEREAS, Pamela Tobin has served on the Board of the Sacramento Groundwater Authority (SGA) since 2004 and has previously served as SGA Chair and is the current SGA Chair for 2019.

WHEREAS, it is the opinion of the San Juan Water District Board of Directors that Pamela Tobin possesses all of the qualities needed to fulfill the duties of the office of ACWA Vice President.

NOW, THEREFORE, BE IT RESOLVED, that the San Juan Water District Board of Directors does hereby nominate and support Pamela Tobin as a candidate for the office of ACWA Vice President, pledging the District's support of her endeavors in fulfilling the duties of this office if elected.

PASSED AND ADOPTED by the Board of Directors of the San Juan Water District on the 26th day of June 2019, by the following vote:

AYES:	DIRECTORS:	**Costa, Hanneman, Miller, Rich, Tobin**
NOES:	DIRECTORS:	
ABSENT:	DIRECTORS:	

Dan Rich

DAN RICH
President, Board of Directors
San Juan Water District

ATTEST

TERI GRANT
Secretary, Board of Directors

August 2019

Dear ACWA member and Board President,

I have included an introduction/information letter and resumé, a sample Resolution of Support which I hope your Board can pass, and a personal endorsement form for you or any other of your Board members who may want to endorse me. (I would love that!)

If I am successful in becoming ACWA Vice President, I look forward to visiting your agency some time in the next couple of years, and providing leadership and a sounding board for your region's issues and concerns. Each region is unique and requires serious consideration of the perspectives of the people who know it best.

Please feel free to contact me with any questions or concerns.

Thank you, and I look forward to working together!

Sarah Palmer
Director, Zone 7 Water Agency
Vice Chair ACWA Region 5

spalmer@zone7water.com
palmer.sarahL@gmail.com
925-784-1727 cell

July 30, 2019

Fellow ACWA Member;

Let me introduce myself! I am Sarah Palmer and I would like your support in becoming the next Association of California Water Agencies (ACWA) Vice President. As a Director for Zone 7 Water Agency since 2006, a teacher of Environmental Science in the college and high school levels, as well as a guest contractor at Lawrence Livermore National Labs with the UC Davis Groundwater Ambient Monitoring and Assessment (GAMA) project, I have been involved in many of the complexities of water in our state. My membership in ACWA has given me the opportunity to hear and understand the diverse viewpoints and challenges faced by the different regions of California, as well as be enriched by the people involved.

With ACWA, I have served as Vice Chair of Region 5 and attended several regional activities and events. These have been instrumental in giving me an appreciation of the issues and people of each region. I am an active member of the Agriculture, Water Management, and Water Quality Committees and have helped wrestle with emerging concerns in notification and response levels in the PFOA/PFAS Subcommittee. PFOA/PFAS is only one set of the troubling issues in which we are so fortunate to have the advocacy of ACWA involved. My participation in the ACWA Steering Committee has given me a deeper understanding of the inner workings of our agency and a heightened appreciation of the ACWA staff. The cooperative efforts of ACWA officers, staff and committee members and their work with legislators has averted a water tax, and helped formulate statewide programs. I have had the opportunity to attend three Washington, DC Legislative Conferences and am grateful for the work our DC ACWA staff does to prepare us for these important meetings. The ACWA Bi-annual Conferences present extraordinary opportunities for education and connection. I have attended nine of them. The keynote speakers have been consistently good and often inspiring. With all the various regional differences and diversity of political opinions, it is always heartening to see that ACWA members really do work toward seeing ourselves as "one water", striving to set aside individual and regional biases for the common good.

My 13 years as a Director for Zone 7 Water Agency has seen both drought and flood, litigation and contentious rate changes, three General Managers and some organizational restructuring. I have served as President for three terms, and have been active on Finance, Administrative, Tri-Valley Liaison, and Water Quality standing committees and served on three *ad hoc* committees. Again, work by our wonderful staff has brought us several Finance awards and approval of our SGMA Groundwater Sustainability Plan. Both staff and Board actively interact with our community locally and county-wide.

I have a Ph.D. in Cell Physiology and Biochemistry from the University of Toronto and a B.A. in Biology and Political Science (double major) from New York University. This background in science, with my subsequent research and teaching careers, have led me to wonderful opportunities for communicating complex concepts to both professional and lay groups. My experience has been beneficial in my role as communicator for environmental and other water education issues for both children and adults. I was named Alameda County District Teacher of the Year in 2006. I have been a speaker for Lawrence Livermore National Labs presentations and for Zone 7 Water Agency. My experience as a docent for the Elkhorn Slough National Estuarine Research Reserve has provided valuable insight into the functions of an estuary.

Although I am not a native Californian, (I am from Buffalo, NY… yes the winters are horrendous!) I have lived in Livermore for most of my adult life and have the great good fortune of having raised a true California girl who has become a fabulous and productive young woman. My sports are water related. I have been a SCUBA divemaster, and am an active kayaker and paddle boarder. I also paint abstract and impressionist works and train my wonderful dog.

California is my home, and California water is my passion. Water is THE big issue for all of us; our livelihoods, health and welfare, politics and environment. It touches almost every aspect of our lives in some way. It is inextricably involved in issues of climate change. We in the water industry and every related field are on the front lines and our resolve to ensure safe and sustainable water for us and our environment is paramount. Please support me in becoming Vice President of ACWA to provide leadership and vision to help us continue to work together to provide a healthy future for all Californians.

Thank you for your consideration!
Sincerely,

Sarah Palmer
925-784-1727
palmer.sarahL @gmail.com
spalmer@zone7water.com

Resumé attached

Resumé

Sarah Palmer, Ph.D.
546 Lagrange Lane
Livermore, CA 94550
palmer.sarahL @gmail.com
spalmer@zone7water.com
(925) 784-1727 (c)

My goal is to become the next Vice President of the Association of California Water Agencies. Why? Water impacts all life, public health, politics, and environment. Water brings in almost all areas of science and culture. My background in community engagement, public speaking, and science, especially in science communication, make me eminently qualified to fill this role.

Leadership in Water

Director of Alameda County Zone 7 Flood Control and Water Agency (Zone 7 Water Agency) Board of Directors since 2006
- Board President for 3 terms
- Committees:
  Finance, Administrative, Water Resources, Tri-Valley Liaison (this addresses topics of interest between Zone 7, cities and retail water agencies, including rate change issues and land use). I have also served on 3 ad hoc committees.

ACWA Region 5 Vice-Chair
ACWA Board of Directors
ACWA Committees:
- Steering Committee
- Water Quality Committee
- PFOA/PFAS subcommittee
- Water Management Committee
- Agriculture Committee

Director of Delta Conveyance Design and Construction Joint Powers Authority

Leadership in Education

- Women Chemist Committee of the American Chemical Society Northern California Division - Chair
- Coordinator for US National Chemistry Olympiad – American Chemical Society, Northern California Section
- K-12 Alliance Staff Developer
- Las Positas College Academic Senate, Part Time Faculty Representative
- Chabot/ Las Positas Faculty Association Board, Adjunct Faculty Representative
- CTE online curriculum developer (www.cteonline.org)
- Alameda County District Teacher of the Year (2006)
- Lead Teacher for Environmental Research Academy, STEP/ETEC at Lawrence Livermore National Laboratory
- Team Leader in SUPER! (Science Understanding Promotes Environmental Responsibility) at Sandia National Labs, Livermore
- Science Fair Coordinator for Livermore Valley Joint Unified School District, Livermore High School
- Environmental Career Pathway Coordinator , Foothill High School, Pleasanton

- Student Success Committee, Las Positas College: explores methods and programs for assuring the success of students of various cultural, ethnic, educational, and generational backgrounds, addressing the needs presented by different learning styles and multicultural perspectives.
- Mentor for Biomedical Pathway at Dublin High School
- Girl Scout leader
- Reader for California State funded educational grants

Outreach:

- Groundwater Monitoring and Assessment Program (GAMA), Contractor with UC Davis
- Science on Saturday: Teacher Coordinator / Co-Presenter for 4 years
- Edward Teller Science and Technology Symposia Workshop Presenter for three years
- ,U.S. Forest Service public education outreach for Kokanee Salmon Festival for over 10 years
- "Expanding Your Horizons" and Career Days presentations for high school groups.
- Public Information Presentations for community groups, homeowners associations, American Association of University Women
- Presenter for Science Technology Engineering and Math (STEM) projects for middle school girls

Research and Industry

Lawrence Livermore National Labs: Guest Participant
International Immunoassay Labs: Technical Support Scientist
UC Berkeley Cancer Research Lab: Post-Doctoral Research Scientist
NASA Goddard Space Flight Center: Data Technician contract

Teaching in Biological Sciences and Biochemistry

Subjects from Environmental Science, Marine Biology, and Botany to Genetics, Evolution, and Cell and Molecular Biology to name just a few, at the following:

Tri-Valley Regional Occupational Programs
Las Positas College
Holy Names College
Mills College
California State University , Hayward
University of California Berkeley
Saint Mary's College
University of Toronto

Volunteer

Docent for Elkhorn Slough National Estuarine Research Reserve
Animal Rescue Foundation Therapy Dog Partner
Pacific Chamber Orchestra Fundraising

Education:

Ph.D. Cell Biology / Biochemistry	University of Toronto, Dept. of Zoology Toronto, Ontario, M5S-1A1, Canada
B.A. Biology / Political Science	New York University, New York, N Y

RESOLUTION NO.

**RESOLUTION OF THE BOARD OF DIRECTORS
OF THE VALLECITOS WATER DISTRICT
IN SUPPORT OF THE NOMINATION OF PAM TOBIN
AS A CANDIDATE FOR THE POSITION OF ACWA VICE PRESIDENT**

WHEREAS, the Association of California Water Agencies (ACWA) has announced that a Nominating Committee has been formed to develop a slate for the Association's statewide positions of President and Vice President; and

WHEREAS, the individual who fills an officer position will need to have a working knowledge of water industry issues and concerns, possess strength of character and leadership capabilities, and be experienced in matters related to the performance of the duties of the office; and

WHEREAS, this person must be able to provide the dedication of time and energy to effectively serve in this capacity, and

WHEREAS, Pam Tobin has served in a leadership role as a member of the San Juan Water District Board of Directors for 15 years; and

WHEREAS, Pam Tobin serves as current Chair of ACWA Region 4 and a member of the Board of Directors, including being an appointee to the Steering Committee for Long-Term Strategic Planning; and

WHEREAS, Pam Tobin has served as a Board member of the ACWA JPIA since 2016; and

WHEREAS, Pam Tobin has served as a long-time active participant on the Federal Affairs and Local Government Committees; and

WHEREAS, Pam Tobin has served as a Board member and multiple terms as Chair of both the Sacramento Regional Water Authority (RWA) and the Sacramento Groundwater Authority; and

WHEREAS, Pam Tobin was the recipient of the RWA's Distinguished Service Award in 2018.

WHEREAS, it is the opinion of the San Juan Water District Board of Directors that Pam Tobin possesses all of the qualities needed to fulfill the duties of the office of ACWA Vice President.

NOW, THEREFORE, BE IT RESOLVED, that the Vallecitos Water District Board of Directors supports Pam Tobin for nomination as a candidate for the office of ACWA Vice President.

PASSED AND ADOPTED by the Board of Directors of the Vallecitos Water District at a regular meeting held on this 4th day of September, 2019, by the following roll call vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

Hal J. Martin, President
Board of Directors
Vallecitos Water District

ATTEST:

Glenn Pruim, Secretary
Board of Directors
Vallecitos Water District

RESOLUTION NO.

**RESOLUTION OF THE BOARD OF DIRECTORS
OF THE VALLECITOS WATER DISTRICT
IN SUPPORT OF THE NOMINATION OF SARAH PALMER
AS A CANDIDATE FOR THE POSITION OF ACWA VICE PRESIDENT**

WHEREAS, the Association of California Water Agencies (ACWA) has announced that a Nominating Committee has been formed to develop a slate for the Association's statewide positions of President and Vice President; and

WHEREAS, the individual who fills an officer position will need to have a working knowledge of water industry issues and concerns, possess strength of character and leadership capabilities, and be experienced in matters related to the performance of the duties of the office; and

WHEREAS, this person must be able to provide the dedication of time and energy to effectively serve in this capacity, and

WHEREAS, Sarah Palmer has served in a leadership role as a member of the Zone 7 Water Agency Board of Directors since 2006, three terms as President; and

WHEREAS, Sarah Palmer has served on the Administrative, Finance, Tri-Valley Liaison, and Water Resources Committees of the Zone 7 Water Agency; and

WHEREAS, Sarah Palmer serves as the Vice-Chair of ACWA Region 5 Board of Directors and as a Board member of ACWA; and

WHEREAS, Sarah Palmer serves as a member of the ACWA Agriculture, Water Management, and Water Quality Committees and as a member of the Water Quality Committee PFOS/PFAS subcommittee; and

WHEREAS, Sarah Palmer serves on the ACWA Board Steering Committee; and

WHEREAS, Sarah Palmer has demonstrated outstanding effort and support of local and regional water issues, including public information workshops and presentations; and

WHEREAS, it is the opinion of the Zone 7 Water Agency Board of Directors that Sarah Palmer possesses all of the qualities needed to fulfill the duties of the office of ACWA Vice President.

NOW, THEREFORE, BE IT RESOLVED, that the Vallecitos Water District Board of Directors supports Sarah Palmer for nomination as a candidate for the office of ACWA Vice President.

PASSED AND ADOPTED by the Board of Directors of the Vallecitos Water District at a regular meeting held on this 4th day of September, 2019, by the following roll call vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

Hal J. Martin, President
Board of Directors
Vallecitos Water District

ATTEST:

Glenn Pruim, Secretary
Board of Directors
Vallecitos Water District