



# PARADISE IRRIGATION DISTRICT

6332 Clark Road, Paradise CA 95969 | Phone (530)877-4971 | Fax (530)876-0483

## AGENDA

**REGULAR MEETING  
PARADISE IRRIGATION DISTRICT  
BOARD OF DIRECTORS  
6332 CLARK ROAD, PARADISE, CA 95969**

**WEDNESDAY, OCTOBER 17, 2018 – 6:30 PM**

- ❖ *The Board of Directors is committed to making its meetings accessible to all citizens. Any persons requiring a special accommodation to participate, is requested to contact the District Secretary at 530-877-4971, extension 2039 at least 48 hours in advance of the meeting.*
- ❖ *The Board of Directors or its President pursuant to Government Code section 54954.3 reserves the right to impose reasonable regulations governing public participation on agenda and non-agenda items, including limiting the total amount of time allocated to public testimony on particular issues and for each individual speaker.*
- 1. **OPENING:**
  - a. Call to Order
  - b. Public & Board Members; please silence your cell phones
  - c. Invocation and Pledge of Allegiance
  - d. Roll Call
- 2. **APPROVAL OF CONSENT CALENDAR:** *Action may be taken.*
  - a. Approval of Meeting Agenda Order
  - b. Approval of Minutes:
    - 1. Special Meeting of August 29, 2018
    - 2. Regular Meeting of September 19, 2018
    - 3. Special Meeting of October 8, 2018
- 3. **PUBLIC PARTICIPATION:**

Individuals will be given an opportunity to address the Board regarding matters not scheduled on the agenda, although the Board cannot take action on any matter not on the agenda. Comments will be limited to 5 minutes per speaker. Opportunity for public comment on agenda items will be provided at the time they are discussed by the Board with comments limited to 5 minutes per agenda item.
- 4. **PRESENTATION - PID EMPLOYEE RETIREMENT PROGRAM** (Kevin Phillips):
  - a. Presentation from International City County Management Association Retirement Corporation (ICMA-RC) to provide an update regarding the District's employee retirement program. *Informational item only.*
- 5. **STAFF AND BILLING REPORTS:** Review and acceptance of the September, 2018 Staff and Billing Reports. *Action may be taken.*
  - a. Staff Report for September, 2018
  - b. Billing Report for September, 2018
- 6. **DISTRICT MANAGER'S REPORT:** A written report on various projects. *Information item only.*
- 7. **TREASURER'S MEMO:** Review and acceptance of the Treasurer's Memo for the period ending September 30, 2018. *Action may be taken.*

8. **APPROVAL OF CHECKS:** Approval of General Fund Check Numbers 52350 through 52458 for the month of September, 2018 totaling \$601,673.48, and authorization of a similar amount allowing or adjusting for extraordinary budget or Board approved items during the month of October. *Action may be taken.*
9. **LEGAL REPORT:** A verbal update from Legal Counsel. *Information item only.*
10. **UNFINISHED BUSINESS:** (Continued from September 19, 2018 Board of Directors Meeting)
- a. Proposed Revisions to PID Policy and Procedures Manual - Private Distribution Pipelines (Manager Fortner / Neil Essila): Authorize approval to accept the proposed revisions to the District Policy and Procedures Manual Sections 6.7 and 6.8, or provide direction to staff for alternative changes, as determined. *Action may be taken.*
11. **NEW BUSINESS:**
- a. Reservoir B Replacement Project – Initial Study/Mitigated Negative Declaration (Manager Fortner). Approve Resolution No. 2018-12 adopting the California Environmental Quality Act (CEQA) Initial Study/Mitigated Negative Declaration (IS/MND) for the Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project (SCH# 2018082044), and adopt a Mitigation Monitoring and Reporting Program, and direct staff to file the Notice of Determination with the Butte County Clerk-Recorder's Office, the State Revolving Fund Financial Assistance Program, and the State Office of Planning and Research. *Action may be taken. (Roll Call Vote)*
- b. Reservoir B Replacement Project – Title Research (Manager Fortner): Approval of \$7,000 expenditure to Bidwell Title for title research related to right-of-way/easement for the construction of the Zone A transmission pipeline proposed under the Reservoir B Replacement Project. *Action may be taken.*
- c. Public Health Goal Report – Set Public Hearing Date (Manager Fortner): Authorize release of the Draft 2018 Triennial Public Health Goals Report and set a public hearing date as November 19, 2018 at 6:30 p.m. to consider public comments regarding the draft report. *Action may be taken.*
- d. Strategic Business Plan (Manager Fortner): Discussion regarding process for strategic planning with possible direction to staff. *Action may be taken.*
- e. November Board of Directors Meeting (Manager Fortner): Consider cancelling the Special Board of Directors meeting date previously set for November 28, 2018, and set a new special meeting date on Monday, November 19, 2018 at 6:30 p.m. *Action may be taken.*
- f. IBEW Local 1245 – Contract Ratification (Manager Fortner): Ratify the Proposed Tentative Agreement between Paradise Irrigation District and IBEW Local Union 1245 and update the terms of the Agreement in the Rules and Regulations Governing Employment Conditions, Salaries, and Benefits for Employees in the General Unit effective July 1, 2018 through June 30, 2019. *Action may be taken.*
- g. Teamsters Local 137 – Contract Ratification (Manager Fortner): Ratify Proposed Tentative Agreement between Paradise Irrigation District and Teamsters Union 137, and update the terms of the Agreement in the Rules and Regulations Governing Employment Conditions, Salaries, and Benefits for Employees in the Management Unit effective July 1, 2018 through June 30, 2021. *(Information regarding Proposed Tentative Agreement will be available for the Board meeting). Action may be taken.*
12. **COMMITTEE REPORTS:** *Informational items only.*
- a. Board oral report(s) regarding their representation on Commissions/Committees/Conferences:
1. Paradise Lake & Recreation Committee (Directors Sulik & Kellogg – Chairperson)
  2. Butte County Special Districts Association Executive Board Meeting (Director Sulik)



CONSENT CALENDAR  
REGULAR MEETING  
PARADISE IRRIGATION DISTRICT  
BOARD OF DIRECTORS

SEPTEMBER 19, 2018

A. APPROVAL OF MEETING AGENDA ORDER

B. APPROVAL OF MINUTES:

1. Special Meeting of August 29, 2018
2. Regular Meeting of September 19, 2018
3. Special Meeting of October 8, 2018

MINUTES

SPECIAL MEETING  
BOARD OF DIRECTORS  
PARADISE IRRIGATION DISTRICT  
AUGUST 29, 2018

The special meeting of the Board of Directors of the Paradise Irrigation District was called to order at 9:00 a.m. by President Dan Wentland. OPENING

BOARD MEMBERS PRESENT: Directors Marc Sulik, Vice-President Anne Rice, Bob Prevot, Bill Kellogg, and President Dan Wentland ROLL CALL

BOARD MEMBERS ABSENT: None

STAFF PRESENT: District Manager Ed Fortner, CFO/Treasurer Kevin Phillips, T&D Superintendent Keith O'Brien, Assistant Superintendent Jim Ladrini, Assistant Engineer Neil Essila, WTP Superintendent Jim Passanisi, WTP Operations Supervisor Bill Taylor, Information Systems Manager Mickey Rich, and Secretary Georgeanna Borrayo

ALSO PRESENT: Members of the public

Ward Habriel commented the PID Demonstration Garden may be a good location for an educational fire wise landscaping and fire safe building exhibit. If the Board is open to considering this idea, donated materials and labor may be available. PUBLIC PARTICIPATION (Item 2)

President Wentland announced closed session discussion pertaining to agenda item 3.a. and 3.b. As there were no comments, the Board adjourned to closed session at 9:04 a.m. to discuss the following: CLOSED SESSION (Item 3.a. & 3.b.)

3.a. CONFERENCE WITH LABOR NEGOTIATORS (Government Code § 54957.6)  
Employee organizations: General Unit represented by I.B.E.W., Local 1245 and Management Unit represented by Teamsters, Local 137  
PID designated representative: Emily LaMoe

*Closed Session Announcement: Direction has been given to the PID designated representative.*

3.b. CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION (Paragraph (a) of subdivision (d) of Government Code section 54956.9): Neil Essila et al v. Paradise Irrigation District et al. Butte County Superior Court Case No. 17CV02546.

*Closed Session Announcement: Direction has been given to Legal Counsel.*

President Wentland reconvened the special meeting at 10:03 a.m. and provided a closed session announcement regarding agenda item 3.a. and 3.b. as listed above in italicized print. CLOSED SESSION ANNOUNCEMENT

Manager Fortner reported at the August 15, 2018 Board of Directors meeting the proposed Water Quality Technician position was tabled for further discussion with the Union (I.B.E.W., Local 1245). During a recent labor negotiation meeting, the Water Quality Technician Job Description was approved and initialed by the Union as UNFINISHED BUSINESS: WATER QUALITY TECHNICIAN

CONTINUED –  
WATER QUALITY  
TECHNICIAN JOB  
DESCRIPTION  
APPROVED  
(Item 5.a.)

proposed. Staff further confirmed this is not a new position. The Water Treatment Department has an authorized Distribution System Operator position, which is vacant. This is a change in the job title and job description, which realigns the water quality responsibilities to better focus the abilities, skills, and resources necessary for the position, in particular, water sampling in the distribution system and analysis at the treatment plant.

It was moved by Director Rice and seconded by Director Prevot to authorize revising the Distribution Operator Job Description and duties and changing the title to Water Quality Technician and approve the proposed Job Description for Water Quality Technician.

AYES: Directors Sulik, Rice, Prevot, Kellogg, and Wentland

NOES: None

ABSENT: None

**Motion passes 5-0**

NEW BUSINESS:

BUDGET  
WORKSHOP  
(Item 6.a.)

CFO Phillips provided a presentation for review of the District's expenditure plan and to identify the resources and revenues available to fund it and support the priorities and policies of the Board of Directors. Following a budget overview and cash projection, as well as discussion regarding major and minor capital projects with staff, President Wentland adjourned the budget workshop to recess at 12:06 p.m.

MEETING  
RECONVENED –  
BUDGET  
WORKSHOP  
CONTINUED

President Wentland reconvened the special meeting at 12:45 p.m. to continue the budget workshop. Board members provided further input and recommendations for updates to the draft budget. Additional director comments included the potential to add a Water Treatment Plant Maintenance position and suggestions for revamping the budget format for the next fiscal year.

ADJOURNMENT

At the conclusion of questions and comments regarding the draft budget, President Wentland moved to adjourn the special meeting. The special meeting was adjourned at 2:03 p.m.

\_\_\_\_\_  
Georgeanna Borrayo, Secretary

\_\_\_\_\_  
Daniel Wentland, President

MINUTES

REGULAR MEETING  
BOARD OF DIRECTORS  
PARADISE IRRIGATION DISTRICT  
SEPTEMBER 19, 2018

The regular meeting of the Board of Directors of the Paradise Irrigation District was called to order at 6:30 p.m. by President Dan Wentland, followed by an Invocation and the Pledge of Allegiance to the Flag of the United States of America.

OPENING

BOARD MEMBERS PRESENT: Directors Marc Sulik, Vice-President Anne Rice, Bob Prevot, Bill Kellogg, and President Dan Wentland

ROLL CALL

BOARD MEMBERS ABSENT: None

STAFF PRESENT: District Manager Ed Fortner, CFO/Treasurer Kevin Phillips, Assistant Superintendent Jim Ladrini, Assistant Engineer Neil Essila, and Secretary Georgeanna Borrayo

ALSO PRESENT: PID Legal Counsel Emily LaMoe and members of the public

Board members reviewed consent calendar items as follows:

APPROVAL OF  
CONSENT  
CALENDAR  
(Item 2.a. – 2.b.)

2.a. Approval of Meeting Agenda Order

2.b. Approval of Minutes: Regular Meeting of August 15, 2018

President Wentland announced new business agenda items 10.a. through 10.h. will be moved forward on the agenda following public participation. It was moved by Director Rice and seconded by Director Prevot to approve the Consent Calendar.

AYES: Directors Sulik, Rice, Prevot, Kellogg, and Wentland

NOES: None

ABSENT: None

**Motion passes 5-0**

Ward Habriel commented on attending the California Garden Club Fall Board Meeting with Jim Broshears who presented information about fire wise landscaping, and his participation in the multi-agency Wildland Urban Interface Fire Table Top Exercise hosted by PID.

PUBLIC  
PARTICIPATION  
(Item 3)

Robert Palmer reported noticing a homeless encampment above Magalia Reservoir and an area where illegal dumping is occurring.

Manager Fortner and Assistant Engineer Neil Essila reported that currently, any facilities to be connected to the District's distribution system must be constructed to District standards. Facilities so constructed are then conveyed to the District and the District owns, operates and maintains these distribution facilities as long as they are necessary for the service of its customers.

NEW BUSINESS:

PROPOSED  
REVISIONS TO PID  
POLICY AND  
PROCEDURES  
MANUAL –  
PRIVATE  
DISTRIBUTION  
PIPELINES  
(Item 10.a.)

Conversely, many years ago the District allowed developers to construct distribution pipelines that were not built to then-current District standards. These pipelines were connected to the District distribution system. However, because they did not meet District standards, they were not accepted for conveyance. These pipelines remained

CONTINUED –  
PROPOSED  
REVISIONS TO PID  
POLICY &  
PROCEDURES  
MANUAL – PRIVATE  
DISTRIBUTION  
PIPELINES  
(Item tabled to next  
Board Meeting)

under private ownership. It was understood that these “Private Distribution Pipelines” were to be maintained by the individuals that built them and were served by them. With the passing of time, many of the people who created these private pipelines are no longer involved. The persons who have acquired the properties served by private pipelines were in many cases, not informed of this special service arrangement.

District records indicate there are currently 40 private pipelines active in the distribution system providing service to 112 meters. District rules currently state that when private pipelines leak the District may discontinue service. However, enforcing this rule is increasingly untenable as the persons who agreed to this requirement are no longer involved and the documentation of these arrangements is fragmented. As a result, District crews have repaired leaks on private pipelines in order to provide uninterrupted service to customers.

For Board consideration, staff is proposing some changes to District policy that could provide an improvement in this area. Specifically, staff proposes that the policy be amended to acknowledge the current practice of District repairs on private pipelines. In addition, staff proposes relocating language about service lines on the customer side of the meter (which is not a private distribution pipeline issue) to the pertinent section of the document.

Customer Bob Grimm indicated his property is identified as one of the private pipelines in the PID distribution system. Mr. Grimm presented a letter to the Board requesting PID accept conveyance of title to the pipeline serving 711 Meyers Lane in Paradise, adding this conveyance request includes PID ownership, operation and maintenance of pipeline.

Following discussion and review of the proposed policy changes, staff will draft revised language to clarify that repairs or replacement will be at District cost. It was moved by Director Kellogg and seconded by Director Rice to table this item until the next Board meeting.

AYES: Directors Sulik, Rice, Prevot, Kellogg, and Wentland  
NOES: None  
ABSENT: None

**Motion passes 5-0**

AWARD OF  
CONTRACT FOR  
ENGINEERING  
SERVICES –  
ANALYSIS OF  
MAGALIA OUTLET  
PIPELINE ANCHORS  
(Item 10.b.)

Staff reported receiving three proposals in response to the Request for Proposals circulated on August 21, 2018 for professional engineering services to assist the District with analysis of the seismic capacity and possible repair of the anchors for the Magalia Dam outlet pipeline.

It was moved by President Wentland and seconded by Director Sulik to accept the proposal from Water Works Engineers for a not-to-exceed cost of \$15,000 under Phase 1 and a not-to-exceed cost of \$10,000 for an optional Phase II, and authorize the District Manager to execute the professional services agreement for the District subject to legal review.

AYES: Directors Sulik, Rice, Prevot, Kellogg, and Wentland  
NOES: None  
ABSENT: None

**Motion passes 5-0**

Assistant Engineer Neil Essila reported for the past three years Genterra Consultants, Inc. has been under contract to assist with the preparation of dam safety surveillance report preparation for each dam. Staff proposes that for 2018 the contract with Genterra be extended for an additional year.

CONTRACT  
EXTENDED FOR A  
PERIOD OF ONE  
YEAR WITH  
GENTERRA  
CONSULTANTS FOR  
DAM SAFETY  
SURVEILLANCE  
REPORT  
PREPARATION  
(Item 10.c.)

It was moved by President Wentland and seconded by Director Sulik to authorize staff to extend the contract with Genterra Consultants for dam safety surveillance report preparation for a period of one year for a not-to-exceed cost of \$5,550 and authorize the District Manager to execute the amended agreement for the District. Any additional services proposed beyond the basic scope of work will be presented to the Board for approval.

AYES: Directors Sulik, Rice, Prevot, Kellogg, and Wentland  
NOES: None  
ABSENT: None

**Motion passes 5-0**

Assistant Superintendent Jim Ladrini provided an overview regarding the Automated Meter Reading Infrastructure Upgrade. The original system operates on a 2g network that does not have the ability to upgrade. It has also come to staff's attention that T-Mobile stated they plan on keeping the 2g network in operation until 2020; however, there is no guarantee of that. In an effort to address this issue, Zenner USA has developed a plan that not only addresses the loss of 2g, but offers other benefits as well; i.e., upgradable infrastructure, and the overall size of PID's infrastructure will be substantially reduced.

AUTOMATED  
METER READING  
INFRASTRUCTURE  
UPGRADE  
APPROVED  
(Item 10.d.)

Motion by Director Prevot and second by Director Rice to authorize the District Manager to execute a contract with Zenner USA as described in their proposal for the upgrade of the Paradise Irrigation District Automated Meter Reading System Infrastructure in the amount of \$43,650 subject to legal review.

AYES: Directors Sulik, Rice, Prevot, and Wentland  
NOES: Director Kellogg  
ABSENT: None

**Motion passes 4-1**

Manager Fortner commented on evaluating options toward achieving the goal of the Board of Directors to increase pipeline replacement. Presently, the District has approximately 60 miles of steel pipeline in the system. Over the past 5-10 years, the amount of steel pipeline replacement has averaged around 3,000 feet per year, which would be a 100-200 year replacement schedule. This is far in excess of the useful life of the pipeline and staff would like to reduce this to a 50 year pipeline replacement schedule. This could be achieved by implementing a more aggressive pipeline replacement goal of 7,000 linear feet per year, which would require outsourcing some work to contract labor.

PIPELINE  
INFRASTRUCTURE:  
EVALUATING  
OPTIONS TO  
INCREASE PIPELINE  
REPLACEMENT  
(Item 10.e.)

For funding this goal, the District could consider financing options and allocate that cost across its customer base to reflect the activity of pipeline replacement. A pay as you go option in lieu of borrowing could also be considered by applying a scheduled rate increase to fund a targeted pipeline replacement goal each year. There may also be grant resources applicable to fire flows for a disadvantaged community. Staff will present the Board with some additional scenarios based on feedback received.

*Informational item only; no Board action taken.*

PID FIRE WISE  
DEMONSTRATION  
EXHIBIT  
(Item 10.f.)

The PID Community Relations Committee reported discussing a proposed defensible space and fire wise demonstration structure at the PID garden site during their meeting on September 6. There will be no cost to PID and the committee supports this idea to further community outreach and education. Committee member Ward Habriel presented a drawing of the proposed plan, as well as a letter of support from the Butte County Fire Safe Council.

It was moved by President Wentland and seconded by Director Sulik to refer this back to the Community Relations Committee to proceed with implementation of a fire wise demonstration exhibit at no cost to the District.

AYES: Directors Sulik, Rice, Prevot, Kellogg, and Wentland  
NOES: None  
ABSENT: None

**Motion passes 5-0**

SPONSORSHIP OF  
PID HISTORICAL  
BUILDING AT GOLD  
NUGGET MUSEUM  
TABLED TO FUTURE  
BOARD MEETING  
(Item 10.g.)

Manager Fortner reported the District received a request from the Gold Nugget Museum to sponsor the placement of a building on their grounds where their volunteers would create a replica "PID Office" to display PID artifacts that were donated to the museum many years ago. The Museum has proposed an idea for PID to sponsor the purchase of a premade shed and supplies in the amount of \$5,000.

Board members discussed cost options. President Wentland indicated the shed could be built for less than \$5,000 with volunteer help. He suggested contacting representatives of the museum to see if they would be willing to work with the District over a period of time to construct a building.

Board members agreed to table this item until a future Board meeting. President Wentland and Manager Fortner will contact representatives of the museum to discuss options.

PROPOSED TRAIL  
FROM MAGALIA  
RESERVOIR TO  
PARADISE LAKE  
(Item 10.h.)

Manager Fortner indicated discussion at the September 12<sup>th</sup> Paradise Lake & Recreation Committee meeting included a proposed trail from Magalia Reservoir to Paradise Lake. A proposed trail layout and information regarding environmental services is included in the agenda packet as provided by Thad Walker with the Butte County Resource Conservation District.

Manager Fortner added the District's core mission is treating and delivering potable water at the least cost to the ratepayers. The District currently employs two full-time staff members to monitor and patrol the lake and this would be an expansion of recreation. Part of the consideration would be to determine additional staffing needs, opening the area to further foot traffic, and liability. Attorney Emily LaMoe commented that before the District undertakes this obligation to maintain an area for public use, she would recommend contacting the ACWA Joint Powers Insurance Authority to confirm the District's exposure for damage, injury, and claims, and whether those types of claims would be covered under the District's current policy.

Following discussion and public comments, it was moved by Director Kellogg and seconded by Director Rice to continue investigating the feasibility of a proposed trail through the Paradise Lake & Recreation Committee.

AYES: Directors Sulik, Rice, Prevot, Kellogg, and Wentland  
NOES: None  
ABSENT: None

**Motion passes 5-0**

President Wentland called for a Board recess at 8:32 p.m.

BOARD RECESS

President Wentland reconvened the regular meeting at 8:39 p.m.

MEETING  
RECONVENED

Board members reviewed written Staff and Billing Reports. A recommendation to add a rating scale in reference to leaks and note estimated gallons per minute will be discussed with staff. It was moved by Director Rice and seconded by Director Sulik to accept the Staff and Billing Reports for the month of August, 2018 as presented.

AUGUST STAFF &  
BILLING REPORTS  
ACCEPTED  
(Item 4.a. & 4.b.)

AYES: Directors Sulik, Rice, Prevot, Kellogg, and Wentland

NOES: None

ABSENT: None

**Motion passes 5-0**

Manager Fortner highlighted information outlined in a written Manager's Report. Additional comments included: 1) Consideration by the Community Relations Committee to change the distribution of the PID Water Talk Newsletter from monthly to bi-monthly. Information Systems Manager Mickey Rich is going to author the October newsletter, and a survey of customers will be conducted to receive feedback regarding the newsletter; and 2) He and CFO Phillips are scheduled to attend the ACWA Fall Conference the week of November 26. If Board members are interested in attending the conference, staff can provide assistance with travel and accommodations.

DISTRICT  
MANAGER'S  
REPORT  
(Item 5)

Board members reviewed a written Treasurer's Report for the period ending August 31, 2018. It was moved by Director Rice and seconded by President Wentland to accept the Treasurer's Report as presented.

TREASURER'S  
REPORT ACCEPTED  
FOR THE PERIOD  
ENDING  
AUGUST 31, 2018  
(Item 6)

AYES: Directors Sulik, Rice, Prevot, Kellogg, and Wentland

NOES: None

ABSENT: None

**Motion passes 5-0**

Board members reviewed accounts payable reports for the month of August, 2018. It was moved by Director Rice and seconded by Director Prevot to approve General Fund Check Numbers 52226 through 52346 for the month of August, 2018 totaling \$568,249.68, exclusive of voided check numbers 52227, 52228 and 52314, and authorization of a similar amount allowing or adjusting for extraordinary budget or Board approved items during the month of September.

APPROVAL OF  
CHECKS FOR THE  
MONTH OF  
AUGUST, 2018  
(Item 7)

AYES: Directors Sulik, Rice, Prevot, Kellogg, and Wentland

NOES: None

ABSENT: None

**Motion passes 5-0**

Public Records Act Request regarding Long-Term Urban Conservation Mandates: Attorney Emily LaMoe reported this matter is regarding litigation initiated on behalf of PID and other water agencies regarding a Public Records Act Request submitted to the State Water Resources Control Board. Their law firm has received the last batch of records that had been previously withheld and are in the process of reviewing those records.

LEGAL REPORT  
(Item 8)

CFO Phillips reported comments and feedback received during the August 29<sup>th</sup> Budget Workshop have been incorporated in the draft Budget presented this evening for Board consideration. Additional changes include amendments to the PID Organizational Chart to update the Distribution System Operator title to Water Quality

PID FISCAL YEAR  
2018-19 BUDGET  
ADOPTED  
(Item 10.i.)

CONTINUED –  
PID FISCAL YEAR  
2018-19 BUDGET  
ADOPTED

Technician, listing the new Office and Customer Service Manager, and reflecting a recent Utility Worker vacancy. The project referenced as the Process Water Recycle Project will be changed to NPDES Permit Renewal.

It was moved by Director Sulik and seconded by Director Rice to adopt the Paradise Irrigation District Financial Plan for Fiscal Year 2018-2019.

AYES: Directors Sulik, Rice, Prevot, Kellogg, and Wentland

NOES: None

ABSENT: None

**Motion passes 5-0**

COMMITTEE  
REPORTS

Paradise Lake & Recreation Committee: Directors Kellogg and Sulik reported the committee met on September 12, 2018 at Paradise Lake to inspect property relating to Paradise Lake facilities and projects. Discussion included a proposed trail from Magalia Reservoir to Paradise Lake, location options for an ADA accessible picnic table, construction projects at Paradise Lake, and shaded fuel removal projects. The next meeting will be held on Tuesday, October 9, 2018 at 9:00 a.m. in the PID Board Room.

Community Relations Committee: Directors Rice and Sulik announced discussion topics at the September 6, 2018 committee meeting included: 1) Community event participation regarding PID booth design for Johnny Appleseed Days October 6 and 7/ 2) Approval of signage space for the Paradise Ice Rink; and 3) Updates concerning the PID Demonstration Garden and adding a potential Fire Safe Demonstration Structure. The next meeting is scheduled on November 8, 2018 at 9:00 a.m.

Ad Hoc Negotiating Committee: President Wentland reported meeting to provide advice to staff and Legal Counsel.

DIRECTORS'  
COMMENTS  
(Item 12)

Director Kellogg: Stated he is enjoying the meetings and the fun sense of humor.

Director Prevot: The Board discussed many agenda topics and accomplished a lot this evening.

Director Sulik: Expressed appreciation to T&D Superintendent Keith O'Brien for taking him on a tour of the Crestview/Crestwood Pipeline Project. The crews have done a great job.

CLOSED SESSION  
(Item 13.a. & 13.b.)

President Wentland announced closed session discussion pertaining to agenda item 13.a. and 13.b. Following an opportunity for comments, the Board adjourned to closed session at 10:04 p.m. regarding the following:

13.a. CONFERENCE WITH LABOR NEGOTIATORS (Government Code Section 54957.6).

Employee organizations: General Unit represented by I.B.E.W., Local 1245 and Management Unit represented by Teamsters, Local 137

PID designated representative: Emily LaMoe

*Closed Session Announcement: Direction has been given to the PID designated representative.*

13.b. CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION (Paragraph (a) of subdivision (d) of Government Code section 54956.9): Neil Essila et al v. Paradise Irrigation District et al. Butte County Superior Court Case No. 17CV02546.  
*Closed Session Announcement: Direction has been given to Legal Counsel.*

CLOSED SESSION  
CONTINUED

President Wentland reconvened the regular meeting at 11:12 p.m. and provided a closed session announcement regarding agenda item 13.a. and 13.b. as listed on page 6 in italicized print.

CLOSED SESSION  
ANNOUNCEMENT  
(Item 14)

It was moved by President Wentland to adjourn the meeting. The regular meeting was adjourned at 11:14 p.m.

ADJOURNMENT

\_\_\_\_\_  
Georgeanna Borraro, Secretary

\_\_\_\_\_  
Daniel Wentland, President

Pending Board Approval

MINUTES

SPECIAL MEETING  
BOARD OF DIRECTORS  
PARADISE IRRIGATION DISTRICT  
OCTOBER 8, 2018

The special meeting of the Board of Directors of the Paradise Irrigation District was called to order at 4:04 p.m. by President Dan Wentland. OPENING

BOARD MEMBERS PRESENT: Directors Marc Sulik, Vice-President Anne Rice, Bill Kellogg, and President Dan Wentland (Director Prevot present at 4:17 p.m. following Board adjourning to closed session). ROLL CALL

BOARD MEMBERS ABSENT: None

STAFF PRESENT: District Manager Ed Fortner, CFO/Treasurer Kevin Phillips, Assistant Engineer Neil Essila, and Secretary Georgeanna Borrayo

ALSO PRESENT: Attorney Emily LaMoe and member of the public

There were no public comments.

PUBLIC PARTICIPATION

Assistant Engineer Neil Essila reported the Children's Community Charter School (CCCS) is preparing to construct an expansion of the existing charter school located at 6830 Pentz Road, APN 050-220-126. The expansion will add some additional classroom space and restroom facilities. The project to be built under the provisions of the Water Service Facilities Agreement (WSFA) will include a water main extension, a public fire hydrant and a stub for a future fire suppression sprinkler system. There will be no additional or expanded domestic water service.

WATER SERVICE FACILITIES AGREEMENT – CHILDREN'S COMMUNITY CHARTER SCHOOL EXPANSION (Item 3)

The WSFA specifies the conditions under which the project will be designed, built, and conveyed to the District. All costs associated with the project are the responsibility of the CCCS.

It was moved by Director Kellogg and seconded by Director Rice to approve the Water Service Facilities Agreement with Children's Community Charter School, and authorize the District Manager to execute the agreement for the District.

AYES: Directors Sulik, Rice, Kellogg, and Wentland

NOES: None

ABSENT: Director Prevot

**Motion passes 4-0**

President Wentland announced closed session discussion pertaining to agenda item 4.a. As there were no comments, the Board adjourned to closed session at 4:08 p.m. to discuss the following:

CLOSED SESSION (Item 4.a.)

- 4.a. CONFERENCE WITH LABOR NEGOTIATORS (Government Code § 54957.6)  
Employee organizations: General Unit represented by I.B.E.W., Local 1245  
PID designated representative: Emily LaMoe

CLOSED SESSION  
ANNOUNCEMENT

President Wentland reconvened the special meeting at 4:25 p.m. and announced direction has been given to the PID designated representative regarding closed session agenda item 4.a.

ADJOURNMENT

It was moved by President Wentland to adjourn the meeting. The special meeting was adjourned at 4:26 p.m.

\_\_\_\_\_  
Georgeanna Borrayo, Secretary

\_\_\_\_\_  
Daniel Wentland, President

PENDING BOARD APPROVAL

**STAFF REPORT  
FIELD OPERATIONS  
SEPTEMBER 2018**

**TRANSMISSION & DISTRIBUTION**

**MAINTENANCE WORK**

- Crews have been taking care of leaks/maintenance issues.
- 6 Mainline leaks were repaired this month. 2 were leak detection leaks.
- 53 Firefly's were replaced this month.
- 4 service lines were repaired/replaced this month.
- 1 hydrant was repaired this month.

**PFD/PID JOINT PIPELINE PROJECTS**

- Use hydrant surcharge funds to upgrade substandard mains.
- Crestview/Crestwood project is in progress.

**DEVELOPMENT PROJECTS**

- None at this time.

**CUSTOMER REIMBURSEMENT JOBS (by work order)**

- Installed a new 3/4" meter @ 485 Boaz Ct.

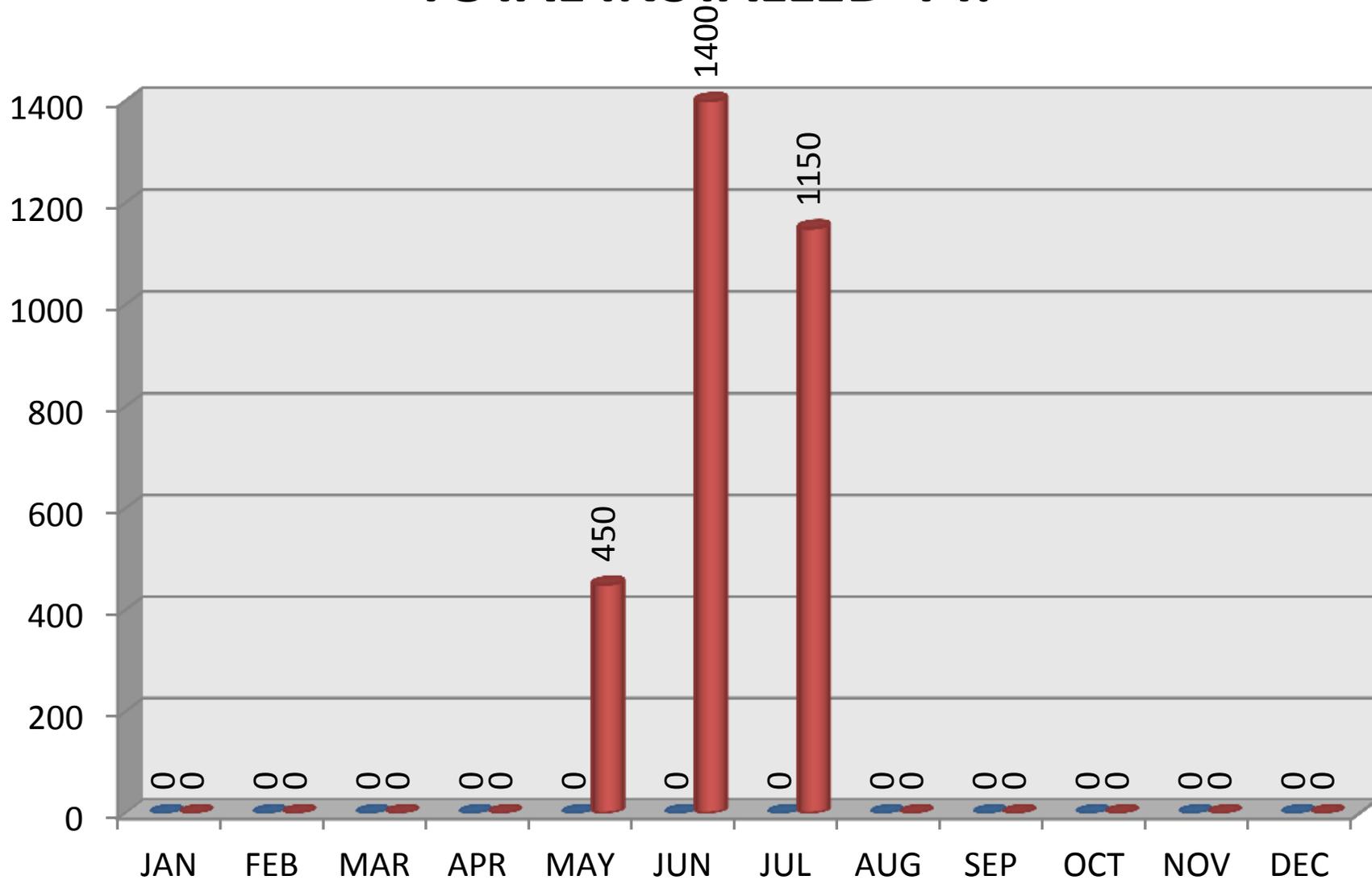
**CRESTVIEW/CRESTWOOD PIPELINE PROJECT**

- Project is in underway and going well.

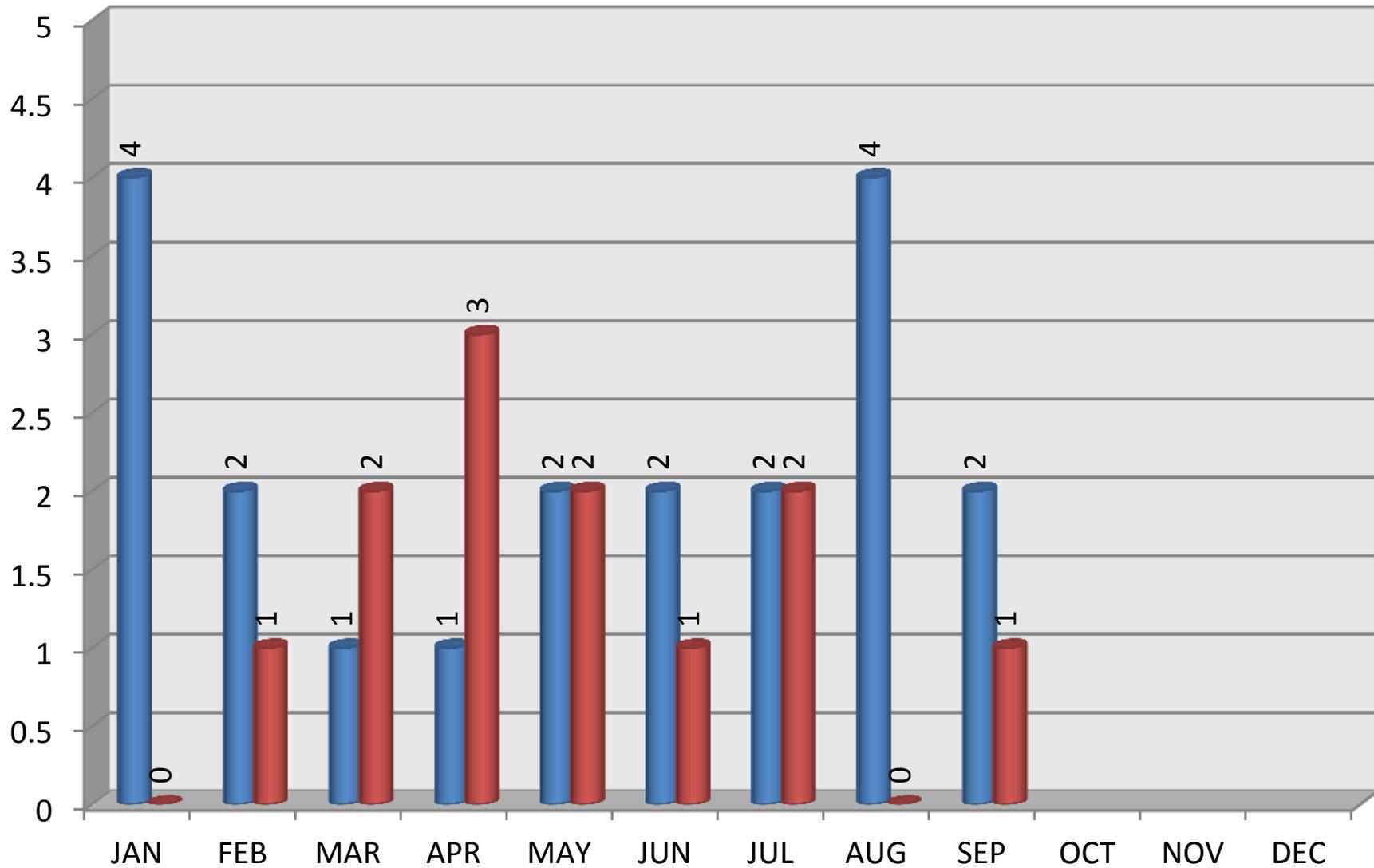
**SUMMARY**

- The pipeline crew has been doing a great job as usual on this project. 3,000 feet of new pipe, all services, and hydrants are in operation and the old main is off and abandoned. Currently, the crew is working on asphalt restoration. We should be completely finished with this project this month, and will then take care of approximately 40 miscellaneous leak patches across town before winter/weather sets in. We are shooting for a completion date of November 1 for these patches. Currently, most of our employees are concentrating their efforts on these projects and will continue to do so until they are complete.
- Leak Detection efforts will reconvene soon throughout the entire district, most likely starting at the top of the district and working our way down. Crews will follow behind making repairs as we locate/pinpoint the leaks. Although we are still learning the many nuances of this equipment, it is working very nicely and is well worth the investment.
- We took the better part of a day to cut and clear property the District owns along Forest Service Road due to potential fire hazard and concerns from the folks at Apple Tree Village who border said property along their north property line. Brush, small trees, and grasses were removed/cut via weed eater along the road for approximately 1,200 feet.
- We are assisting the meter shop with the firefly replacements. Two of our utility workers are focusing on the change outs to insure our system is operating properly on a daily basis.
- We have been looking into near future pipeline projects, prioritizing by past leak history and under sized areas, especially, where fire flows are critical, and in areas that are otherwise weak.
- We continue to take care of the daily needs of the District and maintenance issues providing excellent customer service.

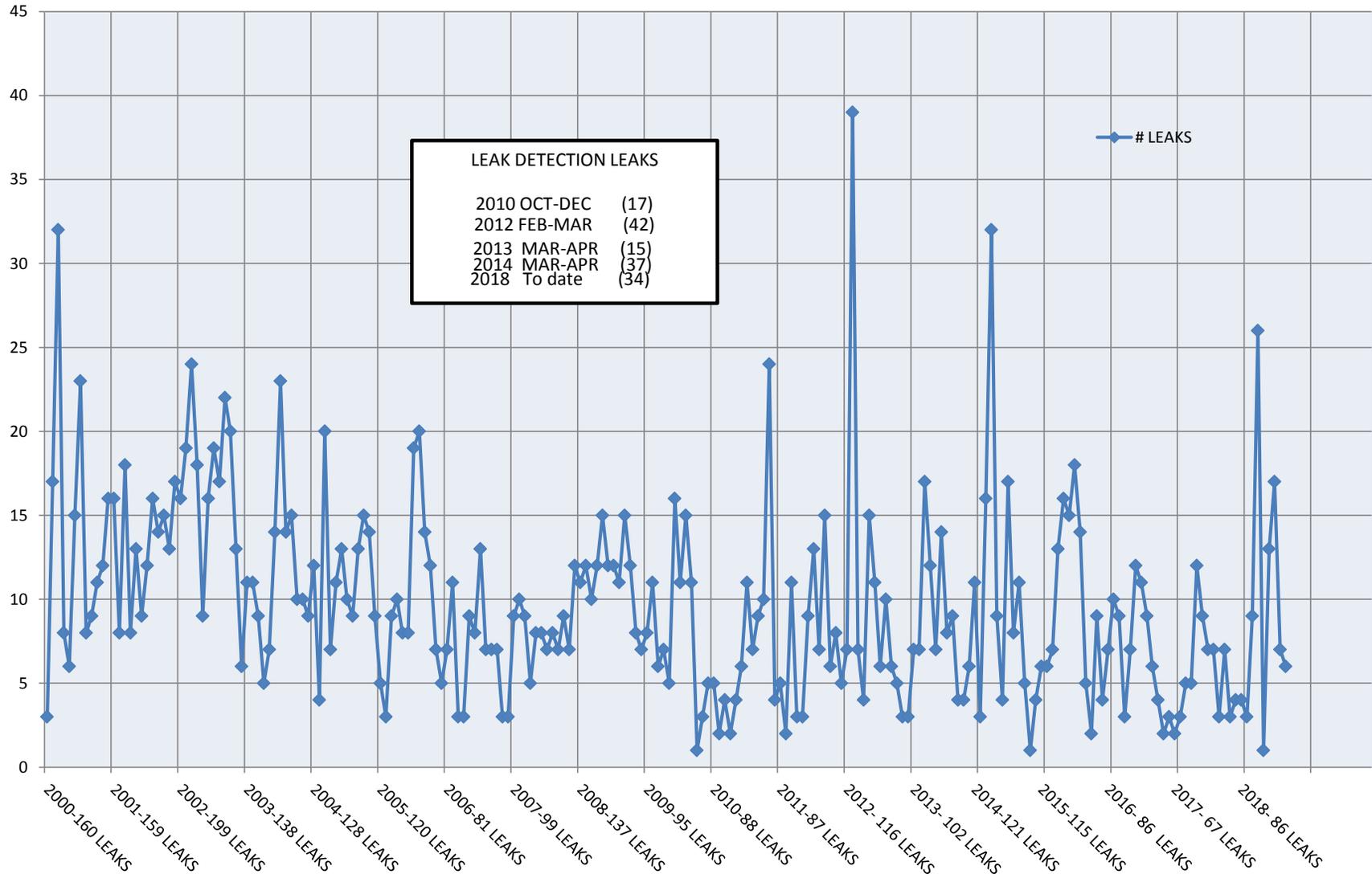
# MONTHLY PIPE INSTALLATION 2018, TOTAL INSTALLED FT.



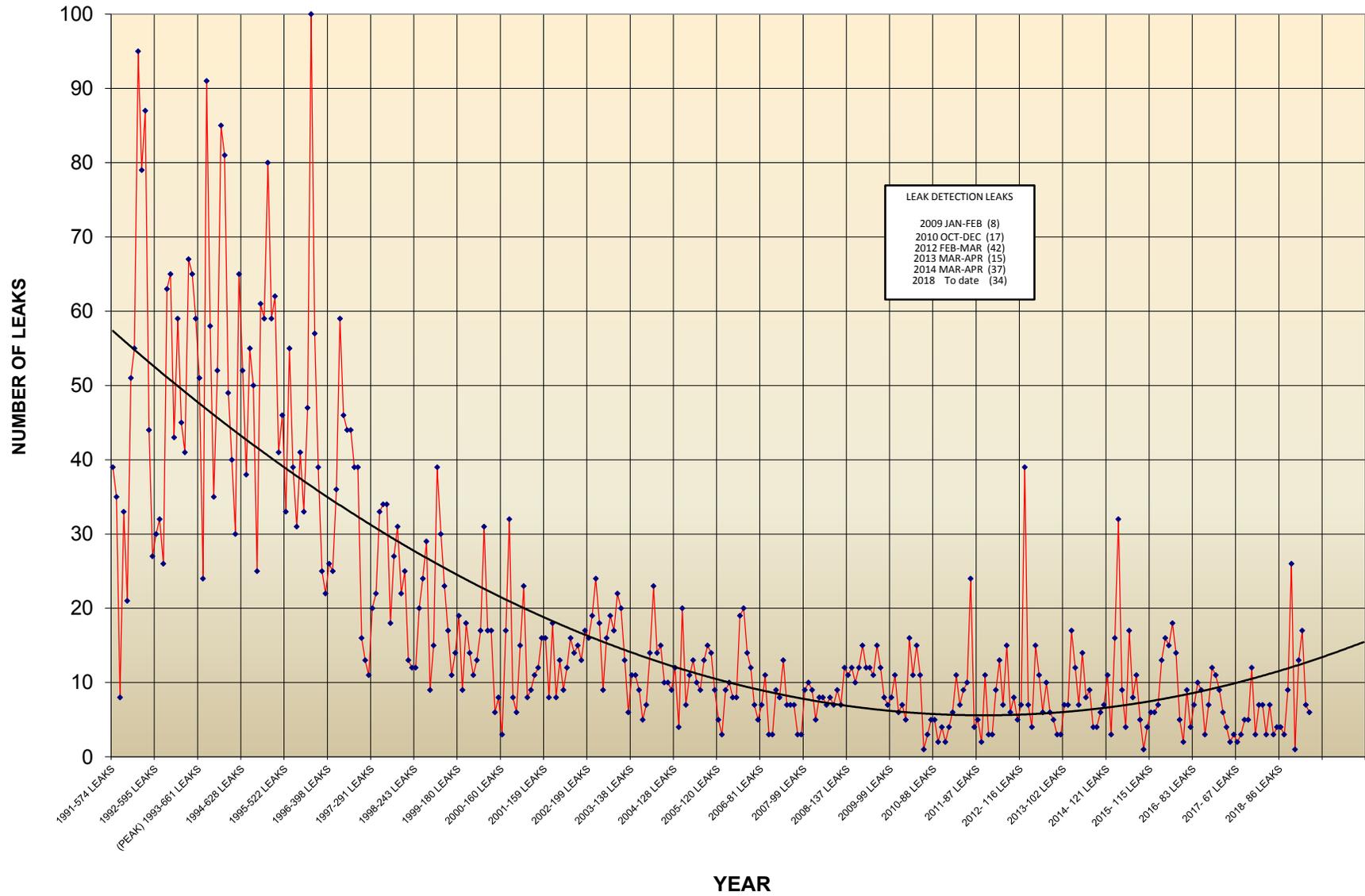
# 2018 METER WORK: 18 REPLACED, 11 NEW



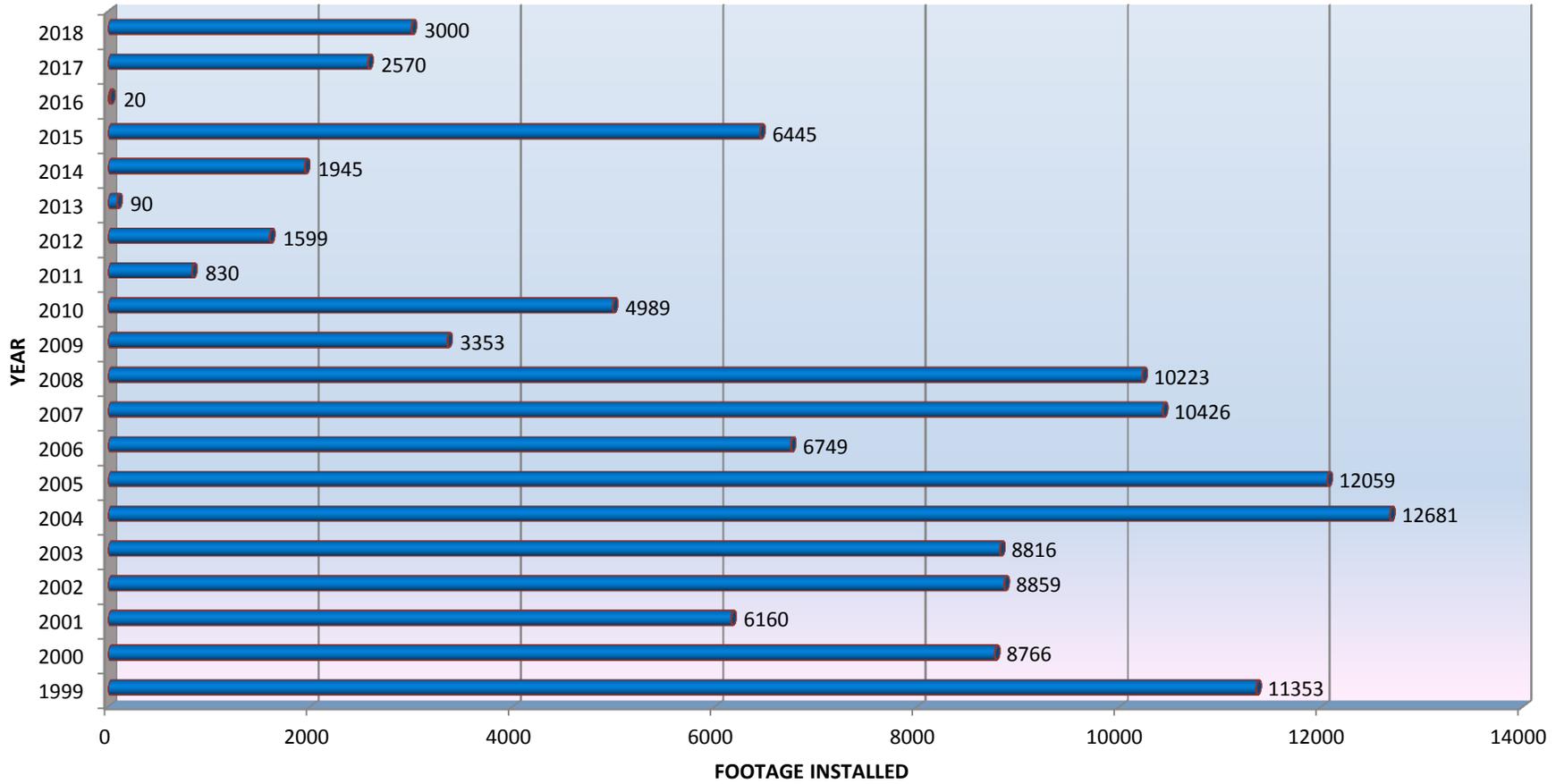
# # MAINLINE LEAKS



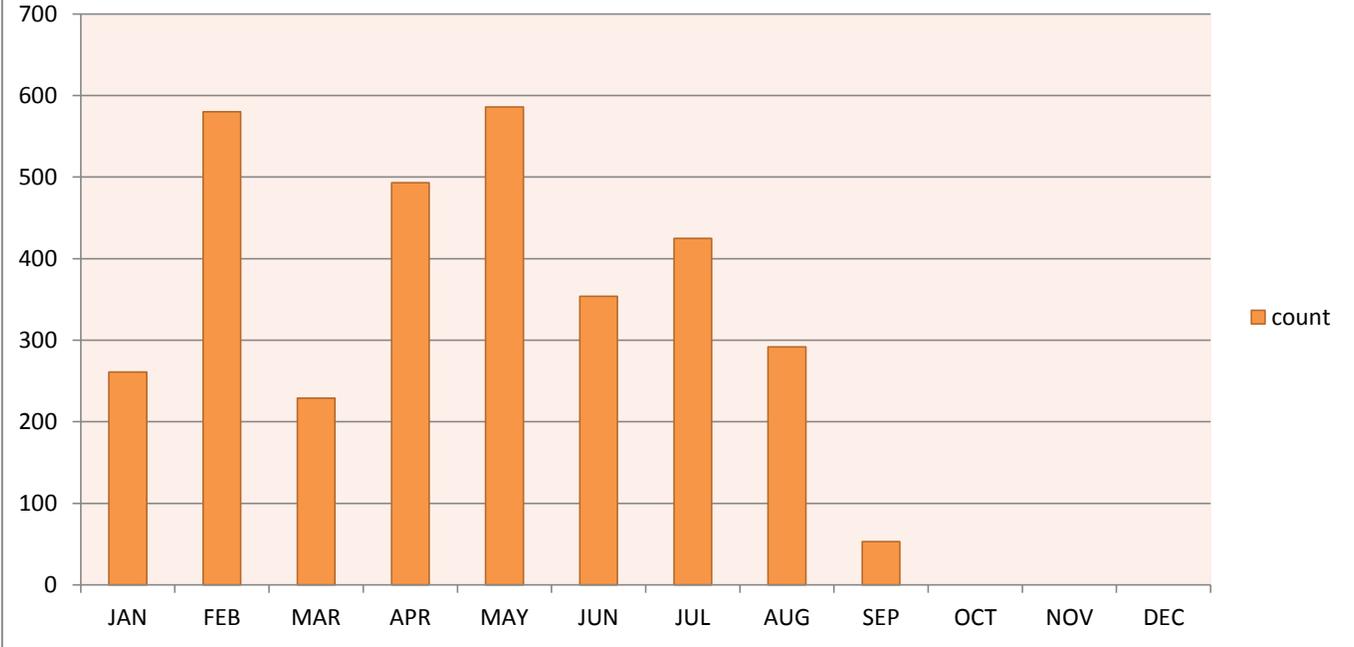
# MONTHLY LEAK HISTORY 1991 TO PRESENT



# PIPELINE INSTALLATION HISTORY



### FIREFLY REPLACEMENTS 2018



TYPE PIPE	FEET	MILES	%
Asbestos Cement	91375	17.31	10.0%
Ductile Iron	2191	0.41	0.2%
C-900 PVC 4" to 12"	281308	53.28	30.9%
Cast Iron	1780	0.34	0.2%
Cement Mortar Lined	175060	33.16	19.2%
Galvanized 1.5"- 2"	13568	2.57	1.5%
PVC 1"-2"	38482	7.29	4.2%
Steel 4"-12"	300665	56.94	33.0%
C-905 14" & greater	6288	1.19	0.7%
<b>TOTAL PIPE</b>	<b>910717</b>	<b>172.48</b>	<b>100.0%</b>
Adjustments are made in January of each year			

**TREATMENT - STAFF REPORT**  
**September 2018**

**SUPPLY & QUALITY:**

(See Attached Graphs)	Sept. 2018	Sept. 2017	Sept. 6 yr. Avg.
Monthly Production (Million Gallons - MG)	205.8	198.8	196.7
	<b>Range</b>	<b>Average</b>	
Plant Production (MGD)	6.0 – 7.7	6.9	
Raw Water Turbidity (NTU)	0.67 – 0.35	0.50	
Treated Water Turbidity (NTU)	0.04 – 0.05	0.04	
Treated Water Chlorine (ppm)	0.64 – 1.09	0.83	

**WATER TREATMENT:**

- **Plant Production and Water Quality:** 1. Average production decreased to **6.9 MGD** from **7.6 MGD** compared to last month; 2. Paradise Lake was primary source of raw water for treatment; 3. Plant operating with two of three clarifiers, and three of six filters;
- **Monthly Residential Water Conservation:** **11%** reduction comparing production in September 2018 – **205.8 MG** to September 2013 (base year) – **230.1 MG**. 218 gallons per day per capita (GPCD).
- **Emergency Response Planning (ERP):** 1. Staff meeting scheduled October 23 to discuss Table Top Exercise after-action follow up items for ERP improvement consideration.
- **Plant & Distribution Operations:** 1. Magalia Bypass Diversion structure replacement and spare screens were delivered, and repair was completed (See Photos); 2. Started Bacti training Water Quality Technician; 3. Preparing draft scope of work for improvements to SCADA and corrosion protection systems; 4. Six (6) hour PGE power outage - plant operated on emergency generator (See Photos); and 5. In-house SCADA programming replaces plant's aging primary flow control device (See Photos).
- **Reservoir "B" Replacement; A Zone Pipeline & Pump Station:** 1. 30-day Public Scoping period closed September 20. Two comment letters received (i.e., CalFire and Regional Water Quality Control Board) See Attachments. Stantec provided responses to each letter's comments, which would be resolved during construction of the project; 2. Arranged SRF coordination meeting for Oct 3<sup>rd</sup> to discuss the SRF Planning and Design Funding Agreement, CEQA, design and financial requirements; and 3. Blackwater Consulting Engineers are researching right-of-way/easement for the construction of the Zone A transmission pipeline in new Skyway.
- **C Tank Rehabilitation Project and Cathodic Protection Improvements:** Harper, staff, and legal counsel are working on finalizing the Bid documents with the District's new General and Supplementary Conditions. Project bidding planned for late October, for winter 2019 construction.
- **NPDES Permit Compliance and Renewal Update:** Mixing zone verification monitoring deferred until fall when the water temperature cools in order to identify the discharge plume. Staff will need to launch a boat in the reservoir to facilitate the sampling. The last DCBM violation was October 6, 2016.
- **Process Water Recycle Project (PWRP):**  
RFP Pond Alternative Design: SRF contacted the District requesting an update, and was advised that consideration of a project is dependent on outcome of NPDES permit renewal.  
Deferred WTP Improvements: Internal review of draft list of prioritized WTP projects that includes justification, description, and cost estimates.  
CWSRF Construction Loan Application: Pending completion of design and CEQA; cost recovery of the project's expenses is contingent on the construction of some type of a project.
- **CalOES/FEMA Mitigation Grant:** District's application is on the waiting list if funding becomes available. Grant includes: 1. Plant generator replacement; 2. Zone A pipeline and pump station design and construction; and 3. Creek crossing design and relocation. Staff will check with CalOES in October regarding funding.
- **Drinking Water and NPDES Reports and Maintenance:** 1. Completed monthly sampling and reports; and 2. Miscellaneous repairs to aging equipment and routine instrument calibrations.

**RECREATION:**

- **Lake Activities:** 1. See attached Parking & Boating Permit Sales Chart & Table; 2. ADA picnic table location was selected and construction planning is underway; 2. Preparations for wildlife display board are in process.
- **Boat Launch Ramp No. 1 Parking Improvements:** Lake Committee will discuss the concept plan at a future meeting, and may make a recommendation to the Board for consideration.

**WATERSHED - SOURCE of SUPPLY: Monthly Rainfall = 0.0” during 0 days; Greatest Rain Day = 0.0”**

<b>Paradise Lake Levels (feet)</b>	<b>2018 Sept. 30 @ - 15.3’</b>	<b>2018 Aug. 31 @ - 11.2’</b>	<b>2017 Sept. 30 @ - 9.9’</b>
------------------------------------	--------------------------------	-------------------------------	-------------------------------

- **Graph of Paradise Lake Water Levels – Calendar Years 2013 – 2018:** See Attachment
- **CalFire Service Crews:** No work this month; crews are tied up with CalFire priorities.
- **Paradise Ridge Fire Safe Council:** 1. Summarized the results of the District’s multi-agency Wildfire Urban Interface Table Top Exercise.
- **Tree Thinning and/or Shaded Fuel Maintenance:** CalFire is considering a controlled burn on PID land. Goat maintenance is a consideration with SPI partnering.

**Magalia Reservoir Diversion Structure – Before Screen Replacement**



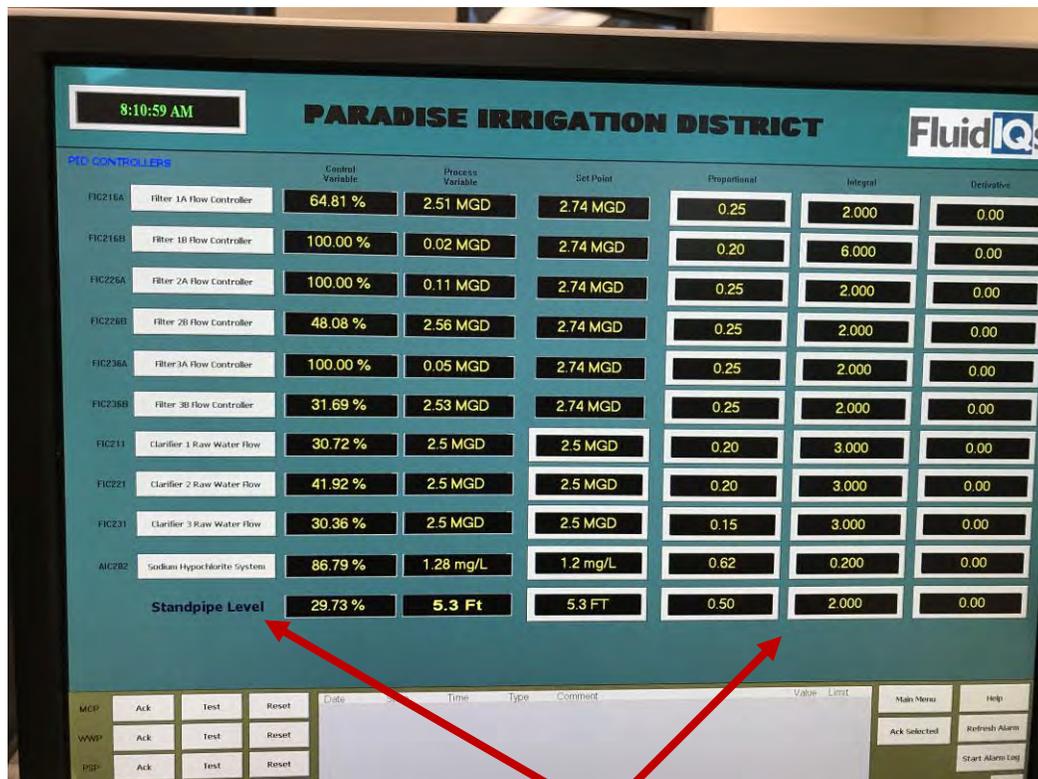
**After**



Treatment Plant 500 KW Emergency Generator, Building and Diesel Fuel Storage



## Treatment Plant's Aging Flow Control Device



## Aging Flow Control Device Replaced with New SCADA Programming

# Reservoir B Rehab. Project – 30 Day CEQA Public Scoping Period - Comment Letters (2)



## DEPARTMENT OF FORESTRY AND FIRE PROTECTION

176 Nelson Ave  
Oroville, CA 95965-3384  
(530) 538-7111  
Website: [www.fire.ca.gov](http://www.fire.ca.gov)



September 11, 2018

Paradise Irrigation District  
Attn: Jim Passanisi  
6332 Clark Road  
Paradise, CA 95969

Re: Paradise Irrigation District Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project - State Clearing House # 2018082044

Dear Mr. Passanisi,

I have been asked to review Paradise Irrigation District's initial study and proposed mitigated negative declaration for improvements to the Zone A water distribution system and Reservoir B replacement with regards to impacts to fire protection and natural resources. I have found that the discussion of impacts to Agricultural and Forest Resources on page 28 incorrectly states that there will be no impacts to forest land. It appears that conifer and hardwood trees will be removed during the replacement of Reservoir B and this area meets the definition of forest land. The removal of trees and conversion of timber land is considered timber operations and therefore requires a timber harvest permit. I recommend that Paradise Irrigation District submit a Public Agency, Public and Private Utility Right of Way Exemption for this work. Please contact me if you have any questions.

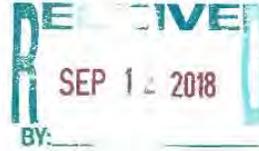
David Derby

[Sent via email](#)

Butte Unit Forester, RPF #2333  
Office: (530) 872-6334  
Cell: (530) 570-5025  
Fax: (530) 872-6213

CONSERVATION IS WISE-KEEP CALIFORNIA GREEN AND GOLDEN

PLEASE REMEMBER TO CONSERVE ENERGY. FOR TIPS AND INFORMATION, VISIT "FLEX YOUR POWER" AT [WWW.CA.GOV](http://WWW.CA.GOV).



**Central Valley Regional Water Quality Control Board**

10 September 2018

Jim Passanisi  
Paradise Irrigation District  
6332 Clark Road  
Paradise, CA 95969

**COMMENTS ON THE INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION FOR THE PROPOSED PARADISE IRRIGATION DISTRICT ZONE A PUMP STATION, TRANSMISSION MAIN, AND RESERVOIR B REPLACEMENT PROJECT, STATE CLEARINGHOUSE NUMBER 2018082044, PARADISE, BUTTE COUNTY**

The Central Valley Regional Water Quality Control Board (Central Valley Water Board) is a responsible agency for this project, as defined by the California Environmental Quality Act (CEQA). On 22 August 2018, we received your request for comments on the Paradise Irrigation District Zone A Pump Station, Transmission Main and Reservoir B Replacement Project (Project).

The Project consists of installing new Zone A pumps at the water treatment plant (WTP), installing a new 16-inch transmission main from the WTP directly to Zone A along New Skyway, modifying pump station #2 with a pressure regulating valve station to allow Zone A to feed Zone B, and replacing the existing Reservoir B with two 2.3 MG tank reservoirs. The project is largely linear, extending from the community of Magalia, south to the town of Paradise.

Based on our review of the information submitted for the proposed project, we have the following comments:

Clean Water Act (CWA) Section 401, Water Quality Certification

The Central Valley Water Board has regulatory authority over wetlands and waterways under the Federal Clean Water Act (CWA) and the California Water Code, Division 7 (CWC). Discharge of dredged or fill material to waters of the United States requires a CWA Section 401 Water Quality Certification from the Central Valley Water Board. Typical activities include any modifications to these waters, such as stream crossings, stream bank modifications, filling of wetlands, etc. 401 Certifications are issued in combination with CWA Section 404 Permits issued by the Army Corps of Engineers. The proposed project must be evaluated for the presence of jurisdictional waters, including wetlands and other waters of the State. Steps must be taken to first avoid and minimize impacts to these waters, and then mitigate for unavoidable impacts. Both the Section 404 Permit and Section 401 Water Quality Certification must be obtained prior to site disturbance. Any person discharging dredge or fill materials to waters of the State must file a report of waste discharge pursuant to Sections 13376 and 13260 of the

KARL E. LONGLEY ScD, P.E., CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

364 Knollcrest Drive, Suite 205, Redding, CA 96002 | [www.waterboards.ca.gov/centralvalley](http://www.waterboards.ca.gov/centralvalley)



California Water Code. Both the requirements to submit a report of waste discharge and apply for a Water Quality Certification may be met using the same application form, found at:

[http://www.waterboards.ca.gov/centralvalley/water\\_issues/water\\_quality\\_certification/wqc\\_application.pdf](http://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/wqc_application.pdf)

Isolated wetlands and other waters not covered by the Federal Clean Water Act

Some wetlands and other waters are considered "geographically isolated" from navigable waters and are not within the jurisdiction of the Clean Water Act. (e.g., isolated wetlands, vernal pools, or stream banks above the ordinary high-water mark). Discharge of dredged or fill material to these waters may require either individual or general waste discharge requirements from the Central Valley Water Board. If the U.S. Army Corps of Engineers determine that isolated wetlands or other waters exist at the project site, and the project impacts or has potential to impact these non-jurisdictional waters, a Report of Waste Discharge and filing fee must be submitted to the Central Valley Water Board. The Central Valley Water Board will consider the information provided and either issue or waive Waste Discharge Requirements. Failure to obtain waste discharge requirements or a waiver may result in enforcement action.

Any person discharging dredge or fill materials to waters of the State must file a report of waste discharge pursuant to Sections 13376 and 13260 of the CWC. Both the requirements to submit a report of waste discharge and apply for a Non-Jurisdictional General Waste Discharge Requirement (WDR) may be met using the same application form, found at:

[http://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/water\\_quality/2004/wqo/wqo2004-0004.pdf](http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo/wqo2004-0004.pdf)

General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (CGP)

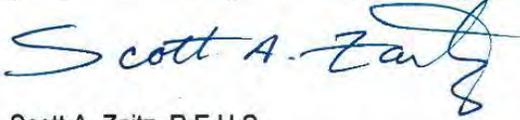
Construction activity, including demolition, resulting in a land disturbance of one acre or more must obtain coverage under the CGP. The Paradise Irrigation District Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project must be conditioned to implement storm water pollution controls during construction and post-construction as required by the CGP. To apply for coverage under the CGP the property owner must submit Permit Registration Documents electronically prior to construction. Detailed information on the CGP can be found on the State Water Board website:

[https://www.waterboards.ca.gov/water\\_issues/programs/stormwater/constpermits.shtml](https://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml)

Post-Construction Storm Water Requirements

Studies have found the amount of impervious surface in a community is strongly correlated with the impacts on community's water quality. New development and redevelopment result in increased impervious surfaces in a community. Post-construction programs and design standards are most efficient when they involve (i) low impact design; (ii) source controls; and (iii) treatment controls. To comply with Phase II Municipal Storm Water Permit requirements the Town of Paradise must ensure that new developments comply with specific design strategies and standards to provide source and treatment controls to minimize the short and long-term impacts on receiving water quality. The design standards include minimum sizing criteria for treatment controls and established maintenance requirements. The proposed project must be conditioned to comply with post-construction standards adopted by the Town of Paradise in compliance with their Phase II Municipal Storm Water Permit.

If you have any questions or comments regarding this matter please contact me at (530) 224-4784 or by email at [Scott.Zaitz@waterboards.ca.gov](mailto:Scott.Zaitz@waterboards.ca.gov).



Scott A. Zaitz, R.E.H.S.  
Environmental Scientist  
Storm Water & Water Quality Certification Unit

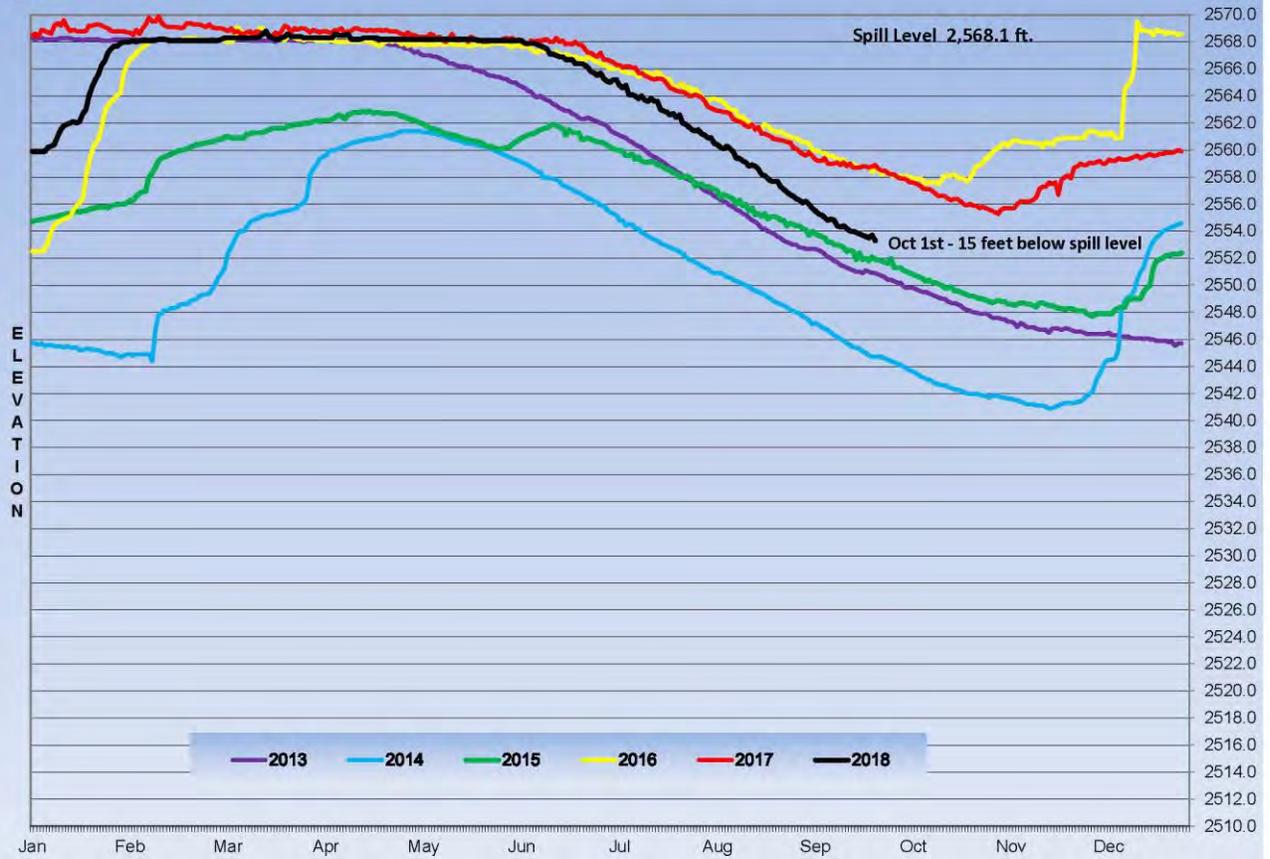
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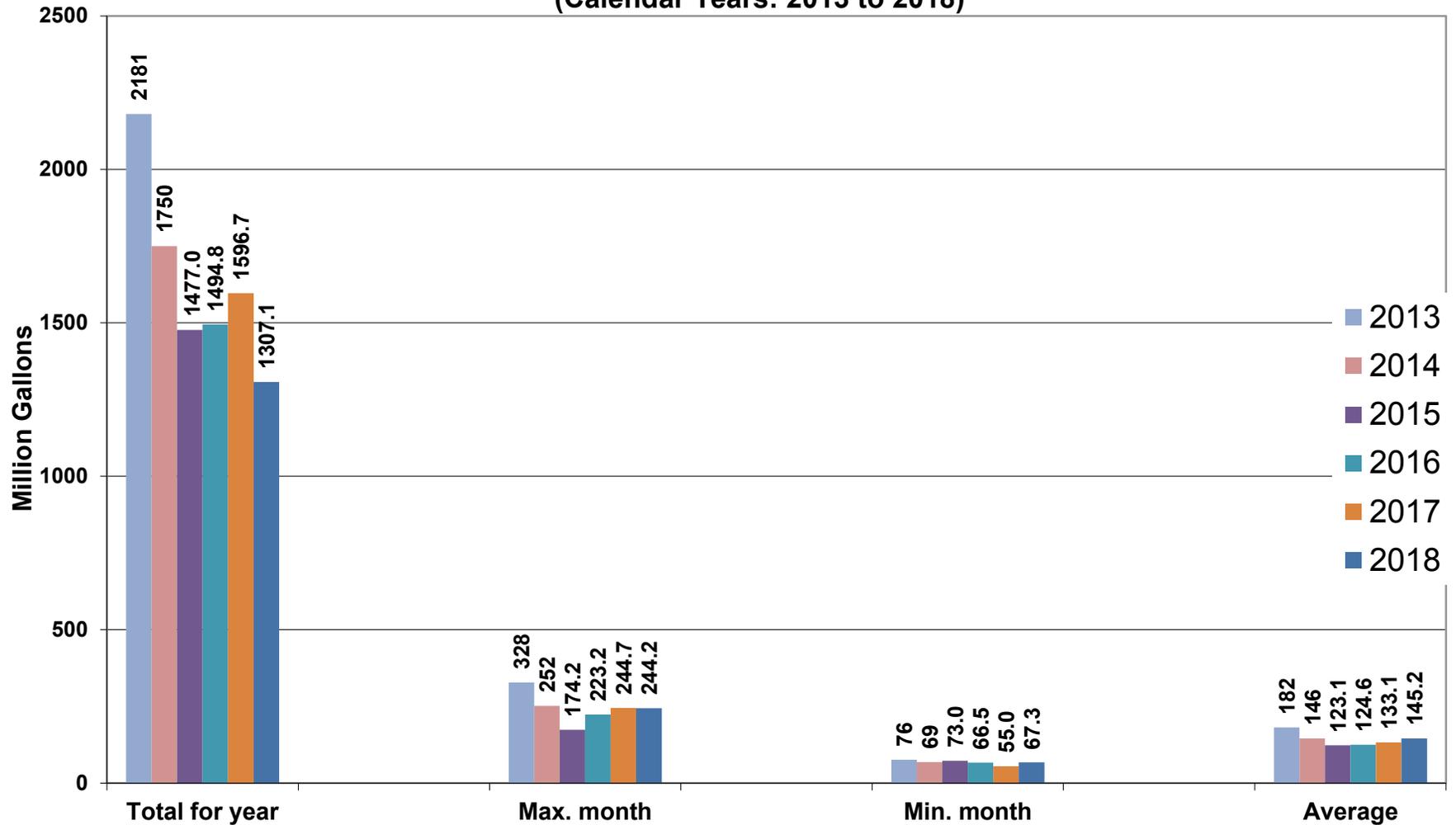
enclosures: Department of Fish and Wildlife, Region 2, Rancho Cordova  
Mrs. Nancy Haley, U.S. Army Corps of Engineers, Sacramento



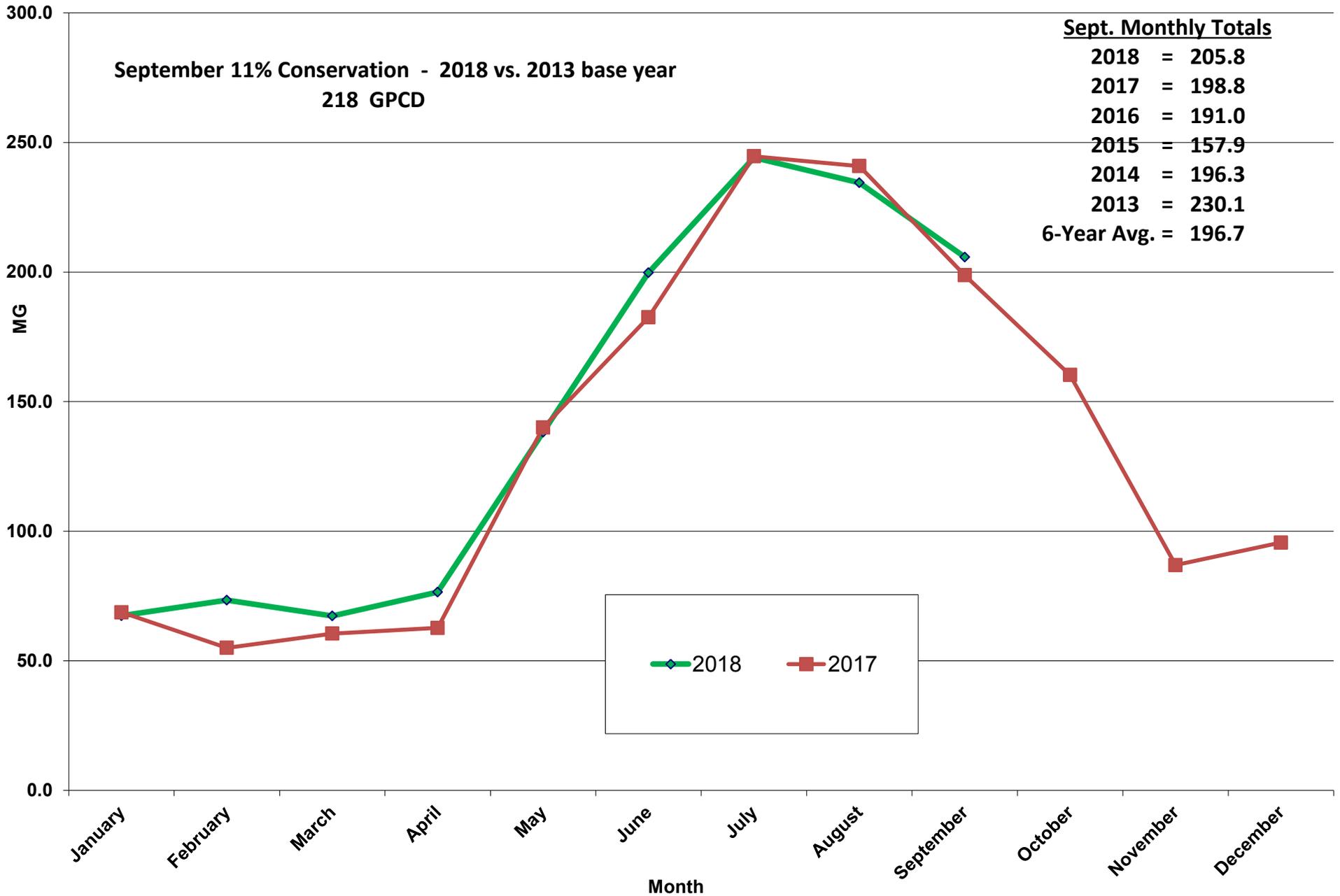
### Paradise Lake Water Levels - Calendar Years 2013 - 2018



**Water Treatment Plant Annual Production Comparisons  
Total; Monthly Max. & Min, and Average  
(Calendar Years: 2013 to 2018)**



## Monthly Treatment Plant Production (Million Gallons - MG) (Comparison of Calendar Years 2018 to 2017)

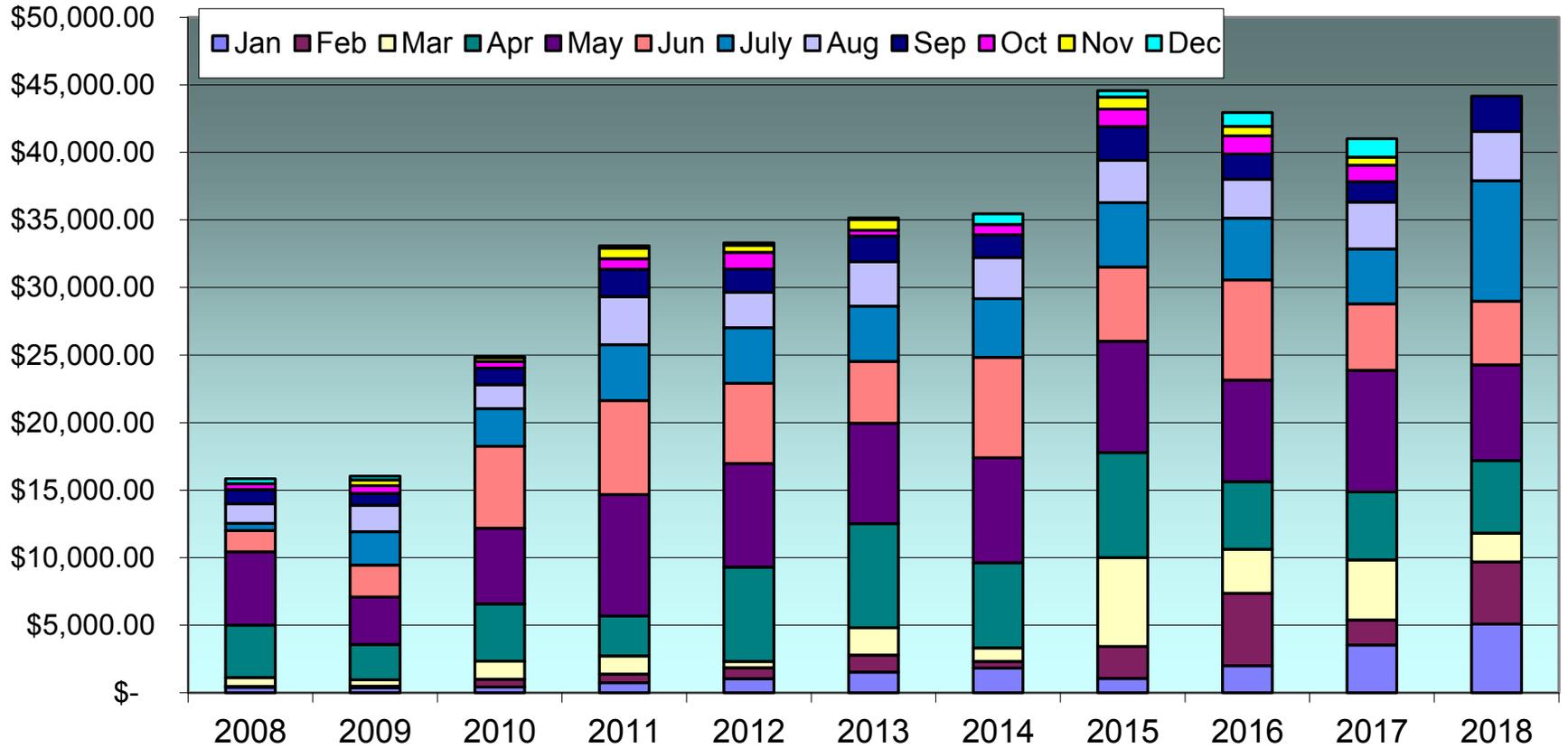


**Water Treatment Plant Annual Production Figures and 5 Year Averages (2013 - 2018)**  
(Million Gallons)

**Note: 2013 is the conservation comparison/base year**

	Years													6-Year Average	
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2013-2018
January	113.2	113.7	130.8	116.1	105	91.4	91.6	105.2	82.5	111.2	82.3	71.1	68.7	67.4	80.5
February	101	104.7	106.9	112.3	88.4	79.2	85.2	85.3	76.1	68.8	73.0	66.5	55.0	73.4	68.8
March	129.3	110.7	150.2	147	108.9	100.2	84.6	79.3	101.6	85.8	98.7	67.1	60.5	67.3	80.2
April	132	112.5	172	205.9	170.5	96.9	99.8	94.2	145.1	107.7	106.7	84.5	62.7	76.5	97.2
May	181.5	243.9	259.3	275	221	140.8	146	214.7	241.6	175.6	136.5	119.6	140.0	138.2	158.6
June	250.7	328.5	336.4	321.6	256.7	239.7	183.3	262.7	276.2	230.3	148.1	169.7	182.6	199.8	201.1
July	393.2	428.9	384.6	360.5	350.6	344.4	283.3	325.5	327.5	252.1	174.2	207.6	244.7	244.2	241.7
August	412.3	391.5	379.6	363.8	338.6	332.4	307.6	331.2	309.9	220.7	171.8	223.2	240.9	234.5	233.5
September	312.1	338.4	295.3	317.5	281.4	271.3	280.3	283.7	230.1	196.3	157.9	191.0	198.8	205.8	196.7
October	234.9	253.2	156.9	218.1	178.1	185.1	152.2	198.7	170.7	137.3	138.3	115.2	160.3		
November	117.8	128.7	142	124.7	114.2	95.8	107.3	91.7	117.4	85.4	95.6	90.6	86.9		
December	114.3	112.9	115.5	120.7	101.7	105.3	105.1	81.2	102.3	78.5	93.9	88.7	95.6		
<hr/>															
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	5 Year Avg.
Total for year	2492	2668	2630	2683	2315	2083	1926	2153	2181	1750	1477.0	1494.8	1596.7	1307.1	1358.3
Max. month	412	429	385	364	351	344	308	331	328	252	174.2	223.2	244.7	244.2	241.7
Min. month	101	105	107	112	88	79	85	79	76	69	73.0	66.5	55.0	67.3	68.8
Average	208	222	219	224	193	174	161	179	182	146	123.1	124.6	133.1	145.2	150.9

## PID Lake Permit Comparison From 2008- 2018



**Paradise Irrigation District**  
**Lake Permit Sales**  
**January -December 2018**

	Recreation				Boating				Total
	Annual		Daily		Season		Daily		
January	62	\$ 935.00	269	\$ 808.30	71	\$ 2,840.00	50	\$ 500.00	\$ 5,083.30
February	69	\$ 1,035.00	206	\$ 619.00	65	\$ 2,580.00	38	\$ 380.00	\$ 4,614.00
March	22	\$ 335.00	198	\$ 594.16	26	\$ 1,020.00	18	\$ 180.00	\$ 2,129.16
April	54	\$ 805.00	152	\$ 456.00	96	\$ 3,820.00	27	\$ 265.01	\$ 5,346.01
May	36	\$ 535.00	571	\$ 1,712.42	106	\$ 4,220.00	63	\$ 625.00	\$ 7,092.42
June	34	\$ 565.00	272	\$ 815.03	64	\$ 3,000.00	38	\$ 345.00	\$ 4,725.03
July	28	\$ 420.00	1485	\$ 4,453.36	69	\$ 2,220.00	201	\$ 1,820.00	\$ 8,913.36
August	10	\$ 170.00	600	\$ 1,799.04	23	\$ 805.00	93	\$ 855.00	\$ 3,629.04
September	2	\$ 30.00	559	\$ 1,708.67	4	\$ 120.00	87	\$ 769.00	\$ 2,627.67
October	0		0		0		0		\$ -
November	0		0		0		0		\$ -
December	0		0		0		0		\$ -
Totals	317	\$ 4,830.00	4,313	\$ 12,965.98	522	\$ 20,625.00	614	\$ 5,739.01	\$ 44,159.99

# ENGINEERING REPORT

September 2018

## Activities This Month

This month engineering staff continued working on issues related to water rights measurement and reporting including the purchase of a new water level transmitter for Paradise Lake. Staff also continued work on the Reservoir B expansion project, particularly with respect to right of way issues for the proposed new A Zone transmission main.

Engineering staff continued to work with the District's consultant on design of the Almond Street water main replacement project. Staff also participated in the preliminary development of a scope of work for the Water Treatment Plant SCADA system upgrade.

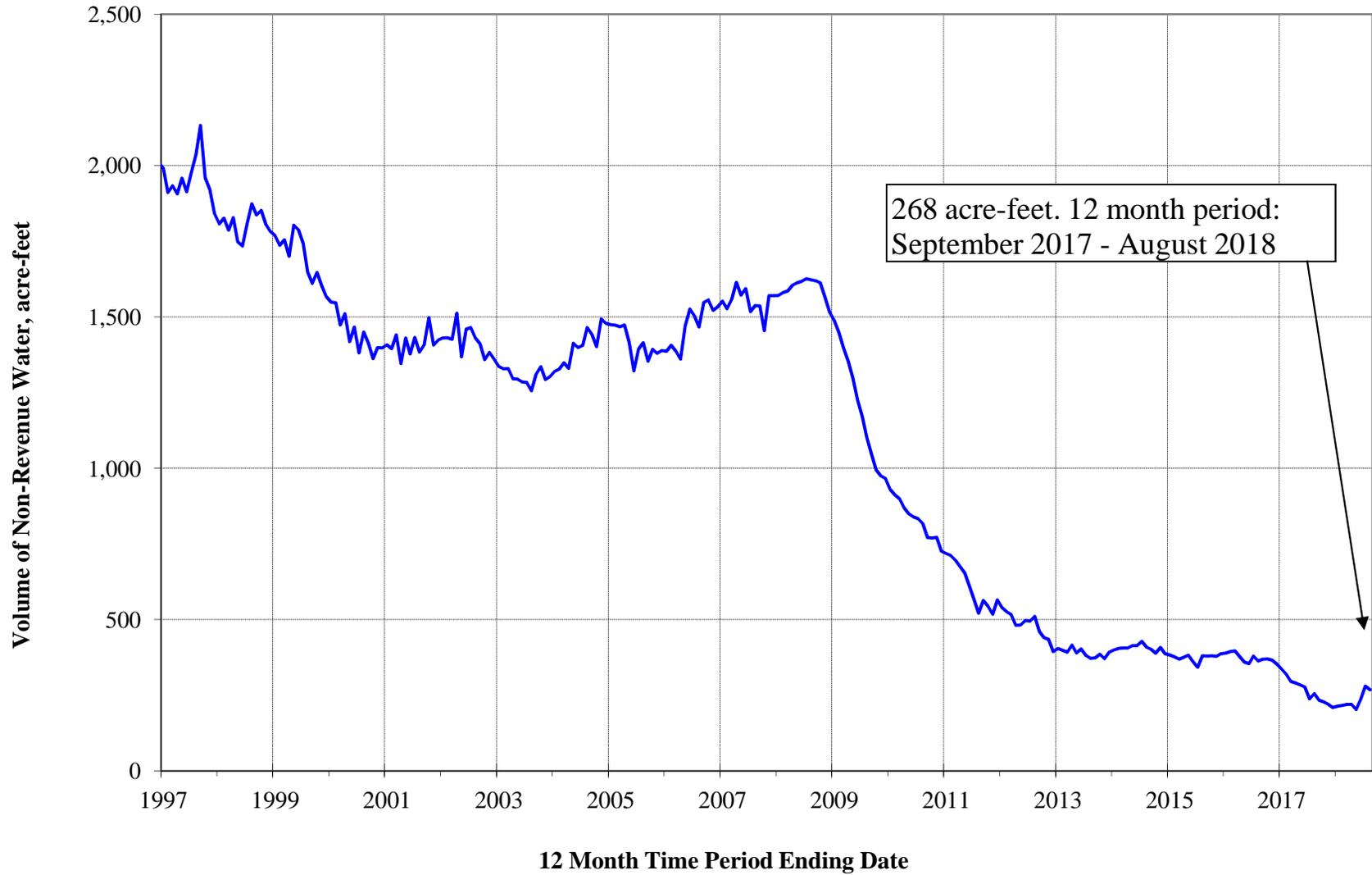
Engineering staff continued efforts to outsource an engineering analysis of the Magalia Dam outlet pipe anchors. Staff reviewed the draft Paradise Lake inundation study report and provided comments. Staff also arranged extension of the contract for the annual dam surveillance report preparation.

Engineering staff provided continued support to the investigation of solar energy implementation at PID. Staff proposed revised language for revision of the District's Policy and Procedures Manual with respect to private distribution pipelines.

## Summary of Development Review and Other Activities

Water Service Requirements Review Requests	7
New/revised projects reviewed in Project Evaluation Committee (TOP)	3
Review and direction of miscellaneous ongoing projects	5
Meter Sizing Audits (total to date)	64
Meter Size Reductions (total to date)	40

**Non-Revenue Water  
Production Minus Metered Sales  
12 Month Cumulative Time Intervals**



# Information Technology Report

## PID Website – 3,785 Page Views

Top 10 Pages – September 1 through September 30, 2018

Page Title	Pageviews
	<b>3,785</b> % of Total: 100.00% (3,785)
1. <a href="#">Pidwater.com - Paradise Irrigation District - Water Utility for Paradise, California - Paradise Irrigation District</a>	<b>1,745</b> (46.10%)
2. <a href="#">Payment Options for Paradise Irrigation District - Paradise Irrigation District</a>	<b>509</b> (13.45%)
3. <a href="#">Search or browse PID documents - Paradise Irrigation District</a>	<b>220</b> (5.81%)
4. <a href="#">Careers at PID - Paradise Irrigation District</a>	<b>193</b> (5.10%)
5. <a href="#">PID Reservoir Levels: Paradise Lake and Magalia Reservoir - Paradise Irrigation District</a>	<b>103</b> (2.72%)
6. <a href="#">Contact PID - Paradise Irrigation District</a>	<b>98</b> (2.59%)
7. <a href="#">PID Board and Committee Meetings - Paradise Irrigation District</a>	<b>76</b> (2.01%)
8. (not set)	<b>62</b> (1.64%)
9. <a href="#">Employment Application</a>	<b>50</b> (1.32%)
10. <a href="#">PID Projects - Paradise Irrigation District</a>	<b>46</b> (1.22%)

## Policy Updates

Staff is working on revising the records retention policy to reflect the current regulations and best practices for our industry. We will resume once the new office manager is onboard and acquainted with the district. Once finalized, we will create the plan to implement any changes in procedures. After completion, I will resume work on updating the IT security policy.

## September Regular Meeting on Facebook Live – Post Performance

**Paradise Irrigation District...**  
 Watch PID's Regular board meeting from wherever you are on Facebook Livestream. The documents projected on the wall behind the board members may not "show" very well on the stream's imaging so please download the agenda and supporting documents here s...

03:16:18 · Uploaded on 09/19/2018 · View Permalink

**Performance for Your Post**

← Audience and Engagement ▾

- People Reached: 272
- Unique Viewers: 85
- Post Engagement: 8
- Video Engagement: 0
- Top Audience: 0
- Top Location: 0

### September software subscriptions

1 - Adobe Standard DC @ \$12.99	= \$12.99
1 - Adobe Pro DC @ \$14.99	= \$14.99
1 - Creative Cloud Photo Plan @ \$19.99	= \$19.99
13 – Office 365 ProPlus @ \$12.00	= \$156.00
<b>Total September:</b>	<b>=\$203.97</b>

### Additions starting October:

The October invoices will reflect additional Office 365 ProPlus licenses as we upgrade the shop and Treatment plant from Office 2007 & 2010 to the latest versions.

### Fiber Installation

We are in the process of upgrading a portion of the treatment plant's network to fiber. The upgrade replaces 550 feet of Cat 6 cabling from the main building to an outbuilding. PID staff will be pulling the fiber, reducing the cost of the install by one-third.

## Aquahawk ends browser support for Internet Explorer users

The following notice is displayed to customers who login to Aquahawk using Internet Explorer. We are paying close attention to how our customers are responding to this change. To date, customer service has received a few complaints and successfully explained to customers how to access Aquahawk using a supported browser. The office kiosks are also available for any customers who would like to use Aquahawk but do not have computer access or updated software.



**Please upgrade your browser.**

This application uses the latest technology to provide the best user experience. Unfortunately, your browser is out of date and does not support the required technologies. If your browser is shown below, please upgrade to the latest version. If your browser is not listed, please switch to one of these supported browsers.



[Google Chrome](#)   [Mozilla Firefox](#)   [Microsoft Edge](#)   [Apple Safari](#)   [Opera](#)

Mickey Rich  
Information Systems Manager  
October 2018

**MONTHLY BILLING REPORT-SEPTEMBER 2018**

**PARADISE IRRIGATION DISTRICT**

	<u>Routes 1-50</u> <u>Sep-18</u>	<u>Routes 1-50</u> <u>Sep-17</u>	Variance	<u>RT 1-50</u> <u>Aug-18</u>	<u>RT 1-50</u> <u>Aug-17</u>	Variance
Service Charge Billed	\$ 436,471.72	\$ 371,311.79	\$ 65,159.93	\$ 436,431.14	\$ 371,091.17	\$ 65,339.97
Consumption Billed	\$ 421,912.96	\$ 432,370.91	\$ (10,457.95)	\$ 442,273.74	\$ 474,882.17	\$ (32,608.43)
Service Fees	\$ 9,952.15	\$ 11,401.68	\$ (1,449.53)	\$ 11,704.86	\$ 12,734.94	\$ (1,030.08)
<b>Total Current Billing</b>	<b>\$ 868,336.83</b>	<b>\$ 815,084.38</b>	<b>\$ 53,252.45</b>	<b>\$ 890,409.74</b>	<b>\$ 858,708.28</b>	<b>\$ 31,701.46</b>
Past Due Billed	\$ 127,860.83	\$ 115,651.97	\$ 12,208.86	\$ 104,553.67	\$ 122,677.10	\$ (18,123.43)
TOP-PFD-Hydrant	\$ 10,352.49	\$ 10,338.83	\$ 13.66	\$ 10,347.94	\$ 10,332.72	\$ 15.22
<b>Total Accounts Billed</b>	10,643					
<b><u>Total A/R All Routes 9/30/18 \$579,113.37</u></b>						

**WATER USAGE**

	<u>Sep-18</u>	<u>Sep-17</u>	Variance	<u>Aug-18</u>	<u>Aug-17</u>	Variance
Water Used (Cf)	28,051,100	28,408,100	(357,000)	29,182,800	31,162,400	(1,979,600)
Water Used (AF)	644	652	(8)	670	715	(45)

**TOTAL CONNECTIONS AS OF Sep-18**

Active Meters in Service	10,282
Sealed Meters in Service	312
<u>Total Meters</u>	<u>10,594</u>

**DEL ORO WATER DISTRICT**

**LIME SADDLE**

Date	9/01/18 TO 09/30/18	01/01/18 TO 09/30/18
Acre Feet	0.00	3.73

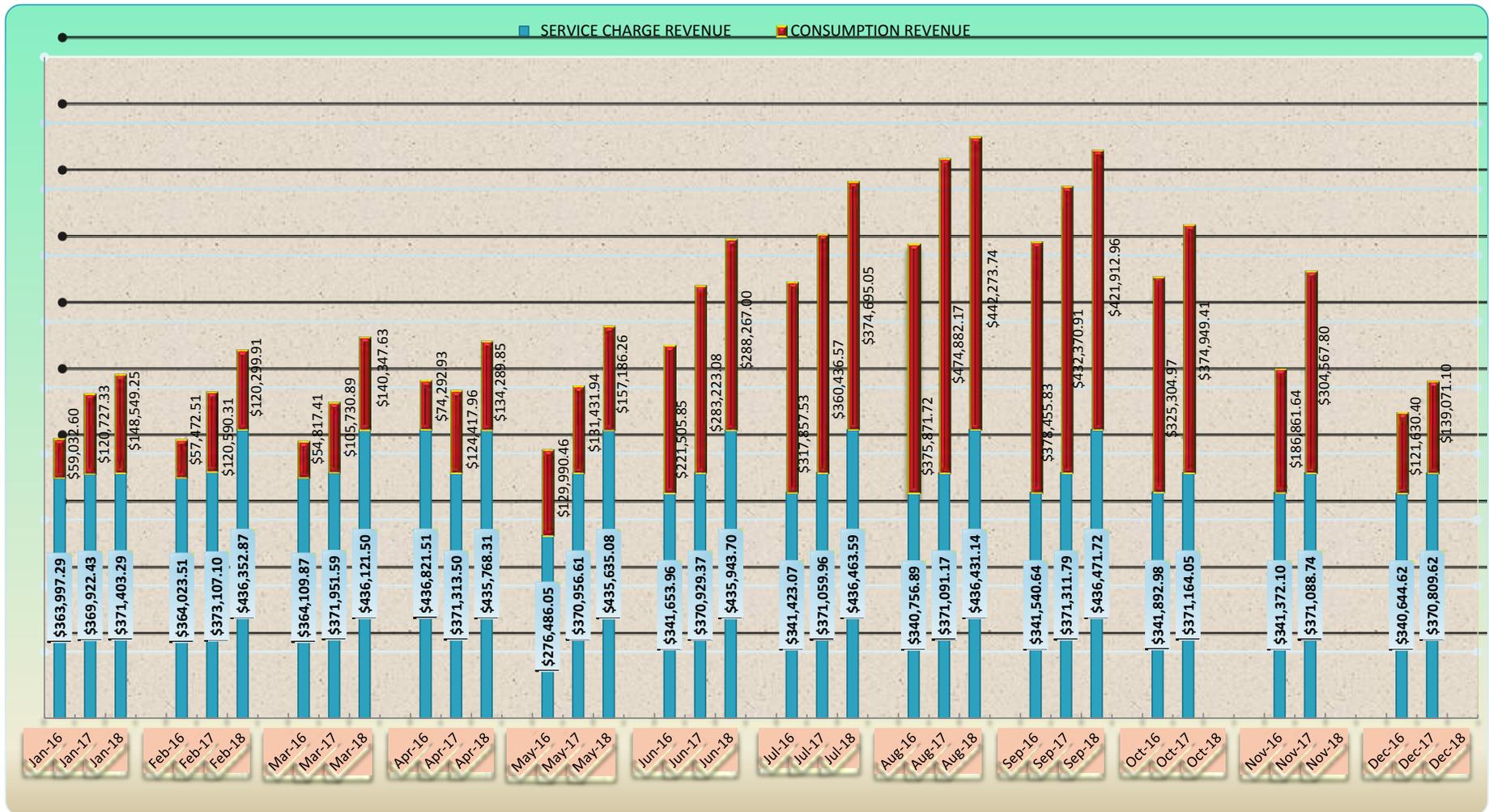
**PARADISE PINES/MAGALIA**

Date	9/01/18 TO 09/30/18	01/01/18 TO 09/30/18
Acre Feet	26.62	113.20

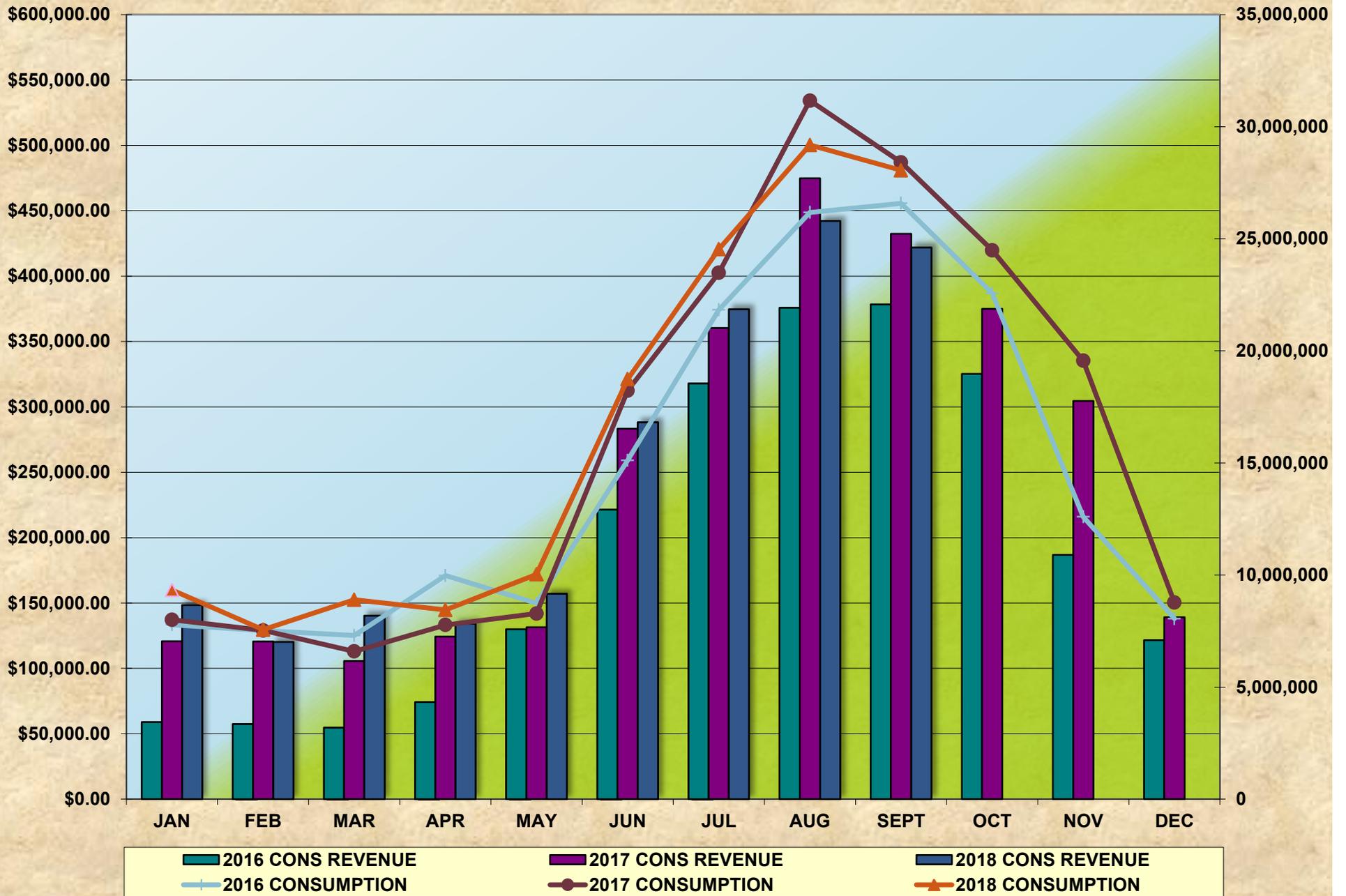
**TOTAL DEL ORO WATER USAGE**      26.62      116.93      ACRE FEET

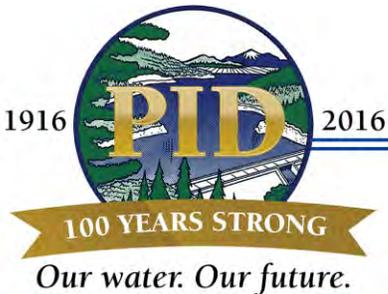
*Laura Capra*  
\_\_\_\_\_  
Laura Capra-Utility Billing Technician

# SERVICE CHARGE REVENUE AND CONSUMPTION REVENUE



# WATER CONSUMPTION AND REVENUE 2016 THRU 2018





## PARADISE IRRIGATION DISTRICT

6332 Clark Road, Paradise CA 95969 | Phone (530)877-4971 | Fax (530)876-0483

*"Paradise Irrigation District (PID) is dedicated to the business of producing and delivering a safe, dependable supply of quality water in an efficient, cost effective manner with service that meets or exceeds the expectation of our customers."*

*Please consider how this agenda item relates to our mission.*

**TO: Board of Directors**

**FROM: Ed Fortner, District Manager**

**DATE: October 11, 2018**

**RE: District Manager's Report  
10/17/2018 Board of Directors Meeting**

### Water Rights

The District met with the Water Board staff on September 7, 2017, to discuss the District's water right applications and permit extension. We will be working with our water rights engineer and environmental engineer to restart this process.

The District is working with the Water Board staff to have our alternative compliance method approved to meet the State standards.

Paula Whealen, from Wagner and Bonsignore, attended the February 2018 Board meeting to introduce herself and give water rights 101 presentation.

The District selected De Novo Group on April 26, 2011, to prepare the EIR for the water right extension. The contract also included the performance of the environmental studies. The total contract was for \$306,430.00, and the District has paid \$204,558.74 on this contract.

The District has two water rights permits that have not been "perfected." This means that the District has the potential to create more water storage to supply the District. To keep this potential water storage option available, the District must renew their water rights permits. The State of California mandated the District to complete an extensive environmental impact report on the Districts watershed and tributaries. The District has contracted with an environmental firm and completed the biological study. The results of their study could impact our ability to expand our water storage to the maximum permitted under our original water rights permit. The District needed some feedback from the State of California before proceeding with the EIR. The State of California staff was overwhelmed dealing with the drought in 2015-16. The District has also changed the project because we have decided to go to license on permit 271 instead of asking for an extension. The EIR process should be restarted during the fiscal year 2018/19.

*Ed and Kevin will be traveling to Sacramento October 15, 2018 to discuss the water rights activity and requirements with Wagner & Bonsignore.*

### North Lake Boat Launch Land Acquisition

The District purchased 3 acres of land next to boat launch one for \$58,055.26.

The District decided to terminate the grant agreement with the Division of Boating and Waterways. The PID Lake Committee met on 08/12/18 and recommends clearing the parking area this winter and establishing a turn-around near the Boat Launch. District Manager approved procuring quotes for CEQA compliance with Pete Sundall. *Lake Committee on 10/09/18 agreed to table this project and the Magalia Trail project pending completion of Strategic Planning.*

### Process Water Recycle Project

The District hired Water Works Engineering to work with the Regional Board to get the District's NPDES permit renewed. The District had a kickoff meeting on Nov 8, 2017, with Water Works Engineering and Larry Walker Engineering. The Water Board adopted the 2-year extension of the Time Schedule Order on Dec 8, 2017, for the District's NPDES permit. We had a meeting on February 13 & March 29, 2018, with Larry Walker and Water Works to discuss the preliminary research for the mixing zone study and dilution credit. The District met with the Regional Board on April 26, 2018, to kick off the renewal of the NPDES permit. The meeting was very positive, and the Regional Board is currently reviewing our preliminary data and communicating with the District on what additional information may be needed to complete the NPDES permit renewal. The PID Water Plant staff is working through sampling protocols related to temperature and has requested the verification monitoring deadline extension to December 31, 2018 (extension from July 31, 2018).

### B Reservoir Design Project

The District has been approved for an \$800,000 SRF loan to design the B Reservoir. The District awarded the contract to Water Works Engineering during the May Board Meeting and approved the change order at the September Board meeting. The District had a workshop to approve the preliminary design report. The preliminary design was estimated to be \$11,000,000. We are working with SRF to increase our loan approval amount to cover this estimated cost. During our March 6, 2018 meeting with the county, we discussed the right-of-way issues associated with our A zone pipeline project. The county is looking into the issue to see if they can help us find the rightful owner of the Skyway. The District is going to pursue condemnation of the right-of-way and easement of the Skyway alignment for the pipeline. The District has hired Blackwater Engineering to do a preliminary search of title and to convince the county that they have a prescriptive right-of-way to the pipeline alignment. Jim Passanisi, Bill Taylor, Kevin Phillips and I met with Water works Engineering in Redding on July 24, 2018, to discuss the B Reservoir project. Larry Kram with Blackwater Engineering has done a preliminary investigation, and Butte County does not have the right of way presently. Larry has set up meetings with the County to walk them through the quit claim deed process to acquire right of way. After the County acquires right of way, PID will ask for a utility easement from the County. Stantec is circulating the CEQA documents for public review per SRF loan requirements. *PID Board approved project design and construction. The design is complete, CEQA is near completion. Property acquisition has progressed led by Neil Essila assisted by Blackwater Consultants. PID Staff held conference call October 3, 2018. CEQA public comment closed, report submitted to Water Quality Board to be accepted on October 17, 2018, PID Board Meeting. Planning and Design completed October 31, 2018. Tentative construction schedule and agreement begins February 2019. Met with Butte County Public Works on 10/04/18 to discuss possible encroachment permit and property acquisition for the 16" line. PID will complete application for the encroachment permit and partner with BCPW for underlying property ownership or deeds of easement.*

### Spillway Investigation

The District received a letter on May 17, 2017, ordering the District to conduct an extensive evaluation of both spillways. We requested an extension of the timeline from July 15, 2017, to September 1, 2017, to submit a work plan to the Department of Safety of Dams. We met with the Division of Safety of Dams on July 6, 2017. The District submitted our work plan on both spillways on September 7, 2017. The District hired Genterra Engineering to complete the Phase one work plan. They started field work on Nov 6, 2017, and expect the work to continue through February 2018. The District cleared trees and brush below the Magalia Dam before the Nov 1 deadline. The District met with Genterra Engineering on Apr 3, 2018, to discuss the draft Phase one reports for Paradise Spillway and Magalia Spillway. The District has submitted the draft phase one report to DSOD for their review. The draft inundation report should be complete soon. PID staff and Manager met with Genterra to discuss the phase one reports August 23, 2018. Magalia Reservoir Sunny Day inundation study is complete and submitted to DSOD. *Paradise Lake draft inundation study is complete.*

### AMR Project Update

Zenner Meter Interface Units (MIUs) replacement program began in September 2014. Older Datamatic “fireflies” had a significant failure rate, and Datamatic filed for bankruptcy. Zenner MIUs are backward compatible with the Datamatic units. 7,413 of 10,594 MIUs have been replaced to date, total cost \$853,463 including labor, equipment, and material. 3,181 MIUs remain for replacement, total cost \$298,378. The total cost of the conversion project including repeater replacement is ~\$1,197,000. There is an ongoing discussion about cellular technology upgrades and timing. *AMR outstanding cost of \$43,650.00 approved by Board September 19, 2018. The balance of outstanding MIUs is ordered. The plan for Zenner installation and conversion schedule is under development. The tentative schedule for Zenner conversion is January 2019.*

### Miscellaneous

*PID Manager met with Paradise Town Manager October 3, 2018, to discuss County Community Choice Aggregation, Town Sewer project, Almond Street project, and Solar opportunities. PID Manager attended Butte County Fire Safe Council October 3, 2018. A special PID Board meeting was held October 8, 2018, to discuss Union Labor Negotiations. PID Manager attended the PID Lake Committee meeting October 9, 2018. PID Manager, Kevin Phillips, and Emily LaMoe held negotiation meetings with IBEW and Teamsters. Erin West was hired as PID Office Manager. PID met with Sierra Pacific Industries and Capra about partnering on fuel removal around Paradise Lake using goat labor. PID is working with Cal Fire to develop vegetation removal activity and possible grant opportunities. Karen Rice was promoted to Utility Billing Technician. PID met with Borrego Solar and Ciel Terre USA to discuss Solar opportunities. October 16, 2018, DSOD conducted Dam inspections on Magalia Reservoir and Paradise Lake.*



## PARADISE IRRIGATION DISTRICT

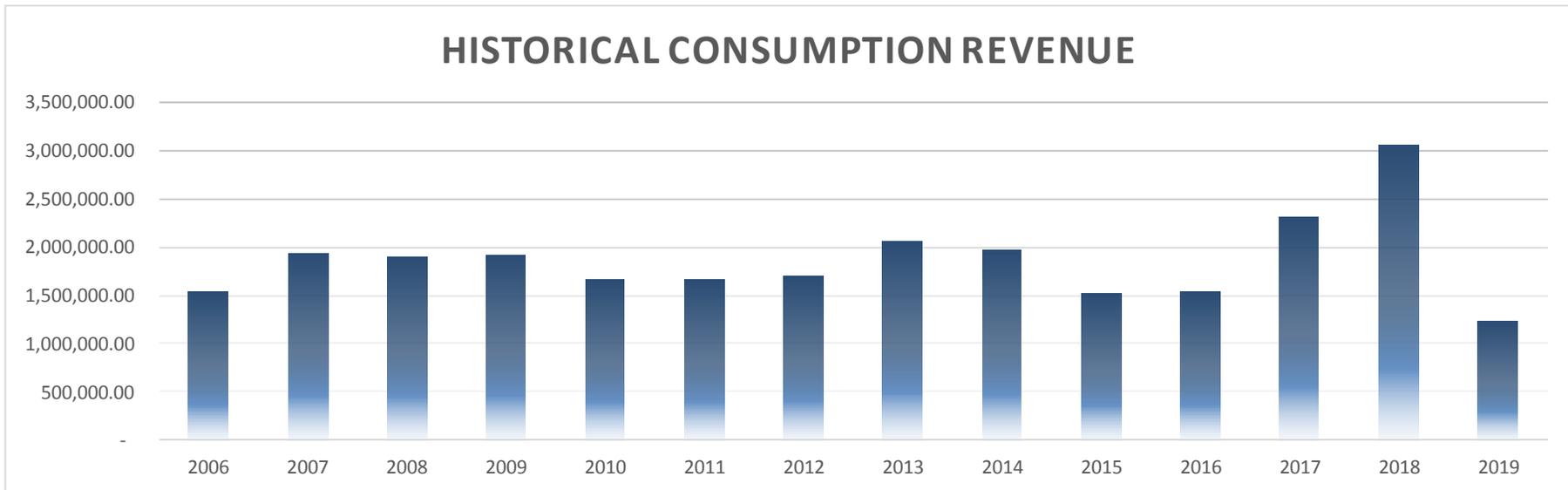
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**TO: Board of Directors**  
**FROM: Kevin Phillips**  
**DATE: 10/11/2018**  
**RE: Treasurer's Memo**

1. **Cash Position** – At 9/30/2018 the Districts estimated cash position was \$3.260 million
  - a. Of this \$3.260 million, \$885,000 is restricted and \$2.375 is unrestricted
    - i. \$540,000 is collected for Paradise Fire Department Hydrant Fund
    - ii. \$345,000 is set aside for accrued vacation and sick leave.
2. **Debt Service Analysis** – Through 9/30/2018 the District has incurred \$533,906 of debt service payments of the budgeted \$963.307. This Districts total outstanding debt is \$6.521 million.
3. **Operational Issues**
  - a. 2018 – 2019 Financial Overview
    - i. From an operational standpoint, service fee is right in-line with draft budget. Consumption revenue is right on draft budget. The operational expense is right in line with draft budget.
  - b. Highlights from the Fiscal Year 2018 – 19
    - i. District customers currently have online access to their accounts and water usage through Aquahawk.
    - ii. Erin West has started as the new Office Manager
    - iii. The District has secured funding from SRF for B-Res
    - iv. The Budget is complete
    - v. The Annual Audit is scheduled for January
  - c. Training
    - i. Fall ACWA Conference Nov 25<sup>th</sup> – Nov 29<sup>th</sup>
    - ii. Annual GFOA conference in St. Louis, MO from May 18<sup>th</sup> through 23<sup>rd</sup>.

### Consumption Revenue vs Draft Budget Consumption Revenue

Consumption Variations													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Year to Date Totals
2018/19 Budget	351,072.72	409,581.48	413,669.58	354,827.91	204,263.67	133,216.22	138,721.49	124,180.61	115,137.89	134,706.98	144,040.26	310,181.19	2,833,600.00
2018/19 Actual	374,367.10	442,495.43	421,306.50										1,238,169.03
2017/18 Actual	359,667.07	474,793.44	432,333.28	373,575.65	303,595.80	137,963.02	148,321.64	119,874.00	140,302.00	134,383.23	157,435.81	288,146.25	3,070,391.19
2016/17 Actual	320,953.08	374,442.19	378,179.56	324,386.10	186,739.24	121,787.18	126,820.13	113,526.76	105,259.85	123,150.04	131,682.59	283,569.76	2,306,926.72



*Paradise Irrigation District*

**Detail of Disbursements Report**

Check Numbers 52350 - 52458

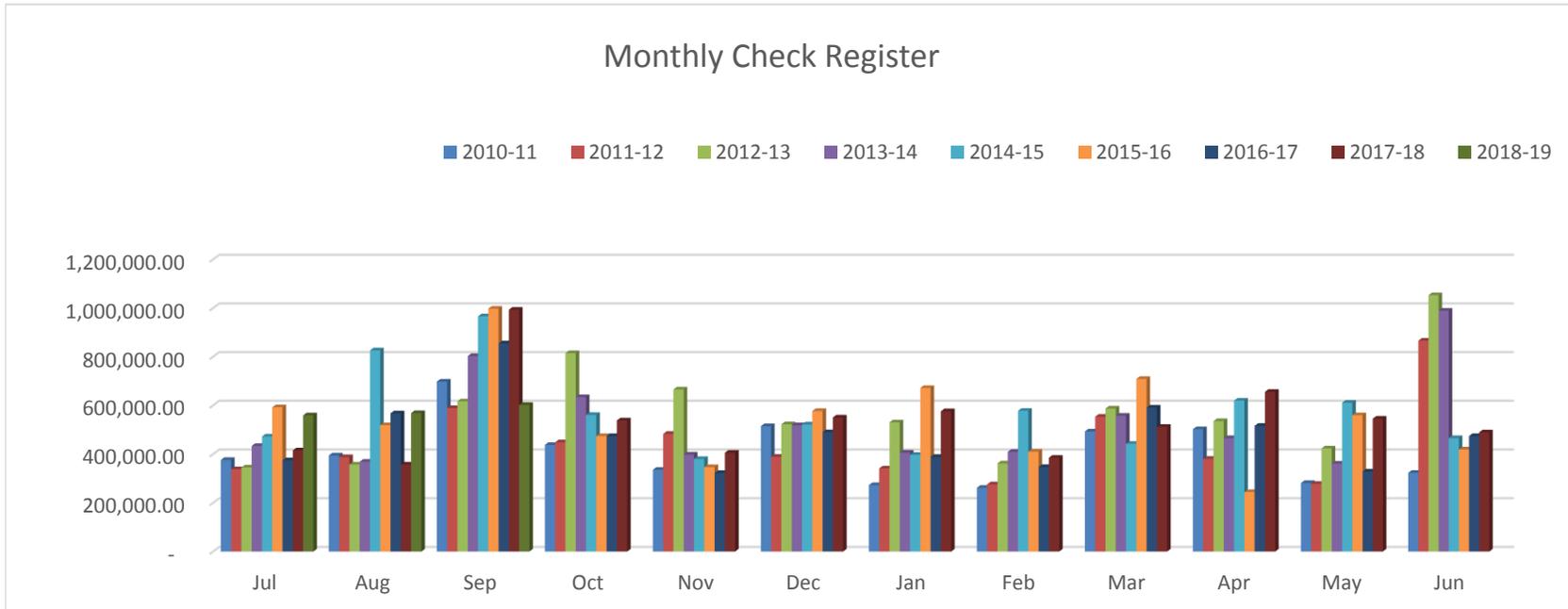
Check#	Date	Vendor/Employee	Amount	% of Total Monthly Disbursements
52439	09/21/2018	BB&T Governmental Finance	295,811.21	49.16%
52372	09/12/2018	ACWA/JPIA	71,469.37	11.88%
52399	09/12/2018	Pacific Gas & Electric Company	21,901.02	3.64%
52443	09/26/2018	Carus Corporation	20,300.92	3.37%
1219	09/21/2018	ICMA Retirement Trust-457	15,498.98	2.58%
1217	09/07/2018	ICMA Retirement Trust-457	15,168.13	2.52%
52428	09/21/2018	Minasian, Meith, Soares, Sexton & Cooper, LLP	14,073.71	2.34%
DFT0002932	09/10/2018	Internal Revenue Service	13,365.30	2.22%
DFT0002956	09/24/2018	Internal Revenue Service	12,964.04	2.15%
DFT0002933	09/10/2018	Internal Revenue Service	11,708.63	1.95%
DFT0002957	09/24/2018	Internal Revenue Service	11,405.29	1.90%
52408	09/12/2018	Thomas Ace Hardware	8,978.75	1.49%
DFT0002931	9/10/2018	Employment Development Dept.	4,465.87	0.74%
DFT0002955	09/24/2018	Employment Development Dept.	4,344.81	0.72%
52365	09/07/2018	Pace Supply	3,953.45	0.66%
52385	09/12/2018	Cullincini Inc	3,747.61	0.62%
52360	09/07/2018	Infosend	3,626.91	0.60%
52455	09/26/2018	US Bank Corporate Payment System	3,498.13	0.58%
DFT0002935	09/10/2018	Internal Revenue Service	3,125.78	0.52%
DFT0002959	09/24/2018	Internal Revenue Service	3,031.96	0.50%
52395	09/12/2018	Northstate Aggregate, Inc.	2,799.39	0.47%
1218	09/21/2018	ICMA Retirement Trust-401	2,698.79	0.45%
1216	9/7/2018	ICMA Retirement Trust-401	2,616.54	0.43%
52388	09/12/2018	Fechter & Company, CPA's	2,501.00	0.42%
52391	9/12/2018	Infosend	2,468.31	0.41%
52379	09/12/2018	Butte County Clerk/Recorder	2,330.75	0.39%
52355	09/07/2018	Employment Development Dept.	1,755.00	0.29%
52423	09/21/2018	Cedar Creek Publishing	1,642.56	0.27%
52354	09/07/2018	Commercial Tire Warehouse	1,558.81	0.26%
52376	09/12/2018	BSK Associates	1,545.00	0.26%
52425	09/21/2018	Hunt & Sons, Inc.	1,406.28	0.23%
52357	9/7/2018	FGL Environmental	1,337.00	0.22%
52374	09/12/2018	American Conservation & Billing Solutions	1,320.00	0.22%
52390	9/12/2018	Genterra Consultants, Inc.	1,192.50	0.20%
52350	09/07/2018	Aramark Uniform Services	1,164.52	0.19%
52384	09/12/2018	Cranmer Engineering, Inc.	1,092.00	0.18%
DFT0002934	09/10/2018	Employment Development Dept.	1,088.21	0.18%
52359	09/07/2018	I.B.E.W. Local Union 1245	1,037.74	0.17%
DFT0002958	09/24/2018	Employment Development Dept.	1,008.53	0.17%
52426	09/21/2018	I.B.E.W. Local Union 1245	1,005.90	0.17%
52432	09/21/2018	Pitney Bowes Global Financial Services LLC	1,005.00	0.17%
52419	09/21/2018	Black Water Consulting Engineers	969.00	0.16%
52458	09/26/2018	Walburg Inc	959.87	0.16%
52382	9/12/2018	Cedar Creek Publishing	915.34	0.15%
52417	09/21/2018	AT&T	906.04	0.15%
52447	09/26/2018	Harper & Associates Engineering, Inc.	720.00	0.12%
52394	09/12/2018	Northern Recycling & Waste Srvs	710.91	0.12%
52446	09/26/2018	Grainger Inc	662.46	0.11%
DFT0002954	9/21/2018	Health Equity, Inc.	647.57	0.11%
DFT0002930	09/07/2018	Health Equity, Inc.	647.57	0.11%

52383	09/12/2018	Comcast	578.00	0.10%
52363	09/07/2018	O'Reilly Auto Parts	568.81	0.09%
52380	09/12/2018	Caltest Analytical Laboratory	567.00	0.09%
52369	09/07/2018	Sinclair Towing	552.70	0.09%
52370	09/07/2018	Verizon Wireless	535.98	0.09%
52438	09/21/2018	Zee Service Company	525.36	0.09%
52387	09/12/2018	Enterprise Record	508.90	0.08%
52373	09/12/2018	Airgas NCN	501.79	0.08%
52398	09/12/2018	Pace Supply	480.48	0.08%
52367	09/07/2018	Peerless Bldg. Maintenance Inc.	450.00	0.07%
52381	09/12/2018	CASCO	427.16	0.07%
52393	09/12/2018	Lowe's Home Improvement	406.53	0.07%
52358	09/07/2018	Hunt & Sons, Inc.	395.81	0.07%
DFT0002929	09/07/2018	Aflac	391.50	0.07%
52449	09/26/2018	Inland Business Systems	391.48	0.07%
52444	09/26/2018	CASCO	383.42	0.06%
52441	09/26/2018	Andrew's Tech Service	360.00	0.06%
52412	09/12/2018	T-Mobile	354.80	0.06%
52402	9/12/2018	Pitney Bowes Global Financial Services LLC	346.10	0.06%
DFT0002953	09/21/2018	Aflac	345.84	0.06%
52371	09/07/2018	Zee Service Company	323.25	0.05%
52457	09/26/2018	USA Blue Book	321.33	0.05%
52451	09/26/2018	Keller Supply	315.31	0.05%
52452	09/26/2018	Northern Safety	278.34	0.05%
52436	09/21/2018	Wagner & Bonsignore	250.00	0.04%
52368	09/07/2018	Rental Guys	249.98	0.04%
52440	09/26/2018	All Metals Supply, Inc	248.60	0.04%
52400	09/12/2018	Pape Machinery	227.10	0.04%
52422	9/21/2018	California State Disbursement Unit	225.23	0.04%
52352	09/07/2018	California State Disbursement Unit	225.23	0.04%
52414	09/12/2018	USA Blue Book	219.58	0.04%
52429	09/21/2018	Office Depot	215.34	0.04%
52448	09/26/2018	Home Depot Credit Services	209.11	0.03%
52404	9/12/2018	Riebes Auto Parts	208.58	0.03%
52453	09/26/2018	Paradise Optometry Group	200.00	0.03%
52424	9/21/2018	Franchise Tax Board	200.00	0.03%
52413	09/12/2018	Tyler Technologies, Inc.	200.00	0.03%
52433	09/21/2018	Rental Guys	197.18	0.03%
52434	09/21/2018	United Rentals, Inc	193.93	0.03%
52454	09/26/2018	Peterson	193.40	0.03%
52361	09/07/2018	J C Nelson Supply Co.	190.18	0.03%
DFT0002937	09/10/2018	Internal Revenue Service	179.96	0.03%
52421	09/21/2018	California State Disbursement Unit	179.53	0.03%
52353	09/07/2018	California State Disbursement Unit	179.53	0.03%
52420	09/21/2018	Butte County AQMD	175.00	0.03%
52356	09/07/2018	Fastenal Co	169.05	0.03%
52431	09/21/2018	Paradise Ridge Chamber of Comm	160.00	0.03%
52386	09/12/2018	Employee Relations	152.20	0.03%
52403	09/12/2018	Rental Guys	150.67	0.03%
52445	09/26/2018	Chico Immediate Care	147.00	0.02%
52362	09/07/2018	OnTrac	144.08	0.02%
52416	09/21/2018	Butte County Tax Collector	142.96	0.02%
52437	09/21/2018	Wurth USA Inc.	136.27	0.02%
52450	09/26/2018	J & M Boots	125.00	0.02%
52392	09/12/2018	J & M Boots	125.00	0.02%
52351	09/07/2018	Asbury Enviromental Service	120.00	0.02%
52397	09/12/2018	Oroville Ford	107.96	0.02%
52406	09/12/2018	Stanley Convergent Security Solutions	100.38	0.02%

52407	09/12/2018	The UPS Store	99.63	0.02%
52396	09/12/2018	O'Reilly Auto Parts	99.00	0.02%
52405	09/12/2018	Skyway Tools Center	81.84	0.01%
52375	9/12/2018	Aramark Uniform Services	81.18	0.01%
52427	09/21/2018	Infinisource Cobra Compliance	80.00	0.01%
52442	09/26/2018	Butte Co - Neal Rd Landfill	74.24	0.01%
52435	09/21/2018	USA Blue Book	72.65	0.01%
52418	09/21/2018	AT&T	66.06	0.01%
52430	09/21/2018	Pacific Gas & Electric Company	59.08	0.01%
52378	09/12/2018	Butte County AQMD	47.25	0.01%
DFT0002936	9/7/2018	Aflac	45.66	0.01%
52401	09/12/2018	Paradise Police Dept.	45.58	0.01%
DFT0002940	09/10/2018	Internal Revenue Service	42.08	0.01%
52389	09/12/2018	Fiserv Solutions, LLC	34.58	0.01%
52366	9/7/2018	Paradise Pines True Value	21.43	0.00%
DFT0002942	09/10/2018	Internal Revenue Service	18.26	0.00%
52377	09/12/2018	Butte Co - Neal Rd Landfill	15.00	0.00%
DFT0002939	09/10/2018	Employment Development Dept.	14.97	0.00%
DFT0002943	09/10/2018	Internal Revenue Service	14.72	0.00%
DFT0002948	09/10/2018	Internal Revenue Service	11.92	0.00%
DFT0002949	09/10/2018	Internal Revenue Service	8.55	0.00%
DFT0002941	09/10/2018	Employment Development Dept.	6.04	0.00%
DFT0002938	09/10/2018	Internal Revenue Service	4.63	0.00%
DFT0002947	09/10/2018	Employment Development Dept.	4.32	0.00%
DFT0002945	09/10/2018	Internal Revenue Service	4.26	0.00%
DFT0002960	09/24/2018	Internal Revenue Service	3.76	0.00%
DFT0002951	9/10/2018	Internal Revenue Service	2.80	0.00%
DFT0002944	09/10/2018	Employment Development Dept.	1.47	0.00%
DFT0002950	09/10/2018	Employment Development Dept.	0.96	0.00%
DFT0002962	9/24/2018	Internal Revenue Service	0.88	0.00%
DFT0002961	09/24/2018	Employment Development Dept.	0.30	0.00%
			<u>601,673.48</u>	

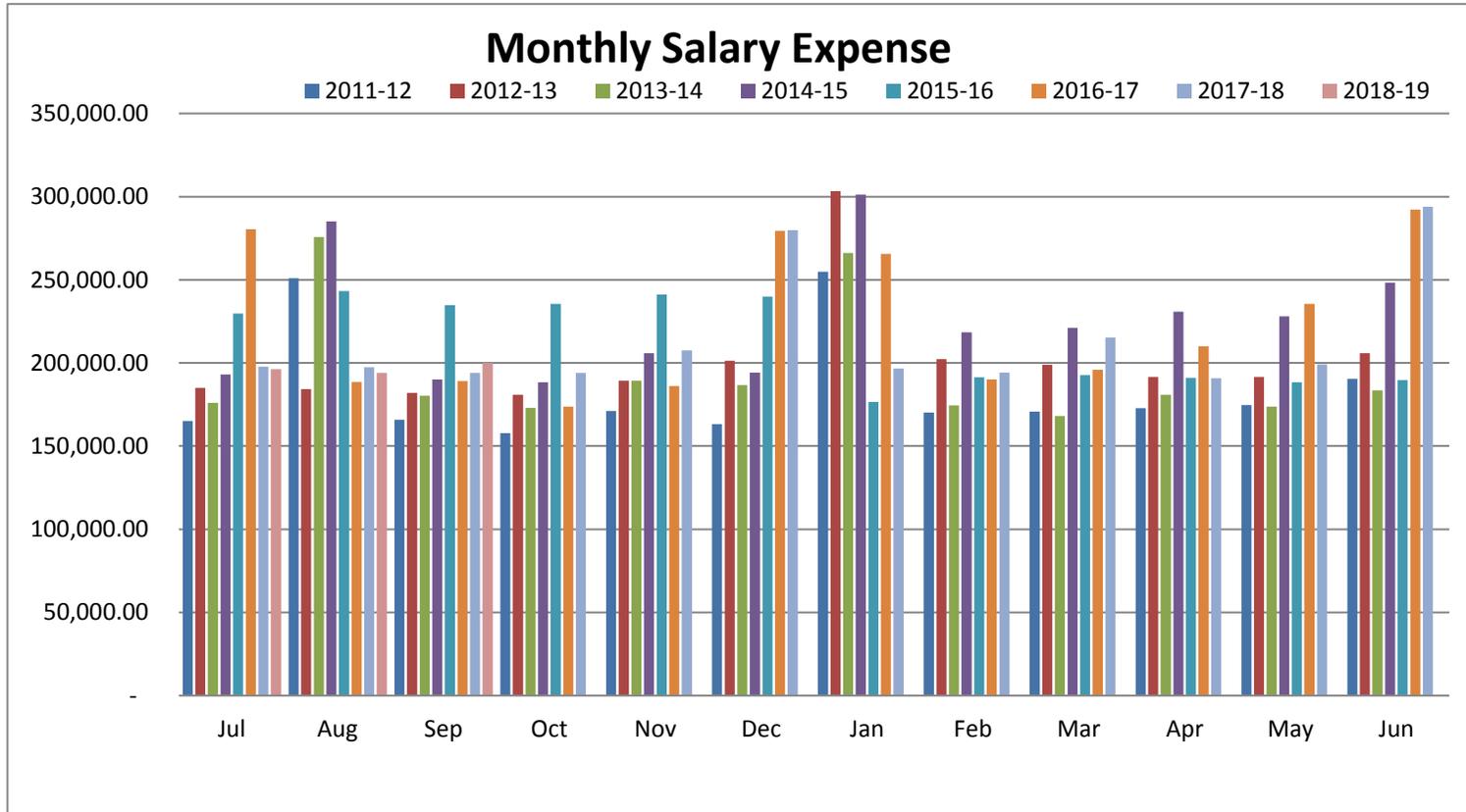
**Monthly Check Register Comparison  
9/30/2018**

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	TOTAL
2010-11	376,057.07	394,478.03	697,440.23	437,353.30	335,561.35	514,446.61	272,650.38	261,657.93	492,956.90	502,246.31	281,128.16	323,018.20	4,888,994.47
2011-12	337,870.71	387,630.16	588,787.53	448,406.52	482,962.01	388,861.12	341,120.17	275,613.75	553,253.26	380,509.77	277,815.76	865,926.78	5,328,757.54
2012-13	344,902.72	357,171.01	616,334.99	814,682.57	665,449.92	522,446.13	530,039.20	361,726.18	587,020.27	535,336.13	423,280.91	1,053,235.12	6,811,625.15
2013-14	433,382.63	368,779.26	802,476.78	633,882.89	398,081.26	518,051.07	405,810.71	409,112.07	557,298.91	465,630.22	360,919.47	989,128.51	6,342,553.78
2014-15	472,241.69	826,124.72	966,091.32	560,795.81	379,837.95	521,506.16	396,986.91	577,478.70	442,160.59	619,540.73	610,653.38	465,638.98	6,839,056.94
2015-16	592,270.34	518,376.14	997,458.06	473,997.75	346,528.65	576,989.73	671,415.72	410,004.00	708,573.26	244,086.93	559,463.61	418,837.54	6,518,001.73
2016-17	374,512.89	567,413.19	854,757.17	474,138.96	322,472.57	489,838.05	388,492.74	346,722.08	590,867.07	515,955.92	328,302.60	474,140.20	5,727,613.44
2017-18	415,101.35	357,032.65	993,137.40	538,008.58	405,434.47	550,051.94	576,037.20	384,988.59	511,977.43	655,360.02	545,437.65	489,182.87	6,421,750.15
2018-19	558,993.99	568,249.68	601,673.48										1,728,917.15



**Monthly Salary Comparison  
9/30/2018**

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	TOTAL
2011-12	165,136.25	251,002.09	165,757.57	157,802.96	171,147.57	163,179.50	254,778.33	170,115.56	170,679.95	172,787.08	174,745.15	190,441.93	2,207,573.94
2012-13	185,072.59	184,306.21	182,018.66	180,895.38	189,387.15	201,260.69	303,226.80	202,306.76	198,816.09	191,593.62	191,627.75	205,919.75	2,416,431.45
2013-14	175,893.89	275,785.03	180,387.36	173,058.88	189,337.55	186,625.72	266,179.58	174,437.98	168,064.08	180,917.98	173,815.95	183,456.22	2,327,960.22
2014-15	193,163.74	285,030.59	190,010.10	188,299.20	205,851.25	194,253.80	301,223.31	218,392.65	221,128.80	230,754.19	228,058.15	248,263.98	2,704,429.76
2015-16	229,612.70	243,154.60	234,814.08	235,558.49	241,053.93	239,917.71	176,554.17	191,449.21	192,747.74	191,038.74	188,324.27	189,669.86	2,553,895.50
2016-17	280,454.85	188,538.79	189,139.80	173,827.85	186,096.84	279,396.42	265,613.11	190,001.12	195,818.18	209,985.90	235,516.05	292,141.64	2,686,530.55
2017-18	197,765.00	197,302.76	194,072.23	194,108.00	207,608.98	279,868.60	196,727.17	194,198.52	215,233.59	190,899.04	199,152.15	293,915.52	2,560,851.56
2018-19	196,187.77	194,101.43	200,024.15										590,313.35





# Expense Approval Report

By Vendor Name

Payment Dates 09/01/2018 - 09/30/2018

Payment Date	Payment Number	Description (Item)	(None)	(None)	Amount
<b>Vendor: 01134 - Butte County Tax Collector</b>					
09/21/2018	52416	Property Tax - 6350 Clark Rd.			142.96
<b>Vendor 01134 - Butte County Tax Collector Total:</b>					<b>142.96</b>
<b>Vendor: 01022 - ACWA/JPIA</b>					
09/12/2018	52372	Health - Dental			3,262.07
09/12/2018	52372	Health - Life/AD&D			815.70
09/12/2018	52372	Health - EAP			96.35
09/12/2018	52372	Health - Medical			66,486.85
09/12/2018	52372	Health - Vision			808.40
<b>Vendor 01022 - ACWA/JPIA Total:</b>					<b>71,469.37</b>
<b>Vendor: 02957 - Aflac</b>					
09/07/2018	DFT0002929	Montly Aflac Invoice			391.50
09/07/2018	DFT0002936	Montly Aflac Invoice			45.66
09/21/2018	DFT0002953	Montly Aflac Invoice			345.84
<b>Vendor 02957 - Aflac Total:</b>					<b>783.00</b>
<b>Vendor: 01032 - Airgas NCN</b>					
09/12/2018	52373	Welding Supplies - Shop			501.79
<b>Vendor 01032 - Airgas NCN Total:</b>					<b>501.79</b>
<b>Vendor: 01041 - All Metals Supply, Inc</b>					
09/26/2018	52440	steel for shop			248.60
<b>Vendor 01041 - All Metals Supply, Inc Total:</b>					<b>248.60</b>
<b>Vendor: 02847 - American Conservation &amp; Billing Solutions</b>					
09/12/2018	52374	AquaHawk Alerting - 10/18			1,320.00
<b>Vendor 02847 - American Conservation &amp; Billing Solutions Total:</b>					<b>1,320.00</b>
<b>Vendor: 02976 - Andrew's Tech Service</b>					
09/26/2018	52441	Office Equipment Maint. - Office			360.00
<b>Vendor 02976 - Andrew's Tech Service Total:</b>					<b>360.00</b>
<b>Vendor: 01068 - Aramark Uniform Services</b>					
09/07/2018	52350	Janitorial Supplies - TP			9.00
09/07/2018	52350	Uniforms - TP			81.88
09/07/2018	52350	Janitorial Supplies - Shop			188.85
09/07/2018	52350	Uniforms - Shop			18.00
09/07/2018	52350	Uniforms - TP			60.38
09/07/2018	52350	Uniforms - Shop			18.00
09/07/2018	52350	Janitorial Supplies - Shop			188.85
09/07/2018	52350	Janitorial Supplies - TP			9.00
09/07/2018	52350	Uniforms - TP			99.06
09/07/2018	52350	Janitorial Supplies - Shop			188.85
09/07/2018	52350	Uniforms - Shop			18.00
09/07/2018	52350	Uniforms - TP			77.80
09/07/2018	52350	Janitorial Supplies - Shop			188.85
09/07/2018	52350	Uniforms - Shop			18.00
09/12/2018	52375	Janitorial Supplies - TP			9.00
09/12/2018	52375	Uniforms - TP			72.18
<b>Vendor 01068 - Aramark Uniform Services Total:</b>					<b>1,245.70</b>
<b>Vendor: 01074 - Asbury Enviromental Service</b>					
09/07/2018	52351	Vehicle/Equipment - Gas/Oil			120.00
<b>Vendor 01074 - Asbury Enviromental Service Total:</b>					<b>120.00</b>
<b>Vendor: 01082 - AT&amp;T</b>					
09/21/2018	52417	Lake			19.43
09/21/2018	52417	DS1 Service IntraLATA			82.34

## Expense Approval Report

Payment Dates: 09/01/2018 - 09/30/2018

Payment Date	Payment Number	Description (Item)	(None)	(None)	Amount
09/21/2018	52417	Phone Line - TP			78.16
09/21/2018	52417	Shop Fax			20.60
09/21/2018	52417	B Res Alarm			20.59
09/21/2018	52417	Office			357.10
09/21/2018	52417	Elliott & Clark			164.68
09/21/2018	52417	DS1 Service IntraLATA			82.34
09/21/2018	52417	Computer Room			20.59
09/21/2018	52417	Office Fax			60.21
<b>Vendor 01082 - AT&amp;T Total:</b>					<b>906.04</b>
<b>Vendor: 01083 - AT&amp;T</b>					
09/21/2018	52418	A Tank Alarm			33.03
09/21/2018	52418	B Res			33.03
<b>Vendor 01083 - AT&amp;T Total:</b>					<b>66.06</b>
<b>Vendor: 03016 - BB&amp;T Governmental Finance</b>					
09/21/2018	52439	Interest Pymt.			37,711.21
09/21/2018	52439	Principal Pymt.			258,100.00
<b>Vendor 03016 - BB&amp;T Governmental Finance Total:</b>					<b>295,811.21</b>
<b>Vendor: 03039 - Black Water Consulting Engineers</b>					
09/21/2018	52419	Job #17-02 - Res B Rehab. Proje...			360.00
09/21/2018	52419	Job #17-02 - Res B Rehab. Proje...			609.00
<b>Vendor 03039 - Black Water Consulting Engineers Total:</b>					<b>969.00</b>
<b>Vendor: 01208 - BSK Associates</b>					
09/12/2018	52376	Lab Fees - TP			690.00
09/12/2018	52376	Lab Fees - TP			524.00
09/12/2018	52376	Lab Fees - TP			300.00
09/12/2018	52376	Lab Fees - TP			31.00
<b>Vendor 01208 - BSK Associates Total:</b>					<b>1,545.00</b>
<b>Vendor: 01942 - Butte Co - Neal Rd Landfill</b>					
09/12/2018	52377	Landfill Fees - Shop			15.00
09/26/2018	52442	Landfill Fees - TP			74.24
<b>Vendor 01942 - Butte Co - Neal Rd Landfill Total:</b>					<b>89.24</b>
<b>Vendor: 01220 - Butte County AQMD</b>					
09/12/2018	52378	2018 AQMD Burn Permit			47.25
09/21/2018	52420	Portable Equipment Registratio...			175.00
<b>Vendor 01220 - Butte County AQMD Total:</b>					<b>222.25</b>
<b>Vendor: 01126 - Butte County Clerk/Recorder</b>					
09/12/2018	52379	Job #17-02 - Res B Project NOD			2,330.75
<b>Vendor 01126 - Butte County Clerk/Recorder Total:</b>					<b>2,330.75</b>
<b>Vendor: 01256 - California State Disbursement Unit</b>					
09/07/2018	52353	Garnishment			179.53
09/07/2018	52352	Garnishment			225.23
09/21/2018	52421	Garnishment			179.53
09/21/2018	52422	Garnishment			225.23
<b>Vendor 01256 - California State Disbursement Unit Total:</b>					<b>809.52</b>
<b>Vendor: 03019 - Caltest Analytical Laboratory</b>					
09/12/2018	52380	Lab Fees -TP			92.00
09/12/2018	52380	Lab Fees -TP			475.00
<b>Vendor 03019 - Caltest Analytical Laboratory Total:</b>					<b>567.00</b>
<b>Vendor: 02970 - Carus Corporation</b>					
09/26/2018	52443	Carus 3190 - Zinc Orthophospha...			20,300.92
<b>Vendor 02970 - Carus Corporation Total:</b>					<b>20,300.92</b>
<b>Vendor: 01254 - CASCO</b>					
09/12/2018	52381	Construction & Maint. Supplies - ...			427.16
09/26/2018	52444	Construction & Maint. Supplies -..			383.42
<b>Vendor 01254 - CASCO Total:</b>					<b>810.58</b>

## Expense Approval Report

Payment Dates: 09/01/2018 - 09/30/2018

Payment Date	Payment Number	Description (Item)	(None)	(None)	Amount
<b>Vendor: 01266 - Cedar Creek Publishing</b>					
09/12/2018	52382	Water Conservation Education			915.34
09/21/2018	52423	Water Conservation Education			1,642.56
<b>Vendor 01266 - Cedar Creek Publishing Total:</b>					<b>2,557.90</b>
<b>Vendor: 01285 - Chico Immediate Care</b>					
09/26/2018	52445	Physicals-DMV & PreEmploye...			147.00
<b>Vendor 01285 - Chico Immediate Care Total:</b>					<b>147.00</b>
<b>Vendor: 01320 - Comcast</b>					
09/12/2018	52383	Internet - TP			0.55
09/12/2018	52383	Internet - TP			-242.47
09/12/2018	52383	Internet - Shop			-105.06
09/12/2018	52383	Internet - Office			-125.01
09/12/2018	52383	Internet - Office			-106.01
09/12/2018	52383	Internet - TP			241.92
09/12/2018	52383	Internet - Shop			105.06
09/12/2018	52383	Internet - Office			125.01
09/12/2018	52383	Internet - Office			106.01
09/12/2018	52383	Internet - TP			241.92
09/12/2018	52383	Internet - Shop			105.06
09/12/2018	52383	Internet - Office			125.01
09/12/2018	52383	Internet - Office			106.01
<b>Vendor 01320 - Comcast Total:</b>					<b>578.00</b>
<b>Vendor: 01370 - Commercial Tire Warehouse</b>					
09/07/2018	52354	Repairs - #25, 04 Truck - (4) Tire			854.48
09/07/2018	52354	Repairs - #4, 14 Truck - (4) Tire			704.33
<b>Vendor 01370 - Commercial Tire Warehouse Total:</b>					<b>1,558.81</b>
<b>Vendor: 01356 - Cranmer Engineering, Inc.</b>					
09/12/2018	52384	Lab Fees - TP			1,092.00
<b>Vendor 01356 - Cranmer Engineering, Inc. Total:</b>					<b>1,092.00</b>
<b>Vendor: 03040 - Cullincini Inc</b>					
09/12/2018	52385	Manitowoc Ice Machine			3,747.61
<b>Vendor 03040 - Cullincini Inc Total:</b>					<b>3,747.61</b>
<b>Vendor: 01496 - Employee Relations</b>					
09/12/2018	52386	Physicals - DMV & PreEmploym...			152.20
<b>Vendor 01496 - Employee Relations Total:</b>					<b>152.20</b>
<b>Vendor: 01480 - Employment Development Dept.</b>					
09/10/2018	DFT0002931	State Income Tax Withholding			4,465.87
09/10/2018	DFT0002934	State Disability Withholding			1,088.21
09/10/2018	DFT0002939	State Disability Withholding			14.97
09/10/2018	DFT0002941	State Income Tax Withholding			6.04
09/10/2018	DFT0002944	State Disability Withholding			1.47
09/10/2018	DFT0002947	State Income Tax Withholding			4.32
09/10/2018	DFT0002950	State Disability Withholding			0.96
09/24/2018	DFT0002955	State Income Tax Withholding			4,344.81
09/24/2018	DFT0002958	State Disability Withholding			1,008.53
09/24/2018	DFT0002961	State Disability Withholding			0.30
<b>Vendor 01480 - Employment Development Dept. Total:</b>					<b>10,935.48</b>
<b>Vendor: 01482 - Employment Development Dept.</b>					
09/07/2018	52355	Unemployment Reimbursement			1,755.00
<b>Vendor 01482 - Employment Development Dept. Total:</b>					<b>1,755.00</b>
<b>Vendor: 01275 - Enterprise Record</b>					
09/12/2018	52387	Public Notice			508.90
<b>Vendor 01275 - Enterprise Record Total:</b>					<b>508.90</b>
<b>Vendor: 01521 - Fastenal Co</b>					
09/07/2018	52356	Construction & Maint. Supplies -..			169.05
<b>Vendor 01521 - Fastenal Co Total:</b>					<b>169.05</b>

## Expense Approval Report

Payment Dates: 09/01/2018 - 09/30/2018

Payment Date	Payment Number	Description (Item)	(None)	(None)	Amount
<b>Vendor: 03041 - Fechter &amp; Company, CPA's</b>					
09/12/2018	52388	Accounting			2,501.00
				<b>Vendor 03041 - Fechter &amp; Company, CPA's Total:</b>	<b>2,501.00</b>
<b>Vendor: 01528 - FGL Environmental</b>					
09/07/2018	52357	Lab Fees - TP			460.00
09/07/2018	52357	Lab Fees - TP			24.00
09/07/2018	52357	Lab Fees - TP			21.00
09/07/2018	52357	Lab Fees - TP			21.00
09/07/2018	52357	Lab Fees - TP			42.00
09/07/2018	52357	Lab Fees - TP			242.00
09/07/2018	52357	Lab Fees - TP			50.00
09/07/2018	52357	Lab Fees - TP			121.00
09/07/2018	52357	Lab Fees - TP			60.00
09/07/2018	52357	Lab Fees - TP			54.00
09/07/2018	52357	Lab Fees - TP			242.00
				<b>Vendor 01528 - FGL Environmental Total:</b>	<b>1,337.00</b>
<b>Vendor: 02945 - Fiserv Solutions, LLC</b>					
09/12/2018	52389	Bank Charges			34.58
				<b>Vendor 02945 - Fiserv Solutions, LLC Total:</b>	<b>34.58</b>
<b>Vendor: 02861 - Franchise Tax Board</b>					
09/21/2018	52424	Garnishment - Franchise Tax Bo...			200.00
				<b>Vendor 02861 - Franchise Tax Board Total:</b>	<b>200.00</b>
<b>Vendor: 01587 - Genterra Consultants, Inc.</b>					
09/12/2018	52390	Dam Surveillance			1,192.50
				<b>Vendor 01587 - Genterra Consultants, Inc. Total:</b>	<b>1,192.50</b>
<b>Vendor: 01616 - Grainger Inc</b>					
09/26/2018	52446	Construction & Maint. Supplies --			468.28
09/26/2018	52446	Repairs - Sample Pump - Motor			194.18
				<b>Vendor 01616 - Grainger Inc Total:</b>	<b>662.46</b>
<b>Vendor: 01648 - Harper &amp; Associates Engineering, Inc.</b>					
09/26/2018	52447	Job #18-02 - C Tank			720.00
				<b>Vendor 01648 - Harper &amp; Associates Engineering, Inc. Total:</b>	<b>720.00</b>
<b>Vendor: 02889 - Health Equity, Inc.</b>					
09/07/2018	DFT0002930	HSA Contribution			647.57
09/21/2018	DFT0002954	HSA Contribution			647.57
				<b>Vendor 02889 - Health Equity, Inc. Total:</b>	<b>1,295.14</b>
<b>Vendor: 01688 - Home Depot Credit Services</b>					
09/26/2018	52448	Sm Hand Tools - Shop			209.11
				<b>Vendor 01688 - Home Depot Credit Services Total:</b>	<b>209.11</b>
<b>Vendor: 01705 - Hunt &amp; Sons, Inc.</b>					
09/07/2018	52358	114gals. unleaded gasoline			395.81
09/21/2018	52425	405gals. unleaded gasoline			1,406.28
				<b>Vendor 01705 - Hunt &amp; Sons, Inc. Total:</b>	<b>1,802.09</b>
<b>Vendor: 01713 - I.B.E.W. Local Union 1245</b>					
09/07/2018	52359	Union Dues			1,091.74
09/07/2018	52359	Union Dues			-54.00
09/21/2018	52426	Union Dues			-52.00
09/21/2018	52426	Union Dues			1,057.90
				<b>Vendor 01713 - I.B.E.W. Local Union 1245 Total:</b>	<b>2,043.64</b>
<b>Vendor: 01716 - ICMA Retirement Trust-401</b>					
09/07/2018	1216	Retirement - 401(a) Match			2,616.54
09/21/2018	1218	Retirement - 401(a) Match			36.37
09/21/2018	1218	Retirement - 401(a) Match			2.64
09/21/2018	1218	Retirement - 401(a) Match			2,659.78
				<b>Vendor 01716 - ICMA Retirement Trust-401 Total:</b>	<b>5,315.33</b>

## Expense Approval Report

Payment Dates: 09/01/2018 - 09/30/2018

Payment Date	Payment Number	Description (Item)	(None)	(None)	Amount
<b>Vendor: 01715 - ICMA Retirement Trust-457</b>					
09/07/2018	1217	Retirement Trust - 457			2,616.54
09/07/2018	1217	Deferred Comp 457			8,183.80
09/07/2018	1217	Retirement Trust - 457			724.31
09/07/2018	1217	Retirement Trust - 457			2,601.97
09/07/2018	1217	Loan Payment			564.37
09/07/2018	1217	Loan Payment			125.00
09/07/2018	1217	Loan Payment			40.11
09/07/2018	1217	Loan Payment			127.09
09/07/2018	1217	Loan Payment			184.94
09/21/2018	1219	Retirement Trust - 457			36.37
09/21/2018	1219	Deferred Comp 457			109.10
09/21/2018	1219	Loan Payment			52.53
09/21/2018	1219	Retirement Trust - 457			2.64
09/21/2018	1219	Deferred Comp 457			7.94
09/21/2018	1219	Retirement Trust - 457			2,659.78
09/21/2018	1219	Deferred Comp 457			8,313.48
09/21/2018	1219	Retirement Trust - 457			726.19
09/21/2018	1219	Retirement Trust - 457			2,601.97
09/21/2018	1219	Loan Payment			511.84
09/21/2018	1219	Loan Payment			125.00
09/21/2018	1219	Loan Payment			40.11
09/21/2018	1219	Loan Payment			127.09
09/21/2018	1219	Loan Payment			184.94
<b>Vendor 01715 - ICMA Retirement Trust-457 Total:</b>					<b>30,667.11</b>
<b>Vendor: 01722 - Infinisource Cobra Compliance</b>					
09/21/2018	52427	Flexible Benefits			80.00
<b>Vendor 01722 - Infinisource Cobra Compliance Total:</b>					<b>80.00</b>
<b>Vendor: 02807 - Infosend</b>					
09/07/2018	52360	Postage			3,626.91
09/12/2018	52391	Postage			2,468.31
<b>Vendor 02807 - Infosend Total:</b>					<b>6,095.22</b>
<b>Vendor: 01720 - Inland Business Systems</b>					
09/26/2018	52449	Office Equip. Maint. - Office			391.48
<b>Vendor 01720 - Inland Business Systems Total:</b>					<b>391.48</b>
<b>Vendor: 01731 - Internal Revenue Service</b>					
09/10/2018	DFT0002932	FICA Withholding			13,365.30
09/10/2018	DFT0002933	Fed Withholding			11,708.63
09/10/2018	DFT0002935	Medicare Wlthholding			3,125.78
09/10/2018	DFT0002937	FICA Withholding			179.96
09/10/2018	DFT0002938	Fed Withholding			4.63
09/10/2018	DFT0002940	Medicare Wlthholding			42.08
09/10/2018	DFT0002942	FICA Withholding			18.26
09/10/2018	DFT0002943	Fed Withholding			14.72
09/10/2018	DFT0002945	Medicare Wlthholding			4.26
09/10/2018	DFT0002948	FICA Withholding			11.92
09/10/2018	DFT0002949	Fed Withholding			8.55
09/10/2018	DFT0002951	Medicare Wlthholding			2.80
09/24/2018	DFT0002956	FICA Withholding			12,964.04
09/24/2018	DFT0002957	Fed Withholding			11,405.29
09/24/2018	DFT0002959	Medicare Wlthholding			3,031.96
09/24/2018	DFT0002960	FICA Withholding			3.76
09/24/2018	DFT0002962	Medicare Wlthholding			0.88
<b>Vendor 01731 - Internal Revenue Service Total:</b>					<b>55,892.82</b>
<b>Vendor: 01734 - J &amp; M Boots</b>					
09/26/2018	52450	Safety Supplies - Shop			125.00
09/12/2018	52392	Safety Supplies - Shop CS			125.00
<b>Vendor 01734 - J &amp; M Boots Total:</b>					<b>250.00</b>

## Expense Approval Report

Payment Dates: 09/01/2018 - 09/30/2018

Payment Date	Payment Number	Description (Item)	(None)	(None)	Amount
<b>Vendor: 01742 - J C Nelson Supply Co.</b>					
09/07/2018	52361	Janitorial Supplies - Shop			190.18
				<b>Vendor 01742 - J C Nelson Supply Co. Total:</b>	<b>190.18</b>
<b>Vendor: 01771 - Keller Supply</b>					
09/26/2018	52451	97XL2 1" backflow preventer			315.31
				<b>Vendor 01771 - Keller Supply Total:</b>	<b>315.31</b>
<b>Vendor: 01844 - Lowe's Home Improvement</b>					
09/12/2018	52393	Office Supplies - Shop			406.53
				<b>Vendor 01844 - Lowe's Home Improvement Total:</b>	<b>406.53</b>
<b>Vendor: 01905 - Minasian, Meith, Soares, Sexton &amp; Cooper, LLP</b>					
09/21/2018	52428	Legal Fees			14,073.71
				<b>Vendor 01905 - Minasian, Meith, Soares, Sexton &amp; Cooper, LLP Total:</b>	<b>14,073.71</b>
<b>Vendor: 01980 - Northern Recycling &amp; Waste Svcs</b>					
09/12/2018	52394	Garbage - Lake			93.75
09/12/2018	52394	Garbage - TP			41.25
09/12/2018	52394	Garbage - Shop			149.97
09/12/2018	52394	Landfill Fees - Shop			33.00
09/12/2018	52394	Landfill Fees - Shop			339.62
09/12/2018	52394	Garbage - Office			53.32
				<b>Vendor 01980 - Northern Recycling &amp; Waste Svcs Total:</b>	<b>710.91</b>
<b>Vendor: 01967 - Northern Safety</b>					
09/26/2018	52452	Sm Hand Tools - Shop			278.34
				<b>Vendor 01967 - Northern Safety Total:</b>	<b>278.34</b>
<b>Vendor: 01950 - Northstate Aggregate, Inc.</b>					
09/12/2018	52395	Job #18-01 - Crestview			498.40
09/12/2018	52395	Job #18-01 - Crestview			-50.00
09/12/2018	52395	Job #18-01 - Crestview			484.86
09/12/2018	52395	Job #18-01 - Crestview			472.03
09/12/2018	52395	Job #18-01 - Crestview			479.93
09/12/2018	52395	Job #18-01 - Crestview			473.61
09/12/2018	52395	Job #18-01 - Crestview			440.56
				<b>Vendor 01950 - Northstate Aggregate, Inc. Total:</b>	<b>2,799.39</b>
<b>Vendor: 01995 - Office Depot</b>					
09/21/2018	52429	Office Supplies - Office			215.34
				<b>Vendor 01995 - Office Depot Total:</b>	<b>215.34</b>
<b>Vendor: 02014 - OnTrac</b>					
09/07/2018	52362	Courier Service Water Samples -...			144.08
				<b>Vendor 02014 - OnTrac Total:</b>	<b>144.08</b>
<b>Vendor: 01538 - O'Reilly Auto Parts</b>					
09/12/2018	52396	Construction & Maint. Supplies -..			334.01
09/07/2018	52363	Repairs - #3, 11 Service Truck - ...			87.52
09/07/2018	52363	Repairs - #21, 15 Service Truck -...			64.63
09/07/2018	52363	Construction & Maint. Supplies ...			17.20
09/07/2018	52363	Construction & Maint. Supplies ...			9.67
09/07/2018	52363	Repairs - #21, Service Truck - Pa...			12.18
09/07/2018	52363	Repairs - #25, 04 Truck - Parts			17.62
09/07/2018	52363	Repairs - #25, 04 Truck - Parts			111.81
09/07/2018	52363	Repairs - #12, Boom Lift - Parts			35.88
09/07/2018	52363	Construction & Maint. Supplies ...			20.46
09/07/2018	52363	Repairs - #19, 15 Dump Truck - ...			9.68
09/07/2018	52363	Repairs - #10, 02 Truck - Parts			101.36
09/07/2018	52363	Repairs - #43, Vac Unit - Parts			33.14
09/07/2018	52363	Repairs - #19, 15 Dump Truck - ...			2.89
09/07/2018	52363	Construction & Maint. Supplies ...			27.99
09/07/2018	52363	Repairs - #43, Vac Unit - Parts			13.33
09/07/2018	52363	Construction & Maint. Supplies ...			3.45
09/12/2018	52396	Construction & Maint. Supplies -..			-334.01

## Expense Approval Report

Payment Dates: 09/01/2018 - 09/30/2018

Payment Date	Payment Number	Description (Item)	(None)	(None)	Amount
09/12/2018	52396	Repairs - #26, 10 Truck - W. Bla...			34.46
09/12/2018	52396	Construction & Maint. Supplies -..			64.54
				<b>Vendor 01538 - O'Reilly Auto Parts Total:</b>	<b>667.81</b>
<b>Vendor: 03010 - Oroville Ford</b>					
09/12/2018	52397	windshield moulding unit #3			107.96
				<b>Vendor 03010 - Oroville Ford Total:</b>	<b>107.96</b>
<b>Vendor: 02030 - Pace Supply</b>					
09/07/2018	52365	(50) Spud Meter - Brass - 3/4'			391.46
09/07/2018	52365	(48) Valve Ball -Brass - 1"			900.90
09/07/2018	52365	(48) Spud Meter - Brass - 1'			548.26
09/07/2018	52365	(50) Spud Meter - Brass - 1'			584.51
09/07/2018	52365	(50) A34 Meter - Serv Brass			747.53
09/07/2018	52365	(48) Valve Ball - Brass - 3/4"			780.79
09/12/2018	52398	(2) FC Tap Clamp 8' x 12' x 2' 7....			480.48
				<b>Vendor 02030 - Pace Supply Total:</b>	<b>4,433.93</b>
<b>Vendor: 02081 - Pacific Gas &amp; Electric Company</b>					
09/12/2018	52399	Geppetto North End			27.40
09/12/2018	52399	Paradise Dam #2 Park			75.94
09/12/2018	52399	8764 Skyway			39.64
09/12/2018	52399	Mag Res Filtration Plant			11,875.84
09/12/2018	52399	5320 Pentz Rd. - ELECTRIC			10.85
09/12/2018	52399	Frank Turner Way Tank Res #C			20.75
09/12/2018	52399	6344 Clark Rd. - GAS			21.35
09/12/2018	52399	Moore Rd. ES Forest Serv. Rd. - ...			147.41
09/12/2018	52399	Bader Mine Rd. -Electric			46.60
09/12/2018	52399	Moore Rd. ES Forest Serv. Rd. - ...			6,598.97
09/12/2018	52399	Lovely Ln. N/End Tank Res #D			24.30
09/12/2018	52399	Skyway W/S N/Clark Tank Res #A			22.71
09/12/2018	52399	Nunnely Rd. Ext. Tank Res #E			22.60
09/12/2018	52399	6332 Clark Rd. - ELECTRIC			2,949.07
09/12/2018	52399	6332 Clark Rd. - GAS			17.59
09/21/2018	52430	(6) Locations - MS			59.08
				<b>Vendor 02081 - Pacific Gas &amp; Electric Company Total:</b>	<b>21,960.10</b>
<b>Vendor: 02041 - Pape Machinery</b>					
09/12/2018	52400	Repairs - Backhoe - (3) Filter Cap			227.10
				<b>Vendor 02041 - Pape Machinery Total:</b>	<b>227.10</b>
<b>Vendor: 02047 - Paradise Optometry Group</b>					
09/26/2018	52453	Safety Supplies - Shop			200.00
				<b>Vendor 02047 - Paradise Optometry Group Total:</b>	<b>200.00</b>
<b>Vendor: 02109 - Paradise Pines True Value</b>					
09/07/2018	52366	Misc. Supplies - Lake			21.43
				<b>Vendor 02109 - Paradise Pines True Value Total:</b>	<b>21.43</b>
<b>Vendor: 01037 - Paradise Police Dept.</b>					
09/12/2018	52401	False Alarm - 6332 Clark			45.58
				<b>Vendor 01037 - Paradise Police Dept. Total:</b>	<b>45.58</b>
<b>Vendor: 02114 - Paradise Ridge Chamber of Comm</b>					
09/21/2018	52431	Dues			160.00
				<b>Vendor 02114 - Paradise Ridge Chamber of Comm Total:</b>	<b>160.00</b>
<b>Vendor: 02872 - Peerless Bldg. Maintenance Inc.</b>					
09/07/2018	52367	Janitorial Service - Office			450.00
				<b>Vendor 02872 - Peerless Bldg. Maintenance Inc. Total:</b>	<b>450.00</b>
<b>Vendor: 02070 - Peterson</b>					
09/26/2018	52454	Repairs - #49, 06 Backhoe - Parts			39.90
09/26/2018	52454	Construction & Maint. Supplies -..			43.50
09/26/2018	52454	Construction & Maint. Supplies -..			110.00
				<b>Vendor 02070 - Peterson Total:</b>	<b>193.40</b>

## Expense Approval Report

Payment Dates: 09/01/2018 - 09/30/2018

Payment Date	Payment Number	Description (Item)	(None)	(None)	Amount
<b>Vendor: 02090 - Pitney Bowes Global Financial Services LLC</b>					
09/12/2018	52402	Postage Meter			346.10
09/21/2018	52432	Postage Meter			1,005.00
<b>Vendor 02090 - Pitney Bowes Global Financial Services LLC Total:</b>					<b>1,351.10</b>
<b>Vendor: 01631 - Rental Guys</b>					
09/07/2018	52368	Job #18-01 - Crestview			249.98
09/12/2018	52403	Job #18-01 - Crestview			150.67
09/21/2018	52433	Rental - Stump Removal			197.18
<b>Vendor 01631 - Rental Guys Total:</b>					<b>597.83</b>
<b>Vendor: 02057 - Riebes Auto Parts</b>					
09/12/2018	52404	Construction & Maint. Supplies -..			7.46
09/12/2018	52404	Construction & Maint. Supplies -..			12.53
09/12/2018	52404	Construction & Maint. Supplies -..			76.52
09/12/2018	52404	Construction & Maint. Supplies -..			-76.52
09/12/2018	52404	Construction & Maint. Supplies -..			23.73
09/12/2018	52404	(36) Motor Oil - Shop			164.86
<b>Vendor 02057 - Riebes Auto Parts Total:</b>					<b>208.58</b>
<b>Vendor: 02263 - Sinclair Towing</b>					
09/07/2018	52369	Repairs - #54, 08 Truck - Smog			40.25
09/07/2018	52369	Repairs - #14, 11 Truck - Smog			40.25
09/07/2018	52369	Repairs - #25, 04 Truck - Smog			120.20
09/07/2018	52369	Repairs - #16, 95 Truck - Smog			50.25
09/07/2018	52369	Repairs - #20, 09 Truck - Smog			40.25
09/07/2018	52369	Repairs - #9, 04 Truck - Smog			40.25
09/07/2018	52369	Repairs - #10, 02 Truck - Smog			40.25
09/07/2018	52369	Repairs - #3, 11 Truck - Smog			50.25
09/07/2018	52369	Repairs - #32, 07 Truck - Smog			40.25
09/07/2018	52369	Repairs - #30, 07 Truck - Smog			40.25
09/07/2018	52369	Repairs - #6, 95 Truck - Smog			50.25
<b>Vendor 02263 - Sinclair Towing Total:</b>					<b>552.70</b>
<b>Vendor: 02264 - Skyway Tools Center</b>					
09/12/2018	52405	shop supplies			81.84
<b>Vendor 02264 - Skyway Tools Center Total:</b>					<b>81.84</b>
<b>Vendor: 02293 - Stanley Convergent Security Solutions</b>					
09/12/2018	52406	Bldg. Security - TP			100.38
<b>Vendor 02293 - Stanley Convergent Security Solutions Total:</b>					<b>100.38</b>
<b>Vendor: 02808 - The UPS Store</b>					
09/12/2018	52407	Postage			18.09
09/12/2018	52407	Postage			81.54
<b>Vendor 02808 - The UPS Store Total:</b>					<b>99.63</b>
<b>Vendor: 02362 - Thomas Ace Hardware</b>					
09/12/2018	52408	Construction & Maint. Supplies -..			46.48
09/12/2018	52408	Construction & Maint. Supplies -..			17.39
09/12/2018	52408	Construction & Maint. Supplies -..			23.81
09/12/2018	52408	Construction & Maint. Supplies -..			3.57
09/12/2018	52408	Misc Supplies - Lake			8.60
09/12/2018	52408	Construction & Maint. Supplies -..			56.70
09/12/2018	52408	Misc Supplies - TP			11.70
09/12/2018	52408	Construction & Maint. Supplies -..			27.56
09/12/2018	52408	Construction & Maint. Supplies -..			13.29
09/12/2018	52408	Sm Hand Tools -Shop			10.33
09/12/2018	52408	Construction & Maint. Supplies -..			9.10
09/12/2018	52408	Janitorial Supplies - Shop			9.10
09/12/2018	52408	Construction & Maint. Supplies -..			6.45
09/12/2018	52408	Misc Supplies - Lake			28.36
09/12/2018	52408	Construction & Maint. Supplies -..			4.67
09/12/2018	52408	Sm Hand Tools -Shop			42.76
09/12/2018	52408	Sm Hand Tools - Lake			108.46

## Expense Approval Report

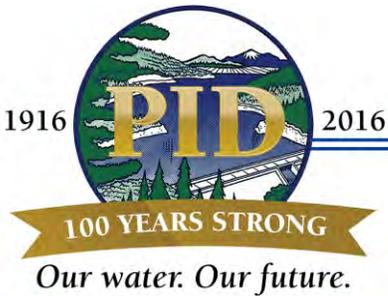
Payment Dates: 09/01/2018 - 09/30/2018

Payment Date	Payment Number	Description (Item)	(None)	(None)	Amount
09/12/2018	52408	Construction & Maint. Supplies -..			7.51
09/12/2018	52408	Construction & Maint. Supplies -..			2.63
09/12/2018	52408	400 locks			6,724.03
09/12/2018	52408	(100) Pipe - Galv - 3/4'			146.67
09/12/2018	52408	(100) Pipe - Galv - 1'			207.83
09/12/2018	52408	Construction & Maint. Supplies -..			39.48
09/12/2018	52408	Sm Hand Tools -Shop			346.65
09/12/2018	52408	Misc Supllies - Lake			3.16
09/12/2018	52408	Misc Supllies - Lake			3.04
09/12/2018	52408	Sm Hand Tools -Shop			32.35
09/12/2018	52408	Construction & Maint. Supplies -..			107.19
09/12/2018	52408	Construction & Maint. Supplies -..			156.24
09/12/2018	52408	Construction & Maint. Supplies -..			9.10
09/12/2018	52408	Sm Hand Tools -Shop			38.53
09/12/2018	52408	Construction & Maint. Supplies -..			83.29
09/12/2018	52408	Safety Supplies - Shop			25.82
09/12/2018	52408	Misc Supllies - Lake			16.68
09/12/2018	52408	Construction & Maint. Supplies -..			41.34
09/12/2018	52408	Misc Supllies - Lake			-3.37
09/12/2018	52408	Construction & Maint. Supplies -..			9.10
09/12/2018	52408	Sm Hand Tools - Shop			241.40
09/12/2018	52408	Construction & Maint. Supplies -..			38.08
09/12/2018	52408	Misc Supplies - Shop			193.09
09/12/2018	52408	Construction & Maint. Supplies -..			1.11
09/12/2018	52408	Construction & Maint. Supplies -..			20.24
09/12/2018	52408	Misc Supplies - Shop			2.56
09/12/2018	52408	Construction & Maint. Supplies -..			7.96
09/12/2018	52408	Construction & Maint. Supplies -..			0.96
09/12/2018	52408	Construction & Maint. Supplies -..			6.80
09/12/2018	52408	(100) Pipe - Sch 40 - 1'			40.95
				<b>Vendor 02362 - Thomas Ace Hardware Total:</b>	<b>8,978.75</b>
<b>Vendor: 02964 - T-Mobile</b>					
09/12/2018	52412	Fireflies - CS			354.80
				<b>Vendor 02964 - T-Mobile Total:</b>	<b>354.80</b>
<b>Vendor: 02394 - Tyler Technologies, Inc.</b>					
09/12/2018	52413	Maintenance - 09/18			200.00
				<b>Vendor 02394 - Tyler Technologies, Inc. Total:</b>	<b>200.00</b>
<b>Vendor: 02692 - United Rentals, Inc</b>					
09/21/2018	52434	Construction & Maint. Supplies -..			193.93
				<b>Vendor 02692 - United Rentals, Inc Total:</b>	<b>193.93</b>
<b>Vendor: 02824 - US Bank Corporate Payment System</b>					
09/26/2018	52455	Office Equipment Maint. - Office			59.25
09/26/2018	52455	Office Supplies - Office			12.99
09/26/2018	52455	Office Supplies - Office			19.99
09/26/2018	52455	Conferences & Meetings - Office			910.67
09/26/2018	52455	Office Supplies - Office			751.17
09/26/2018	52455	Office Supplies - Office			158.40
09/26/2018	52455	Misc. Supplies - TP			19.74
09/26/2018	52455	Safety Supplies - Shop			18.59
09/26/2018	52455	Office Supplies - Office			14.99
09/26/2018	52455	Office Supplies - Office			17.98
09/26/2018	52455	Office Supplies - Office			43.56
09/26/2018	52455	Office Supplies - Office			13.99
09/26/2018	52455	Misc. Supplies - TP			8.00
09/26/2018	52455	Office Supplies - Office			13.99
09/26/2018	52455	Conferences & Meetings - Office			52.64
09/26/2018	52455	Office Supplies - Office			12.98
09/26/2018	52455	Safety Supplies - Shop			14.80
09/26/2018	52455	Conferences & Meetings - Office			50.56

Expense Approval Report

Payment Dates: 09/01/2018 - 09/30/2018

Payment Date	Payment Number	Description (Item)	(None)	(None)	Amount
09/26/2018	52455	Safety Supplies - Shop			14.80
09/26/2018	52455	Training - TP			187.25
09/26/2018	52455	Conferences & Meetings - Office			699.00
09/26/2018	52455	Office Supplies - TP			353.00
09/26/2018	52455	Safety Supplies - Shop			14.80
09/26/2018	52455	Training - Office			34.99
<b>Vendor 02824 - US Bank Corporate Payment System Total:</b>					<b>3,498.13</b>
<b>Vendor: 02686 - USA Blue Book</b>					
09/12/2018	52414	Misc Supplies - TP			219.58
09/21/2018	52435	Repairs - Bleach Pump - Tube As...			72.65
09/26/2018	52457	Sm Hand Tools - Shop			321.33
<b>Vendor 02686 - USA Blue Book Total:</b>					<b>613.56</b>
<b>Vendor: 02703 - Verizon Wireless</b>					
09/07/2018	52370	(16) Mobile Phones			535.98
<b>Vendor 02703 - Verizon Wireless Total:</b>					<b>535.98</b>
<b>Vendor: 02714 - Wagner &amp; Bonsignore</b>					
09/21/2018	52436	Tele			250.00
<b>Vendor 02714 - Wagner &amp; Bonsignore Total:</b>					<b>250.00</b>
<b>Vendor: 03042 - Walburg Inc</b>					
09/26/2018	52458	Water Sales			-40.13
09/26/2018	52458	Depoist			1,000.00
<b>Vendor 03042 - Walburg Inc Total:</b>					<b>959.87</b>
<b>Vendor: 02778 - Wurth USA Inc.</b>					
09/21/2018	52437	Construction & Maint. Supplies -..			136.27
<b>Vendor 02778 - Wurth USA Inc. Total:</b>					<b>136.27</b>
<b>Vendor: 02787 - Zee Service Company</b>					
09/07/2018	52371	Safety Supplies - Shop			323.25
09/21/2018	52438	Safety Supplies - Shop			525.36
<b>Vendor 02787 - Zee Service Company Total:</b>					<b>848.61</b>
<b>Grand Total:</b>					<b>601,673.48</b>



## PARADISE IRRIGATION DISTRICT

6332 Clark Road, Paradise CA 95969 | Phone (530)877-4971 | Fax (530)876-0483

*"Paradise Irrigation District (PID) is dedicated to the business of producing and delivering a safe, dependable supply of quality water in an efficient, cost effective manner with service that meets or exceeds the expectation of our customers."*

*Please consider how this agenda item relates to our mission.*

TO: Board of Directors  
FROM: Neil Essila, Assistant Engineer  
DATE: October 12, 2018  
RE: Proposed Revisions to District Policy and Procedures Manual

### Background

The District has long maintained design and installation standards for its distribution facilities including pipelines, valves, fire hydrants, trenching and backfill, etc. These standards have changed over the course of time with improving technology, changing industry standards, and the District's experience with existing facilities.

Currently, any facilities to be connected to the District distribution system must be constructed to District standards. Facilities so constructed are then conveyed to the District and the District owns, operates and maintains these distribution facilities as long as they are necessary for the service of its customers.

Conversely, many years ago the District allowed developers to construct distribution pipelines that were not built to then-current District Standards. These pipelines were connected to the District distribution system. However, because they did not meet District standards they were not accepted for conveyance. These pipelines remained under private ownership. It was understood that these "Private Distribution Pipelines" were to be maintained by the individuals that built them and were served by them.

Construction of new private distribution pipelines, and the addition of more meter service connections to existing private pipelines, were prohibited many years ago.

With the passage of time many of the people who created these private pipelines are no longer involved. The persons who have acquired the properties served by private pipelines (who are to all outward appearances the current owners of these pipelines) were in many cases not informed of this special service arrangement. This condition is not a matter that would be shown in a title report since the District did not require the recordation of a document disclosing the private pipeline arrangement, and this information is not indicated on property deeds.

## Current Conditions

District records indicate that there are currently 40 private pipelines active in the distribution system providing service to 112 meters. Private pipelines comprise over three miles of pipeline length with pipe sizes ranging from 1 inch to 4 inches in diameter.

The District has made efforts to eliminate private pipelines. Current District rules provide for free relocation of a customer meter off a private pipeline, if the customer provides the connecting piping on their side of the meter. Furthermore, when water main replacement projects are built the District always makes the effort to eliminate private pipelines in the process.

Nevertheless, the existence of private pipelines continues to create service problems. As private pipelines age they develop leaks like any other failing facility. When private pipelines leak the water losses are unmetered, creating revenue loss for the District.

Private pipelines also create customer relations problems. Persons who were not informed of this special service arrangement when they purchased their homes are reluctant to assume responsibility for maintaining facilities that they not unreasonably assume are the responsibility of the water company.

District rules currently state that when private pipelines leak the District may discontinue service. However, enforcing this rule is increasingly untenable as the persons who agreed to this requirement are no longer involved and the documentation of these arrangements is fragmentary at best. As a result District crews have repaired leaks on private pipelines in order to provide uninterrupted service to our customers.

## Proposal

While District efforts to repair leaks on private pipelines have mitigated the need to shut off leaking private pipelines, the maintenance obligations on private parties remain. This results in continued customer relations issues. Staff proposes some changes to District policy that could effect an improvement in this area. Specifically, staff proposes that the policy be amended to acknowledge the current practice of District repairs on private pipelines. In addition, staff proposes relocating language about service lines on the customer side of the meter (which is not a private distribution pipeline issue) to the pertinent section of the document. ***The attached proposed policy contains revised language in Section 6.7 stipulating that repairs or replacement will be at District cost.***

### The following is requested:

*"Accept the proposed revisions to the District Policy and Procedures Manual Sections 6.7 and 6.8, or provide direction to staff for alternative changes, as determined.*

## 6.7 PRIVATE DISTRIBUTION PIPELINES

The District no longer approves private distribution pipelines (pipelines on the District's side of the meter, but not owned by the District). It is to such pipelines earlier approved and installed that the comments of this section apply.

In the event of leakage from such privately owned pipelines the District will effect repairs or replacement of the pipeline at District cost. ~~and failure or~~ In the event of a refusal of ~~by~~ property owner(s) to allow District repair or replacement of the same, the District may at its option in the Manager's discretion, in order to avoid waste of water or property damage, discontinue service of water through such privately owned pipelines until the condition is remedied.

### 6.7.1 Maintenance of Meters Relocated from Private Distribution Pipelines –

It is the goal of the District that private pipelines be eliminated from the District's distribution system. In order to achieve this goal, the District will relocate meters onto a nearby District main at no cost to the customer if the customer absorbs the cost of connecting their service line from the meter to their existing plumbing. ~~The District may consider other participation in the elimination of private pipelines in order to resolve operational difficulties or other problems, however, no funds for private pipeline work other than meter relocations shall be spent without prior approval of the Board.~~

### ~~6.7.2 Condition of Private Service Pipelines Beyond District Meters –~~

~~Before water is turned on for a private service pipeline, the pipeline shall be in suitable condition to receive water. Failure to comply with this policy shall be sufficient cause for refusal to turn water into such pipelines. Nothing herein shall be construed as an assumption of liability on the part of the District, its Directors, officers or employees for any maintenance, or use of any private pipeline or by reason of permitting the flow of water or turning water therein.~~

### 6.7.23 Acceptance of Private Distribution Lines –

Upon request of property owners of a private distribution pipeline, the Board may, at its sole discretion and after proper inspection by the District, agree to accept conveyance of title to the pipeline and right-of-way and thereafter operate and maintain it as a District pipeline.

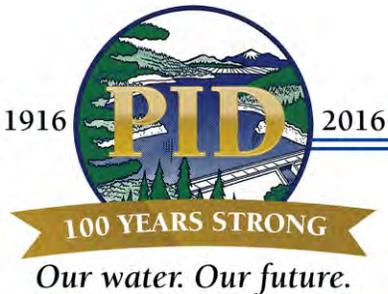
## 6.8 CUSTOMER SERVICE LINES IMPROVEMENTS

### 6.8.1 Condition of Customer Service Pipelines Beyond District Meters –

Before water is turned on for a customer service pipeline, the pipeline shall be in suitable condition to receive water. Failure to comply with this policy shall be sufficient cause for refusal to turn water into such pipelines. Nothing herein shall be construed as an assumption of liability on the part of the District, its Directors, officers or employees for any maintenance, or use of any customer pipeline or by reason of permitting the flow of water or turning water therein.

### 6.8.2 Customer Service Line Improvements

[Section 6.8 continues, as before.]



*"Paradise Irrigation District (PID) is dedicated to the business of producing and delivering a safe, dependable supply of quality water in an efficient, cost effective manner with service that meets or exceeds the expectation of our customers."*

*Please consider how this agenda item relates to our mission.*

**TO: Board of Directors**

**FROM: Ed Fortner, District Manager  
Jim Passanisi, Treatment Superintendent**

**DATE: October 17, 2018 (Regular Board Meeting)**

**RE: Reservoir B Replacement Project -  
Approve Resolution 2018-12 Adopting the California Environmental  
Quality Act Initial Study/Mitigated Negative Declaration for the Zone A  
Pump Station, A Zone Transmission Main, and Reservoir B Replacement  
Project (SCH# 2018082044) and Adopting a Mitigation Monitoring and  
Reporting Program.**

In April 2018, PID had Stantec (as a subconsultant to Waterworks Engineers) prepare a Draft Initial Study/Mitigated Negative Declaration (IS/MND) for the Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project to consider the significance of potential Project impacts in accordance with CEQA and the CEQA Guidelines (14 Cal. Code Reg., §§ 15000 et seq.). Also included with the IS MND, is a Mitigation Monitoring and Reporting Program (MMRP).

The California Environmental Quality Act (Section 21000, et. seq. of the California Public Resources Code, hereafter CEQA) requires analysis of agency approvals of discretionary "projects". A "project," under CEQA, is defined as "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment." The proposed Project is a project under CEQA.

A CEQA Process Flow Chart is attached, which indicates where the District is currently in the process. Please note the "You Are Here" pointer. The Lead Agency is the public agency with primary responsibility for implementing the proposed project, which is the Paradise Irrigation District (PID).

The IS/MND is an informational document that provides environmental analysis for public review and for agency decision-makers to consider before taking discretionary actions related to any proposed project that could have a significant effect on the environment. With the incorporation of mitigation measures modifying project construction activities, the IS/MND identified no potentially significant impacts from the Project. The mitigation measures for this project are described in detail in the MMRP

section of the IS/MND, and are typical construction phase mitigation measures to avoid detrimental environmental impact from construction activities.

Following completion of the Public Draft IS/MND, the Public Draft IS/MND was circulated for a 30 day Public Scoping period to local, state and federal agencies and to interested organizations and individuals for public review and comments from August 22, 2018 through September 20, 2018. When considering whether the Board should adopt the IS MND, the District must consider the comments received during its consultation and review period together with the IS/MND.

In addition to confirmation from the State Clearinghouse (SCH) that the 30-day Public Scoping Period posting requirement was met, two comment letters were received regarding the IS/MND, both from public agencies, namely the California Department of Forestry and Fire Protection (CalFire) and the Central Valley Regional Water Quality Control Board (RWQCB). Detailed and technical responses to these comment letters are provided in a memo from Stantec dated October 2, 2018. All of the comments were regarding construction activities and the response to the comments was that the required mitigation measures to address the concerns expressed in the comments would be incorporated into the construction contract for the project. The requirements of the MMRP will be completed by the construction manager and the selected construction contractor, as appropriate.

### **Project Description:**

The project description includes the following components and benefits to address the challenges and deficiencies in the existing water distribution system:

1. Install new Zone A pumps (Zone A Pump Station) at the Water Treatment Plant (WTP) adjacent to the treated water storage tank. The new pump station will supply Zone A and the WTP's onsite pumps, and remove the restriction on the minimum water surface elevation at Reservoir B.
2. Install a new 16-inch transmission main from the WTP directly to Zone A along New Skyway (Zone A Transmission Main). The Zone A Transmission Main (ZATM) will provide potable water supply redundancy to the existing 42-inch transmission main. The 16-inch ZATM would allow Zone A to be fed independently of Reservoir B.
3. Modify Pump Station #2 with a pressure regulating valve to allow Zone A to feed Zone B. Connecting Reservoir A to the rest of the distribution system will have a large beneficial impact on overall fire storage capacity, and increasing all other zone fire storage capacities by 1 Million Gallons (MG).
4. Replace the existing Reservoir B with two 2.3 MG steel bolted tanks. Fire storage and storage capacity deficiencies will be solved by upsizing Reservoir B from 3

MG to 4.6 MG. Operability, dependability, and sanitary issues will be solved by replacing the existing earthen reservoir that has a floating textile cover.

Given the information presented above, it is recommended that the Board Approve Resolution 2018-12 adopting the California Environmental Quality Act Initial Study/Mitigated Negative Declaration for the Zone A Pump Station, A Zone Transmission Main, and Reservoir B Replacement Project (SCH# 2018082044) and adopt the Mitigation Monitoring and Reporting Program.

Upon adoption of the IS/MND and the MMRP by the PID Board of Directors, the Board directs staff to file the Notice of Determination (NOD) attached with the Butte County Clerk-Recorder's Office, the State Revolving Fund Financial Assistance Program, and the State Office of Planning and Research within 5 days.

Final approval of the project is contingent upon the acquisition of right-of-way in and along New Skyway for the construction of the Zone A Transmission Main, and funding approval through a State Revolving Fund (SRF) Construction Funding Agreement.

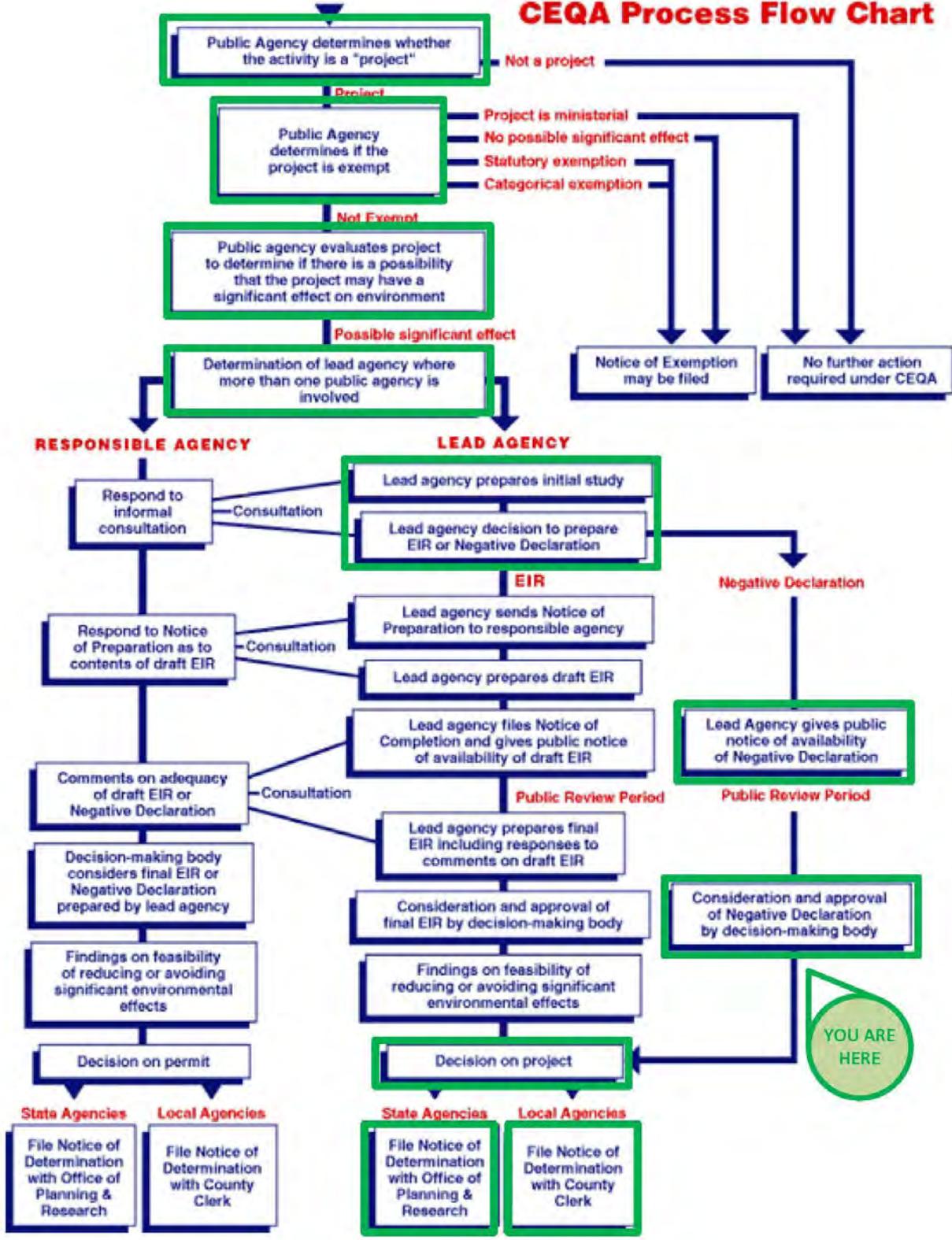
**Requested Action:**

Approve Resolution 2018-12 adopting the California Environmental Quality Act (CEQA) Initial Study/Mitigated Negative Declaration (IS/MND) for the Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project (SCH# 2018082044), and adopt a Mitigation Monitoring and Reporting Program, and direct staff to file the Notice of Determination with the Butte County Clerk-Recorder's Office, the State Revolving Fund Financial Assistance Program, and the State Office of Planning and Research within 5 days.

**Attachments:**

1. Resolution No. 2018-12
2. CEQA Process Flow Chart
3. Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project Initial Study/Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program (SCH# 2018082044)
4. Stantec Memo dated October 2, 2018 - Response to Public Comments Received on the Initial Study/Mitigated Negative Declaration (SCH# 2018082044)
5. Notice of Determination for the proposed Project

# CEQA Process Flow Chart



**RESOLUTION NO. 2018-12**

**RESOLUTION BY THE BOARD OF DIRECTORS OF THE  
PARADISE IRRIGATION DISTRICT ADOPTING AN  
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION IN ACCORDANCE  
WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT FOR THE  
ZONE A PUMP STATION, ZONE A TRANSMISSION MAIN,  
AND RESERVOIR B REPLACEMENT PROJECT, AND ADOPTING A  
MITIGATION MONITORING AND REPORTING PROGRAM**

**WHEREAS**, the Paradise Irrigation District (District) prepared an Initial Study/Mitigated Negative Declaration (IS/MND) for the Zone A Pump Station, Zone A Transmission Main, and Reservoir B Replacement Project (Proposed Project) in accordance with the requirements of the California Environmental Quality Act of 1970, as amended (“CEQA”), and state and local guidelines implementing CEQA; and

**WHEREAS**, the District is the lead agency on the Proposed Project, and the District’s Board of Directors is the decision-making body for the Proposed Project; and

**WHEREAS**, the primary purpose of the Proposed Project/Action is to replace the Reservoir B with two steel tanks, and construct a Zone A Pump Station, Zone A Transmission Main, and a pressure regulating valve at the existing Pump Station No. 2; and

**WHEREAS**, the proposed project resolves significant water distribution system deficiencies and provides significant benefits to the operability, fire storage capacity and resiliency, dependability, and sanitary issues in the District’s distribution system; and

**WHEREAS**, the District commissioned Waterworks Engineers to prepare a Preliminary Design Report dated November 2017, which describes and justifies the Proposed Project and approved said Preliminary Design Report at the Board meeting on November 8, 2017, and

**WHEREAS**, the District prepared an Initial Study/Mitigated Negative Declaration (IS/MND) to assess the potential environmental impacts of the construction and operation of the Proposed Project; and

**WHEREAS**, the IS/MND was made publicly available from August 22, 2018 to September 22, 2018 for the required 30-day Public Scoping review period under CEQA; and

**WHEREAS**, the District complied with the State Clearinghouse review requirement for draft environmental documents, pursuant to the CEQA; and

**WHEREAS**, the IS/MND concluded that while implementation of the Project could have a significant effect on the environment, that potential for significant effect will be mitigated by the actions required in the Mitigation Monitoring and Reporting Program; and

**WHEREAS**, the District prepared a memorandum that responded to all of the comments received during the 30-day public review process which, along with the IS/MND constitutes the Final IS/MND; and also prepared a Mitigation Monitoring and Reporting Program (MMRP) to ensure compliance with the identified mitigation measures identified and proposed in the IS/MND; and

**WHEREAS**, whenever a lead agency approves a project requiring the implementation of measures to mitigate or avoid significant effects on the environment, CEQA also requires a lead agency to adopt a MMRP to ensure compliance with the mitigation measures during project implementation; and

**WHEREAS**, the District has reviewed and considered the Public Draft and Final IS/MND and related MMRP for the Proposed Project and intends to take actions on the Proposed Project in compliance with CEQA and state and local guidelines implementing CEQA; and

**WHEREAS**, the IS/MND and the MMRP for the Proposed Project are, by this reference, incorporated into this Resolution as if fully set forth herein; and

**WHEREAS**, the Proposed Project will not individually, or cumulatively, have an adverse effect on wildlife resources, as defined in Section 711.2 of the California Department of Fish and Game Code.

**NOW THEREFORE BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE PARADISE IRRIGATION DISTRICT AS FOLLOWS:**

- Section 1. The foregoing Recitals are true and correct and made a part of this Resolution.
- Section 2. The IS/MND has been prepared and completed in compliance with the requirements of CEQA and the CEQA Guidelines. The IS/MND reflects the independent analysis and judgment of the District and Board.
- Section 3. Based on the IS/MND, public comments, and the entire record of proceedings before the Board, the Board finds that there is no substantial evidence that the Project as approved with mitigation will have a significant adverse impact on the environment.
- Section 4. The Board hereby approves and adopts the IS/MND and the MMRP, attached to this Resolution as Exhibit A.
- Section 5. The mitigation measures in the IS/MND are made a condition of approval of the Project and a MMRP is included in the IS/MND, attached as Exhibit A, is adopted.
- Section 6. The record of proceedings of the District and Board on which this Resolution is based are on file and available for public inspection during normal business hours at 6332 Clark Road Paradise, CA 95069. The custodian of these documents is the District.
- Section 7. The District hereby ratifies its approval of the Project, contingent upon the acquisition of right-of-way for the Zone A Transmission Main, and the execution of a State Revolving Fund Construction Funding Agreement.
- Section 8. Following adoption of this Resolution, District staff is authorized and directed to file with the County of Butte and the State Office of Planning and Research a Notice of Determination pursuant to CEQA within 5 days of the approval of this Resolution.

APPROVED AND ADOPTED this \_\_\_ day of \_\_\_\_\_, 2018 by the following vote at a regular meeting of the Board of Directors.

AYES:

NOES:

ABSENT:

ABSTAIN:

PARADISE IRRIGATION DISTRICT

\_\_\_\_\_  
Daniel Wentland  
President, Board of Directors

ATTEST:

\_\_\_\_\_  
Georgeanna Borrayo  
Secretary, Board of Directors

Notice of Determination

Appendix D

To:

[X] Office of Planning and Research
U.S. Mail: P.O. Box 3044 Sacramento, CA 95812-3044
Street Address: 1400 Tenth St., Rm 113 Sacramento, CA 95814

[X] County Clerk
County of: Butte
Address: 155 Nelson Ave. Oroville, CA 95965

From:

Public Agency: Paradise Irrigation District
Address: 6332 Clark Road Paradise CA 95969
Contact: Jim Passanisi
Phone: 530-876-2067

Lead Agency (if different from above):
Address:
Contact:
Phone:

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

State Clearinghouse Number (if submitted to State Clearinghouse): 2018082044

Project Title: Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project

Project Applicant: Paradise Irrigation District

Project Location (include county): Paradise, CA; Magalia, CA; Butte County

Project Description:

- 1. Install a new Zone A Pump Station at the water treatment plant (WTP);
2. Install a new 16-inch transmission main from the WTP directly to Zone A along New Skyway;
3. Modify Pump Station #2 with pressure regulating valve to allow Zone A to feed Zone B and other zones; and
4. Replace the existing Reservoir B with two 2.3 MG steel tanks. Upsizing Reservoir B from 3 MG to 4.6 MG improves operability, fire storage resiliency, dependability, and sanitary issues.

This is to advise that the Paradise Irrigation District has approved the above (X Lead Agency or Responsible Agency)

described project on October 17, 2018 and has made the following determinations regarding the above described project.

- 1. The project [ ] will [X] will not have a significant effect on the environment.
2. [ ] An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA. [X] A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [X] were [ ] were not made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan [X] was [ ] was not adopted for this project.
5. A statement of Overriding Considerations [ ] was [X] was not adopted for this project.
6. Findings [X] were [ ] were not made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval, or the negative Declaration, is available to the General Public at:

Paradise Irrigation District Office; 6332 Clark Road; Paradise, CA 95969 ; 530-876-2067

Signature (Public Agency): Title: District Manager

Date: Date Received for filing at OPR:

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To:	Ed Fortner, District Manager Paradise Irrigation District 6332 Clark Road Paradise, California 95969	From:	Connie MacGregor, Project Manager Stantec Consulting Services Inc. 5000 Bechelli Lane Suite 203 Redding CA 96002
File:	STN# 2272006800	Date:	October 2, 2018

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**Reference: Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project—  
Response to Public Comments Received on CEQA Initial Study/Mitigated Negative  
Declaration (SCH# 2018082044)**

In accordance with the California Environmental Quality Act (CEQA), an Initial Study/Mitigated Negative Declaration (IS/MND) for the Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project was made available to the public and interested agencies for a 30-day review period. The agency review period was managed by the State Clearinghouse (SCH) and ended on September 20, 2018; the public review period also ended on September 20, 2018. All written comments received during the public and agency review period are attached, along with written responses to environmental issues raised by commenters on the IS/MND. A Mitigation Monitoring and Reporting Program (MMRP) created for the project is also attached (Attachment 1).

Comments received on the public draft IS/MND do not indicate new significant impacts or significant new information that would require recirculation of the draft IS/MND pursuant to CEQA Guidelines Section 15073.5. Because no new significant environmental issues were raised during the 30-day comment period, this technical memorandum is being used to summarize comments and support adoption of the public draft IS/MND.

## RESPONSE TO COMMENTS

In addition to confirmation from the State Clearinghouse that the 30-day posting requirement was met, two letters were received regarding the IS/MND, both from public agencies—California Department of Forestry and Fire Protection (CalFire) and the Central Valley Regional Water Quality Control Board (RWQCB). These letters are attached to this technical memorandum in the order indicated:

- State Clearinghouse compliance (Letter A)
- CalFire (Letter B)
- Central Valley RWQCB (Letter C)

To assist in referencing comments and responses (if necessary), each letter was assigned a letter based on the date the letter or comment was received. Letter A confirms project compliance with the State Clearinghouse review requirements for draft environmental documents pursuant to CEQA and references Section 21104 (c) of the California Public Resources Code as it pertains to comments on the Public Draft IS/MND submitted by CDFW. No response is needed for this letter. Letter B was submitted via email on September 11, 2018. CalFire advised that the planned removal of trees at the Reservoir B site would require a timber harvest permit, and recommended PID submit a Public Agency, Public and Private Utility Right of Way Exemption application for the proposed timber operation prior to construction. Letter C, dated September 10, 2018, was sent by mail to PID. This letter described the regulatory requirements specific to Section 401 of the Clean Water Act under the authority of the Central Valley RWQCB. Responses to comments made in letters B and C are provided in this technical memorandum.

Reference: Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project—Response to Public Comments Received on CEQA Initial Study/Mitigated Negative Declaration (SCH# 2018082044)

## **MITIGATION MONITORING AND REPORTING PROGRAM**

The MMRP (Attachment 1) includes all mitigation measures for the project and describes necessary monitoring actions to be taken, as well as the timing and frequency of the prescribed monitoring activities. CEQA requires that when adopting an MND, the lead agency must also adopt an MMRP.

Reference: Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project—Response to Public Comments Received on CEQA Initial Study/Mitigated Negative Declaration (SCH# 2018082044)

LETTER A, 1 of 2



EDMUND G. BROWN JR.  
GOVERNOR

STATE OF CALIFORNIA  
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH



KEN ALEX  
DIRECTOR

September 19, 2018



Jim Passanisi  
Paradise Irrigation District  
6332 Clark Rd  
Paradise, CA 95969

Subject: Paradise Irrigation District Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project  
SCH#: 2018082044

Dear Jim Passanisi:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. The review period closed on September 18, 2018, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

  
Scott Morgan  
Director, State Clearinghouse

Reference: Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project—Response to Public Comments Received on CEQA Initial Study/Mitigated Negative Declaration (SCH# 2018082044)

**Document Details Report  
 State Clearinghouse Data Base**

**LETTER A, 2 of 2**

**SCH#** 2018082044  
**Project Title** Paradise Irrigation District Zone A Pump Station, Transmission Main, and Reservoir B Replacement  
**Lead Agency** Project  
 Paradise Irrigation District

**Type** MND Mitigated Negative Declaration  
**Description** PID operates a water treatment plant and the accompanying distribution system for Paradise, CA. The distribution system supplies potable water to 10,507 connections, serving a population of approx 26,000. The purpose of the project is to address several problematic operational constraints that affect the operation and management, and water quality compliance standards associated with the existing Reservoir B facility, and to increase the overall PID water storage capacity. The project is needed to improve operations, address maintenance and water quality issues, increase fire suppression storage, and provide for anticipated population growth within the PID service boundary.

**Lead Agency Contact**

**Name** Jim Passanisi  
**Agency** Paradise Irrigation District  
**Phone** 530-876-2067 **Fax**  
**email**  
**Address** 6332 Clark Rd  
**City** Paradise **State** CA **Zip** 95969

**Project Location**

**County** Butte  
**City** Paradise  
**Region**  
**Lat / Long** 40° 42' 13" N / 122° 48' 34" W  
**Cross Streets** Skyway, New Skyway, Pine Needle Dr, Coutolenc Rd  
**Parcel No.** multiple  
**Township** 22N **Range** 3E **Section** 1,12 **Base** MDBM

**Proximity to:**

**Highways**  
**Airports**  
**Railways**  
**Waterways** Little Butte Crk  
**Schools** Ridgeview HS  
**Land Use** public, community commercial, community facilities, multiple-family res, rural res

**Project Issues** Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Cumulative Effects; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Growth Inducing; Landuse; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Septic System; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian

**Reviewing Agencies** Resources Agency; Central Valley Flood Protection Board; Department of Fish and Wildlife, Region 2; Cal Fire; Department of Parks and Recreation; Department of Water Resources; Caltrans, District 3 N; Regional Water Quality Control Bd., Region 5 (Redding); State Water Resources Control Board, Divison of Financial Assistance; State Water Resources Control Board, Division of Drinking Water, District 21; Native American Heritage Commission; Public Utilities Commission

**Date Received** 08/20/2018 **Start of Review** 08/20/2018 **End of Review** 09/18/2018

Reference: Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project—Response to Public Comments Received on CEQA Initial Study/Mitigated Negative Declaration (SCH# 2018082044)

**LETTER B**

STATE OF CALIFORNIA—NATURAL RESOURCES AGENCY

Edmund G. Brown Jr., Governor



**DEPARTMENT OF FORESTRY AND FIRE PROTECTION**

176 Nelson Ave  
Oroville, CA 95965-3384  
(530) 538-7111  
Website: [www.fire.ca.gov](http://www.fire.ca.gov)



September 11, 2018

Paradise Irrigation District  
Attn: Jim Passanisi  
6332 Clark Road  
Paradise, CA 95969

Re: Paradise Irrigation District Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project - State Clearing House # 2018082044

Dear Mr. Passanisi,

I have been asked to review Paradise Irrigation District's initial study and proposed mitigated negative declaration for improvements to the Zone A water distribution system and Reservoir B replacement with regards to impacts to fire protection and natural resources. I have found that the discussion of impacts to Agricultural and Forest Resources on page 28 incorrectly states that there will be no impacts to forest land. It appears that conifer and hardwood trees will be removed during the replacement of Reservoir B and this area meets the definition of forest land. The removal of trees and conversion of timber land is considered timber operations and therefore requires a timber harvest permit. I recommend that Paradise Irrigation District submit a Public Agency, Public and Private Utility Right of Way Exemption for this work. Please contact me if you have any questions.

B1

David Derby

[Sent via email](#)

Butte Unit Forester, RPF #2333  
Office: (530) 872-6334  
Cell: (530) 570-5025  
Fax: (530) 872-6213

Reference: Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project—Response to Public Comments Received on CEQA Initial Study/Mitigated Negative Declaration (SCH# 2018082044)

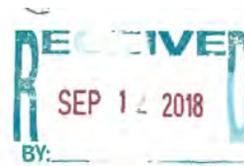
## **California Department of Forestry and Fire Protection**

### ***Comment B-1***

CalFire disagreed with the no impact determination made in the Agricultural and Forest Resources initial study checklist. In its comment letter prepared by David Derby (Butte Unit Forester), CalFire asserted that removal of conifer and hardwood trees to accommodate the expansion of Reservoir B would be a conversion of timber land and therefore, a timber operation that will require a timber harvest permit. The letter concludes by recommending that PID submit a Public Agency, Public and Private Utility Right-of-Way Exemption for the proposed work.

*Response: PID will submit a Public Agency, Public and Private Utility Right-of-Way Exemption application to CalFire prior to construction of this project. PID will implement the timber operation in accordance with the conditions of the approved exemption.*

Reference: Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project—Response to Public Comments Received on CEQA Initial Study/Mitigated Negative Declaration (SCH# 2018082044)



LETTER C, 1 of 3



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**Central Valley Regional Water Quality Control Board**

10 September 2018

Jim Passanisi  
Paradise Irrigation District  
6332 Clark Road  
Paradise, CA 95969

**COMMENTS ON THE INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION FOR THE PROPOSED PARADISE IRRIGATION DISTRICT ZONE A PUMP STATION, TRANSMISSION MAIN, AND RESERVOIR B REPLACEMENT PROJECT, STATE CLEARINGHOUSE NUMBER 2018082044, PARADISE, BUTTE COUNTY**

The Central Valley Regional Water Quality Control Board (Central Valley Water Board) is a responsible agency for this project, as defined by the California Environmental Quality Act (CEQA). On 22 August 2018, we received your request for comments on the Paradise Irrigation District Zone A Pump Station, Transmission Main and Reservoir B Replacement Project (Project).

The Project consists of installing new Zone A pumps at the water treatment plant (WTP), installing a new 16-inch transmission main from the WTP directly to Zone A along New Skyway, modifying pump station #2 with a pressure regulating valve station to allow Zone A to feed Zone B, and replacing the existing Reservoir B with two 2.3 MG tank reservoirs. The project is largely linear, extending from the community of Magalia, south to the town of Paradise.

Based on our review of the information submitted for the proposed project, we have the following comments:

Clean Water Act (CWA) Section 401, Water Quality Certification

The Central Valley Water Board has regulatory authority over wetlands and waterways under the Federal Clean Water Act (CWA) and the California Water Code, Division 7 (CWC). Discharge of dredged or fill material to waters of the United States requires a CWA Section 401 Water Quality Certification from the Central Valley Water Board. Typical activities include any modifications to these waters, such as stream crossings, stream bank modifications, filling of wetlands, etc. 401 Certifications are issued in combination with CWA Section 404 Permits issued by the Army Corps of Engineers. The proposed project must be evaluated for the presence of jurisdictional waters, including wetlands and other waters of the State. Steps must be taken to first avoid and minimize impacts to these waters, and then mitigate for unavoidable impacts. Both the Section 404 Permit and Section 401 Water Quality Certification must be obtained prior to site disturbance. Any person discharging dredge or fill materials to waters of the State must file a report of waste discharge pursuant to Sections 13376 and 13260 of the

C1

KARL E. LONGLEY SCD, P.E., CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

364 Knobcreek Drive, Suite 205, Redding, CA 96002 | [www.waterboards.ca.gov/centralvalley](http://www.waterboards.ca.gov/centralvalley)

Reference: Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project—Response to Public Comments Received on CEQA Initial Study/Mitigated Negative Declaration (SCH# 2018082044)

LETTER C, 2 of 3

Paradise Irrigation District - 2 - 10 September 2018  
Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project

California Water Code. Both the requirements to submit a report of waste discharge and apply for a Water Quality Certification may be met using the same application form, found at:

[http://www.waterboards.ca.gov/centralvalley/water\\_issues/water\\_quality\\_certification/wqc\\_application.pdf](http://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/wqc_application.pdf)

C1

Isolated wetlands and other waters not covered by the Federal Clean Water Act

Some wetlands and other waters are considered "geographically isolated" from navigable waters and are not within the jurisdiction of the Clean Water Act. (e.g., isolated wetlands, vernal pools, or stream banks above the ordinary high-water mark). Discharge of dredged or fill material to these waters may require either individual or general waste discharge requirements from the Central Valley Water Board. If the U.S. Army Corps of Engineers determine that isolated wetlands or other waters exist at the project site, and the project impacts or has potential to impact these non-jurisdictional waters, a Report of Waste Discharge and filing fee must be submitted to the Central Valley Water Board. The Central Valley Water Board will consider the information provided and either issue or waive Waste Discharge Requirements. Failure to obtain waste discharge requirements or a waiver may result in enforcement action.

C2

Any person discharging dredge or fill materials to waters of the State must file a report of waste discharge pursuant to Sections 13376 and 13260 of the CWC. Both the requirements to submit a report of waste discharge and apply for a Non-Jurisdictional General Waste Discharge Requirement (WDR) may be met using the same application form, found at:

[http://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/water\\_quality/2004/wqo/wqo2004-0004.pdf](http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo/wqo2004-0004.pdf)

General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (CGP)

Construction activity, including demolition, resulting in a land disturbance of one acre or more must obtain coverage under the CGP. The Paradise Irrigation District Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project must be conditioned to implement storm water pollution controls during construction and post-construction as required by the CGP. To apply for coverage under the CGP the property owner must submit Permit Registration Documents electronically prior to construction. Detailed information on the CGP can be found on the State Water Board website:

C3

[https://www.waterboards.ca.gov/water\\_issues/programs/stormwater/constpermits.shtml](https://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml)

Post-Construction Storm Water Requirements

Studies have found the amount of impervious surface in a community is strongly correlated with the impacts on community's water quality. New development and redevelopment result in increased impervious surfaces in a community. Post-construction programs and design standards are most efficient when they involve (i) low impact design; (ii) source controls; and (iii) treatment controls. To comply with Phase II Municipal Storm Water Permit requirements the Town of Paradise must ensure that new developments comply with specific design strategies and standards to provide source and treatment controls to minimize the short and long-term impacts on receiving water quality. The design standards include minimum sizing criteria for treatment controls and established maintenance requirements. The proposed project must be conditioned to comply with post-construction standards adopted by the Town of Paradise in compliance with their Phase II Municipal Storm Water Permit.

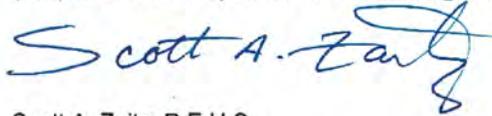
C4

Reference: Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project—Response to Public Comments Received on CEQA Initial Study/Mitigated Negative Declaration (SCH# 2018082044)

**LETTER C, 3 of 3**

Paradise Irrigation District - 3 - 10 September 2018  
Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project

If you have any questions or comments regarding this matter please contact me at (530) 224-4784 or by email at [Scott.Zaitz@waterboards.ca.gov](mailto:Scott.Zaitz@waterboards.ca.gov).



Scott A. Zaitz, R.E.H.S.  
Environmental Scientist  
Storm Water & Water Quality Certification Unit

SAZ: db

cc w/o

enclosures: Department of Fish and Wildlife, Region 2, Rancho Cordova  
Mrs. Nancy Haley, U.S. Army Corps of Engineers, Sacramento

Reference: Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project—Response to Public Comments Received on CEQA Initial Study/Mitigated Negative Declaration (SCH# 2018082044)

## Central Valley Regional Water Quality Control Board

### Comment C-1

Central Valley RWQCB requires that the project be evaluated for the presence of federal and state jurisdictional waters in accordance with Clean Water Act sections 404 and 401. Measures must be identified for the avoidance or minimization of impacts on these waters and to mitigate for unavoidable impacts. Both a Section 404 permit and a Section 401 Water Quality Certification for impacts on waters, including wetlands, must be obtained prior to site disturbance. In addition, any person discharging dredge or fill materials to waters of the State must file a waste discharge pursuant to sections 13376 and 13260 of the California Water Code.

*Response: Comment noted. A wetland delineation report (North State Resources, now Stantec, 2018) was prepared in accordance with Clean Water Act sections 404 and 401 to document and describe potential waters of the United States, including wetlands, in the project area. No impacts on potential waters of the United States are anticipated as a result of the proposed project. Proposed project activities would occur in previously disturbed or paved areas and no dredge or fill materials would be placed into potential waters of the United States. The existing culverts in the project area would be avoided (e.g., trenched under).*

### Comment C-2

Discharge of dredged or fill material into geographically isolated waters not under the jurisdiction of the Clean Water Act (e.g., isolated wetlands, vernal pools, or stream banks above the ordinary high-water mark) may require either individual or general waste discharge requirements from the Central Valley RWQCB. If the U.S. Army Corps of Engineers determine that isolated wetlands or other waters exist at the project site, and the project impacts or has potential to impact these non-jurisdictional waters, a Report of Waste Discharge and filing fee must be submitted to the Central Valley RWQCB. The Central Valley RWQCB will consider the information provided and either issue or waive Waste Discharge Requirements. Failure to obtain waste discharge requirements or a waiver may result in enforcement action. Any person discharging dredge or fill materials to waters of the State must file a waste discharge pursuant to sections 13376 and 13260 of the California Water Code.

*Response: Comment noted. A wetland delineation, was conducted in accordance with Clean Water Act sections 404 and 401 to document and describe potential waters of the United States, including wetlands, and waters of the State, including isolated waters or areas of riparian vegetation, in the project area. The proposed project would not result in the discharge of any waste into waters of the United States, waters of the State, or riparian vegetation communities. Water quality will be maintained through the use of best management practices, including erosion and sediment control measures and a stormwater pollution prevention plan (SWPPP). The potential for erosion along the pipeline would be the same as current conditions once the pipeline is installed and the disturbed areas are repaved. A Report of Waste Discharge and filing fee is not required for this project.*

### Comment C-3

Construction activity, including demolition, resulting in a land disturbance of one acre or more must obtain coverage under a construction general permit for storm water discharges associated with construction and land disturbance activities (CGP). The project will be conditioned to implement storm water pollution controls

Reference: Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project—Response to Public Comments Received on CEQA Initial Study/Mitigated Negative Declaration (SCH# 2018082044)

during construction and post-construction as required by the CGP. To apply for coverage under CGP, the property owner must submit permit registration documents electronically prior to construction.

*Response: PID will use storm water pollution controls as required by the CGP.*

**Comment C-4**

The proposed project must be conditioned to comply with post-construction standards adopted by the Town of Paradise in compliance with its Phase II Municipal Storm Water Permit.

*Response: PID will comply with Town of Paradise post-construction standards and its Phase II Municipal Storm Water Permit for the portion of the project that falls within the town's jurisdiction.*

Reference: Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project—Response to Public Comments Received on CEQA Initial Study/Mitigated Negative Declaration (SCH# 2018082044)

## MITIGATION MONITORING AND REPORTING PROGRAM

### ZONE A PUMP STATION, TRANSMISSION MAIN, AND RESERVOIR B REPLACEMENT PROJECT

This chapter comprises the Mitigation Monitoring and Reporting Program (MMRP) for the Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project (project). The purpose of this MMRP is to memorialize the mitigation responsibilities of Paradise Irrigation District (PID) in implementing the proposed project. The mitigation measures listed herein are required by law or regulation and will be adopted by the PID as part of the overall project approval. Mitigation is defined by the California Environmental Quality Act (CEQA) – Section 15370 as a measure that

- avoids the impact altogether by not taking a certain action or parts of an action;
- minimizes impacts by limiting the degree or magnitude of the action and its implementation;
- rectifies the impact by repairing, rehabilitating, or restoring the impacted environment;
- reduces or eliminates the impact over time by preservation and maintenance operations during the life of the project; or
- compensates for the impacts by replacing or providing substitute resources or environments.

Mitigation measures provided in this MMRP have been identified in Chapter 3, Environmental Setting, Impacts, and Mitigation Measures of the Initial Study (IS)/Mitigated Negative Declaration (MND) and are considered feasible and effective in mitigating project-related environmental impacts.

This MMRP includes discussions of the following: legal requirements, intent of the MMRP; development and approval process for the MMRP; the authorities and responsibilities associated with implementation of the MMRP; a method of resolution of noncompliance complaints; and a summary of monitoring requirements.

**Legal Requirements:** The legal basis for the development and implementation of the MMRP lies within CEQA (including the California Public Resources Code). Sections 21002 and 21002.1 of the California Public Resources Code state:

- Public agencies are not to approve projects as proposed if there are feasible alternatives or feasible mitigation measures available that would substantially lessen the significant environmental effects of such projects.
- Each public agency shall mitigate or avoid the significant effects on the environment of projects that it carries out or approves whenever it is feasible to do so.

Section 21081.6 of the California Public Resources Code further requires that:

- The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation.
- The monitoring program must be adopted when a public agency makes its findings under CEQA so that the program can be made a condition of project approval in order to mitigate significant effects on the environment. The program must be designed to ensure compliance with mitigation measures during project implementation to mitigate or avoid significant environmental effects.

Reference: Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project—Response to Public Comments Received on CEQA Initial Study/Mitigated Negative Declaration (SCH# 2018082044)

**Intent of the Mitigation Monitoring and Reporting Program:** The MMRP is intended to satisfy the requirements of CEQA as they relate to the project. It will be used by PID staff, participating agencies, project contractors, and mitigation monitoring personnel during implementation of the project. The primary objective of the MMRP is to ensure the effective implementation and enforcement of adopted mitigation measures and permit conditions. The MMRP will provide for monitoring of construction activities as needed, onsite identification and resolution of environmental problems, and proper reporting to lead agency staff.

**Development and Approval Process:** The timing elements for implementing mitigation measures and the definition of the approval process are provided in detail throughout this MMRP to assist PID staff by providing the most usable monitoring document possible.

**Authorities and Responsibilities:** PID, functioning as the CEQA Lead Agency, will have the primary responsibility for the execution and proper implementation of the MMRP and will be responsible for the following activities:

- coordination of monitoring activities
- maintenance of records concerning the status of all approved mitigation measures

PID, as implementing agency, is responsible for implementing the mitigation measures by incorporating them into the project specifications (contract documents) and enforcing the conditions of the contract in the field during construction. Some pre- and post-construction activities may be implemented directly by PID.

**Resolution of Noncompliance Complaints:** Any person or agency may file a complaint that alleges noncompliance with the mitigation measure(s) adopted as part of the approval process for the proposed project. The complaint shall be directed to Mr. Ed Fortner, Paradise Irrigation District, 6332 Clark Road, Paradise, CA, 95969, in written form describing the purported violation in detail. PID shall investigate and determine the validity of the complaint. If noncompliance with a mitigation measure is verified, PID shall take the necessary action(s) to remedy the violation. Complaints shall be responded to in writing including descriptions of PID's investigation findings and the corrective action(s) taken, if applicable.

**Mitigation Monitoring/Environmental Commitments Table:** Following this discussion is a table listing the conservation and mitigation measures, and associated monitoring requirements for the proposed project. These measures are organized by environmental issue area (i.e., Air Quality, Biological Resources, etc.) and consist of the following:

- Conservation (Measure(s)): lists the conservation measure(s) and best management practices that will be used to avoid or minimize the construction-related impacts on environmental and biological resources. For the table below, conservation measures described in the IS/MND were numbered to indicate the issue with which they are associated (e.g., Air Quality measures are labeled using "AQ").
- Mitigation Measure(s): lists the mitigation measure(s) identified for each potentially significant impact discussed in the IS/MND. For ease of identification in the table, each mitigation measure has been assigned a unique number (i.e., MMx).
- Timing/Implementation: Indicates at what project phase the measure will need to be implemented.
- Enforcement/Monitoring: Indicates which agency or entity is responsible for enforcement of the measure(s) and for implementing and monitoring each mitigation measure.
- Verification: Provides a space to be signed and dated by the individual responsible for verifying compliance with each measure.

**Environmental Commitment and Mitigation Monitoring Table  
For the Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project  
Mitigation Monitoring Program  
(State Clearinghouse No. 20180711)**

<b>ENVIRONMENTAL COMMITMENTS:</b> The following environmental commitments will be incorporated into the project to further protect environmental and biological resources:			
Conservation Measures and BMPs	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date/Initials)
<b>Air Quality/Fugitive Dust and Emissions Controls(AQ)</b>			
Air pollution control would conform to all applicable air pollution control rules, regulations, ordinances, and statutes. Dust would be controlled during construction activities and subsequent operation of the project. Dust controls may include, but would not be limited to the following elements, as appropriate:			
<b>AQ-1:</b> Pursuant to California Vehicle Code (Section 23114) (California Legislative Information 2016), all trucks hauling soil and other loose material to and from the construction site shall be covered or shall maintain at least 6 inches of freeboard (i.e., minimum vertical distance between top of load and the trailer).	Construction	Construction management	
<b>AQ-2:</b> Any soils that are removed during construction shall be stored onsite in piles not to exceed 4 feet in height. These spoil piles shall be clearly marked and flagged. Spoil piles that will not be immediately returned to use shall be revegetated with a non-persistent erosion control mixture.	Construction	Construction management	
<b>AQ-3:</b> Equipment and manual watering shall be conducted on all stockpiles, dirt/gravel roads, and exposed or disturbed soil surfaces, as necessary, to reduce airborne dust.	Construction	Construction management	
<b>AQ-4:</b> PID or its contractor shall designate a person to monitor dust control and to order increased watering as necessary to prevent transport of dust offsite. This person shall also respond to any citizen complaints.	Construction	Construction management	

Reference: Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project—Response to Public Comments Received on CEQA Initial Study/Mitigated Negative Declaration (SCH# 2018082044)

<b>ENVIRONMENTAL COMMITMENTS: The following environmental commitments will be incorporated into the project to further protect environmental and biological resources:</b>			
<b>Conservation Measures and BMPs</b>	<b>Timing/Implementation</b>	<b>Enforcement/Monitoring</b>	<b>Verification (Date/Initials)</b>
<b>Naturally Occurring Asbestos (NOA)</b>			
<p>If ultramafic rocks (e.g., serpentinite) or soils derived from ultramafic rocks are encountered during project design exploration or during construction, then testing for the presence of naturally occurring asbestos (NOA) shall be performed using randomized multi-increment sampling methods. If NOA concentrations are found to exceed established thresholds (California Geological Survey 2002), then mitigation measures shall be implemented to reduce the potential of inducing NOA to become airborne. In addition to <i>Conservation Measure #1—Air Pollution and Dust Control</i>, the following measure has been incorporated into the proposed project to minimize the potential for adverse impacts in the event that NOA concentrations are found to exceed established thresholds.</p>			
<b>NOA-1:</b> NOA-bearing soils and rock materials excavated during project activities shall be entombed as artificial fills within excavations (e.g., pipeline trench or suitable off-site disposal).	Construction	Construction management	
<b>Water Pollution Prevention (WPP)</b>			
<p>The project has been designed to avoid impacts on U.S. Army Corps of Engineers (Corps) jurisdictional features (i.e., waters of the United States). The following BMPs have been incorporated into the proposed project to avoid and minimize the potential for adverse direct and indirect effects on water quality.</p>			
<b>WPP-1:</b> Activities that increase the erosion potential within the project area shall be restricted to the relatively dry summer and early fall period (approximately May 15 to October 15) to the maximum extent practicable to minimize the potential for rainfall events to transport sediment to surface water features. If construction activities must take place during the late fall, winter, or spring, then temporary erosion and sediment control structures must be in place and operational at the end of each construction day and maintained until the completion of the project.	Construction	Construction management	

Reference: Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project—Response to Public Comments Received on CEQA Initial Study/Mitigated Negative Declaration (SCH# 2018082044)

<b>ENVIRONMENTAL COMMITMENTS: The following environmental commitments will be incorporated into the project to further protect environmental and biological resources:</b>			
<b>Conservation Measures and BMPs</b>	<b>Timing/Implementation</b>	<b>Enforcement/Monitoring</b>	<b>Verification (Date/Initials)</b>
<b>WPP-2:</b> Within 10 days of completion of construction, weed-free mulch shall be applied to disturbed areas in order to reduce the potential for short-term erosion. Prior to a rain event or when there is greater than 50 percent possibility of rain forecasted by the National Weather Service during the next 24 hours, weed-free mulch, tarps, or geotextile fabrics shall be applied to all exposed areas upon completion of the day's activities. Soils shall not be left exposed during the rainy season.	Construction	Construction management	
<b>WPP-3:</b> Suitable BMPs, such as silt fences, straw wattles, or catch basins, shall be placed below all construction activities at the edge of surface water features to intercept sediment before it reaches the waterway. These structures shall be installed prior to any clearing or grading activities.	Preconstruction/ Construction	Construction Management	
<b>WPP-4:</b> If spoil sites are used, they shall be located such that they do not drain directly into a surface water feature, if possible. If a spoil site drains into a surface water feature, catch basins shall be constructed to intercept sediment before it reaches the feature. Spoil sites shall be graded and vegetated to reduce the potential for erosion.	Construction/ Post-construction	Construction Management	
<b>WPP-5:</b> Sediment control measures shall be in place prior to the onset of the rainy season (or no later than October 15) and will be monitored and maintained in good working condition until vegetation becomes established within the disturbed areas.	Preconstruction/ Construction	Construction management	
<b>WPP-6:</b> Fueling construction equipment shall be done at a fixed fueling station to reduce the area exposed to the potential for fuel spills.	Construction	Construction management	
<b>WPP-7:</b> Secondary containment, such as a drain pan or drop cloth, shall be used to catch spills or leaks when removing or changing fluids.	Construction	Construction management	

Reference: Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project—Response to Public Comments Received on CEQA Initial Study/Mitigated Negative Declaration (SCH# 2018082044)

<b>ENVIRONMENTAL COMMITMENTS: The following environmental commitments will be incorporated into the project to further protect environmental and biological resources:</b>			
<b>Conservation Measures and BMPs</b>	<b>Timing/Implementation</b>	<b>Enforcement/Monitoring</b>	<b>Verification (Date/Initials)</b>
<b>WPP-8:</b> Spill containment materials shall be kept onsite at all times to contain any accidental spill.	Preconstruction/ Construction	Construction management	
<b>WPP-9:</b> Absorbent materials shall be used on small spills rather than hosing down or burying the spill. The absorbent material shall be promptly removed and disposed of properly.	Construction	Construction management	
<b>WPP-10:</b> Onsite vehicles and equipment shall be regularly inspected for leaks and repaired immediately.	Construction	Construction management	
<b>WPP-11:</b> If vehicle and equipment maintenance must occur onsite, it shall be done in designated areas, located away from drainage courses, to prevent the run-on of storm water and the run-off of spills.	Construction	Construction management	
<b>WPP-12:</b> Equipment and materials shall be stored at least 50 feet away from surface water features.	Construction	Construction management	
<b>WPP-13:</b> PID is responsible for compliance with applicable federal, state, or local laws or ordinances and shall obtain authorization from all applicable regulatory agencies.	Preconstruction/ Construction/ Post-construction	PID	

Reference: Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project—Response to Public Comments Received on CEQA Initial Study/Mitigated Negative Declaration (SCH# 2018082044)

<b>ENVIRONMENTAL COMMITMENTS: The following environmental commitments will be incorporated into the project to further protect environmental and biological resources:</b>			
<b>Conservation Measures and BMPs</b>	<b>Timing/ Implementation</b>	<b>Enforcement/ Monitoring</b>	<b>Verification (Date/Initials)</b>
<b>Greenhouse Gas Emissions (GHG)</b>			
PID shall include provisions in the construction bid documents to minimize project-related greenhouse gas emissions. The following measures shall be implemented to reduce construction-related greenhouse gas emissions:			
<b>GHG-1:</b> Reuse and recycle construction and demolition waste, including, but not limited to soil, vegetation, concrete, lumber, metal, and cardboard.	Construction	PID/ Construction management	
<b>GHG-2:</b> Ensure that the project enhances, and does not disrupt or create barriers to, non-motorized transportation (e.g., bicycles, pedestrians) through proper pre-construction planning.	Construction	PID/ Construction management	
<b>GHG-3:</b> Protect existing trees to the extent possible and encourage the planting of new trees.	Construction	PID/ Construction management	
<b>Wildfire Potential (FIRE)</b>			
PID shall include the following measure in the construction bid documents to minimize project-related potential for wildfire ignition:			
<b>FIRE-1:</b> Per the requirements of Public Resources Code Section 4442, PID shall include a note on all construction plans that internal combustion engines shall be equipped with an operational spark arrester, or the engine must be equipped for the prevention of fire.	Preconstruction/ Construction	PID/ Construction management	

Reference: Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project—Response to Public Comments Received on CEQA Initial Study/Mitigated Negative Declaration (SCH# 2018082044)

<b>ENVIRONMENTAL COMMITMENTS: The following environmental commitments will be incorporated into the project to further protect environmental and biological resources:</b>			
<b>Conservation Measures and BMPs</b>	<b>Timing/Implementation</b>	<b>Enforcement/Monitoring</b>	<b>Verification (Date/Initials)</b>
<b>Prevention of Spread of Invasive Species (INV)</b>			
The following avoidance and minimization measures are recommended during project construction to reduce the potential spread of invasive species:			
<b>INV-1:</b> All equipment used for off-road construction activities will be weed-free prior to entering the project area.	Construction	Construction management	
<b>INV-2:</b> If project implementation calls for mulches or fill, they will be weed free.	Construction	Construction management	
<b>INV-3:</b> Any invasive plant species removed during construction will be properly disposed of to ensure the species does not spread to other areas.	Construction	Construction management	

Reference: Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project—Response to Public Comments Received on CEQA Initial Study/Mitigated Negative Declaration (SCH# 2018082044)

<b>CEQA MITIGATION MEASURES: Resource-specific mitigation measures will be used during project implementation include:</b>			
<b>Mitigation Measure (MM)</b>	<b>Timing/ Implementation</b>	<b>Enforcement/ Monitoring</b>	<b>Verification (Date/Initials)</b>
<b>Bats</b>			
The following avoidance and minimization measures are recommended to avoid the potential for project-related impacts on pallid bats:			
<b>MM-1:</b> A pre-construction survey for roosting bats should be conducted prior to the demolition of any buildings or removal of trees or snags with a diameter at breast height of 12 inches or greater. The survey should be conducted by a qualified biologist and should occur no more than one week prior to demolition or tree removal work. If a maternity or hibernacula roost is found, the biologist in coordination with CDFW, will determine the extent of a construction free buffer zone around the roost. The buffer will remain in place until the bats are no longer dependent on the roost and have vacated the roost site.	Preconstruction/ Construction	PID/ Construction management/ CDFW	
<b>Migratory Birds and Raptors</b>			
Project activities shall be scheduled to avoid the nesting season to the extent feasible. The typical nesting seasons in northern California extends from February 1 through August 31. Thus, if project activities can be scheduled to occur outside of the nesting season, no impacts would be expected. If the nesting season cannot be completely avoided, the following measures shall be implemented.			
<b>MM-2:</b> A qualified biologist shall conduct a minimum of one pre-construction survey for nesting migratory birds and raptors within the project area and a 250-foot buffer around the project area. Preconstruction surveys shall be conducted no more than seven days prior to the start of activities or the re-start of temporarily suspended construction, vegetation removal, or ground disturbance activities in any given area. Preconstruction surveys shall be used to ensure that no active bird nests occurring within or immediately adjacent to the project will be disturbed during project implementation. If an active nest is found, a qualified biologist shall determine the extent of a construction-free buffer zone to be established around the nest. If it is anticipated that project activities will encroach on	Preconstruction/ Construction	PID/ Construction management/ CDFW	

Reference: Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project—Response to Public Comments Received on CEQA Initial Study/Mitigated Negative Declaration (SCH# 2018082044)

<b>CEQA MITIGATION MEASURES: Resource-specific mitigation measures will be used during project implementation include:</b>			
<b>Mitigation Measure (MM)</b>	<b>Timing/ Implementation</b>	<b>Enforcement/ Monitoring</b>	<b>Verification (Date/Initials)</b>
the buffer, a biological monitor will be present to ensure that the nesting birds are not disturbed by the activities.			
<b>MM-3:</b> If vegetation is to be removed by the project and all necessary approvals have been obtained, potential nesting substrates (e.g., trees and shrubs) that will be removed by the project shall be removed before the onset of the nesting season, if feasible. This will help preclude nesting and substantially decrease the likelihood of direct impacts.	Preconstruction/ Construction	PID/ Construction management/ CDFW	
<b>Cultural Resources</b>			
PID shall include provisions in the construction bid documents to minimize project impacts on cultural resources. The following measure shall be implemented to avoid construction-related impacts on cultural resources:			
<b>MM-4:</b> If any unanticipated archaeological finds are made in the APE that are considered to be significant, a number of methods shall be used to mitigate potential adverse effects. Avoidance through project redesign or some method of preservation is the preferred method. If redesign or preservation is not an option, it is recommended that any potential adverse effects on unanticipated finds be mitigated through data recovery, although actual mitigation would be determined through consultation with the SHPO under the NHPA. It is also recommended that local Native American groups be consulted and their input solicited and considered in all aspects of such testing and mitigation.	Construction	PID/ Construction management	

Reference: Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project—Response to Public Comments Received on CEQA Initial Study/Mitigated Negative Declaration (SCH# 2018082044)

<b>CEQA MITIGATION MEASURES: Resource-specific mitigation measures will be used during project implementation include:</b>			
<b>Mitigation Measure (MM)</b>	<b>Timing/Implementation</b>	<b>Enforcement/Monitoring</b>	<b>Verification (Date/Initials)</b>
<b>Human Remains</b>			
PID shall include provisions in the construction bid documents to minimize project impacts on cultural resources. The following measure shall be implemented to avoid construction-related impacts on inadvertently discovered human remains:			
<b>MM-5:</b> If human remains are found, the California Health and Safety Code requires that excavation be halted in the immediate area and that the Butte County coroner be notified to determine the nature of the remains. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or State lands (California Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the NAHC by telephone within 24 hours of making that determination (California Health and Safety Code Section 7050.5[c]).	Construction	PID/ Construction management/ NAHC	

# Paradise Irrigation District Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project

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Proposed Mitigated Negative Declaration and Initial Study  
Public Draft



*CEQA Lead Agency:*  
Paradise Irrigation District  
6332 Clark Road  
Paradise, CA 95969  
(530) 876-2067  
FAX: (530) 876-0483

*Prepared by:*  
 **Stantec**  
5000 Bechelli Lane, Suite 203  
Redding, California 96002  
(530) 222-5347  
FAX: (530) 222-4958  
File #2272006800

August 2018

## Project Information

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- 1. Project Title:** Paradise Irrigation District Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project
- 2. Lead Agency Name and Address** Paradise Irrigation District  
6332 Clark Road  
Paradise, CA 9596
- 3. Contact Person and Phone Number** Jim Passanisi, Paradise Irrigation District (530) 876-2067
- 4. Project Location** The project is located in two disjunct sites, one in the community of Magalia and the other in the town of Paradise, Butte County; Township 22N, Range 3E, Sections 1 and 12, Township 23N, Range 3E, Sections 25 and 36, and Township 23N, Range 4E, Section 31, *Paradise East, California U.S.* Geological Survey topographic quadrangle, Mount Diablo Base and Meridian; existing Town of Paradise rights of way and multiple parcel numbers.
- 5. Project Sponsor's Name** Paradise Irrigation District
- 6. General Plan Designation** Community Commercial (C-C); General Commercial (G-C); Public (P); Rural Residential, 5-acre min. parcel size (RR-5)
- 7. Zoning** Community Commercial (C-C); Community Facilities (C-F); Multiple-Family Residential (M-F); Public (P); Rural Residential, 5-acre min. parcel size (RR-5)

### 8. Description of Project

Paradise Irrigation District (PID) operates a water treatment plant (WTP) and the accompanying distribution system for Paradise, CA. The distribution system supplies potable water to 10,507 connections, serving a population of approximately 26,000. This includes 7 distribution zones (Zones A through G) and 5 storage reservoirs (Reservoirs A through E) within PID, as well as wheeling water<sup>1</sup> to Del Oro Water Company. The distribution system is supplied by one gravity transmission line via Reservoir B. Zone A and Reservoir A are supplied by Reservoir B via Pump Station #2. The

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<sup>1</sup> So named because pipelines can be laid out to connect different utility providers (like the spokes of a wheel), particularly during drought emergencies.

remaining zones and reservoirs are gravity fed from Reservoir B. Challenges to the existing system include:

1. WTP finished water hydraulics—the existing hydraulics at the WTP do not allow full use of Reservoir B, thus reducing the available storage volume from 3 million gallons (MG) to 2 MG.
2. The existing 42-inch transmission main alignment has no redundancy and is a vulnerability in the ability for PID to deliver water from the WTP to the distribution system.
3. Reservoir B operability and dependability are lacking efficiency due to the nature of the earthen reservoir design.
4. Reservoir A feed reliability—the system relies on a single pump station to feed Zone A via Zone B and Reservoir B.
5. Fire flow storage—Paradise is a wildland interface and therefore requires supplementary fire flow storage in addition to 4 hours of Peak Hourly Flow/Max Day Demand storage as required by the California Code of Regulations (Title 22) storage regulations.

The following features would be included in the project to address the challenges in the existing system:

1. Install new Zone A pumps at the WTP (Zone A Pump Station) adjacent to the treated water storage tank (TWST).
  - a. The new pump station would supply Zone A and the WTP water pumps, removing the restriction on the minimum water surface elevation at Reservoir B.
2. Install a new 16-inch transmission main from the WTP directly to Zone A along New Skyway (Zone A Transmission Main).
  - a. The Zone A Transmission Main (ZATM) would provide potable water supply redundancy to the existing 42-inch transmission main. The 16-inch ZATM would allow Zone A to be fed independently of Reservoir B.
3. Modify Pump Station #2 with a pressure regulating valve station to allow Zone A to feed Zone B.
  - a. Connecting Reservoir A to the rest of the distribution system would have a beneficial impact on overall fire storage capacity, increasing all other zone fire storage capacities by 1 MG.
4. Replace the existing Reservoir B with two 2.3 MG (each, minimum) tank reservoirs.
  - a. Fire storage and predicted growth storage capacity deficiencies would be solved by upsizing Reservoir B from 3 MG to at least 4.6 MG.

- b. The operability, dependability, and sanitary issues would be solved by replacing the earthen reservoir with two tank reservoirs.

## **9. Surrounding Land Uses and Setting**

Rural Residential/Mobile Home Park/Commercial/Public Facilities and Infrastructure/Light Industrial/Public Lands

## **10. Other Public Agencies Whose Approval May Be Required (e.g., permits, financing approval, or participation agreement.)**

- U.S. Environmental Protection Agency
- California State Water Resources Control Board, Division of Drinking Water
- California Department of Fish & Wildlife (Region 2)
- California Regional Water Quality Control Board (Central Valley Region)
- California Department of Transportation (District 3)
- California Office of Emergency Services

**Paradise Irrigation District  
 Zone A Pump Station, Transmission Main, and Reservoir B Replacement  
 Project**

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## Acronyms and Abbreviations

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°F	degrees Fahrenheit
AB 52	Assembly Bill 52
APE	area of potential effect
AQMD	Air Quality Management District
BRA	Biological Resources Assessment
BMP	Best Management Practice
C-C	Community Commercial
C-F	Community Facilities
Caltrans	California Department of Transportation
Cal OES	California Governor's Office of Emergency Services
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CO <sub>2</sub>	carbon dioxide
CRPR	California Rare Plant Rank
CWSRF	Clean Water State Revolving Fund
Corps	U.S. Army Corps of Engineers
County	Butte County
CVRWQCB	Central Valley Regional Water Quality Control Board
CWSRF	Clean Water State Revolving Fund
DTSC	Department of Toxic Substances Control
EPA	Environmental Protection Agency
°F	degrees Fahrenheit
GHG	greenhouse gas
HDPE	high density polyethylene
IS	Initial Study
MG	million gallons
MGD	million gallons per day
MND	Mitigated Negative Declaration
M-F	Multiple-Family Residential
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOA	Naturally Occurring Asbestos
NSR	North State Resources
PF	Public Facility
PID	Paradise Irrigation District
PM <sub>2.5</sub>	particulate matter 2.5 microns or less

PM <sub>10</sub>	particulate matter 10 microns or less
PRC	Public Resources Code
project	Paradise Irrigation District Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project
ROW	right of way
RR-5	Rural Residential
Stantec	North State Resources, now Stantec
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TCR	Tribal Cultural Resource
Title 22	Title 22 of the California Code of Regulations
TWST	treated water storage tank
WTP	water treatment plant
ZATM	Zone A Transmission Main

# 1. Introduction

## 1.1 Introduction and Regulatory Guidance

This document is an Initial Study (IS) that summarizes the technical studies prepared for the proposed Paradise Irrigation District (PID) Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project (project). It includes an evaluation of potential environmental impacts that could result from project implementation and provides justification for a Mitigated Negative Declaration (MND) for the project. This document was prepared in accordance with the current California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq., and the State CEQA Guidelines. Mitigation measures are proposed to avoid or minimize any significant impacts that were identified.

## 1.2 Lead Agency

The Lead Agency is the public agency with primary responsibility for implementing a project. The Lead Agency for the proposed project will be PID. It is anticipated that the project will be funded in part by the State Water Resources Control Board (SWRCB), Division of Financial Assistance under the Clean Water State Revolving Fund (CWSRF) program (Project No. 0410007-001P). Additional funding is being sought from the California Governor's Office of Emergency Services (Cal OES). This document was prepared in accordance with CEQA-Plus guidelines and serves to comply with the U.S. Environmental Protection Agency's (EPA) National Environmental Policy Act (NEPA) obligations for the CWSRF Program. The funding of the CWSRF Program by EPA creates a federal nexus for the proposed project and it is anticipated that EPA will be the NEPA Lead Agency for the purposes of any federal consultations (if necessary). Discretionary actions or funding source requirements having a federal nexus will be addressed by the relevant federal agency. It is anticipated that NEPA approval by the EPA will be in the form of a Categorical Exclusion or Environmental Assessment supported by technical studies and determinations of no adverse effect.

## 1.3 Supporting Technical Studies

Completed technical studies are available for review at the following locations:

State Water Resources Control Board  
Division of Financial Assistance  
Regional Programs Unit  
1001 I Street, 16th Floor  
Sacramento, California 95814  
Phone: (916) 341-5855

Paradise Irrigation District  
6332 Clark Road  
Paradise, CA 9596  
(530) 877-4971

Technical studies completed for this project include:

- Cultural Resources Investigation (confidential; available to qualified readers only)
- Biological Resources Assessment (BRA) Report
- Wetland Delineation Report

## 1.4 Document Organization

The IS consists of the following chapters:

- **Chapter 1.0 – Introduction:** describes the purpose and content of this document.
- **Chapter 2.0 – Project Description:** provides a comprehensive description of the project, tentative schedule, required permit approvals, and project alternatives.
- **Chapter 3.0 – Environmental Impacts and Mitigation Measures:** describes the environmental impacts of the project using the CEQA Environmental Checklist. Where appropriate, mitigation measures are provided that would reduce potentially significant impacts to a less-than-significant level.
- **Chapter 4.0 – Determination:** provides the environmental determination for the project.
- **Chapter 5.0 – Summary of Mitigation Commitments:** provides a comprehensive list of all mitigation measures proposed for the project.
- **Chapter 6.0 – Report Preparation:** identifies the individuals responsible for preparation of this document.
- **Chapter 7.0 –References:** provides a list of references used to prepare this document.

## 2. Project Description

### 2.1 Location

The project is largely linear, extending from the community of Magalia, south to the town of Paradise, Butte County, California. Paradise is located approximately 12 road miles northeast of Highway 99 and the city of Chico in Butte County, California. The project is shown on the *Paradise East, California* 7.5 minute U.S. Geological Survey quadrangle, Township 22N, Range 3E, Sections 1 and 12, Township 23N, Range 3E, Sections 25 and 36, and Township 23N, Range 4E, Section 31 (Figure 1). The proposed project occurs on private properties and PID owned parcels, and within the Caltrans right of way (ROW). Figure 2 (maps 1–5) illustrates the proposed project layout.

The 15.4-acre project area is composed of a linear alignment along paved roads and areas containing existing water treatment, storage, and distribution infrastructure including a WTP and a covered reservoir (Reservoir B). The land in the project area is largely disturbed with small areas of semi-natural habitat located near the existing WTP and adjacent to existing road corridors.

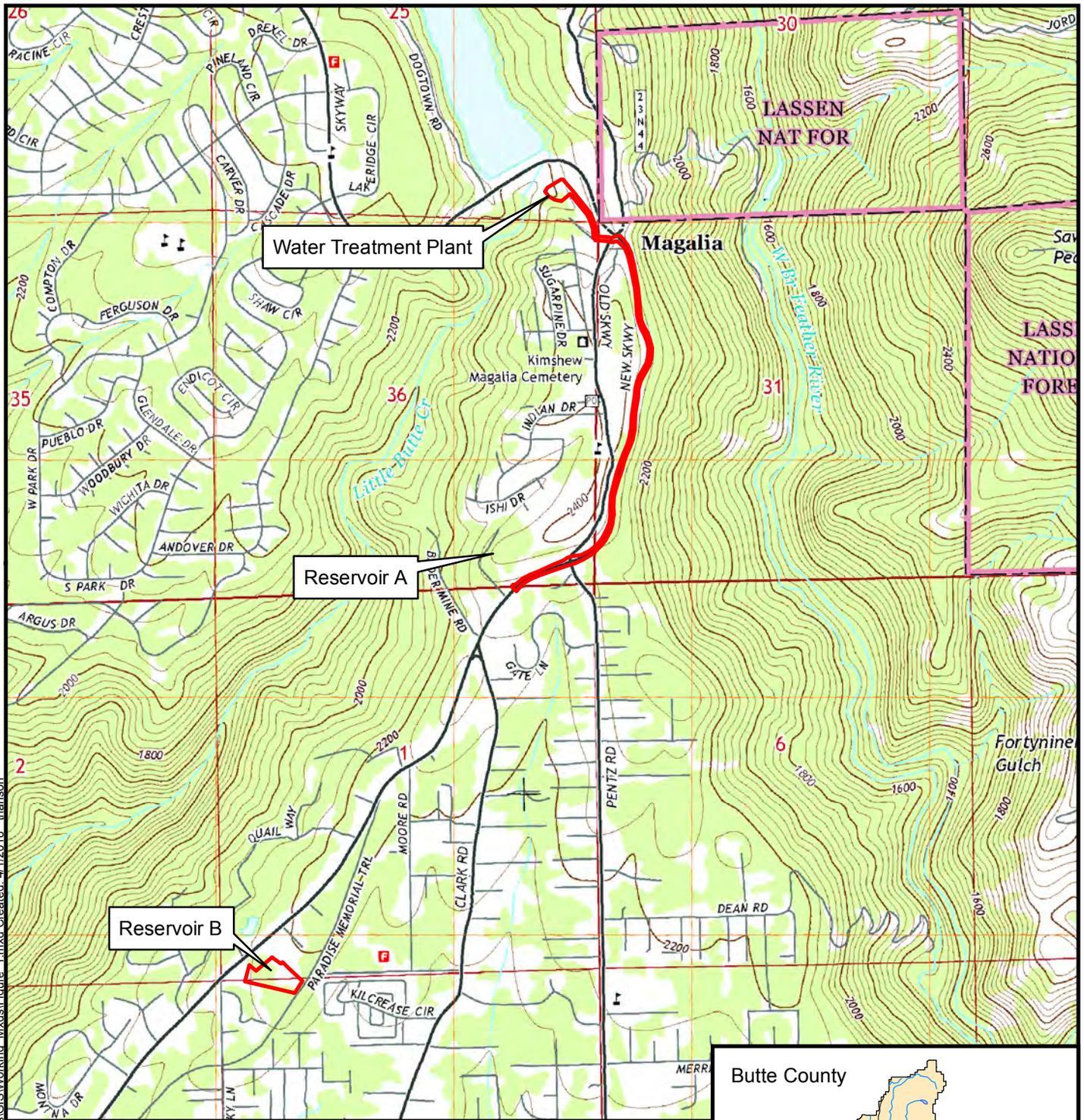
### 2.2 Project Purpose and Need

The purpose of the project is to address several problematic operational constraints that affect the operation and management, water quality compliance standards associated with the existing Reservoir B facility, and to increase the overall PID water storage capacity. The project is needed to improve operations, address maintenance and water quality issues, increase fire suppression storage, and provide for anticipated population growth within the PID service boundary.

### 2.3 Existing Facilities

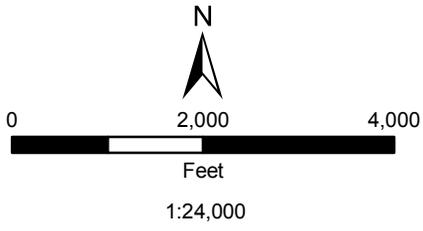
#### Water Treatment Plant

PID operates a WTP and the accompanying distribution system for the town of Paradise. The distribution system supplies potable water to 10,507 connections, serving a population of approximately 26,000. This includes seven distribution zones (Zones A through G) within PID, as well as wheeling water to Del Oro Water Company. The WTP currently treats a sustainable maximum flow of 15 million gallons per day (MGD) of surface water primarily from Paradise Lake and secondarily Magalia Reservoir. After clarification and filtration, the filtered water is sent through the Treated Water Storage Tank (TWST) for chlorine disinfection. The TWST is a 650,000-gallon serpentine chlorine contact basin that feeds the finished water into the PID distribution system.



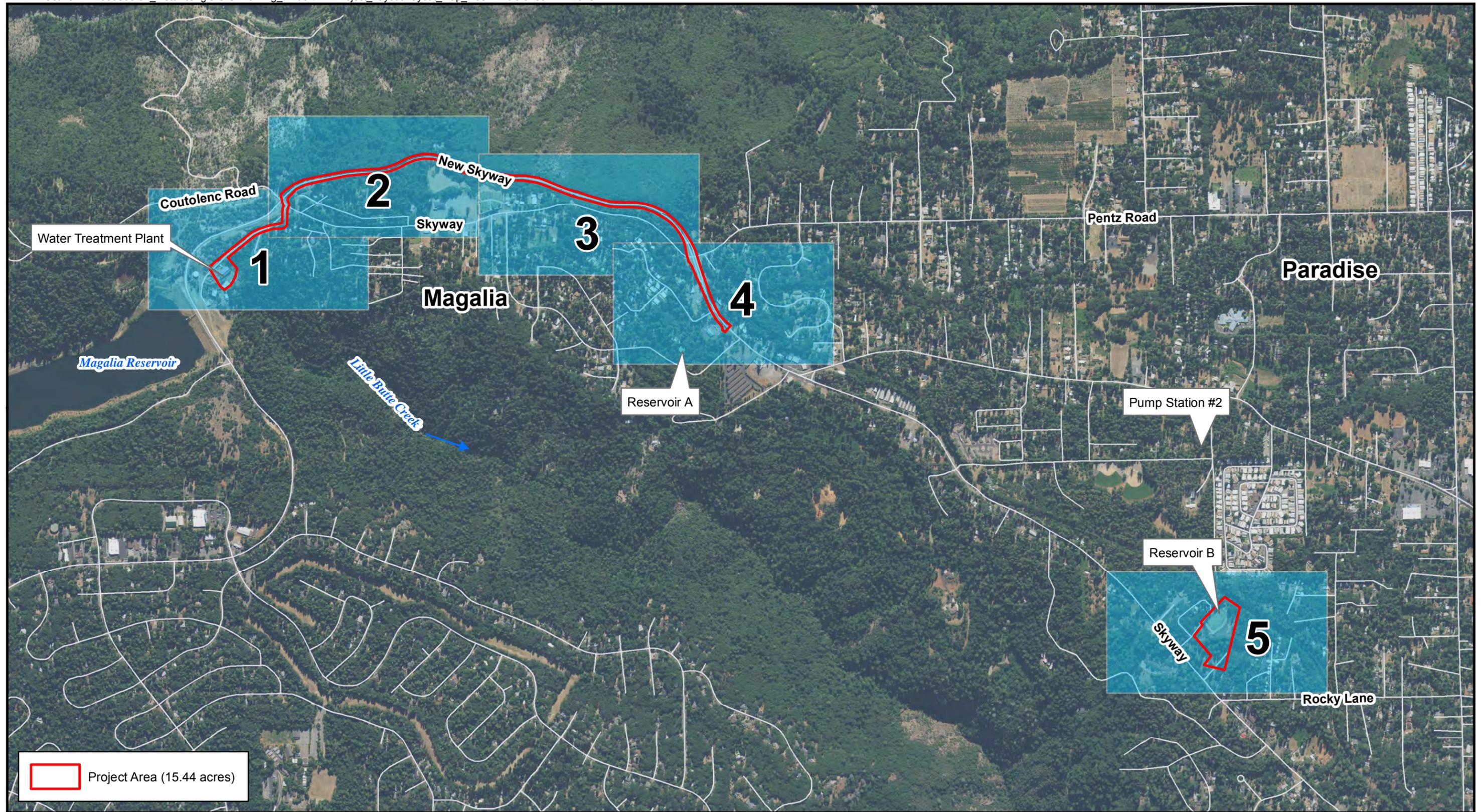
Project Area (15.44 acres)

Public Land Survey:  
 T22N, R3E, Sec. 1 and 12  
 T23N, R3E, Sec. 25 and 36  
 T23N, R4E, Sec. 31



USGS 7.5 Quad: Paradise East, 2015

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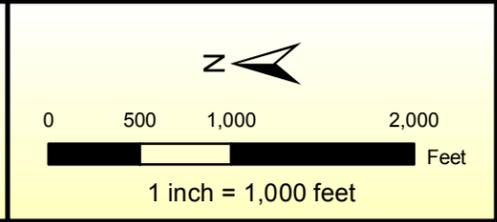


 Project Area (15.44 acres)

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5000 Bechelli Lane Suite 203  
Redding, CA 95002 Phone (530) 222-5347  
Fax (530) 222-4958 [www.nsrnet.com](http://www.nsrnet.com)

Prepared for:  
Paradise Irrigation District  
6332 Clark Road  
Paradise, CA 9596

Notes:  
Aerial Photograph Dated: NAIP 2016



**Paradise Irrigation District Zone A Pump Station,  
Transmission Main, and Reservoir B Replacement Project**  
**Figure 2  
Map Index  
Project Layout  
April 2018**



**Project Area (15.44 acres)**

**Project Design Features**

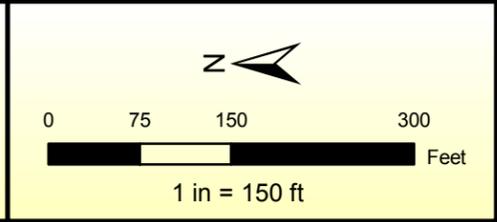
- Reservoir A Transmission Line
- Reservoir A Pump Station

(N) = New (Proposed)  
(E) = Existing

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Notes:  
 Aerial Photograph: NAIP 2016  
 Locations of all proposed project features are approximate.



**Paradise Irrigation District Zone A Pump Station,  
 Transmission Main, and Reservoir B Replacement Project**

**Figure 2**  
**Map 1 of 5**  
**Project Layout**  
**April 2018**



Project Area (15.44 acres)

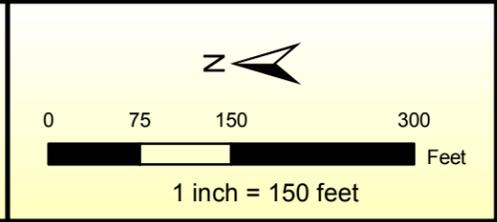
**Project Design Features**

Reservoir A Transmission Line  
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Notes:  
 Aerial Photograph: NAIP 2016  
 Locations of all proposed project features are approximate.



**Paradise Irrigation District Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project**

**Figure 2**  
 Map 2 of 5  
 Project Layout  
 April 2018



 Project Area (15.44 acres)

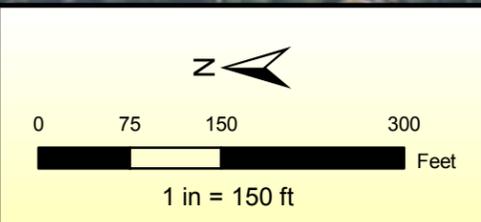
**Project Design Features**

 Reservoir A Transmission Line  
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Notes:  
 Aerial Photograph: NAIP 2016  
 Locations of all proposed project features are approximate.



**Paradise Irrigation District Zone A Pump Station,  
 Transmission Main, and Reservoir B Replacement Project**

**Figure 2**  
**Map 3 of 5**  
**Project Layout**  
**April 2018**



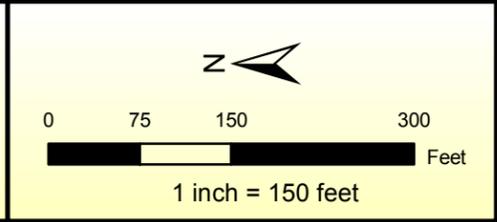
**Project Design Features**

- Project Area (15.44 acres)
- Reservoir A Transmission Line
- (N) = New (Proposed)
- (E) = Existing

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Notes:  
 Aerial Photograph: NAIP 2016  
 Locations of all proposed project features are approximate.



**Paradise Irrigation District Zone A Pump Station,  
 Transmission Main, and Reservoir B Replacement Project**

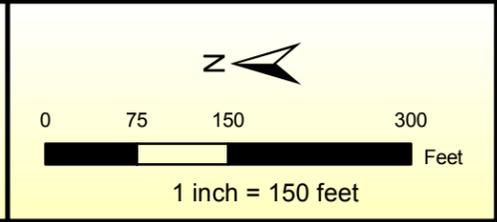
**Figure 2  
 Map 4 of 5  
 Project Layout  
 April 2018**



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Notes:  
 Aerial Photograph: NAIP 2016  
 Locations of all proposed project features are approximate.



**Paradise Irrigation District Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project**

**Figure 2**  
**Map 5 of 5**  
**Project Layout**  
**April 2018**

## Distribution System and Storage

The PID distribution system is split into seven distribution zones that vary in the number of individual connections from 61 to 2,808. There are five water storage reservoirs in the distribution system (Table 1). All reservoirs except Reservoir B are steel tank reservoirs, with the latter being an earth embankment lined reservoir with a flexible membrane cover. A 0.94 million-gallon (MG) portion of Reservoir B is currently unusable due to hydraulic considerations required for potable water supply at the WTP.

**Table 1. PID Distribution System Reservoir Sizes**

Reservoir	Total Capacity (MG)	Usable Capacity (MG)
A	0.98	0.98
B	3.16	2.22
C	1.94	1.94
D	1.94	1.94
E	1.45	1.45
<b>Total</b>	<b>9.47</b>	<b>8.53</b>

Source: Water Works Engineering 2017

Finished water is transferred from the WTP via a 12,500-foot, 42-inch finished water transmission line to Zone B and Reservoir B. The 42-inch gravity transmission line alignment roughly parallels Little Butte Creek. Reservoir B gravity feeds to reservoirs C, D, and E. Reservoir A is supplied water via Pump Station #2 in Zone B of the distribution system.

Reservoir A was previously supplied by the 42-inch transmission line and Pump Station #1. Pump station #1 was removed from service in 1996 and was demolished in 2015. The Pump Station was past its useful life, and WTP upgrades at the time changed the hydraulic conditions related to Pump Station #1, so the pumps were no longer functional. Reservoir A is now supplied by Pump Station #2 only. Pump Station #2 is located to the east of Reservoir B on the corner of Moore Road and Forest Service Road, and is connected to Reservoir A through Zone A.

### 2.3.1 Problematic Operational Constraints

#### Water Treatment Plant Finished Water Hydraulics

The finished water hydraulics of the WTP are a critical part of implementing any upgrade project. For the plant water supply pumps to operate, Reservoir B must have a minimum water surface elevation of 2,174 feet, resulting in a water surface elevation of 2,173 at the plant. If the water surface elevation at Reservoir B drops below this level, the plant water pumps cannot pull suction from the 42-inch transmission main, and therefore cannot supply potable water to the WTP. This is the restriction for utilizing Reservoir B in its entirety.

#### 42-inch Transmission Main Alignment

The 42-inch transmission line was installed in 1955 and begins at Magalia Reservoir Dam.

After leaving the WTP, the 42-inch transmission pipeline follows the curvature of Little Butte Creek until it reaches Reservoir B, roughly 2.5 miles from the WTP. PID owns a 50-foot ROW along the alignment. There is a 15-foot-wide dirt road cut out above the 42-inch line, but the rest of the ROW is steep hillside. This alignment has been deemed an area with “High Fire Risk” by CalFire (California Department of Forestry and Fire Protection 2007). A fire in this area would leave the 42-inch transmission pipeline potentially inaccessible and subject to damage in the firefighting efforts.

There are also concerns that an earthquake or landslide in the area could affect the alignment of the 42-inch main. A preliminary geotechnical study (Vertical Sciences 2017) assessed the fault activity rating for the 42-inch alignment. It stated that no active faults have been mapped within the project region, and no potentially active faults have been mapped projecting beneath or across project improvements. Only unnamed inactive faults have been mapped projecting across the existing pipeline. Geomorphic features on the slopes adjacent to the transmission line imply that dormant, older landslide features may be present. According to the Butte County General Plan (Butte County 2012) this area has a moderate potential for slope instability. Landslides have been mapped within areas of similar geology west of the project site. Although the risk of earthquake or landslide is low, the resulting damage that would be caused would be catastrophic to the operation of the entire system, and the town of Paradise would be without water supply until the 42-inch transmission line can be repaired.

### **Reservoir A Feed Reliability and Redundancy**

Reservoir A is supplied potable water from Zone B. Water is pumped from Zone B at Pump Station #2, which sends the water through Zone A to Reservoir A. The steel suction pipeline for Pump Station #2 was installed in 1945. Pump Station #2 was constructed in 1967 and is past its expected service life of 50 years. There is no redundant water supply to Zone A if Pump Station #2 or its 1945-era suction pipeline fails.

### **Reservoir B Resiliency**

Reservoir B is a 3 MG earth embankment reservoir lined with reinforced polypropylene and with a floating high-density polyethylene (HDPE) cover. The reservoir was constructed in 1985. The cover and liner were replaced in 2005. Floating cover reservoirs are subject to many issues related to the integrity of the cover (e.g., tears, contamination, failures of other systems) that all pose a threat of drinking water contamination. The cover is subject to vandalism by trespassers and wildlife; it gathers rainwater, and the sump pump installed to drain the rainwater constantly requires maintenance; maintenance must be regularly scheduled to remove accumulated debris; the accumulation of debris attracts vectors and leads to decay and detritus sitting on the cover of the reservoir. The cover is currently 13 years old and the maximum life expectancy of the polypropylene liner and the HDPE cover is 20 years (as observed with the life span of the originally installed liner and cover).

Title 22 of the California Code of Regulations (Title 22) includes requirements for the design and construction of impervious reservoirs with a floating cover such as Reservoir B. Reservoir B complies with most of the current Title 22 requirements, however significant deficiencies concerning the adequacy of site security and the reservoir having a single inlet/outlet remain out of compliance.

Additionally, because Reservoir B is a single reservoir and the only reservoir which feeds Zone B (21 percent of customers) and Zone A (12 percent of customers), it is a critical “pinch point” in the system, which does not have any redundancy. If Reservoir B were to become inoperative during peak demand periods, the delivery of water to 33 percent of customers would rely entirely on continuous water treatment plant operation. In general, the long-term operability, and the resiliency and dependability of Reservoir B are of concern.

## **Fire Storage**

The total storage capacity for each distribution zone must include sufficient capacity for potential firefighting needs. Paradise is in a wildland interface area and in support of wildland firefighting, PID provides water storage for use in fighting wildfires should they enter the service area. Fire storage volume is intended to be available in all zones, at all times (including during peak demand).

The largest fire in recent history in Paradise was the Camp Fire in 2008. This fire burned into the PID service area and threatened to cause significant damage to the area. Reservoir storage levels for PID reservoirs A, B, C, and D and plant flow data were analyzed for the week of the Camp Fire to determine system demand during the fire. During the peak 24-hour period (July 8, 2008 at noon to July 9, 2008 at noon) of firefighting activities, a 4 MG maximum increase in system demand was observed (Water Works Engineering 2017). A 4 MG increase in system demand during firefighting activities has been determined to cause a usable water storage deficiency in four of the PID distribution zones (zones A, B, C, and D) (Water Works Engineering 2017).

## **2.4 Storage Capacity and Water Demand**

The current usable PID water storage capacity is 8.53 MG when considering all distribution zones (Water Works Engineers 2017). The required storage capacity for all distribution zones based on regulations included in Title 22 is 8.30 MG. This considers a 10 percent growth rate for the town of Paradise, the potential water demand for urban firefighting activities, and PID operational constraints. Although the total usable storage capacity for all distribution zones exceeds the required storage capacity, zones A, B, and C have usable storage deficiencies of 1.30 MG, 2.68 MG, and 0.99 MG, respectively. These distribution zones do not meet water storage requirements due to individual PID reservoir capacities and distribution constraints.

## **2.5 System Improvements**

The project would involve improvements to PID facilities that will address the problematic operational constraints discussed above and increase the overall PID water storage capacity. The system improvements are designed to increase the reliability and redundancy of the distribution system and bring the system into compliance with Title 22 regulations regarding distribution reservoirs and water storage capacity. The following system improvements are included in the project.

### **2.5.1 Direct Feed to Reservoir A**

Providing a direct feed of water between Reservoir A and the WTP would address some of the problematic operational constraints by providing the following benefits:

- New pressurized transmission line from the WTP to Reservoir A provides redundancy to the existing 42-inch transmission pipeline to Reservoir B and redundancy to Pump Station #2.
- Water needed for the operation of the WTP would be supplied by the new Reservoir A pipeline, eliminating hydraulic issues with the current plant water pump supply and allowing full use of Reservoir B down to elevation 2,168.

## **New Pipeline to Serve Zone A**

The new Zone A transmission line would be a pressurized line with the pump station located at the WTP. The pump station would be sized for 4 MGD. The new transmission line would be 16-inch with an average pipe velocity of 4.5 feet/second. The new pipeline alignment would be approximately 1.3 miles long and would follow existing roads including Pine Needle Drive, New Skyway, and a short portion of Skyway. This alignment is shown in Figure 2. The new transmission line would tie into the existing 12-inch Zone A pipeline approximately 20 feet northwest of Skyway. New Skyway is the main thoroughfare from Paradise to the community of Magalia and has steep slopes on either side of the roadway. The route is relatively flat, but there is little room within the shoulder for construction. The majority of the 16-inch pipeline would be installed within existing paved traffic lanes, requiring traffic control and lane repaving.

## **Zone A Pump Station**

The new 16-inch transmission line would be a pressurized line to Distribution Zone A. The pump station to feed the pressurized line would be located at the WTP. The new, enclosed pump station would be constructed on the northeastern side of the TWST in an existing planter area. New electrical infrastructure and controls for the pump station would be routed through paved or disturbed areas of the WTP to the existing Operations Building.

### **2.5.2 Connecting Zone A to Zone B at Pump Station #2**

A pressure regulating valve station would be added at Pump Station #2 to allow Zone A to feed Zone B during times when the 42-inch transmission main may be out of service. This would also allow Zone B to take full advantage of both Reservoir A and Reservoir B storage capacity during an emergency. The new pressure regulating valve would be installed in the existing Pump Station #2 building and no new ground disturbance would be required.

### **2.5.3 Reservoir B Upgrade**

Currently, the system has capacity to meet Title 22 minimum storage requirements with 10 percent population growth within each zone and as a system. However, as discussed in Section 2.3.1, Fire Storage, additional storage volume is required to meet demand during fire-fighting events. To meet these goals, the Reservoir B upgrade would increase the size of Reservoir B by 1.6 MG (from 3.0 to 4.6 MG). Although additional storage capacity would be a part of the proposed project, it should be noted that the need for the Reservoir B upgrades are driven more by deficiencies in the design of the existing earthen reservoir than inadequate storage.

To increase the storage capacity of Reservoir B, the existing 3.0 MG earthen reservoir would be replaced with two 2.3 MG bolted steel tanks. The bottom of the new tanks would remain at the current bottom elevation of the existing reservoir (2,168 feet). The placement of the of the new tanks partially outside of the existing Reservoir B footprint would require relocation of a portion of the existing 36-inch water line that currently runs around the exterior of the existing reservoir, and demolition of the exiting reservoir berms. Most woody vegetation would be removed from the Reservoir B site to accommodate the redistribution of soil material from the tank site grading.

Bolted steel water tanks of this size can be constructed in approximately 11 weeks, which would limit the period that Reservoir B is completely offline to one season (i.e., November to May). The tanks will meet all current regulatory requirements for potable water storage tank design, have a service life of at least 60 years, and be more easily maintained than the current earthen reservoir. The use of two tanks also provides increased system redundancy compared to the existing single reservoir and allows for inspections and repairs of individual tanks while maintaining water distribution capacity from the second tank.

### **2.5.4 Site Improvements**

It is anticipated that surface restoration of roadways, including driveways (when applicable), would be required following pipeline installation.

## **2.6 Project Design Criteria and Best Management Practices**

The project was designed to minimize potential impacts on sensitive biological resources. The proposed project improvements would be constructed primarily in existing disturbed areas including paved or graveled road ROWs and PID facilities and work areas. The following best management practices (BMPs) were incorporated into the project description.

### **2.6.1 Contractor Staging Areas/Construction Access Routes**

Contractor staging would make use of existing roads and paved or graveled areas at existing PID facilities. Potential staging areas are located on paved areas within the WTP and existing graveled work areas at the Reservoir B site. Construction access would make use of existing public and PID roads.

### **2.6.2 Conservation Measures**

#### **Conservation Measure #1—Air Pollution and Dust Control**

Air pollution control would conform to all applicable air pollution control rules, regulations, ordinances, and statutes. Dust would be controlled during construction activities and subsequent operation of the project. Dust controls may include, but would not be limited to the following elements, as appropriate:

- Pursuant to California Vehicle Code (Section 23114) (California Legislative Information 2016), all trucks hauling soil and other loose material to and from the construction site shall

be covered or shall maintain at least 6 inches of freeboard (i.e., minimum vertical distance between top of load and the trailer).

- Any soils that are removed during construction shall be stored onsite in piles not to exceed 4 feet in height. These spoil piles shall be clearly marked and flagged. Spoil piles that will not be immediately returned to use shall be revegetated with a non-persistent erosion control mixture.
- Equipment and manual watering shall be conducted on all stockpiles, dirt/gravel roads, and exposed or disturbed soil surfaces, as necessary, to reduce airborne dust.
- PID or its contractor shall designate a person to monitor dust control and to order increased watering as necessary to prevent transport of dust offsite. This person shall also respond to any citizen complaints.

### **Conservation Measure #2—Naturally Occurring Asbestos**

If ultramafic rocks (e.g., serpentinite) or soils derived from ultramafic rocks are encountered during project design exploration or during construction, then testing for the presence of naturally occurring asbestos (NOA) shall be performed using randomized multi-increment sampling methods. If NOA concentrations are found to exceed established thresholds (California Geological Survey 2002), then mitigation measures shall be implemented to reduce the potential of inducing NOA to become airborne. In addition to *Conservation Measure #1—Air Pollution and Dust Control*, the following measure was incorporated into the proposed project to minimize the potential for adverse impacts in the event that NOA concentrations are found to exceed established thresholds.

- NOA-bearing soils and rock materials excavated during project activities shall be entombed as artificial fills within excavations (e.g., pipeline trench or suitable off-site disposal).

### **Conservation Measure #3—Water Pollution Prevention**

The project was designed to avoid impacts on U.S. Army Corps of Engineers (Corps) jurisdictional features (i.e., waters of the United States). The following BMPs have been incorporated into the proposed project to avoid and minimize the potential for adverse direct and indirect effects on water quality.

- Activities that increase the erosion potential within the project area shall be restricted to the relatively dry summer and early fall period (approximately May 15 to October 15) to the maximum extent practicable to minimize the potential for rainfall events to transport sediment to surface water features. If construction activities must take place during the late fall, winter, or spring, then temporary erosion and sediment control structures must be in place and operational at the end of each construction day and maintained until the completion of the project.
- Within 10 days of completion of construction, weed-free mulch shall be applied to disturbed areas in order to reduce the potential for short-term erosion. Prior to a rain event or when there is greater than 50 percent possibility of rain forecasted by the National Weather Service

during the next 24 hours, weed-free mulch, tarps, or geotextile fabrics shall be applied to all exposed areas upon completion of the day's activities. Soils shall not be left exposed during the rainy season.

- Suitable BMPs, such as silt fences, straw wattles, or catch basins, shall be placed below all construction activities at the edge of surface water features to intercept sediment before it reaches the waterway. These structures shall be installed prior to any clearing or grading activities.
- If spoil sites are used, they shall be located such that they do not drain directly into a surface water feature, if possible. If a spoil site drains into a surface water feature, catch basins shall be constructed to intercept sediment before it reaches the feature. Spoil sites shall be graded and vegetated to reduce the potential for erosion.
- Sediment control measures shall be in place prior to the onset of the rainy season (or no later than October 15) and will be monitored and maintained in good working condition until vegetation becomes established within the disturbed areas.
- Fueling construction equipment shall be done at a fixed fueling station to reduce the area exposed to the potential for fuel spills.
- Secondary containment, such as a drain pan or drop cloth, shall be used to catch spills or leaks when removing or changing fluids.
- Spill containment materials shall be kept onsite at all times to contain any accidental spill.
- Absorbent materials shall be used on small spills rather than hosing down or burying the spill. The absorbent material shall be promptly removed and disposed of properly.
- Onsite vehicles and equipment shall be regularly inspected for leaks and repaired immediately.
- If vehicle and equipment maintenance must occur onsite, it shall be done in designated areas, located away from drainage courses, to prevent the run-on of storm water and the run-off of spills.
- Equipment and materials shall be stored at least 50 feet away from surface water features.
- PID is responsible for compliance with applicable federal, state, or local laws or ordinances and shall obtain authorization from all applicable regulatory agencies.

#### **Conservation Measure #4—Greenhouse Gas Emissions**

PID shall include provisions in the construction bid documents to minimize project-related greenhouse gas emissions. The following measures shall be implemented to reduce construction-related greenhouse gas emissions:

- Reuse and recycle construction and demolition waste, including, but not limited to soil, vegetation, concrete, lumber, metal, and cardboard.
- Ensure that the project enhances, and does not disrupt or create barriers to, non-motorized transportation (e.g., bicycles, pedestrians) through proper pre-construction planning.
- Protect existing trees to the extent possible and encourage the planting of new trees.

### **Conservation Measure #5—Wildfire Potential**

PID shall include the following measure in the construction bid documents to minimize project-related potential for wildfire ignition:

- Per the requirements of Public Resources Code Section 4442, PID shall include a note on all construction plans that internal combustion engines shall be equipped with an operational spark arrester, or the engine must be equipped for the prevention of fire.

### **Conservation Measure #6—Prevention of Spread of Invasive Species**

The following avoidance and minimization measures are recommended during project construction to reduce the potential spread of invasive species:

- All equipment used for construction activities off of paved surfaces will be weed-free prior to entering the project site.
- If project implementation calls for mulches or fill, they will be weed free.
- Any invasive plant species removed during construction will be properly disposed of to ensure the species does not spread to other areas.

## **2.7 Project Approvals**

### **2.7.1 Funding Sources**

The funding source for the project is expected to be partially through the State Water Resources Control Board – Division of Drinking Water, which administers the State Revolving Fund, and through a State of California – Offices of Emergency Services grant.

### **2.7.2 Anticipated Permits and Regulatory Approvals**

If construction activities result in soil disturbance on more than 1 acre, PID must comply with the provisions of the Construction General Permit [Order No. 2009-009-DWQ, as amended by 2010-0014-DWG] under the National Pollution Discharge Elimination System program.

### **California Environmental Quality Act**

Permits required for the project will be determined during preparation of the California Environmental Quality Act (CEQA) documents. Following is a list of authorizations and permits

anticipated for project compliance under CEQA. Additional permits and/or authorizations may be determined as a result of technical studies that would be conducted in support of project compliance.

- CEQA Notice of Determination to adopt either a Mitigated Negative Declaration or certify an Environmental Impact Report (Local Agency) following the CEQA-Plus State Revolving Funds Guidelines
- Stormwater Pollution Prevention Plan Approval (Central Valley Regional Water Quality Control Board [CVRWQCB])

If the project cannot be designed to avoid impacts (e.g., placement of fill, removal of vegetation, and/or ground disturbance) on the ephemeral stream or constructed drainage ditches in the project area, the following permits may be required.

- Clean Water Act Section 404 Permit (Corps)
- Clean Water Act Section 401 Water Quality Certification (CVRWQCB)
- Fish and Game Code Section 1600 Lake and Streambed Alteration Agreement with California Department of Fish and Wildlife (CDFW)

## **2.8 Tentative Project Construction Schedule**

Construction of the project would begin upon receipt of all necessary preconstruction authorizations, including completion of CEQA documentation and receipt of any regulatory permits determined to be required. In addition, funding source requirements will need to be met before and during project construction, as applicable. Construction is anticipated to begin in January 2019 with completion in October 2020.

## **2.9 Project Alternatives**

### **2.9.1 No Project Alternative**

In addition to the action alternative, PID also considered a “No Project” alternative in its evaluation of the project, pursuant to CEQA. Under the No Project alternative, PID would not proceed with the improvements to the water distribution system currently serving the residents of Paradise. No Project is not a feasible alternative since it fails to address problematic operational constraints and redundancy issues of the existing water distribution system. The proposed project is needed to improve operations, address maintenance and water quality issues, increase fire suppression storage, and provide for anticipated population growth within the PID service boundary.

### **2.9.2 Zone A Transmission Line Alternative 2**

Under the Zone A Transmission Line Alternative 2, the new pipeline would be installed in an existing PID ROW parallel to the existing 42-inch pipeline supplying Reservoir B. The existing 42-inch gravity transmission main is installed on a benched cut, with a severe side-slope the entire way along a significantly undulating alignment. Installing a parallel pipeline would involve considerable

excavation just for access and would be difficult to construct. Making the benched cut wider would result in steeper cut-slopes along the alignment, which would only add to the risk of landside in the future. Putting both pipelines in the same alignment also largely negates the benefit of redundancy—any earthquake, landslide, or fire related catastrophe along the alignment would likely impact both pipelines. Zone A Transmission Line Alternative 2 was not selected as the preferred alternative because of the problematic construction, potential for landslide damage, and lack of system redundancy.

### **2.9.3 Reservoir B Alternative 2: Raise Reservoir Walls**

Under the Reservoir B Alternative 2, a steel wall would be constructed around Reservoir B on top of the existing earthen reservoir berm. The high-density polypropylene (HDPE) reservoir liner would be extended up the inside face of the wall. A roof structure would be installed above the reservoir using columns and beams, replacing the floating cover. This alternative would require complicated construction sequencing due to the long construction period and having to leave half of the reservoir online during construction. This reservoir construction method would continue to rely on the HDPE liner that would require periodic repair and replacement. The columns required to support the roof structure would make the maintenance of the HDPE liner more complicated than maintenance of the existing Reservoir B. Reservoir B Alternative 2 was not selected because it was determined to be less cost efficient, have a more complicated service expectancy, and be more susceptible to water quality issues than the selected action alternative.

### 3. Environmental Setting, Impacts, and Mitigation Measures

This chapter incorporates the Environmental Checklist contained in Appendix G of the CEQA Guidelines, including the CEQA Mandatory Findings of Significance. Each resource section provides a brief description of the setting, a determination of impact potential, and a discussion of the impacts. Where appropriate, mitigation measures are provided that would be used by PID to reduce potential impacts to a less-than-significant level. A discussion of cumulative impacts is included at the end of this chapter.

Addressed in this section are the following 18 environmental categories and mandatory findings of significance:

- Aesthetics
- Agricultural and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Tribal Cultural Resources
- Utilities and Service Systems
- Mandatory Findings of Significance

Each of these issue areas was fully evaluated and one of the following four impact determinations was made:

- **No Impact:** No impact to the environment would occur as a result of implementing the proposed project.
- **Less-than-Significant Impact:** Implementation of the proposed project would not result in a substantial and adverse change to the environment and no mitigation is required.
- **Less than Significant with Mitigation Incorporated:** A “significant” impact that can be reduced to a less-than-significant level with the incorporation of project-specific mitigation measures.
- **Potentially Significant Impact:** Implementation of the proposed project could result in an impact that has a “substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project” (CEQA Guidelines Section 15382).

## **3.1 Environmental Setting**

### **3.1.1 Regional Setting**

The project area lies in the central portion of Butte County, California in the Cascade Range foothills. This region is at the southern extent of the volcanic Cascades near the junction of Sierra Nevada. The topography of Butte County is quite varied and includes low elevation areas of the northern Sacramento Valley to rugged and steep terrain on the western slopes of the Cascades and Sierra Nevada. Butte County contains four incorporated cities and a total population of approximately 180,000.

The region supports an extensive system of rivers and streams. The Feather River watershed occupies a large part of eastern Butte County and streams in the northern part of the county drain into the Sacramento River, which represents a portion of the western border of the county. The region contains a diverse assemblage of vegetation communities due to the large elevational gradient. Developed agricultural lands are dominant in the Sacramento Valley and transition to grassland, woodland, and forest habitats as elevations increase in the mountainous regions. Mid- and upper-elevation regions of Butte County contain productive timberlands managed by private timber companies (e.g., Sierra Pacific Industries) and federal land managers (e.g., Lassen and Plumas national forests).

### **3.1.2 Local Setting**

The proposed project occurs in the community of Magalia and the town of Paradise in central Butte County, California. The project would be largely linear along existing roads, but also includes work at existing PID facilities including the WTP and Reservoir B. Current land ownership within the project area includes private and PID lands, and Town of Paradise ROW.

#### **Climate**

The climate is typical of the Cascade Range foothills in northern California with moderate winters and hot, dry summers. Approximately 55 inches of precipitation and 2 inches of snow fall occurs annually, most of which occurs between November 1 and March 30. Air temperatures range between an average January high of 54 degrees Fahrenheit (°F) and an average July high of 92°F. The average annual high is approximately 71°F. The average minimum temperature is approximately 50°F (Western Regional Climate Center 2018).

#### **Existing Land Uses**

The project area includes private residential lots, commercial properties, paved roads, PID lands, and undeveloped areas. Surrounding land uses consist of rural residential, mobile home, and urban residential development, commercial businesses, transportation corridors, forest, and local infrastructure (e.g., WTP and other PID facilities).

## Topography

The project area occurs on a broad ridgetop that separates the Feather River watershed to the east from the Butte Creek watershed to the west. The topography of the project area is gently sloping along road corridors and at the Reservoir B, and moderate to steeply sloping in many areas outside of the road corridors, including at the WTP. Elevation in the project area ranges from approximately 2,370 to 2,165 feet above mean sea level, with lower elevations located at the Reservoir B site and higher elevations located along the New Skyway.

## Hydrological Setting

No significant hydrologic features occur in the project area. Precipitation runoff from roads and adjacent hillsides in the project area contribute to the hydrology of the West Branch Feather River and Little Butte Creek.

## Soils

Six soil map units occur in the project area. They are described in the *Soil Survey of Butte Area, California, Parts of Butte and Plumas Counties* (Natural Resources Conservation Service 2006). These map units are summarized in Table 1.

**Table 2. Soil Map Units in the Proposed Project Area**

Map Unit Name Taxonomy	Drainage Class	Depth to Restrictive Layer	Hydric Soils
Schott-Rock outcrop, 30 to 50 percent slopes	Well drained	40 to 60 inches to lithic bedrock	No
Cerpone-Typic Haploxeralfs, magnesian-Earlal-Rock outcrop complex, 15 to 30 percent slopes	Well-drained	40 to 60 inches to lithic bedrock	No
Typic Haploxeralfs, magnesian-Earlal-Cerpone-Rock outcrop complex, 30 to 50 percent slopes	Well-drained	20 to 80 inches to lithic bedrock	No
Griffgulch-Surnuf-Spine taxadjunct , 30 to 50 percent slopes	Well-drained	More than 80 inches	No
Paradiso loam, 2 to 15 percent slopes	Well-drained	More than 80 inches	No
Paradiso loam, 15 to 30 percent slopes	Well-drained	More than 80 inches	No

## Geology

The project area is primarily underlain by Pleistocene-age volcanic flows that underlie the greater Paradise area, with small areas of metavolcanic and ultramafic substrates near the WTP (Saucedo and Wagner 1992). Artificial fill, colluvium, and alluvium may be present in each portion of the project area (Vertical Sciences 2017).

No active faults are mapped in the project area or immediate vicinity (Vertical Sciences, Inc. 2017). Although many potentially active and inactive faults have been mapped in the project area, none were mapped projecting beneath or across proposed project improvements. No landslides, incipient or otherwise, were observed during preparation of the project geotechnical study (Vertical Sciences, Inc. 2017). The potential for landslides in the project area and vicinity are low to moderate (Butte County 2012).

## Vegetation Community Types

The project area is generally located in urban habitats including roads and road shoulders, residential properties, and other previously disturbed areas. Areas of natural vegetation occur in the project area adjacent to proposed pipeline alignment and in the Reservoir B site. Vegetation communities occurring in the project area were characterized based on descriptions provided in *A Manual of California Vegetation* (Sawyer et al. 2009). Seven vegetation types occur in the project area: annual grassland, California bay forest, California black oak forest, canyon live oak forest, ponderosa pine forest, McNab cypress woodland, and urban/ruderal.

**Annual Grassland.** Annual grassland occurs along road shoulders and in other disturbed portions of the project area. This habitat is characterized by an open canopy cover and dense herbaceous layer dominated by annual grasses and forbs, including bristly dogtail grass (*Cynosurus echinatus*), ripgut brome (*Bromus diandrus*), wild oats (*Avena fatua*), and yellow star-thistle (*Centaurea solstitialis*).

**California Bay Forest.** California bay forest occurs in a small portion of the project area directly southeast of the WTP. This habitat is characterized by a moderate cover of California bay (*Umbellularia californica*) and includes upland tree species such as Oregon oak (*Quercus garryana* ssp. *semota*) and foothill pine (*Pinus sabiniana*). The understory consists of a dense cover of shrubs such as Himalayan blackberry (*Rubus armeniacus*), poison oak (*Toxicodendron diversilobum*), pink honeysuckle (*Lonicera hispidula*), and toyon (*Heteromeles arbutifolia*). Herbaceous species in this community include annual and perennial grasses such as bristly dogtail grass, California melic (*Melica californica*), and rattail sixweeks grass (*Festuca myuros*).

**California Black Oak Forest.** California black oak forest occurs in low abundance in the project area on the slopes adjacent to the New Skyway. This habitat is strongly dominated by California black oak (*Quercus kelloggii*), with other trees such as canyon live oak (*Quercus chrysolepis*) and ponderosa pine (*Pinus ponderosa*) occurring in low abundance. This habitat has a relatively dense canopy cover and a sparse understory dominated by shrubs such as poison oak and toyon, and a mix of native and non-native grasses and forbs.

**Canyon Live Oak Forest.** Canyon live oak forest also occurs in relatively low abundance in the project area along the New Skyway. This habitat is dominated by dense stands of canyon live oak, but is otherwise similar in species composition to California black oak forest.

**McNab Cypress Woodland.** McNab cypress woodland occurs in areas of serpentine soils to the east of the WTP and along Pine Needle Drive. This habitat is dominated by McNab cypress (*Hesperocyparis macnabiana*) with scattered foothill pine. The understory is dominated by shrubs such as buckbrush (*Ceanothus cuneatus*), and poison oak with a wide variety of annual and perennial native species such as Ahart's buckwheat (*Eriogonum umbellatum* var. *ahartii*), azure penstemon

(*Penstemon azureus*), big squirrel tail (*Elymus multisetus*), bush poppy (*Dendromecon rigida*), and common woolly sunflower (*Eriophyllum lanatum*).

**Ponderosa Pine Forest.** Ponderosa pine forest is present along portions of the new pipeline alignment and also at the Reservoir B site. This habitat is dominated by ponderosa pine with a relatively low abundance of other trees such as Douglas-fir (*Pseudotsuga menziesii*) and incense-cedar (*Calocedrus decurrens*). The understory is often relatively open with scattered shrubs such as poison oak and Scotch broom (*Cytisus scoparius*) with non-native annual grasses and ruderal herbaceous species.

**Urban/Ruderal.** Urban/ruderal habitat is the most common land cover type in the project area and is represented by residential, commercial, and PID properties, and paved road corridors. This habitat is characterized by ornamental trees and shrubs in actively maintained landscapes and sparse cover of non-native annual plant species in continuously disturbed areas (e.g., road shoulders, graveled areas).

### 3.2 Environmental Impacts and Mitigation Measures

I. <b>AESTHETICS</b> — Would the project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### Discussion of Impacts

- a, b) **No Impact.** The proposed project would not affect a scenic vista or scenic resources. Neither is present in the project area.
- c) **Less-than-Significant Impact.** Construction activities would temporarily degrade the quality of the visual setting in the project area. The pipeline would be installed underground and would not be visible after construction. Disturbed areas along the alignment would be restored to pre-disturbance conditions to retain the visual character of the area and offset temporary visual changes. The Zone A Pump Station would be constructed in areas of previous disturbance and would be aesthetically similar to other existing infrastructure at the WTP.

The new water tanks would be approximately 50 feet tall, but their visibility from nearby roads and residences would be masked by topography and vegetation. In addition, the exterior walls of the tanks would be painted a forest green color to blend with the surrounding vegetation. It is anticipated that the tanks domes would not be painted. Although trees would be removed to accommodate the new tanks at the Reservoir B site, the areas around the tank would be landscaped with vegetation to help mask the tank from nearby residences. Travelers along Skyway may have brief views of the top of the new tank as they pass by the project area, but the tanks would mostly blend in with the surrounding landscape and would not substantially alter views from the road.

- d) **Less-than-Significant Impact.** Nighttime lighting associated with the proposed tanks would be consistent with existing conditions and may be visible from some nearby residences and roads, and will only be activated if there is unexpected movement on the site or if PID staff are working onsite. However, surrounding topography, vegetation, and the distance between the

tank site and viewers would minimize the potential for light and glare to affect residents and travelers along the roads. Lighting would also comply with the Town of Paradise Municipal Code and would not create light pollution. The new tanks would be made of steel with a special coating that prevents glare. No lighting would be associated with the pipeline. The proposed project would have a less-than-significant impact on light and glare in the area.

### **Mitigation Measures**

No project-specific mitigation is required under this subject.

**II. AGRICULTURAL AND FOREST**

**RESOURCES** — In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. **Would the project:**

	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined by Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use, or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Discussion of Impacts

- a) **No Impact.** No parcels in the proposed project area are mapped as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance by the Farmland Mapping and Monitoring Program (California Department of Conservation 2018a). Soils within the project area are not prime agricultural soils. The project would have no impact on Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.
- b) **No Impact.** No parcels in the proposed project area are zoned for agricultural use (Butte County Planning Department 2018; Town of Paradise Planning Department 2018). No parcels in the proposed project area are currently under a Williamson Act contract (California Department of Conservation 2016). The project would not conflict with existing zoning and would have no impact on agriculture.
- c, d, e) **No Impact.** The proposed project area does not contain any farmland, forest land (as defined by Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)). Although some tree removal would occur at Reservoir B, it would not have an impact on any designated timberland.

## Mitigation Measures

No project-specific mitigation is required under this subject.

**III. AIR QUALITY** — Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Discussion of Impacts

- a) **Less-than-Significant Impact.** The proposed project would result in minimal and temporary air emissions for the criteria pollutants regulated by the Butte County Air Quality Management District (BCAQMD) (reactive organic gases, nitrogen oxides, particulate matter), as discussed under item b) below. It would be consistent with and would not obstruct implementation of any BCAQMD management plans, or other applicable air quality plans and regulations for the region such as the Northern Sacramento Valley Planning Area 2015 Triennial Air Quality Attainment Plan. The project would not induce unplanned growth in PID’s service area or conflict with assumptions made by BCAQMD when preparing its air quality management plans.
- b) **Less-than-Significant Impact.** Butte County is a non-attainment area for the state and federal ozone standards, the state and federal particulate matter (PM2.5) standards, and the state particulate matter (PM10) standards (California Air Resources Board 2017). Butte County is in attainment for the state and federal standards for sulfur dioxide, nitrogen dioxide, lead, and carbon monoxide in addition to the state standards for sulfates (California Air Resources Board 2016). Construction activities would result in short-term increases in emissions from the use of heavy equipment that generates dust, exhaust, and tire-wear emissions; soil disturbance; materials used in construction; and construction traffic. These activities would create short-term increases in fugitive dust (PM10 and PM2.5) and would generate both reactive organic compounds (ROG) and nitrogen oxides (NOx) emissions from vehicle and equipment operation. Fugitive dust emissions could affect local air quality near the project area, but would

not be expected to contribute substantially to regional air quality. Implementation of BCAQMD best management practices for dust and emissions reduction, as described in the project description would help minimize dust and emissions generated during construction activities, ensuring impacts are less than significant. Long-term emissions from pump and tank operations and periodic maintenance trips would be minimal based on the infrequent nature of these emissions.

- c) ***Less-than-Significant Impact.*** As discussed under item b) above, the proposed project would cause short-term air quality impacts as a result of construction activities; however, it would not result in substantial long-term or cumulatively considerable increases in air quality pollutant emissions for which Butte County is currently in nonattainment (ozone and particulate matter). *Conservation Measure #1 – Air Pollution and Dust Control* (described in Section 2.6.2) will be used to maintain air quality and to ensure that any project construction-related impacts would be less than significant.
- d) ***Less-than-Significant Impact.*** Sensitive receptors such as residences occur immediately adjacent to parts of the proposed pipeline alignment and Reservoir B site. However, the effect to air quality experienced by these sensitive receptors would be similar to the effect generated by motor vehicle traffic, which is common throughout the area, and existing conditions associated with operation of the existing WTP. In addition, *Conservation Measure #1 – Air Pollution and Dust Control* (described in Section 2.6.2) would further reduce the potential for impacts on air quality in the project area and vicinity. Impacts on air quality experienced by sensitive receptors as a result of project construction and operation would be less than significant.
- e) ***No Impact.*** The proposed project would not create any new or increased objectionable odors.

### **Mitigation Measures**

No project-specific mitigation is required under this subject.

IV. BIOLOGICAL RESOURCES — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Discussion of Impacts

- a) ***Less than Significant with Mitigation Incorporated.*** A Biological Resources Assessment (BRA) report (North State Resources, now Stantec 2018a) that analyzes the project impacts on biological resources was prepared for the proposed project. The BRA includes a current U.S. Fish and Wildlife Service species list for the project area.

Although no federal or state listed as threatened or endangered plant species, or candidates for listing, were observed in the project area during the botanical survey, habitat for the following special-status plant species occurs within the project area:

- Jepson's onion (*Allium jepsonii*), California Rare Plant Rank (CRPR) 1B.2
- dissected-leaved toothwort (*Cardamine pachystigma* var. *dissectifolia*), CRPR 1B.2
- chaparral sedge (*Carex xerophylla*), CRPR 1B.2
- white-stemmed clarkia (*Clarkia gracilis* ssp. *albicaulis*), CRPR 1B.2
- Mildred's clarkia (*Clarkia mildrediae*), CRPR 1B.3
- Ahart's buckwheat (*Eriogonum umbellatum* var. *ahartii*), CRPR 1B.2
- Caribou coffeeberry (*Frangula purshiana* ssp. *ultramafica*), CRPR 1B.2
- Lewis Rose's ragwort (*Frangula purshiana* ssp. *ultramafica*), CRPR 1B.2
- Hall's rupertia (*Rupertia hallii*), CRPR 1B.2

No federal or state listed as threatened or endangered wildlife species, or candidates for listing were determined to have potential habitat in the project area. Pallid bat (*Antrozous pallidus*), a State Species of Special Concern is the only special-status wildlife species determined to have suitable habitat in the project area. Most breeding birds that are likely to be found in the project area are protected under state and federal regulations. Breeding birds may be found in vegetated habitats throughout the project area.

**Special-status Plants.** Nine special-status plant species were determined to have a potential to occur in the project area. A botanical survey of suitable habitats in the project area was conducted by North State Resources (NSR) on June 30 and October 20, 2017, and coincided with the blooming period of all potentially occurring special-status plants except dissected-leaved toothwort, which generally blooms February–May. One occurrence of Ahart's buckwheat was in the project area in serpentine derived soils adjacent to Pine Needle Drive. No other special-status plant species were observed during the botanical survey. The proposed project activities will be confined to paved surfaces and other disturbed areas and are not expected to encroach into natural habitats. As such, the project would have no effect on the Ahart's buckwheat occurrence or potential habitat for special-status plant species in the project area. Given that the project design is expected to avoid impacts on special-status plants, no additional avoidance or minimization measures are recommended.

**Pallid bat.** Potential roosting habitat for pallid bat occurs in buildings, snags, and tree hollows in the project area. The project could adversely affect pallid bat if individuals are present in the project area during construction. Potential direct effects include harassment, injury, mortality, and loss of roost sites if trees must be removed. The project may also result in a small, temporary reduction of foraging habitat for pallid bat. However, due to the limited nature of the work and regional occurrence of similar habitats, temporary loss of foraging habitat is not expected to result in an adverse effect on this species. *Mitigation Measure #1 – Bats* will be used to reduce any potential impacts on pallid bats to a less-than-significant level.

**Migratory Birds and Raptors.** Potential nesting habitat for migratory birds and raptors occurs in the trees and other natural vegetation in the project area. Adverse effects on migratory birds and raptors could occur if they are actively nesting in the project area during construction. Construction disturbance during the nesting season could result in the loss of fertile eggs or

nestlings, or otherwise lead to nest abandonment. Loss of fertile eggs or any activities resulting in nest abandonment, may adversely affect nesting birds. The project may also result in a small temporary reduction of nesting or foraging habitat for birds, particularly around Reservoir B where trees would be removed to allow for construction. However, due to the limited nature of the work and regional occurrence of similar habitats, temporary habitat loss is not expected to result in an adverse effect on migratory birds and raptors. *Mitigation Measure #2 – Migratory Birds and Raptors* will be used to reduce any potential impacts on pallid bats to a less-than-significant level.

- b) **No Impact.** The areas of California bay forest and McNab cypress woodland in the project area are considered rare natural communities by CDFW. These natural communities occur in low abundance near the WTP and along Pine Needle Drive. The proposed project activities would be confined to paved surfaces and other disturbed areas and are not expected to encroach into natural habitats. As such, the project is not anticipated to have a negative impact on the California bay forest or McNab cypress woodland in the project area. Given that the project design is expected to have no effect on rare natural communities, no additional avoidance or minimization measures are recommended.
- c) **No Impact.** A wetland delineation report (North State Resources, now Stantec 2018b) was prepared to document and describe potential waters of the United States, including wetlands, in the project area. A total of 0.003 acre (53 linear feet) of potential waters of the United States were mapped within the project area as ephemeral stream. Several segments of non-jurisdictional roadside ditches (0.039 acre, 855 linear feet) in the project area along Pine Needle Drive, Skyway, and New Skyway were mapped as excluded feature. Six wastewater treatment ponds (1.576 acres), considered excluded features, were also mapped within the project area.

No impacts on potential waters of the United States are anticipated as a result of the proposed project. Proposed project activities would occur in previously disturbed or paved areas and no dredge or fill materials would be placed into potential waters of the United States. The existing culverts in the project area would be avoided (e.g., trenched under).

- d) **Less-than-Significant Impact.** The proposed project would not impede movement of fish or wildlife, nor would it fragment migration corridors. The project would be constructed primarily within existing road and utilities alignments that are not likely used as migration corridors by wildlife and would not involve work in potential waters of the United States. Although project construction could temporarily discourage more localized wildlife from passing in close proximity to active construction sites, this impact would be temporary and less than significant. Alternative passage areas occur throughout the surrounding area. The project would have a less-than-significant impact on wildlife migration and or travel corridors; no mitigation is recommended. The project site does not support any native wildlife nursery sites (e.g., fawning grounds, waterfowl breeding sites, rookeries). Thus, the project would have no impact on wildlife nursery sites and no mitigation is recommended.
- e) **No Impact.** The project would not conflict with any local biological resource policies or ordinances. The project would have no impact on any local policies or ordinances.

- f) **No Impact.** There are no adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved habitat conservation plans that cover the project area. The project would not conflict with any local, regional, or state conservation plans. The project would have no impact on any conservation plans.

## Mitigation Measures

### Mitigation Measure #1—Bats

The following avoidance and minimization measures are recommended to avoid the potential for project-related impacts on pallid bats:

- A pre-construction survey for roosting bats should be conducted prior to the demolition of any buildings or removal of trees or snags with a diameter at breast height of 12 inches or greater. The survey should be conducted by a qualified biologist and should occur no more than one week prior to demolition or tree removal work. If a maternity or hibernacula roost is found, the biologist in coordination with CDFW, will determine the extent of a construction free buffer zone around the roost. The buffer will remain in place until the bats are no longer dependent on the roost and have vacated the roost site.

<b>Timing/Implementation:</b>	Prior to and during construction
<b>Enforcement:</b>	CDFW, PID
<b>Monitoring:</b>	PID and its contractor

### Mitigation Measure #2—Migratory Birds and Raptors

The following measures shall be implemented to avoid or minimize the potential for adverse impacts on nesting migratory birds and raptors:

- Project activities should be scheduled to avoid the nesting season to the extent feasible. The typical nesting seasons in northern California extends from February 15 through September 15. Thus, if project activities can be scheduled to occur outside of the nesting season, no impacts would be expected. If the nesting season cannot be completely avoided, the following measures shall be implemented.
- A qualified biologist shall conduct a minimum of one pre-construction survey for nesting migratory birds and raptors within the project area and a 250-foot buffer around the project area. The survey should be conducted no more than 14 days prior to the initiation of activities in any given area. The pre-construction survey should be used to ensure that no active bird nests occurring within or immediately adjacent to the project would be disturbed during project implementation. If an active nest is found, a qualified biologist should determine the extent of a construction-free buffer zone to be established around the nest. If it is anticipated that project activities will encroach on the buffer, a biological monitor will be present to ensure that the nesting birds are not disturbed by the activities.
- If vegetation is to be removed by the project and all necessary approvals have been obtained, potential nesting substrates (e.g., trees and shrubs) that will be removed by the project should

be removed before the onset of the nesting season, if feasible. This will help preclude nesting and substantially decrease the likelihood of direct impacts.

<b>Timing/Implementation:</b>	Prior to and during construction
<b>Enforcement:</b>	CDFW, PID
<b>Monitoring:</b>	PID and its contractor

V. CULTURAL RESOURCES — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Cause a substantial adverse change in the significance of a Tribal resource pursuant to AB 52?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Discussion of Impacts**

- a, b, and c) **No Impact.** The Cultural Resources Inventory and Evaluation Report (North State Resources, now Stantec 2017) determined that the proposed project would have no impact on historic, archaeological, or paleontological properties in the project area and vicinity. This confidential report is available only to qualified reviewers upon request. Although recorded historic and cultural sites occur in the Paradise and Magalia areas, the two recorded historic sites within the project area would not be impacted by the project. In accordance with Section 106 of the NHPA, there would be no adverse effect on cultural resources as a result of project implementation. The project would have no impact.
- d) **Less-than-Significant Impact.** Although no impacts on known cultural resources are anticipated, currently undetected cultural resources or evidence of human remains could be exposed during project excavation activities. *Mitigation Measure #3 – Cultural Resources* and *Mitigation Measure #4 - Human Remains* will be adhered to in the case of an unanticipated discovery of cultural resources or human remains. The project would have a less-than-significant impact.
- e) **Less-than-Significant Impact.** Assembly Bill 52 (AB 52), passed in 2014, amends sections of CEQA relating to Native Americans. AB 52 establishes a new category of cultural resources, named Tribal Cultural Resources (TCRs), and states that a project that may cause a substantial adverse change in the significance of a TCR may have a significant effect on the environment. Defined in Section 21074 (a, b, and c) of the Public Resources Code (PRC), TCRs are:

- A.1) Sites, features, places, cultural landscapes, sacred places and objects with cultural value to a California Native American tribe that are either of the following:
  - a. Included or determined to be eligible for inclusion in the CRHR; or
  - b. Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
- (A.2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.
- (B) A cultural landscape that meets the criteria of subdivision (a) is a TCR to the extent that the landscape is geographically defined in terms of the size and scope of the landscape; and
- (C) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a “nonunique archaeological resource” as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms to the criteria of subdivision (a).

Mitigation measures for TCRs must be developed in consultation with the affected California Native American tribe pursuant to newly chaptered Section 21080.3.2, or according to Section 21084.3. Section 21084.3 identifies mitigation measures that include avoidance and preservation of TCRs and treating TCRs with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource.

On September 15, 2017, in accordance with the consultation provisions of Section 106 of the National Historic Preservation Act (NHPA) and Section 21080.3 of CEQA, NSR requested a list of local Native American groups and individuals who might have an interest in or concerns with the project from the Native American Heritage Commission (NAHC). Concurrently, NSR requested that NAHC conduct a review of its Sacred Lands database for culturally significant properties. NSR used the contact list provided by NAHC to solicit input from Native American representative and organizations. No specific information about traditional properties or locations of traditional cultural use in the APE was received. In addition, NAHC responded that no records of sacred lands were found as a result of its database search. Tribal outreach and archival research did not result in the identification any historical or cultural resources, historical or cultural properties, or locations of Native American traditional use in the project area. It was determined that the proposed project would not impact any known traditional cultural properties. However, if such resources are inadvertently discovered during project construction, *Mitigation Measure #3 – Cultural Resources* and *Mitigation Measure #4 - Human Remains* will be used to reduce any potential impacts on cultural resources to a less-than-significant level.

## Mitigation Measures

### Mitigation Measure #3—Cultural Resources

PID shall include provisions in the construction bid documents to minimize project impacts on cultural resources. The following measure shall be implemented to avoid construction-related impacts on cultural resources:

- If any unanticipated archaeological finds are made in the APE that are considered to be significant, a number of methods may be used to mitigate potential adverse effects. Avoidance through project redesign or some method of preservation is the preferred method. If redesign or preservation is not an option, it is recommended that any potential adverse effects on unanticipated finds be mitigated through data recovery, although actual mitigation would be determined through consultation with the State Historic Preservation Officer (SHPO) under the NHPA. It is also recommended that local Native American groups be consulted, and their input solicited and considered in all aspects of such testing and mitigation.

<b>Timing/Implementation:</b>	During construction
<b>Enforcement:</b>	NAHC, PID
<b>Monitoring:</b>	PID and its contractor

### Mitigation Measure #4—Human Remains

PID shall include provisions in the construction bid documents to minimize project impacts on cultural resources. The following measure shall be implemented to avoid construction-related impacts on inadvertently discovered human remains:

- If human remains are found, the California Health and Safety Code requires that excavation be halted in the immediate area and that the Butte County coroner be notified to determine the nature of the remains. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or State lands (California Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the NAHC by telephone within 24 hours of making that determination (California Health and Safety Code Section 7050.5[c]).

<b>Timing/Implementation:</b>	During construction
<b>Enforcement:</b>	NAHC, PID
<b>Monitoring:</b>	PID and its contractor

VI. GEOLOGY AND SOILS — Would the project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on strata or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Discussion of Impacts

- a) i, ii, iii, iv) **No Impact.** The project area is not located within an Alquist-Priolo Earthquake Fault Zone (California Department of Conservation 2016b) and there are no active faults mapped in the project area (U.S. Geological Survey 2018). Several potentially active and inactive faults have been mapped near the project (California Geologic Society 2010), but since no faults pass through the project site, construction of the proposed project would not result in the rupture of any known fault. Due to the lack of active faults near the project site, the project would not expose people or structures to seismic ground shaking or seismic-related ground failure. Topography in the project area is relatively flat to moderately sloping, and moderately to densely forested. No landslides, incipient or otherwise, are present in the project area (Vertical Sciences 2017). The project area and vicinity have a low to moderate potential for slope instability (Butte County 2012). The project would have no impact.

- b) ***Less-than-Significant Impact.*** Construction activities would result in soil disturbance on approximately 4.83 acres and would redistribute topsoil in portions of the WTP and Reservoir B site to accommodate new project facilities. All excavated material is expected to be used to restore disturbed areas in the project area, so no topsoil would be lost.

Overall soil loss would be minimal with implementation of standard construction practices for dust control and stormwater pollution prevention. Erosion and sediment control measures included in *Conservation Measure #3 – Water Pollution Prevention* (described in Section 2.6.2) and a stormwater pollution prevention plan (SWPPP) will be used during construction to minimize the potential for erosion. Long-term erosion would be minimized around the tanks by drainage control devices and use of the existing stormwater system. The potential for erosion along the pipeline would be the same as current conditions once the pipeline is installed and the disturbed areas are repaved. Therefore, the project would result in less-than-significant impacts relating to soil erosion and loss of topsoil.

- c) ***No Impact.*** As discussed under items a-ii, iii, and iv) above, the proposed project would not create a substantial risk as a result of geologic hazards in the project area.
- d) ***Less-than-Significant Impact.*** Some of the soils in the project area are considered expansive (Natural Resources Conservation Service 2017) and could pose a constraint to construction of the proposed project. Design considerations for expansive soils, such as excluding highly plastic clays from engineered fill materials or lime- or cement-treatment of soils to reduce their expansive potential, would minimize the potential for shrink-swell conditions to affect project facilities.
- e) ***No Impact.*** The proposed project does not involve wastewater facilities.

### **Mitigation Measures**

No project-specific mitigation is required under this subject.

VII. GREENHOUSE GAS EMISSIONS — Would the Project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Discussion of Impacts

- a) ***Less-than-Significant Impact.*** Greenhouse gases (GHGs) are recognized by wide consensus among the scientific community to contribute to global warming/climate change and associated environmental impacts because of their ability to trap heat in the atmosphere and affect climate. The major GHGs that are released from human activity include carbon dioxide (CO<sub>2</sub>), methane, and nitrous oxide (Governor’s Office of Planning and Research 2008). The primary sources of GHGs are vehicles (including planes and trains), energy plants, and industrial and agricultural activities (such as dairies and hog farms).

Emissions of GHGs from the proposed project would be generated offsite from the production of materials used for construction materials production (e.g., pipe) as well as onsite construction-related equipment emissions. The project would not increase the generation of emissions after construction is complete because services provided by the proposed project would be similar to current conditions. Emissions of GHGs resulting from off-road heavy-duty diesel engines during construction activities would be short-term and minor. Gas or diesel generators permitted by BCAQMD would be used at lift stations in the event of electrical failure and emergency; however, these alternative sources of power will be maintained and emissions outputs will comply with BCAQMD internal combustion engine permit requirements. Implementation of *Conservation Measure #1— Air Pollution and Dust Control* (described in Section 2.6.2) would reduce GHG emissions. This measure, combined with *Conservation Measure #4 – Greenhouse Gas Emissions* (described in Section 2.6.2), was incorporated into the project design and would be used during construction to ensure that project related impacts would remain less than significant.

- (b) ***No Impact.*** The BCAQMD has not adopted a plan, policy, or regulation for reducing GHG emissions. However, the State of California has adopted several regulations related to GHG emissions reduction. These include efforts to reduce tailpipe emissions and diesel exhaust produced by fuel-combustion engines. Project operations would adhere to statewide efforts aimed at minimizing GHG emissions and would not conflict with any applicable plans,

policies, or regulations adopted for the purpose of reducing the emission of GHGs. The project would have no impact.

### **Mitigation Measures**

No project-specific mitigation is required under this subject.

<b>VIII. HAZARDS AND HAZARDOUS MATERIALS</b> — Would the project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use compatibility plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Discussion of Impacts

- a, b) ***Less-than-Significant Impact.*** The use of diesel or gasoline powered construction equipment (trucks, excavators, etc.) and lubricants such as oil and hydraulic fluids could pose a

hazard to the public and the environments; however, construction-related hazards would be temporary and use of these materials for project operation would be consistent with existing conditions. All equipment, regardless of its use as temporary or permanent, would be routinely maintained and inspected to avoid leaks. Best management practices described in *Conservation Measure #3 – Water Pollution Prevention* (described in Section 2.6.2) will be used to reduce potential impacts associated with accidental spills of pollutants (i.e., fuels, oil, grease, etc.) on the project area environment.

Ultramafic rocks (serpentine) have been mapped and were observed in the project area at the WTP and along Pine Needle Drive. Ultramafic rock, such as serpentinite, can contain naturally occurring asbestos (NOA) that can cause lung cancer, mesothelioma, asbestosis, and other health-related issues if it becomes airborne. If ultramafic rocks or soils derived from ultramafic rocks are encountered during the project, then testing for the presence of NOA should be performed using randomized multi-increment sampling methods. If NOA concentrations exceed that threshold, then mitigation measures are typically required to reduce the potential of inducing NOA to become airborne. This includes consistent wetting of excavated soils, wetting excavation surfaces, use of surfactants or binding agents on soil and rock surfaces, and entombing NOA-bearing soils and rock materials as artificial fills within excavations (such as a pipeline trench). The measures described in *Conservation Measure #1—Air Pollution and Dust Control* and *Conservation Measure #2—Naturally Occurring Asbestos* will ensure that potential hazards from NOA related impacts would remain less than significant.

- c) **No Impact.** A segment of the proposed project pipeline alignment is within 0.25 mile of Ridgeview High School in Magalia. However, because the proposed project would be consistent with existing conditions, there would be no impact.
- d) **No Impact.** A search of the State Department of Toxic Substances Control (DTSC) EnviroStor database (California Department of Toxic Substances Control 2018) and the State Regional Water Quality Control Board's GeoTracker database (State Water Resources Control Board 2018) found no record of any contaminated sites in the project area. The nearest recorded hazardous site to the project area is a leaking underground storage tank site at 8710 Skyway Road in Paradise (approximately 500 feet west of the Reservoir B tank site). However, the site was cleaned-up and the case has been closed (State Water Resources Control Board 2018). The project area is not included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. The project would have no impact.
- e, f) **No Impact.** The privately-owned Paradise Skypark Airport is approximately 4.8 miles south of the proposed project area. No portion of the proposed project area is within the Paradise Skypark Airport Influence Area as defined in the Butte County Airport Land Use Compatibility Plan (Butte County Airport Land Use Commission 2017). The proposed project would have no impact on the airport.
- g) **Less-than-Significant Impact.** Pipeline installation activities would take place in ROWs along area roads. Prior to construction, a traffic control plan will be developed to ensure for the continuous safe routing of vehicular and pedestrian traffic for the duration of construction. The traffic control plan will apply continuously and not be limited to working hours.

Where road crossings and work within Pine Needle Drive and the Skyway would be necessary, controlled traffic flow would be maintained during the temporary construction period. Where work within New Skyway (between Pentz Road and Coutolenc Road) would be necessary, traffic would be diverted onto “Old” Skyway. Construction on New Skyway would begin in mid-June (after local schools are out for the summer) and work hours are proposed to be from 9:00 p.m. to 5:00 a.m., Sunday through Thursday. Although temporary, short duration disruptions to normal traffic operations could occur during construction, the impact would be less than significant. The project is not anticipated to impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan because vehicular access would be maintained through the project area during construction. The impact would be less than significant.

- h) ***Less-than-Significant Impact.*** Although the project area is in a wildland-urban interface moderate to high fire hazard zone, the proposed infrastructure would store water and would not create a fire hazard. The project area contains several different vegetation types, ranging from annual grasslands to densely vegetated, coniferous forest. The use of construction equipment in and around vegetated areas increases the potential for wildfire ignition. *Conservation Measure 5 - Wildfire Potential* (described in Section 2.6.2) will be used to reduce the risk of wildfire associated with project construction to a less-than-significant level. Operation of the project would have no impact on wildfire potential.

## **Mitigation Measures**

No project-specific mitigation is required under this subject.

3. Environmental Setting, Impacts, and Mitigation Measures

<b>IX. HYDROLOGY AND WATER QUALITY —</b> Would the project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there should be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation of seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Discussion of Impacts

- a) ***Less-than-Significant Impact.*** Construction and operation of the proposed water system improvements would not violate any water quality standards or waste discharge requirements set forth by the CVRWQCB in its water quality control plan for the Central Valley region. Water pollution control measures were incorporated into the project design to avoid and/or minimize impacts on water quality. In addition, project activities will comply with the requirements set forth in a 401 Water Quality Certification, which is required by the CVRWQCB prior to project implementation. These measures, in conjunction with *Conservation Measure #3 – Water Pollution Prevention* (described in Section 2.6.2) will reduce this impact to a less than significant level.
- b) ***No Impact.*** Construction and operation of the project would not result in any net changes in the current demand placed on the local aquifer or local groundwater table nor would construction and operation deplete groundwater supplies or interfere substantially with groundwater recharge. The project would have no impact.
- c, d) ***Less-than-Significant Impact.*** The proposed project would involve grading activities that would modify contours at the proposed Reservoir B tank site. The overall drainage patterns would remain similar to current conditions with surface runoff traveling east toward the existing connection to the stormwater system. The new Zone A pipeline would be below ground, and trenches used for installation of the pipeline would be backfilled and re-contoured to the original grade. Runoff patterns may increase slightly as a result of modifications (e.g., vegetation removal) to the Reservoir B site, but runoff would primarily infiltrate into the soils in the surrounding area or be conveyed to the existing stormwater drain on the east side of the Reservoir B site. The project would not create a substantial increase in stormwater runoff. The impact would be less than significant.
- e) ***No Impact.*** No substantial areas of new additional impervious surface areas would be created as a result of the project. The proposed Reservoir B tanks would cover a similar area as the existing Reservoir B facilities. The new pipeline alignment and the Zone A pump station would be constructed in previously disturbed areas such as road ROWs. The project would be consistent with existing conditions and would have no impact on runoff entering existing stormwater drainage systems.
- f) ***Less-than-Significant Impact.*** Construction and operation of the proposed project would involve the use of hazardous materials (i.e., petroleum-based fuels and lubricants) in uplands, away from any waterways. However, the project would not involve any activities that would substantially degrade water quality. The proposed project was designed to minimize environmental impacts to the extent practicable and includes measures to avoid adverse impacts on water quality. *Conservation Measure #3 – Water Pollution Prevention* (described in Section 2.6.2) will reduce this impact to a less than significant level.
- g, h, i, j) ***No Impact.*** The proposed project does not involve housing and would not expose people to flood hazards. The project area is not in an area with potential for a seiche, tsunami, or mudflow.

## Mitigation Measures

No project-specific mitigation is required under this subject.

X. LAND USE AND PLANNING — Would the project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural communities' conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion of Impacts**

- a) **No Impact.** The project would not divide an established community. Construction would be temporary and a means for ingress/egress will be maintained to all properties through the duration of the project. The project would have no impact.
- b) **No Impact.** The project is consistent with applicable land use plans, policies, and regulations. The project would not conflict with any applicable conservation plans. The project would not involve a change in existing land use and would not conflict with any habitat conservation plans or natural communities' conservation plans. All necessary land use authorizations (i.e., landowner agreements), if required, will be in place prior to the onset of construction. The project would have no impact on land use.
- c) **No Impact.** The proposed project area is not included in any applicable habitat conservation plan or natural communities' conservation plan. The project would have no impact.

**Mitigation Measures**

No project-specific mitigation is required under this subject.

<b>XI. MINERAL RESOURCES</b> — Would the project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Result in the loss of availability of a known mineral resource classified MRZ-2 by the State Geologist that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Discussion of Impacts

- a) **No Impact.** The project area has not been mapped by the State Division of Mines and Geology (California Department of Conservation 2001). The project would have no impact on any known mineral resource zones.
- b) **No Impact.** No locally important mineral resource recovery sites are located within the project area. The project would have no impact.

### Mitigation Measures

No project-specific mitigation is required under this subject.

XII. NOISE — Would the project result in:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use compatibility plan or, where such a plan has not been adopted, within two miles of a public airport of public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion of Impacts**

- a) ***Less-than-Significant Impact.*** Construction activities would temporarily increase noise levels in the vicinity of the project area. Actual noise levels would vary throughout the period of construction, depending on the type of construction equipment involved, activities being implemented, and distance between the source of the noise and receptors. Residences are located adjacent to the Reservoir B site and near the proposed pipeline alignment on Pine Needle Drive, New Skyway, and Skyway. Construction noise would temporarily expose residents to increased noise levels, but the steep topography along New Skyway and relatively dense vegetation near most of the project area would buffer noise levels in the project area.

Construction-related noise would be temporary and occur only during daylight hours (typically 7:00 a.m. to 7:00 p.m., Monday through Saturday) at the Reservoir B tank site. Construction of the proposed pipeline alignment within New Skyway would also be temporary and would be completed during nighttime hours (9:00 p.m. to 5:00 a.m. Sunday through Thursday) to minimize potential impacts on local traffic. Construction-related noise would be limited to levels lower than the maximum allowable noise exposure as defined in the Butte County General Plan Noise Element (Butte County 2012) as shown in Table 3.

**Table 3. Maximum Allowable Noise Exposure to Non-Transportation Sources (Butte County 2012)**

Noise Level Description	Daytime 7 a.m.—7 p.m.		Evening 7 p.m.—10 p.m.		Night 10 p.m.—7 a.m.	
	Zoning Designation					
	Urban	Non-Urban	Urban	Non-Urban	Urban	Non-Urban
Hourly Equivalent Sound Level, dB	55	50	50	45	45	40
Maximum Level, dB	70	60	60	55	55	50

Notes:

1. "Non-Urban designations" are Agriculture, Timber Mountain, Resource Conservation, Foothill Residential and Rural Residential. All other designations are considered "urban designations" for the purposes of regulating noise exposure.
2. Each of the noise levels specified above shall be lowered by 5 dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g. caretaker dwellings).
3. The County can impose noise level standards which are up to 5 dB less than those specified above based upon determination of existing low ambient noise levels in the vicinity of the project site.
4. In urban areas, the exterior noise level standard shall be applied to the property line of the receiving property. In rural areas, the exterior noise level standard shall be applied at a point 100 feet away from the residence. The above standards shall be measured only on property containing a noise sensitive land use. This measurement standard may be amended to provide for measurement at the boundary of a recorded noise easement between all affected property owners and approved by the County.

Noise generated by construction and operation of the project from sources such as heavy equipment, stationary pumps, and occasional truck traffic are common to the existing daily operations of existing PID facilities and ambient noise in the Paradise and Magalia areas. New Skyway, which passes through the project area, and other area roads are permanent contributors to local ambient noise levels. Electrical equipment associated with proposed water pumps would be housed inside of buildings. Noise generated by project construction and operation would have a less-than-significant impact on the community.

- b) ***Less-than-Significant Impact.*** Construction-related groundborne vibration resulting from the movement of heavy equipment within the construction area would be temporary and localized. There is no potential for persons outside of the immediate construction area to be affected by groundborne vibration. Much of the proposed project alignment is within existing road ROW; therefore, operation of heavy equipment used in construction would be consistent with heavy trucks and other vehicles that pass through the area daily. Construction would not involve the use of explosives or pile driving activities. Groundborne vibrations associated with operation of the proposed water distribution improvements would be localized and consistent with existing conditions. Groundborne vibrations or noise levels generated by project construction and operation would have a less-than-significant impact on individuals.
- c, d) ***Less- than-Significant Impact.*** Construction and operation of the project would not result in a permanent (on-going) increase in ambient noise above those associated with existing PID operations. Construction-related noise would be less than significant and temporary. Existing PID operations are a permanent contributor to the project vicinity’s ambient noise levels.

Construction and project operation would have a less-than-significant impact on local ambient noise levels.

- e, f) **No Impact.** The project is not located in the vicinity of a private airport or landing strip and therefore would have no impact.

### **Mitigation Measures**

No project-specific mitigation is required under this subject.

<b>XIII. POPULATION AND HOUSING</b> — Would the project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Discussion of Impacts

The proposed project will comply with Environmental Justice, Executive Order No. 12898, and will have no adverse impacts on low-income, minority, or any racial, ethnic, or socioeconomic group.

- a) **No Impact.** The existing water distribution system that currently serves the PID service area has several deficiencies that would be remedied under this project. These improvements would increase system integrity and reliability, but are not intended to induce growth in the Paradise area. The project would have no impact on population growth.
- b) **No Impact.** Existing housing within the communities of Paradise and Magalia would not be displaced by the project and no replacement housing would be required. The project would have no impact on the numbers of existing housing.
- c) **No Impact.** No people would be displaced as a result of the proposed project and no replacement housing would be required. The project would have no impact.

### Mitigation Measures

No project-specific mitigation is required under this subject.

XIV. PUBLIC SERVICES — Would the project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Discussion of Impact**

a) ***Less-than-Significant Impact.*** The proposed project would have a less-than-significant impact or no impact on public resources, including fire protection, police protection, schools, parks, and other public facilities. Proposed improvements to the community’s water distribution system would ensure that PID would be able to meet the daily demand of its users. Much of the proposed pipeline alignment would be within the existing ROW of area roads. Where work within New Skyway (between Pentz Road and Coutolenc Road) would be necessary, traffic would be diverted onto Old Skyway. Construction on New Skyway would begin in mid-June (after local schools are out for the summer) and work hours are to be from 9:00 p.m. to 5:00 a.m., Sunday through Thursday, to minimize the impact on public services. Therefore, impacts on emergency vehicle access would be less than significant. During construction, water distribution would continue for the affected areas included in the project. No significant adverse impacts on water distribution to the PID service area are anticipated. The project would have a less-than-significant impact on public services.

**Mitigation Measures**

No project-specific mitigation is required under this subject.

<b>XV. RECREATION</b> — Would the project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion of Impacts**

a, b) *No Impact.* The project would not result in an increased demand for recreational facilities. The project would not require the construction or expansion of recreational facilities. The project would have no impact.

**Mitigation Measures**

No project-specific mitigation is required under this subject.

<b>XVI. TRANSPORTATION/TRAFFIC</b> — Would the project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion of Impacts**

- a) **No Impact.** Construction traffic (equipment and materials transport and daily worker traffic) would temporarily increase traffic on local roads during the construction phase and temporarily increase the use of the main access roads into the project area. Temporary construction traffic would be limited to periodic worker, and equipment and material transport during the construction phase and a few PID vehicles daily during the operational phase. Traffic-related impacts on nearby roads would be coordinated in advance with the County to minimize traffic disruptions or delays. Prior to construction, a traffic control plan will be developed to ensure for the continuous safe routing of vehicular and pedestrian traffic for the duration of

construction. The traffic control plan will apply continuously and not be limited to working hours. Where road crossings and work within Pine Needle Drive and Skyway would be necessary, controlled traffic flow would be maintained during the temporary construction period. Where work within New Skyway (between Pentz Road and Coutolenc Road) would be necessary, traffic would be diverted onto Old Skyway. Construction on New Skyway would begin in mid-June (after local schools are out for the summer) and work hours are proposed to be from 9:00 p.m. to 5:00 a.m., Sunday through Thursday, to avoid peak travel periods. The use of flaggers, barricades, and construction signing will comply with the California Manual on Uniform Traffic Control Devices (California Department of Transportation 2014).

The temporary construction-related impacts on traffic would not result in a significant increase in traffic on local roads and is not expected to reduce the levels of service for the roads. The project would be consistent with the goals and policies of the County's General Plan. Any impacts on traffic during construction would be temporary and less than significant.

- b) ***Less-than-Significant Impact.*** The volume and type of traffic associated with the project construction would not exceed the level of service for roads in the Paradise and Magalia areas. There is a potential for minor delays during construction. However, there would not be a lowered level of service during the construction phase of the project, as roadways along which the proposed project would be constructed in the existing ROWs would remain open or have a short detour during construction. The project would not conflict with the Butte County General Plan Circulation Element (Butte County 2012), including the future planned widening of New Skyway to four lanes. Any impacts on traffic during construction would be temporary and less than significant.
- c) ***No Impact.*** The proposed project is outside of the Paradise Skypark Airport Influence Area. The proposed project would not result in a change in air traffic patterns.
- d) ***No Impact.*** The proposed project would not involve activities that could increase hazards due to a design feature or incompatible uses, or affect parking capacity in the region. Construction vehicles would not need to park on streets outside the project area. The project would have no impact.
- e) ***Less-than-Significant Impact.*** The project would be in part, constructed within existing ROWs along New Skyway and other area roadways. A traffic control plan will be developed to ensure for the continuous safe routing of vehicular and pedestrian traffic for the duration of construction. A means for ingress/egress will be maintained to all properties through the duration of the project. All temporary traffic controls and the temporary nighttime detour of New Skyway will be properly signed and maintain emergency vehicle access through the region. The project would not impede emergency vehicle access and would have a less-than-significant impact.
- f) ***No Impact.*** The project does not conflict with any alternative transportation plan or policy. The project would have no impact.

## Mitigation Measures

No project-specific mitigation is required under this subject.

**XVII. TRIBAL CULTURAL RESOURCES —**

Would the project: cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion of Impacts**

- a, b) In accordance with Assembly Bill 52 (AB 52), tribes identified by the NAHC were contacted via letter and phone calls on behalf of PID pursuant to Section 106 of the National Historic Preservation Act and Section 21080.3 of CEQA. Additionally, the NAHC conducted a review of its Sacred Lands database for culturally significant properties and responded by email on September 20, 2017, indicating that the Sacred Lands File contained no records of Native American cultural resources in the immediate area. None of the persons identified by NAHC expressed concerns about the proposed project and no tribal cultural resources were identified in the project area as a result of consultation. Project construction would not impact any known tribal cultural resources.

**Mitigation Measures**

No mitigation measures are necessary.

<b>XVIII. UTILITIES AND SERVICE SYSTEMS —</b> Would the project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Discussion of Impacts

- a) **No Impact.** The project does not involve any actions that would generate wastewater. The project includes replacement of existing pipeline and storage tanks largely within the footprint of existing system infrastructure, and installation of several segments of new pipelines. The project would have no impact.
- b) **Less-than-Significant Impact.** The proposed project would involve the modification of existing, and construction of new water supply facilities, specifically storage tanks and a pipeline. These facilities would result in environmental effects as discussed in this document. Standard construction measures and mitigation measures described in this document will be implemented to minimize or avoid adverse impacts, and overall impacts to the environment would be less than significant. The project would also not encourage growth or expansion of

other facilities because the water system improvements have been designed to meet the anticipated growth in the PID service area. The impact would be less than significant.

- c) ***Less-than-Significant Impact.*** The proposed project would involve modification of the existing stormwater drainage system at the Reservoir B site. The system would convey runoff from the tank site to an existing storm drain on the east side of the Reservoir B site. The stormwater system would not significantly expand on the existing stormwater system at the Reservoir B site. The impact would be less than significant.
- d) ***No Impact.*** No new or expanded water entitlements would be required for the project. The project would have no impact.
- e) ***No Impact.*** The project would not involve the treatment or creation of wastewater. The project would have no impact.
- f, g) ***Less-than-Significant Impact.*** Construction activities associated with the proposed project would generate solid waste in the form of demolished materials and other trash. Any solid waste generated by the proposed project would be disposed of at an approved landfill or recycling center (e.g., Neal Road Landfill), in compliance with local, state, and federal regulations pertaining to solid waste disposal. Construction and operation of the proposed project is not likely to generate solid waste in amounts that would adversely affect the existing capacity of the local landfill. The project would have a less-than-significant impact.

### **Mitigation Measures**

No project-specific mitigation is required under this subject.

<b>XVIV. MANDATORY FINDINGS OF SIGNIFICANCE</b> — (To be filled out by Lead Agency if required)	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Discussion

- a) ***Less than Significant with Mitigation Incorporated.*** Construction-related activities could result in impacts on special-status species, nesting migratory birds and raptors, and previously undiscovered cultural resources. Mitigation measures described in Section 3.2, Biological Resources, will be used to avoid or minimize potential impacts on wildlife. Although no cultural resources are anticipated to be impacted by project construction, mitigation measures described in Section 3.2, Cultural Resources, will be used in the event of an inadvertent discovery of cultural resources or human remains. Conservation measures were included in the project design (as described in Section 2.6.2) and will be used to further reduce potential project-related environmental effects. The project would have a less-than-significant impact with mitigation incorporated.
- b) ***Less-than-Significant Impact.*** The proposed project would not result in cumulatively considerable impacts with implementation of standard construction measures and mitigation measures described in this Initial Study. The project would not introduce any new land uses or would result in the need for any reasonably foreseeable future projects within the community of Magalia or town of Paradise. Impacts associated with the project would be limited primarily to the construction phase, with no significant operational impacts on the environment. All impacts resulting from project implementation can be fully mitigated for at the project level. As a result, cumulative impacts are considered to be less than significant.

- c) ***Less-than-Significant Impact.*** The proposed project, particularly during the construction phase, would result in temporary impacts to human beings. Potential adverse effects would be related to temporary increases in air pollutants, traffic delays, water quality impacts, and any accidental spills of hazardous materials. Construction would occur primarily within previously disturbed areas and would not involve any actions that would have a substantial direct or indirect impact on the human environment. The implementation of standard construction measures described in this Initial Study would ensure construction-related impacts on human beings are minimized, and no long-term or operational-related impacts are anticipated.

## 4. Determination

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.

- X I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposed project MAY have a “Potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Ed Fortner, District Manager  
Paradise Irrigation District

August 16, 2018

Date

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## 5. Mitigation Monitoring and Reporting Program

This chapter comprises the Mitigation Monitoring and Reporting Program (MMRP) for the Paradise Irrigation District Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project (project). The purpose of this MMRP is to memorialize the mitigation responsibilities of PID in implementing the proposed project. The mitigation measures listed herein are required by law or regulation and will be adopted by PID as part of the overall project approval. Mitigation is defined by the California Environmental Quality Act (CEQA) – Section 15370 as a measure that

- avoids the impact altogether by not taking a certain action or parts of an action;
- minimizes impacts by limiting the degree or magnitude of the action and its implementation;
- rectifies the impact by repairing, rehabilitating, or restoring the impacted environment;
- reduces or eliminates the impact over time by preservation and maintenance operations during the life of the project; or
- compensates for the impacts by replacing or providing substitute resources or environments.

Mitigation measures provided in this MMRP have been identified in Chapter 3, Environmental Setting, Impacts, and Mitigation Measures of the Initial Study (IS)/Mitigated Negative Declaration (MND) and are considered feasible and effective in mitigating project-related environmental impacts.

This MMRP includes discussions of the following: legal requirements, intent of the MMRP; development and approval process for the MMRP; the authorities and responsibilities associated with implementation of the MMRP; a method of resolution of noncompliance complaints; and a summary of monitoring requirements.

**Legal Requirements:** The legal basis for the development and implementation of the MMRP lies within CEQA (including the California Public Resources Code). Sections 21002 and 21002.1 of the California Public Resources Code state:

- Public agencies are not to approve projects as proposed if there are feasible alternatives or feasible mitigation measures available that would substantially lessen the significant environmental effects of such projects.
- Each public agency shall mitigate or avoid the significant effects on the environment of projects that it carries out or approves whenever it is feasible to do so.

Section 21081.6 of the California Public Resources Code further requires that:

- The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation.

- The monitoring program must be adopted when a public agency makes its findings under CEQA so that the program can be made a condition of project approval in order to mitigate significant effects on the environment. The program must be designed to ensure compliance with mitigation measures during project implementation to mitigate or avoid significant environmental effects.

**Intent of the Mitigation Monitoring and Reporting Program:** The MMRP is intended to satisfy the requirements of CEQA as they relate to the project. It will be used by PID staff, participating agencies, project contractors, and mitigation monitoring personnel during implementation of the project. The primary objective of the MMRP is to ensure the effective implementation and enforcement of adopted mitigation measures and permit conditions. The MMRP will provide for monitoring of construction activities as needed, onsite identification and resolution of environmental problems, and proper reporting to lead agency staff.

**Development and Approval Process:** The timing elements for implementing mitigation measures and the definition of the approval process are provided in detail throughout this MMRP to assist PID staff by providing the most usable monitoring document possible.

**Authorities and Responsibilities:** PID, functioning as the CEQA Lead Agency, will have the primary responsibility for the execution and proper implementation of the MMRP and will be responsible for the following activities:

- coordination of monitoring activities
- maintenance of records concerning the status of all approved mitigation measures

PID, as implementing agency, is responsible for implementing the mitigation measures by incorporating them into the project specifications (contract documents) and enforcing the conditions of the contract in the field during construction. Some pre- and post-construction activities may be implemented directly by PID.

**Resolution of Noncompliance Complaints:** Any person or agency may file a complaint that alleges noncompliance with the mitigation measure(s) adopted as part of the approval process for the proposed project. The complaint shall be directed to PID, Mr. Jim Passanisi (6332 Clark Road, Paradise, CA 95969), in written form describing the purported violation in detail. PID shall conduct an investigation and determine the validity of the complaint. If noncompliance with a mitigation measure is verified, PID shall take the necessary action(s) to remedy the violation. Complaints shall be responded to in writing including descriptions of PID's investigation findings and the corrective action(s) taken, if applicable.

**Summary of Monitoring Requirements:** Following this discussion are the mitigation measures and associated monitoring requirements for the proposed project. The mitigation measures are organized by environmental issue area (i.e., Air Quality, Biological Resources, etc.) and consist of the following:

- Mitigation Measure(s): lists the mitigation measure(s) identified for each potentially significant impact discussed in the IS/MND. The same mitigation numbering system used in the IS/MND is carried forward in this MMRP.

- **Timing/Implementation:** Indicates at what point in time or project phase the mitigation measure will need to be implemented.
- **Enforcement:** Indicates which agency or entity is responsible for enforcement of the mitigation measure(s).
- **Monitoring:** Indicates which agency or entity is responsible for implementing and monitoring each mitigation measure.
- **Verification:** Provides a space to be signed and dated by the individual responsible for verifying compliance with each mitigation measure.

## 5.1 Conservation Measures

PID is committed to implementing the following conservation measures during construction of the Paradise Irrigation District Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project:

### Conservation Measure #1—Air Pollution and Dust Control

Air pollution control would conform to all applicable air pollution control rules, regulations, ordinances, and statutes. Dust would be controlled during construction activities and subsequent operation of the project. Dust controls may include, but would not be limited to the following elements, as appropriate:

- Pursuant to California Vehicle Code (Section 23114) (California Legislative Information 2016), all trucks hauling soil and other loose material to and from the construction site shall be covered or shall maintain at least 6 inches of freeboard (i.e., minimum vertical distance between top of load and the trailer).
- Any soils that are removed during construction shall be stored onsite in piles not to exceed 4 feet in height. These spoil piles shall be clearly marked and flagged. Spoil piles that will not be immediately returned to use shall be revegetated with a non-persistent erosion control mixture.
- Equipment and manual watering shall be conducted on all stockpiles, dirt/gravel roads, and exposed or disturbed soil surfaces, as necessary, to reduce airborne dust.
- PID or its contractor shall designate a person to monitor dust control and to order increased watering as necessary to prevent transport of dust offsite. This person shall also respond to any citizen complaints.

### Conservation Measure #2—Naturally Occurring Asbestos

If ultramafic rocks (e.g., serpentinite) or soils derived from ultramafic rocks are encountered during project design exploration or during construction, then testing for the presence of naturally occurring asbestos (NOA) shall be performed using randomized multi-increment sampling methods. If NOA concentrations are found to exceed established thresholds (California Geological Survey 2002), then

mitigation measures shall be implemented to reduce the potential of inducing NOA to become airborne. In addition to *Conservation Measure #1—Air Pollution and Dust Control*, the following measure has been incorporated into the proposed project to minimize the potential for adverse impacts in the event that NOA concentrations are found to exceed established thresholds.

- NOA-bearing soils and rock materials excavated during project activities shall be entombed as artificial fills within excavations (e.g., pipeline trench or suitable off-site disposal).

### **Conservation Measure #3—Water Pollution Prevention**

The project has been designed to avoid impacts on U.S. Army Corps of Engineers (Corps) jurisdictional features (i.e., waters of the United States). The following BMPs have been incorporated into the proposed project to avoid and minimize the potential for adverse direct and indirect effects on water quality.

- Activities that increase the erosion potential within the project area shall be restricted to the relatively dry summer and early fall period (approximately May 15 to October 15) to the maximum extent practicable to minimize the potential for rainfall events to transport sediment to surface water features. If construction activities must take place during the late fall, winter, or spring, then temporary erosion and sediment control structures must be in place and operational at the end of each construction day and maintained until the completion of the project.
- Within 10 days of completion of construction, weed-free mulch shall be applied to disturbed areas in order to reduce the potential for short-term erosion. Prior to a rain event or when there is greater than 50 percent possibility of rain forecasted by the National Weather Service during the next 24 hours, weed-free mulch, tarps, or geotextile fabrics shall be applied to all exposed areas upon completion of the day's activities. Soils shall not be left exposed during the rainy season.
- Suitable BMPs, such as silt fences, straw wattles, or catch basins, shall be placed below all construction activities at the edge of surface water features to intercept sediment before it reaches the waterway. These structures shall be installed prior to any clearing or grading activities.
- If spoil sites are used, they shall be located such that they do not drain directly into a surface water feature, if possible. If a spoil site drains into a surface water feature, catch basins shall be constructed to intercept sediment before it reaches the feature. Spoil sites shall be graded and vegetated to reduce the potential for erosion.
- Sediment control measures shall be in place prior to the onset of the rainy season (or no later than October 15) and will be monitored and maintained in good working condition until vegetation becomes established within the disturbed areas.
- Fueling construction equipment shall be done at a fixed fueling station to reduce the area exposed to the potential for fuel spills.

- Secondary containment, such as a drain pan or drop cloth, shall be used to catch spills or leaks when removing or changing fluids.
- Spill containment materials shall be kept onsite at all times to contain any accidental spill.
- Absorbent materials shall be used on small spills rather than hosing down or burying the spill. The absorbent material shall be promptly removed and disposed of properly.
- Onsite vehicles and equipment shall be regularly inspected for leaks and repaired immediately.
- If vehicle and equipment maintenance must occur onsite, it shall be done in designated areas, located away from drainage courses, to prevent the run-on of storm water and the run-off of spills.
- Equipment and materials shall be stored at least 50 feet away from surface water features.
- PID is responsible for compliance with applicable federal, state, or local laws or ordinances and shall obtain authorization from all applicable regulatory agencies.

#### **Conservation Measure #4—Greenhouse Gas Emissions**

PID shall include provisions in the construction bid documents to minimize project-related greenhouse gas emissions. The following measures shall be implemented to reduce construction-related greenhouse gas emissions:

- Reuse and recycle construction and demolition waste, including, but not limited to soil, vegetation, concrete, lumber, metal, and cardboard.
- Ensure that the project enhances, and does not disrupt or create barriers to, non-motorized transportation (e.g., bicycles, pedestrians) through proper pre-construction planning.
- Protect existing trees to the extent possible and encourage the planting of new trees.

#### **Conservation Measure #5—Wildfire Potential**

PID shall include the following measure in the construction bid documents to minimize project-related potential for wildfire ignition:

- Per the requirements of Public Resources Code Section 4442, PID shall include a note on all construction plans that internal combustion engines shall be equipped with an operational spark arrester, or the engine must be equipped for the prevention of fire.

#### **Conservation Measure #6—Prevention of Spread of Invasive Species**

The following avoidance and minimization measures are recommended during project construction to reduce the potential spread of invasive species:

- All equipment used for construction activities off of paved surfaces will be weed-free prior to entering the project site.
- If project implementation calls for mulches or fill, they will be weed free.
- Any invasive plant species removed during construction will be properly disposed of to ensure the species does not spread to other areas.

## 5.2 Mitigation Measures

PID is committed to implementing the following mitigation measures during construction of the Paradise Irrigation District Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project:

### 5.2.1 Biological Resources

#### Mitigation Measure #1—Bats

The following avoidance and minimization measures are recommended to avoid the potential for project-related impacts on pallid bats:

- A pre-construction survey for roosting bats should be conducted prior to the demolition of any buildings or removal of trees or snags with a diameter at breast height of 12 inches or greater. The survey should be conducted by a qualified biologist and should occur no more than one week prior to demolition or tree removal work. If a maternity or hibernacula roost is found, the biologist in coordination with CDFW, will determine the extent of a construction free buffer zone around the roost. The buffer will remain in place until the bats are no longer dependent on the roost and have vacated the roost site.

<b>Timing/Implementation:</b>	Prior to and during construction
<b>Enforcement:</b>	CDFW, PID
<b>Monitoring:</b>	PID and its contractor

**Verification (sign and date):** \_\_\_\_\_

#### Mitigation Measure #2—Migratory Birds and Raptors

The following measures shall be implemented to avoid or minimize the potential for adverse impacts on nesting migratory birds and raptors:

- Project activities shall be scheduled to avoid the nesting season to the extent feasible. The typical nesting seasons in northern California extend from February 1 through August 31. Thus, if project activities can be scheduled to occur outside of the nesting season, no impacts would be expected. If the nesting season cannot be completely avoided, the following measures shall be implemented.
  - A qualified biologist shall conduct a minimum of one pre-construction survey for nesting migratory birds and raptors within the project area and a 250-foot buffer around the

project area. Preconstruction surveys shall be conducted no more than seven days prior to the start of activities or the re-start of temporarily suspended construction, vegetation removal, or ground disturbance activities in any given area. Preconstruction surveys shall be used to ensure that no active bird nests occurring within or immediately adjacent to the project will be disturbed during project implementation. If an active nest is found, a qualified biologist shall determine the extent of a construction-free buffer zone to be established around the nest. If it is anticipated that project activities will encroach on the buffer, a biological monitor will be present to ensure that the nesting birds are not disturbed by the activities.

- If vegetation is to be removed by the project and all necessary approvals have been obtained, potential nesting substrates (e.g., trees and shrubs) that will be removed by the project shall be removed before the onset of the nesting season, if feasible. This will help preclude nesting and substantially decrease the likelihood of direct impacts.

**Timing/Implementation:** Prior to and during construction  
**Enforcement:** CDFW, PID  
**Monitoring:** PID and its contractor

**Verification (sign and date):** \_\_\_\_\_

## 5.2.2 Cultural Resources

### Mitigation Measure #3—Cultural Resources

PID shall include provisions in the construction bid documents to minimize project impacts on cultural resources. The following measure shall be implemented to avoid construction-related impacts on cultural resources:

- If any unanticipated archaeological finds are made in the APE that are considered to be significant, a number of methods shall be used to mitigate potential adverse effects. Avoidance through project redesign or some method of preservation is the preferred method. If redesign or preservation is not an option, it is recommended that any potential adverse effects on unanticipated finds be mitigated through data recovery, although actual mitigation would be determined through consultation with the SHPO under the NHPA. It is also recommended that local Native American groups be consulted and their input solicited and considered in all aspects of such testing and mitigation.

**Timing/Implementation:** During construction  
**Enforcement:** NAHC, PID  
**Monitoring:** PID and its contractor

**Verification (sign and date):** \_\_\_\_\_

### Mitigation Measure #4—Human Remains

PID shall include provisions in the construction bid documents to minimize project impacts on cultural resources. The following measure shall be implemented to avoid construction-related impacts on inadvertently discovered human remains:

- If human remains are found, the California Health and Safety Code requires that excavation be halted in the immediate area and that the Butte County coroner be notified to determine the nature of the remains. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or State lands (California Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the NAHC by telephone within 24 hours of making that determination (California Health and Safety Code Section 7050.5[c]).

**Timing/Implementation:** During construction  
**Enforcement:** NAHC, PID  
**Monitoring:** PID and its contractor

**Verification (sign and date):** \_\_\_\_\_

## 6. Report Preparation

### 6.1 Paradise Irrigation District – CEQA Lead Agency

Jim Passanisi

Treatment Plant Superintendent

### 6.2 North State Resources, Inc., now Stantec – Environmental Compliance

Wirt Lanning

Program Director

Connie MacGregor

Project Manager/Environmental Analyst

Tim Hanson

Biologist/Wetland Delineator/GIS Analyst

Julie Cassidy

Cultural Resources Principal Investigator

Sylvia Langford

Desktop Publisher

### 6.3 Water Works Engineers, LLC – Preliminary Design Engineering

Sami Kader, P.E.

Project Manager

Kristina Alacon, P.E

Staff Engineer

Sheila Magladry, EIT

Project Engineer

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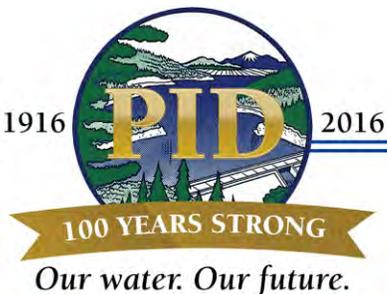
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## PARADISE IRRIGATION DISTRICT

6332 Clark Road, Paradise CA 95969 | Phone (530)877-4971 | Fax (530)876-0483

*"Paradise Irrigation District (PID) is dedicated to the business of producing and delivering a safe, dependable supply of quality water in an efficient, cost effective manner with service that meets or exceeds the expectation of our customers."*

*Please consider how this agenda item relates to our mission.*

**TO: Board of Directors**

**FROM: Ed Fortner, District Manager  
Jim Passanisi, Treatment Superintendent**

**DATE: October 17, 2018 (Regular Board Meeting)**

**RE: Public Health Goals Report – Notice of Public Hearing**

Public water systems that are required to prepare a triennial Public Health Goals Report pursuant to the California Health and Safety Code Section 116470(b) shall hold a public hearing for the purpose of accepting and responding to oral or written public comment. A public hearing is scheduled for November 19, 2018 during a special board meeting at the District's office at 6:30 PM at 6332 Clark Road, Paradise, CA 95969. A notice of the scheduled public hearing is attached, which will be published twice, a week apart, in the Paradise Post newspaper.

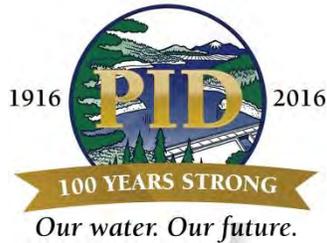
The 2018 Triennial Public Health Goals Report is available for review at PID's District Office, the Paradise Branch of the Butte County Library, 5922 Clark Road, or by visiting the District's website at [www.paradiseirrigation.com](http://www.paradiseirrigation.com).

Each contaminant of concern evaluated in the report compares the District's drinking water quality level to its non-enforceable public health goal (PHG) level, and includes the following: Total Coliform Bacteria; Hexavalent Chromium, Bromodichloromethane; Dichloroacetic Acid, and Trichloroacetic Acid. The report includes the following information:

- (1) Identifies each contaminant detected in the District's drinking water that exceeds its PHG level;
- (2) Discloses the numerical public health risk for each contaminant;
- (3) Identifies the category of risk to public health associated with exposure to the contaminant;
- (4) Describes the best available technology to remove or reduce the concentration of the contaminant below the PHG level;
- (5) Estimates the aggregate cost and the cost per customer of utilizing the technology described in paragraph (4); and
- (6) Briefly describe what action, if any, the District intends to take to reduce the concentration of the contaminant in the drinking water and the basis for that decision.

The recommended form of motion is:

"I move to authorize staff to release the Draft 2018 Triennial Public Health Goals Report and notice a public hearing date as November 19, 2018 at 6:30 p.m. to consider public comment regarding the draft report."



## PARADISE IRRIGATION DISTRICT

### NOTICE OF PUBLIC HEARING

#### REGARDING THE DRAFT 2018 TRIENNIAL PUBLIC HEALTH GOALS REPORT

NOTICE IS HEREBY GIVEN that the Paradise Irrigation District (PID) will hold a public hearing regarding review and adoption of its 2018 Triennial Public Health Goals Report. The report provides information on contaminants and the level of each the District has found in its drinking water, which exceeds a non-enforceable Public Health Goal (PHG), or a Maximum Contaminant Level Goal if there is no PHG. The intent of this report is to give public water system customers access to information, so a consumer is aware of the types of health risk that might be posed by the presence of these contaminants. The report also provides an estimate of the cost for treatment to reduce the level of each contaminant below the PHG level.

The purpose of the hearing is to accept and respond to public comment. The public may present oral or written comments as part of the public hearing in compliance with the requirements set forth in the California Health and Safety Code Section 116470(b). The Board of Directors of the District shall adopt the report subsequent to the completion of the public hearing, or direct staff to revise the report based on the comments received from the public. The Public Hearing will be held as part of a special meeting of the PID Board of Directors, which is scheduled on Monday, November 19, 2018 at 6:30 p.m. in the PID Board Room, 6332 Clark Road, Paradise, California.

The Triennial Public Health Goals Report is available for review at PID's District Office, the Paradise Branch of the Butte County Library, 5922 Clark Road, or by visiting the District's website at [www.paradiseirrigation.com](http://www.paradiseirrigation.com). If you have questions, please call 530-876-2067.

PARADISE IRRIGATION DISTRICT  
Ed Fortner, District Manager  
Dated October \_\_, 2018

**Publish Dates:      October \_\_, 2018  
                                 October \_\_, 2018**



# PARADISE IRRIGATION DISTRICT

6332 Clark Road, Paradise CA 95969 | Phone (530)877-4971 | Fax (530)876-0483

## 2018 Triennial Comparison of Public Health Goals to the District's Water Quality

This report was prepared with assistance from the March 2016, Association of California Water Agencies (ACWA) guidance document titled, "Suggested Guidelines for the Preparation of Required Reports on Public Health Goals (PHGs) to Satisfy Requirements of California Health and Safety Code Section 116470(b)."

### What is a Public Health Goal (PHG)?

A PHG is the level of a chemical contaminant in drinking water that does not pose a significant risk to health. The levels are established by the California Environmental Protection Agency's (Cal-EPA) Office of Environmental Health Hazard Assessment (OEHHA). PHGs are not drinking water regulatory standards. However, state law requires the State Water Resource Control Board (SWRCB) to set drinking water standards for chemical contaminants as close to the corresponding PHG as is economically and technologically feasible. In some cases, it may not be feasible for SWRCB to set the drinking water standard for a contaminant at the same level as the PHG. The technology to treat the chemicals may not be available, or the cost of treatment may be very high. SWRCB must consider these factors when developing a drinking water standard.

### How Does OEHHA Establish a Public Health Goal?

The process for establishing a PHG for a chemical contaminant in drinking water is very rigorous. OEHHA scientists first compile all relevant scientific information available, which includes studies of the chemical's effects on laboratory animals and studies of humans who have been exposed to the chemical. The scientists use data from these studies to perform a health risk assessment, in which they determine the levels of the contaminant in drinking water that could be associated with various adverse health effects. When calculating a PHG, OEHHA uses all the information it has compiled to identify the level of the chemical in drinking water that would not cause significant adverse health effects in people who drink that water every day for 70 years.

OEHHA must also consider any evidence of immediate and severe health effects when setting the PHG. For cancer-causing chemicals, OEHHA typically establishes the PHG at the "one-in-one million" risk level. At that level, not more than one person in a population of one million people drinking the water daily for 70 years would be expected to develop cancer as a result of exposure to that chemical.

A complete list of PHGs, updated January 10, 2018, is included in the Appendix - Attachment No. 1.

Five (5) contaminants in the District's drinking water exceeded a PHG or the United States Environmental Protection Agency (USEPA) Maximum Contaminant Level Goal (MCLG), and are listed on Page 4 in this report.

### **Background:**

Effective July 1, 1998, Section 116470b of the California Health and Safety Code (see page 3) requires all public water systems with more than 10,000 service connections to prepare a Public Health Goal (PHG) Report by July 1, every three years. This report satisfies Paradise Irrigation District's (District) requirement for 2018 by evaluating the District's water quality in 2015, 2016 and 2017.

The purpose of the legislative requirement behind this report is to give public water system customers access to information about PHG levels of contaminants below their enforceable (mandatory) MCLs. PHGs are non-enforceable goals. This information includes: the numerical public health risk associated with the MCL and PHG or MCLG, the category or type of risk to health that could be associated with each contaminant, the best treatment technology available that could be used to reduce the contaminant's level, and an estimate of the cost of treatment if it is appropriate and feasible.

Section 116470(b) requires public water systems to use the Maximum Contaminant Level Goal (MCLG) adopted by USEPA for a contaminant where OEHHA has not yet adopted a PHG. This report includes the required information for contaminants that have a California primary drinking water standard, a PHG or MCLG and were detected above both the respective PHG (or MCLG) and the Detection Level for the Purposes of Reporting (DLR).

The SWRCB, Division of Drinking Water (DDW) adopts primary drinking water standards, or maximum contaminant levels (MCLs) for chemicals. MCLs are enforceable regulatory standards to which all public water systems in the state must adhere to. The USEPA and the SWRCB DDW establish MCLs at very conservative levels to provide protection to consumers against all but very low to negligible risk. In other words, MCLs are the regulatory definition of what is "safe." Conversely, PHGs and MCLGs are strictly health-based goals that do not consider the limits of detection and feasible treatment technologies or the cost to treat. As such, many PHGs and MCLGs are set at a level which water systems cannot usually meet.

This report is required in addition to the extensive public reporting of water quality information that public water systems are required to provide annually in the federally mandated Consumer Confidence Report (CCR). Hence, the District has also prepared the 2015, 2016, and 2017 CCRs, which cover detectable water quality data in the drinking water in greater depth.

There are some contaminants that are routinely detected in the drinking water for which no PHG or MCLG has been adopted by OEHHA or the USEPA, including Total Trihalomethanes or Haloacetic Acids. OEHHA has not, but USEPA did adopt individual MCLGs for

bromodichloromethane, dichloroacetic acid, and trichloroacetic acid; however there are no individual DDW MCLs for each one. Therefore, this report shall discuss the three contaminants of concern just listed.

Neither the DDW nor OEHHA have issued any guidelines regarding this report. In fact, while OEHHA has a mandate to determine and provide information on “numerical health risk,” they have no involvement or authority regarding this report.

### **California Health and Safety Code Section 116470(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; and
- (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.

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.

The State Division of Drinking Water (DDW) shall not require a public water system to take any action to reduce or eliminate any exceedance of a public health goal. Enforcement of this section does not require the DDW to amend a public water system's operating permit.

**List of five (5) contaminants in the District’s drinking water, which exceed the Public Health Goals (or MCLGs) during 2015, 2016 and 2017**

See Appendix Attachment No. 1 for a complete list of MCLs, DLRs, PHGs and MCLGs for regulated drinking water contaminants (last updated January 10, 2018)

**Category and Source for each Contaminant**

Microbiological:

- 1. Total Coliform Bacteria Naturally present in the environment

Inorganic Chemical:

- 2. Hexavalent Chromium Erosion of natural deposits

Trihalomethanes (THMs):

- 3. Bromodichloromethane Byproduct of drinking water disinfection

Haloacetic Acids (HAA5s):

- 4. Dichloroacetic Acid Byproduct of drinking water disinfection
- 5. Trichloroacetic Acid Byproduct of drinking water disinfection

**Comparison of MCL & PHG (MCLG) concentration (ppb) for each Contaminant**

	<u>MCL</u>	<u>PHG (MCLG)</u>	<u>Concentration (Year)</u>
Total Coliform Bacteria (1)	5% of monthly samples	(0)	2.5% during one month (2016)
Bromodichloromethane	80 as TTHMs	(0)	2.0 - 3.6 (2015 - 2017)
Dichloroacetic Acid	60 ppb as HAA5s	(0)	6.8 - 20.0 (2015 - 2017)
Trichloroacetic Acid	60 ppb as HAA5s	(20.0)	12.0 - 33.0 (2015 - 2017)

Note (1): District’s requirement - 5% of 40 samples per month is 2 samples. During 2016, one sample was total coliform positive.

			<u>Concentration (Year)</u>	
			Surface Water	Groundwater
Hexavalent Chromium	No MCL	0.02	0.1	2.5 - 3.4 (2015)

## **Best Available Treatment Technology and Cost Estimates**

Both the USEPA and DDW adopt what are known as Best Available Technologies (BAT) that are the accepted technologies of reducing contaminant levels to the MCL. Costs can be estimated for such technologies. 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 or costs are needed to further reduce a contaminant downward to or near the PHG or MCLG, many of which are set at zero.

A list of treatment technologies with cost estimates for many contaminants not listed and listed in this report are described in the "Cost Estimates for Treatment Technologies" tables provided by the Association of California Water Agencies (ACWA) in their guidance document mentioned at the beginning of this report. See Appendix - Attachment No. 2.

The Health and Safety Code Section 116470(b), does not require an evaluation of all possible technologies for each contaminant to compare costs. For example if two technologies are possible to lower the level of a particular contaminant to the "zero" PHG/MCLG level, it is appropriate to specify and estimate costs for the technology that may be used, keeping in mind there are significant uncertainties based on a variety of factors. General "order of magnitude" estimates are adequate. It is assumed that all costs including capital, land, construction, engineering, planning, environmental, contingency, and O&M costs should be included, but general assumptions can be made for most of these items.

Estimating the costs to reduce a contaminant to zero is difficult, because it is not possible to verify by analytical means that the level has been lowered to zero. In some cases, installing treatment to further reduce very low levels of one contaminant may have adverse effects on other aspects of water quality.

The estimates for specific treatment technologies do not include other factors such as permitting and waste disposal. Furthermore, before any treatment system is approved by DDW, the District is required to conduct a California Environmental Quality Act (CEQA) review to assess potential environmental impacts that may be related to the project. The results of that assessment could add significant costs to mitigate potential concerns, or could preclude using a specific treatment technology altogether. Waste disposal costs associated with various treatment technologies vary widely. Some waste disposal costs are known and can be estimated as part of the routine operations and maintenance of the system. Others requiring direct discharge to the sanitary sewer or hauling of potentially hazardous waste would have to be determined on a case-by-case basis.

## **Health Risks**

Determination of health risk at the PHG or MCLG low levels (i.e. sometimes zero) is theoretical based on risk assessments with multiple assumptions and mathematical extrapolations. Many contaminants are considered to be carcinogenic and USEPA's policy is to set the applicable MCLGs at zero because they consider no amount of these contaminants to be without risk. It is understood by all that zero is an unattainable goal and cannot be measured by the practically available analytical methods. OEHHA cannot set a PHG at zero,

and must calculate a numerical level to address risk, even though it may be unattainable or impossible to measure.

A complete list of numerical health risks for this Public Health Goal Exceedance Report is provided in the Appendix - Attachment No. 3.

**Evaluation of contaminants in the District’s Drinking Water (2015, 2016 & 2017) that exceeded the PHG or MCLG**

Five (5) contaminants in the District’s drinking water exceed the PHGs or the MCLGs.

**Total Coliform Bacteria**

Microbiological: Naturally present in the environment

	<u>MCL</u>	<u>PHG (MCLG)</u>	<u>Concentration (Year)</u>
Total Coliform Bacteria	5% of monthly samples	(0)	2.5% during one month (2016)

The District collects 40 coliform bacteria samples per month to meet the monitoring requirements of the Total Coliform Rule. One sample during 2016 was found to be positive for total coliform bacteria, and the three repeat samples were negative. The District’s water quality standard for the total coliform bacteria MCL is two positive samples of all samples per month (i.e. 5%), and the MCLG is zero.

Coliform bacteria 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 get a positive sample. In all cases of detection in District’s drinking water, follow-up samples were negative for total coliform bacteria indicating good water quality and no system contamination.

The District utilizes 12.5% industrial bleach (sodium hypochlorite i.e. “chlorine”) as a primary disinfectant in the treatment process to achieve the requisite microbial inactivation outlined in the Surface Water Treatment Rule to assure that the drinking water is microbiologically safe. Before delivery to the distribution system, chlorine is added at a carefully controlled residual level to provide the best health protection without causing the water to have undesirable taste and odor, or increasing disinfection byproducts (DBPs). This careful balance of treatment processes is essential to continue supplying our customers with safe drinking water.

Other equally important measures that the District has implemented include: 1. cross-connection control program; 2. disinfectant residual throughout our system; 3. Flushing; 4. effective monitoring and surveillance program; and 5. maintaining positive pressures in the distribution system. The District has taken all of these steps identified by DDW as best available technology for coliform bacteria treatment.

The reason for the total coliform drinking water standard is to minimize the possibility of the water containing pathogens, which are organisms that cause waterborne disease. Because total coliform bacteria are 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 total coliform bacteria.

The one single action that would most likely decrease the possibility of having zero % positive coliform would be to significantly increase the disinfectant residual. This would likely result in increased DBPs which have adverse health consequences. This focuses on the risk-tradeoff issue – protection from acute risks versus potential harm from chronic risks. In some cases, installing treatment to further reduce very low levels of one contaminant may have adverse effects on other aspects of water quality. To provide any additional treatment to reach the MCLG level for total coliform bacteria would not be effective and is not proposed in this report. Therefore, no estimate of cost has been included for this contaminant.

**Hexavalent Chromium (Cr+6) – There is currently no MCL**

Inorganic Chemical: Erosion of natural deposits

	MCL	PHG (MCLG)	Concentration (Years)	
			Surface Water	Groundwater
Hexavalent Chromium	No MCL	0.02	0.1	2.5 - 3.4

Chromium (Cr) is a naturally-occurring element that is found in rocks, soils, plants and animals. Cr has a variety of industrial uses that include: steel making, metal plating, corrosion inhibitors, paints and wood preservatives. The most common forms of Cr in the environment are trivalent (Cr+3) and hexavalent (Cr+6). Cr+3 is an essential nutrient for humans and is the more common form found in surface waters. In areas where igneous rocks are present, the major source of Cr+6 in groundwater is from the oxidation of naturally-occurring Cr. Cr+6 can also result in groundwater from the oxidation of Cr+3 during the disinfection process. Anthropogenic sources of Cr+6 in groundwater typically result from leakage, poor storage and improper disposal practices.

OEHHA’s July 2011, Fact Sheet titled: “Final Public Health Goal for Hexavalent Chromium” summarizes the health effects observed from studies involving drinking water with high levels of Cr+6. They include significant numbers of gastrointestinal tumors in rats and mice as well as increased rates of stomach cancer in humans. There is also evidence that Cr+6 can damage DNA. Exposure to airborne Cr+6 is 1,000 times more potent than exposure from drinking water. The health effects language states that: “Some people who drink water containing Cr+6 in excess of the MCL over many years may have an increased risk of getting cancer.” The numerical health (cancer) risk for drinking water with Cr+6 at the MCL is estimated at 5 in 10,000. The numerical health (cancer) risk for drinking water with Cr+6 at the PHG of 0.02 ppb is 1 in 1,000,000. See Appendix page 25.

The District's Well D; at Tank D, pumps at 450 gallons per minute and is used off peak for about three months each year. This amounts to about 8,000,000 gallons of drinking water per year, or 0.4% of the total water produced by the District (1,700,000,000 gallons) per year.

The BATs for treating Cr+6 includes the following treatment methods:

1. Coagulation/Filtration
2. Ion Exchange (IX)
3. Reverse Osmosis

Ion Exchange (IX), specifically, Weak Base Anion Exchange Resin may be the most prudent method to be used to reduce Cr+6 in District wells to levels below the DLR, and closer to the PHG. Cost estimates for IX range from \$1.62 to \$6.78 per 1,000 gallons of water treated.

If IX treatment were considered for Well D, the annualized capital and O&M costs could range from approximately \$13,000 to \$55,000 per year. That may result in an assumed increased cost for each customer ranging from \$1.30 to \$ 5.50 per year.

If IX treatment were considered for the District's surface water treatment plant to treat the total annual production, the annualized capital and O&M costs could range from approximately \$2,754,000 to \$11,526,000 per year. This may result in an assumed increased cost for each customer ranging from \$275 to \$1,153 per year.

**Bromodichloromethane, Dichloroacetic Acid & Trichloroacetic Acid**

Trihalomethanes (THMs):

Bromodichloromethane      Byproduct of drinking water disinfection

Haloacetic Acids (HAA5s):

Dichloroacetic Acid      Byproduct of drinking water disinfection

Trichloroacetic Acid      Byproduct of drinking water disinfection

	<u>MCL</u>	<u>PHG (MCLG)</u>	<u>Concentration (Years)</u>
Bromodichloromethane	80 as THMs	(0)	2.0 - 3.6 (2015 - 2017)
Dichloroacetic Acid	60 ppb as HAA5s	(0)	6.8 - 20.0 (2015 - 2017)
Trichloroacetic Acid	60 ppb as HAA5s	(20.0)	12.0 - 33.0 (2015 - 2017)

Chlorine is used at the treatment plant for disinfection of the drinking water. Chlorination of waters containing natural organic materials (NOM) causes the formation of disinfection byproducts (DBPs). The principal DBPs of health concern are low molecular weight chlorinated and brominated compounds including total trihalomethanes (TTHMs) and haloacetic acids (HAA5s).

The District's drinking water has TTHMs and HAA5 levels that are about half of the MCL. This may be attributed to the District's high quality surface water from a small and sparsely

developed watershed regarding the following: 1. low pH ranging from 7.1 to 7.3; 2. low level of NOM and TTHM & HAA5 formation potential, and 3. short residence time of the surface water in the watershed that would limit accumulation NOM, and TTHM and HAA5 formation potential.

OEHHA does not have PHGs for three contaminants listed above or for TTHMs or HAA5s. However, EPA has established MCLGs for the three contaminants. Therefore, numerical OEHHA health cancer risk for the contaminants is not available. See Appendix page 35.

Some people who drink water containing trihalomethanes (i.e. bromodichloromethane) in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.

Some people who drink water containing haloacetic acids (i.e. dichloroacetic Acid & trichloroacetic acid) in excess of the MCL over many years may have an increased risk of getting cancer.

When chlorine is used as a disinfectant, reducing the formation of DBPs can be accomplished by the removal of NOM upstream of the chlorination process at the treatment plant. NOM removal techniques include the following: 1. optimized coagulation with adjustments to pH, and the type of coagulant and dose; 2. adsorption with powder or granular activated carbon; 3. adsorption onto specialty resins; and 5. biodegradation within filters; and 6. membrane filtration.

Other ways of reducing the formation of DBPs is to disinfect the water with the limited use of chlorine by using alternative oxidants, such as ozone, chloramination, or chlorine dioxide. These oxidants can be used upstream of chlorination to minimize the chlorine demand (NOM) of the water, thereby reducing DBP formation. Ozone or chloramination are more commonly used in the United States to reduce high level of DBPs. Ultra-violet light can also be used ahead of the chlorination process to disinfect the source water thereby reducing the amount of chlorine needed to assure the drinking water is bacteriologically safe.

The last two paragraphs provide numerous ways to reduce DBPs in the drinking water. The selection of one method over another can be a rigorous process that would result in pilot testing to validate its effectiveness. All of the treatment methods can be expensive.

The BAT selected and costs include the following:

Ozonation and chemical addition reduces TTHM and HAA5 concentrations.

Estimated treated unit cost ranges from \$0.09 to \$0.19 per 1,000 gallons.

Estimated capital and O&M cost to treat 1,700,000,000 gallons per year is \$153,000 to \$323,000. This may result in an assumed increased cost for each customer ranging from \$15 to \$32 per year.

Because the District's TTHMs and HAA5s content are already considered low, this report does not recommend further treatment.

## **Recommendations for Further Action**

None. The District's drinking water quality meets all DDW and USEPA primary standards set to provide safe drinking. The levels of contaminants identified in this report are below the primary MCLs. Further reductions in these levels would require additional costly treatment processes, and the ability of these processes to provide significant additional reductions in contaminant levels is uncertain. In addition, the health protection benefits of these possible reductions are not at all clear and may not be quantifiable even during pilot testing. Therefore, no action is proposed at this time.

The next report of the triennial comparison of Public Health Goals (MCLGs) to the District's water quality presented in the 2018, 2019 and 2020 Consumer Confidence Reports will be completed August 2021.

For additional information, please contact Mr. Jim Passanisi, Paradise Irrigation District, Water Treatment Superintendent, at [jpassanisi@paradiseirrigation.com](mailto:jpassanisi@paradiseirrigation.com) or call him at (530) 876-2067, you may also write to Paradise Irrigation District, 6332 Clark Road, Paradise, CA 95969. This report is posted on Paradise Irrigation District's website at [www.PIDwater.com](http://www.PIDwater.com)



# PARADISE IRRIGATION DISTRICT

6332 Clark Road, Paradise CA 95969 | Phone (530)877-4971 | Fax (530)876-0483

## **2018 Triennial Comparison of Public Health Goals to the District's Water Quality**

### Appendix

Attachment No. 1  
MCLs, DLRs, and PHGs for Regulated Drinking Water Contaminants

Attachment No. 2  
2012 ACWA PHG Cost Estimates for Treatment Technologies

Attachment No. 3  
Health Risk Information for Public Health Goal Exceedance Reports

# Attachment 1

MCLs, DLRs, and PHGs for Regulated Drinking Water Contaminants						
(Units are in milligrams per liter (mg/L), unless otherwise noted.)						
Last Update: January 10, 2018						
<p>This table includes:</p> <ul style="list-style-type: none"> <li>California's maximum contaminant levels (MCLs)</li> <li>Detection limits for purposes of reporting (DLRs)</li> <li>Public health goals (PHGs) from the <a href="#">Office of Environmental Health Hazard Assessment (OEHHA)</a></li> </ul> <p>Also, the PHG for NDMA (which is not yet regulated) is included at the bottom of this table.</p>					<p>For comparison:</p> <p style="text-align: center;"><a href="#">Federal MCLs and Maximum Contaminant Level Goals (MCLGs) (US EPA)</a></p>	
	MCL	DLR	PHG	Date of PHG	MCL	MCLG
Chemicals with MCLs in 22 CCR §64431—Inorganic Chemicals						
Aluminum	1	0.05	0.6	2001	--	--
Antimony	0.006	0.006	0.001	2016	0.006	0.006
Arsenic	0.010	0.002	0.000004	2004	0.010	zero
Asbestos (MFL = million fibers per liter; for fibers > 10 microns long)	7 MFL	0.2 MFL	7 MFL	2003	7 MFL	7 MFL
Barium	1	0.1	2	2003	2	2
Beryllium	0.004	0.001	0.001	2003	0.004	0.004
Cadmium	0.005	0.001	0.00004	2006	0.005	0.005
Chromium, Total - OEHHA withdrew the 0.0025-mg/L PHG	0.05	0.01	withdrawn Nov. 2001	1999	0.1	0.1
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	0.2	0.2
Fluoride	2	0.1	1	1997	4.0	4.0
Mercury (inorganic)	0.002	0.001	0.0012	1999 (rev2005) *	0.002	0.002
Nickel	0.1	0.01	0.012	2001	--	--
Nitrate (as nitrogen, N)	10 as N	0.4	45 as NO3 (=10 as N)	1997	10	10
Nitrite (as N)	1 as N	0.4	1 as N	1997	1	1
Nitrate + Nitrite (as N)	10 as N	--	10 as N	1997	--	--
Perchlorate	0.006	0.004	0.001	2015	--	--
Selenium	0.05	0.005	0.03	2010	0.05	0.05
Thallium	0.002	0.001	0.0001	1999 (rev2004)	0.002	0.0005
Copper and Lead, 22 CCR §64672.3						
<i>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</i>						
Copper	1.3	0.05	0.3	2008	1.3	1.3
Lead	0.015	0.005	0.0002	2009	0.015	zero
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	15	zero

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
<b>Chemicals with MCLs in 22 CCR §64444—Organic Chemicals</b>				
<b>(a) Volatile Organic Chemicals (VOCs)</b>				
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	0.1	2006
cis-1,2-Dichloroethylene	--	--	0.013	2017 draft
trans-1,2-Dichloroethylene	0.01	0.0005	0.06	2006
trans-1,2-Dichloroethylene	--	--	0.05	2017 draft
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>(b) Non-Volatile Synthetic Organic Chemicals (SOCs)</b>				
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)

4 mrem/yr	zero
5	zero
--	--
--	--
30 µg/L	zero

0.005	zero
0.005	zero
0.6	0.6
0.075	0.075
--	--
0.005	zero
0.007	0.007
0.07	0.07
--	--
0.1	0.1
--	--
0.005	zero
0.005	zero
--	--
0.7	0.7
--	--
0.1	0.1
0.1	0.1
0.005	zero
1	1
0.07	0.07
0.2	0.2
0.005	0.003
0.005	zero
--	--
--	--
0.002	zero
10	10

0.002	zero
0.003	0.003
--	--
0.0002	zero
0.04	0.04
0.002	zero

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 <sup>-8</sup>	5x10 <sup>-9</sup>	5x10 <sup>-11</sup>	2010
2,4,5-TP (Silvex)	0.05	0.001	0.003	2014
<b>Chemicals with MCLs in 22 CCR §64533—Disinfection Byproducts</b>				
Total Trihalomethanes	0.080	--	0.0008	2010 draft
Bromodichloromethane	--	0.0010	--	--
Bromoform	--	0.0010	--	--
Chloroform	--	0.0010	--	--
Dibromochloromethane	--	0.0010	--	--
Haloacetic Acids (five) (HAA5)	0.060	--	--	--
Monochloroacetic Acid	--	0.0020	--	--
Dichloroacetic Acid	--	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
<b>Chemicals with PHGs established in response to DDW requests. These are not currently regulated drinking water contaminants.</b>				
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				

0.2	0.2
0.0002	zero
0.07	0.07
0.4	0.4
0.006	zero
0.007	0.007
0.02	0.02
0.1	0.1
0.002	0.002
0.00005	zero
0.7	0.7
0.0004	zero
0.0002	zero
0.001	zero
0.05	0.05
0.0002	0.0002
0.04	0.04
--	--
0.2	0.2
0.001	zero
0.5	0.5
0.0005	zero
0.004	0.004
--	--
0.003	zero
--	--
3x10 <sup>-8</sup>	zero
0.05	0.05

0.080	--
--	zero
--	zero
--	0.07
--	0.06
0.060	--
--	0.07
--	zero
--	0.02
--	--
--	--
0.01	zero
1	0.8

--	--
----	----

## Attachment 2

Reference: 2012 ACWA PHG Survey

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

No.	Treatment Technology	Source of Information	Estimated Unit Cost 2012 ACWA Survey Indexed to 2015* (\$/1,000 gallons treated)
1	Ion Exchange	Coachella Valley WD, for GW, to reduce Arsenic concentrations. 2011 costs.	1.99
2	Ion Exchange	City of Riverside Public Utilities, for GW, for Perchlorate treatment.	0.96
3	Ion Exchange	Carollo Engineers, anonymous utility, 2012 costs for treating GW source for Nitrates. Design source water concentration: 88 mg/L NO <sub>3</sub> . Design finished water concentration: 45 mg/L NO <sub>3</sub> . Does not include concentrate disposal or land cost.	0.72
4	Granular Activated Carbon	City of Riverside Public Utilities, GW sources, for TCE, DBCP (VOC, SOC) treatment.	0.48
5	Granular Activated Carbon	Carollo Engineers, anonymous utility, 2012 costs for treating SW source for TTHMs. Design source water concentration: 0.135 mg/L. Design finished water concentration: 0.07 mg/L. Does not include concentrate disposal or land cost.	0.34
6	Granular Activated Carbon, Liquid Phase	LADWP, Liquid Phase GAC treatment at Tujunga Well field. Costs for treating 2 wells. Treatment for 1,1 DCE (VOC). 2011-2012 costs.	1.47
7	Reverse Osmosis	Carollo Engineers, anonymous utility, 2012 costs for treating GW source for Nitrates. Design source water concentration: 88 mg/L NO <sub>3</sub> . Design finished water concentration: 45 mg/L NO <sub>3</sub> . Does not include concentrate disposal or land cost.	0.78
8	Packed Tower Aeration	City of Monrovia, treatment to reduce TCE, PCE concentrations. 2011-12 costs.	0.42
9	Ozonation+ Chemical addition	SCVWD, STWTP treatment plant includes chemical addition + ozone generation costs to reduce THM/HAA concentrations. 2009-2012 costs.	0.09

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

No.	Treatment Technology	Source of Information	Estimated Unit Cost 2012 ACWA Survey Indexed to 2015* (\$/1,000 gallons treated)
10	Ozonation+ Chemical addition	SCVWD, PWTP treatment plant includes chemical addition + ozone generation costs to reduce THM/HAA's concentrations, 2009-2012 costs.	0.19
11	Coagulation/Filtration	Soquel WD, treatment to reduce manganese concentrations in GW. 2011 costs.	0.73
12	Coagulation/Filtration Optimization	San Diego WA, costs to reduce THM/Bromate, Turbidity concentrations, raw SW a blend of State Water Project water and Colorado River water, treated at Twin Oaks Valley WTP.	0.83
13	Blending (Well)	Rancho California WD, GW blending well, 1150 gpm, to reduce fluoride concentrations.	0.69
14	Blending (Wells)	Rancho California WD, GW blending wells, to reduce arsenic concentrations, 2012 costs.	0.56
15	Blending	Rancho California WD, using MWD water to blend with GW to reduce arsenic concentrations. 2012 costs.	0.67
16	Corrosion Inhibition	Atascadero Mutual WC, corrosion inhibitor addition to control aggressive water. 2011 costs.	0.09

\*Costs were adjusted from date of original estimates to present, where appropriate, using the Engineering News Record (ENR) annual average building costs of 2015 and 2012. The adjustment factor was derived from the ratio of 2015 Index/2012 Index.

**Table 2**  
**Reference: Other Agencies**

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

No.	Treatment Technology	Source of Information	Estimated Unit Cost 2012 Other References Indexed to 2015* (\$/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.	1.58 - 9.95
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.	1.62 - 6.78
3	IX	Golden State Water Co., IX w/disposable resin, 1 MGD, Perchlorate removal, built in 2010.	0.50
4	IX	Golden State Water Co., IX w/disposable resin, 1000 gpm, perchlorate removal (Proposed; O&M estimated).	1.08
5	IX	Golden State Water Co., IX with brine regeneration, 500 gpm for Selenium removal, built in 2007.	7.08
6	GFO/Adsorption	Golden State Water Co., Granular Ferric Oxide Resin, Arsenic removal, 600 gpm, 2 facilities, built in 2006.	1.85 - 1.98
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.	2.43
8	IX	Reference: Inland Empire Utilities Agency : Chino Basin Desalter. IX cost to reduce 150 ppm Nitrate (as NO3); approx. 2.6 mgd.	1.35

9	Packed Tower Aeration	Reference: Inland Empire Utilities Agency : Chino Basin Desalter. PTA-VOC air stripping, typical treated flow of approx. 1.6 mgd.	0.41
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.	0.56 - 0.80
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.	0.37
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.	1.67 - 1.76

\*Costs were adjusted from date of original estimates to present, where appropriate, using the Engineering News Record (ENR) annual average building costs of 2015 and 2012. The adjustment factor was derived from the ratio of 2015 Index/2012 Index.

**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 2015* (\$/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	0.57-1.08
2	Granular Activated Carbon	Reference: Carollo Engineers, estimate for VOC treatment (PCE), 95% removal of PCE, Oct. 1994, 1900 gpm design capacity	0.26
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	1.25
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	0.49-0.71
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	2.24
6	Granular Activated Carbon	Reference: Southern California Water Co. - actual data for permanent GAC to remove VOCs (TCE), 2.16 mgd plant capacity, 1998	1.46
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	1.68-3.22
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	3.98
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	2.45
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	2.65
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	2.05
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	6.65

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

No.	Treatment Technology	Source of Information	Estimated 2012 Unit Cost Indexed to 2015* (\$/1,000 gallons treated)
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	3.92
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	2.94
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	1.82
16	Reverse Osmosis	Reference: CH2M Hill study on San Gabriel Basin, for 135 mgd central treatment facility with RO to remove nitrate, 1990	1.83-3.22
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	1.06
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	0.56
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	0.28
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	0.29
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	0.45-0.74
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	0.55
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, <i>Cryptosporidium</i> inactivation requirements, 1998	0.13-0.26
24	Ion Exchange	Reference: CH2M Hill study on San Gabriel Basin, for 135 mgd central treatment facility - ion exchange to remove nitrate, 1990	0.61-0.80

\*Costs were adjusted from date of original estimates to present, where appropriate, using the Engineering News Record (ENR) annual average building costs of 2015 and 2012. The adjustment factor was derived from the ratio of 2015 Index/2012 Index.

## Attachment 3

Available at: <http://oehha.ca.gov/water/phg/pdf/2016phgexceedancereport012816.pdf>

### Health Risk Information for Public Health Goal Exceedance Reports

Prepared by

Office of Environmental Health Hazard Assessment  
California Environmental Protection Agency

February 2016

Under the Calderon-Sher Safe Drinking Water Act of 1996 (the Act), water utilities are required to prepare a report every three years for contaminants that exceed public health goals (PHGs) (Health and Safety Code Section 116470 (b)(2)). The numerical health risk for a contaminant is to be presented with the category of health risk, along with a plainly worded description of these terms. The cancer health risk is to be calculated at the PHG and at the California maximum contaminant level (MCL). This report is prepared by the Office of Environmental Health Hazard Assessment (OEHHA) to assist the water utilities in meeting their requirements.

PHGs are concentrations of contaminants in drinking water that pose no significant health risk if consumed for a lifetime. PHGs are developed and published by OEHHA (Health and Safety Code Section 116365) using current risk assessment principles, practices and methods.

**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 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.

Office of Environmental Health Hazard Assessment  
Water Toxicology Section  
February 2016

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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 a no more than one-in-one-million excess cancer risk ( $1 \times 10^{-6}$ ) 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 Web site (<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 <sup>1</sup>	California PHG (mg/L) <sup>2</sup>	Cancer Risk <sup>3</sup> at the PHG	California MCL <sup>4</sup> (mg/L)	Cancer Risk at the California MCL
<a href="#">Alachlor</a>	carcinogenicity (causes cancer)	0.004	NA <sup>5</sup>	0.002	NA
<a href="#">Aluminum</a>	neurotoxicity and immunotoxicity (harms the nervous and immune systems)	0.6	NA	1	NA
<a href="#">Antimony</a>	digestive system toxicity (causes vomiting)	0.02	NA	0.006	NA
<a href="#">Arsenic</a>	carcinogenicity (causes cancer)	0.000004 (4×10 <sup>-6</sup> )	1×10 <sup>-6</sup> (one per million)	0.01	2.5×10 <sup>-3</sup> (2.5 per thousand)
<a href="#">Asbestos</a>	carcinogenicity (causes cancer)	7 MFL <sup>6</sup> (fibers >10 microns in length)	1×10 <sup>-6</sup>	7 MFL (fibers >10 microns in length)	1×10 <sup>-6</sup> (one per million)
<a href="#">Atrazine</a>	carcinogenicity (causes cancer)	0.00015	1×10 <sup>-6</sup>	0.001	7×10 <sup>-6</sup> (seven per million)

<sup>1</sup> 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](http://oehha.ca.gov/multimedia/green/pdf/GC_Regtext011912.pdf)).

<sup>2</sup> mg/L = milligrams per liter of water or parts per million (ppm)

<sup>3</sup> Cancer Risk = Upper estimate of excess cancer risk from lifetime exposure. Actual cancer risk may be lower or zero. 1×10<sup>-6</sup> means one excess cancer case per million people exposed.

<sup>4</sup> MCL = maximum contaminant level.

<sup>5</sup> NA = not applicable. Risk cannot be calculated. The PHG is set at a level that is believed to be without any significant public health risk to individuals exposed to the chemical over a lifetime.

<sup>6</sup> 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 <sup>1</sup>	California PHG (mg/L) <sup>2</sup>	Cancer Risk <sup>3</sup> at the PHG	California MCL <sup>4</sup> (mg/L)	Cancer Risk at the California MCL
<a href="#">Barium</a>	cardiovascular toxicity (causes high blood pressure)	2	NA	1	NA
<a href="#">Bentazon</a>	hepatotoxicity and digestive system toxicity (harms the liver, intestine, and causes body weight effects <sup>7</sup> )	0.2	NA	0.018	NA
<a href="#">Benzene</a>	carcinogenicity (causes leukemia)	0.00015	$1 \times 10^{-6}$	0.001	$7 \times 10^{-6}$ (seven per million)
<a href="#">Benzo[a]pyrene</a>	carcinogenicity (causes cancer)	0.000007 ( $7 \times 10^{-6}$ )	$1 \times 10^{-6}$	0.0002	$3 \times 10^{-5}$ (three per hundred thousand)
<a href="#">Beryllium</a>	digestive system toxicity (harms the stomach or intestine)	0.001	NA	0.004	NA
<a href="#">Bromate</a>	carcinogenicity (causes cancer)	0.0001	$1 \times 10^{-6}$	0.01	$1 \times 10^{-4}$ (one per ten thousand)
<a href="#">Cadmium</a>	nephrotoxicity (harms the kidney)	0.00004	NA	0.005	NA
<a href="#">Carbofuran</a>	reproductive toxicity (harms the testis)	0.0017	NA	0.018	NA

<sup>7</sup> 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 <sup>1</sup>	California PHG (mg/L) <sup>2</sup>	Cancer Risk <sup>3</sup> at the PHG	California MCL <sup>4</sup> (mg/L)	Cancer Risk at the California MCL
<a href="#">Carbon tetrachloride</a>	carcinogenicity (causes cancer)	0.0001	1×10 <sup>-6</sup>	0.0005	5×10 <sup>-6</sup> (five per million)
<a href="#">Chlordane</a>	carcinogenicity (causes cancer)	0.00003	1×10 <sup>-6</sup>	0.0001	3×10 <sup>-6</sup> (three per million)
<a href="#">Chlorite</a>	hematotoxicity (causes anemia) neurotoxicity (causes neurobehavioral effects)	0.05	NA	1	NA
* <a href="#">Chromium, hexavalent</a>	carcinogenicity (causes cancer)	0.00002	1×10 <sup>-6</sup>	0.01	5×10 <sup>-4</sup> (five per ten thousand)
<a href="#">Copper</a>	digestive system toxicity (causes nausea, vomiting, diarrhea)	0.3	NA	1.3 (AL <sup>8</sup> )	NA
<a href="#">Cyanide</a>	neurotoxicity (damages nerves) endocrine toxicity (affects the thyroid)	0.15	NA	0.15	NA
<a href="#">Dalapon</a>	nephrotoxicity (harms the kidney)	0.79	NA	0.2	NA

<sup>8</sup> 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 <sup>1</sup>	California PHG (mg/L) <sup>2</sup>	Cancer Risk <sup>3</sup> at the PHG	California MCL <sup>4</sup> (mg/L)	Cancer Risk at the California MCL
<a href="#">1,2-Dibromo-3-chloropropane (DBCP)</a>	carcinogenicity (causes cancer)	0.0000017 (1.7×10 <sup>-6</sup> )	1×10 <sup>-6</sup>	0.0002	1×10 <sup>-4</sup> (one per ten thousand)
<a href="#">1,2-Dichlorobenzene (o-DCB)</a>	hepatotoxicity (harms the liver)	0.6	NA	0.6	NA
<a href="#">1,4-Dichlorobenzene (p-DCB)</a>	carcinogenicity (causes cancer)	0.006	1×10 <sup>-6</sup>	0.005	8×10 <sup>-7</sup> (eight per ten million)
<a href="#">1,1-Dichloroethane (1,1-DCA)</a>	carcinogenicity (causes cancer)	0.003	1×10 <sup>-6</sup>	0.005	2×10 <sup>-6</sup> (two per million)
<a href="#">1,2-Dichloroethane (1,2-DCA)</a>	carcinogenicity (causes cancer)	0.0004	1×10 <sup>-6</sup>	0.0005	1×10 <sup>-6</sup> (one per million)
<a href="#">1,1-Dichloroethylene (1,1-DCE)</a>	hepatotoxicity (harms the liver)	0.01	NA	0.006	NA
<a href="#">1,2-Dichloroethylene, cis</a>	nephrotoxicity (harms the kidney)	0.1	NA	0.006	NA
<a href="#">1,2-Dichloroethylene, trans</a>	hepatotoxicity (harms the liver)	0.06	NA	0.01	NA
<a href="#">Dichloromethane (methylene chloride)</a>	carcinogenicity (causes cancer)	0.004	1×10 <sup>-6</sup>	0.005	1×10 <sup>-6</sup> (one per million)
<a href="#">2,4-Dichlorophenoxyacetic acid (2,4-D)</a>	hepatotoxicity and nephrotoxicity (harms the liver and kidney)	0.02	NA	0.07	NA

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

Chemical	Health Risk Category <sup>1</sup>	California PHG (mg/L) <sup>2</sup>	Cancer Risk <sup>3</sup> at the PHG	California MCL <sup>4</sup> (mg/L)	Cancer Risk at the California MCL
<a href="#">1,2-Dichloro-propane (propylene dichloride)</a>	carcinogenicity (causes cancer)	0.0005	$1 \times 10^{-6}$	0.005	$1 \times 10^{-5}$ (one per hundred thousand)
<a href="#">1,3-Dichloro-propene (Telone II®)</a>	carcinogenicity (causes cancer)	0.0002	$1 \times 10^{-6}$	0.0005	$2 \times 10^{-6}$ (two per million)
<a href="#">Di(2-ethylhexyl) adipate (DEHA)</a>	developmental toxicity (disrupts development)	0.2	NA	0.4	NA
<a href="#">Diethylhexyl-phthalate (DEHP)</a>	carcinogenicity (causes cancer)	0.012	$1 \times 10^{-6}$	0.004	$3 \times 10^{-7}$ (three per ten million)
<a href="#">Dinoseb</a>	reproductive toxicity (harms the uterus and testis)	0.014	NA	0.007	NA
<a href="#">Dioxin (2,3,7,8-TCDD)</a>	carcinogenicity (causes cancer)	$5 \times 10^{-11}$	$1 \times 10^{-6}$	$3 \times 10^{-8}$	$6 \times 10^{-4}$ (six per ten thousand)
<a href="#">Diquat</a>	ocular toxicity (harms the eye) developmental toxicity (causes malformation)	0.015	NA	0.02	NA
<a href="#">Endothall</a>	digestive system toxicity (harms the stomach or intestine)	0.094	NA	0.1	NA
<a href="#">Endrin</a>	hepatotoxicity (harms the liver) neurotoxicity (causes convulsions)	0.0018	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 <sup>1</sup>	California PHG (mg/L) <sup>2</sup>	Cancer Risk <sup>3</sup> at the PHG	California MCL <sup>4</sup> (mg/L)	Cancer Risk at the California MCL
<a href="#">Ethylbenzene (phenylethane)</a>	hepatotoxicity (harms the liver)	0.3	NA	0.3	NA
<a href="#">Ethylene dibromide</a>	carcinogenicity (causes cancer)	0.00001	$1 \times 10^{-6}$	0.00005	$5 \times 10^{-6}$ (five per million)
<a href="#">Fluoride</a>	musculoskeletal toxicity (causes tooth mottling)	1	NA	2	NA
<a href="#">Glyphosate</a>	nephrotoxicity (harms the kidney)	0.9	NA	0.7	NA
<a href="#">Heptachlor</a>	carcinogenicity (causes cancer)	0.000008 ( $8 \times 10^{-6}$ )	$1 \times 10^{-6}$	0.00001	$1 \times 10^{-6}$ (one per million)
<a href="#">Heptachlor epoxide</a>	carcinogenicity (causes cancer)	0.000006 ( $6 \times 10^{-6}$ )	$1 \times 10^{-6}$	0.00001	$2 \times 10^{-6}$ (two per million)
<a href="#">Hexachlorobenzene</a>	carcinogenicity (causes cancer)	0.00003	$1 \times 10^{-6}$	0.001	$3 \times 10^{-5}$ (three per hundred thousand)
<a href="#">Hexachlorocyclopentadiene (HCCPD)</a>	digestive system toxicity (causes stomach lesions)	0.002	NA	0.05	NA
<a href="#">Lead</a>	developmental neurotoxicity (causes neurobehavioral effects in children) cardiovascular toxicity (causes high blood pressure) carcinogenicity (causes cancer)	0.0002	$< 1 \times 10^{-6}$ (PHG is not based on this effect)	0.015 (AL <sup>5</sup> )	$2 \times 10^{-6}$ (two per million)

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

Chemical	Health Risk Category <sup>1</sup>	California PHG (mg/L) <sup>2</sup>	Cancer Risk <sup>3</sup> at the PHG	California MCL <sup>4</sup> (mg/L)	Cancer Risk at the California MCL
<a href="#">Lindane (γ-BHC)</a>	carcinogenicity (causes cancer)	0.000032	1×10 <sup>-6</sup>	0.0002	6×10 <sup>-6</sup> (six per million)
<a href="#">Mercury (inorganic)</a>	nephrotoxicity (harms the kidney)	0.0012	NA	0.002	NA
<a href="#">Methoxychlor</a>	endocrine toxicity (causes hormone effects)	0.00009	NA	0.03	NA
<a href="#">Methyl tertiary-butyl ether (MTBE)</a>	carcinogenicity (causes cancer)	0.013	1×10 <sup>-6</sup>	0.013	1×10 <sup>-6</sup> (one per million)
<a href="#">Molinate</a>	carcinogenicity (causes cancer)	0.001	1×10 <sup>-6</sup>	0.02	2×10 <sup>-5</sup> (two per hundred thousand)
<a href="#">Monochlorobenzene (chlorobenzene)</a>	nephrotoxicity (harms the kidney)	0.07	NA	0.07	NA
<a href="#">Nickel</a>	developmental toxicity (causes increased neonatal deaths)	0.012	NA	0.1	NA
<a href="#">Nitrate</a>	hematotoxicity (causes methemoglobinemia)	45 as nitrate	NA	10 as nitrogen (=45 as nitrate)	NA
<a href="#">Nitrite</a>	hematotoxicity (causes methemoglobinemia)	1 as nitrogen	NA	1 as nitrogen	NA

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

Chemical	Health Risk Category <sup>1</sup>	California PHG (mg/L) <sup>2</sup>	Cancer Risk <sup>3</sup> at the PHG	California MCL <sup>4</sup> (mg/L)	Cancer Risk at the California MCL
<a href="#">Nitrate and Nitrite</a>	hematotoxicity (causes methemoglobinemia)	10 as nitrogen	NA	10 as nitrogen	NA
<a href="#">N-nitroso-dimethyl-amine (NDMA)</a>	carcinogenicity (causes cancer)	0.000003 (3×10 <sup>-6</sup> )	1×10 <sup>-6</sup>	none	NA
<a href="#">Oxamyl</a>	general toxicity (causes body weight effects)	0.026	NA	0.05	NA
<a href="#">Pentachloro-phenol (PCP)</a>	carcinogenicity (causes cancer)	0.0003	1×10 <sup>-6</sup>	0.001	3×10 <sup>-6</sup> (three per million)
<a href="#">Perchlorate</a>	endocrine toxicity (affects the thyroid) developmental toxicity (causes neurodevelopmental deficits)	0.001	NA	0.006	NA
<a href="#">Picloram</a>	hepatotoxicity (harms the liver)	0.5	NA	0.5	NA
<a href="#">Polychlorinated biphenyls (PCBs)</a>	carcinogenicity (causes cancer)	0.00009	1×10 <sup>-6</sup>	0.0005	6×10 <sup>-6</sup> (six per million)
<a href="#">Radium-226</a>	carcinogenicity (causes cancer)	0.05 pCi/L	1×10 <sup>-6</sup>	5 pCi/L (combined Ra <sup>226+228</sup> )	1×10 <sup>-4</sup> (one per ten thousand)
<a href="#">Radium-228</a>	carcinogenicity (causes cancer)	0.019 pCi/L	1×10 <sup>-6</sup>	5 pCi/L (combined Ra <sup>226+228</sup> )	3×10 <sup>-4</sup> (three per ten thousand)

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

Chemical	Health Risk Category <sup>1</sup>	California PHG (mg/L) <sup>2</sup>	Cancer Risk <sup>3</sup> at the PHG	California MCL <sup>4</sup> (mg/L)	Cancer Risk at the California MCL
<a href="#">Selenium</a>	integumentary toxicity (causes hair loss and nail damage)	0.03	NA	0.05	NA
<a href="#">Silvex (2,4,5-TP)</a>	hepatotoxicity (harms the liver)	0.003	NA	0.05	NA
<a href="#">Simazine</a>	general toxicity (causes body weight effects)	0.004	NA	0.004	NA
<a href="#">Strontium-90</a>	carcinogenicity (causes cancer)	0.35 pCi/L	$1 \times 10^{-6}$	8 pCi/L	$2 \times 10^{-5}$ (two per hundred thousand)
<a href="#">Styrene (vinylbenzene)</a>	carcinogenicity (causes cancer)	0.0005	$1 \times 10^{-6}$	0.1	$2 \times 10^{-4}$ (two per ten thousand)
<a href="#">1,1,2,2-Tetrachloroethane</a>	carcinogenicity (causes cancer)	0.0001	$1 \times 10^{-6}$	0.001	$1 \times 10^{-5}$ (one per hundred thousand)
<a href="#">Tetrachloroethylene (perchloroethylene, or PCE)</a>	carcinogenicity (causes cancer)	0.00006	$1 \times 10^{-6}$	0.005	$8 \times 10^{-5}$ (eight per hundred thousand)
<a href="#">Thallium</a>	integumentary toxicity (causes hair loss)	0.0001	NA	0.002	NA
<a href="#">Thiobencarb</a>	general toxicity (causes body weight effects) hematotoxicity (affects red blood cells)	0.07	NA	0.07	NA

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

Chemical	Health Risk Category <sup>1</sup>	California PHG (mg/L) <sup>2</sup>	Cancer Risk <sup>3</sup> at the PHG	California MCL <sup>4</sup> (mg/L)	Cancer Risk at the California MCL
<a href="#">Toluene (methylbenzene)</a>	hepatotoxicity (harms the liver) endocrine toxicity (harms the thymus)	0.15	NA	0.15	NA
<a href="#">Toxaphene</a>	carcinogenicity (causes cancer)	0.00003	1×10 <sup>-6</sup>	0.003	1×10 <sup>-4</sup> (one per ten thousand)
<a href="#">1,2,4-Trichlorobenzene</a>	endocrine toxicity (harms adrenal glands)	0.005	NA	0.005	NA
<a href="#">1,1,1-Trichloroethane</a>	neurotoxicity (harms the nervous system), reproductive toxicity (causes fewer offspring) hepatotoxicity (harms the liver) hematotoxicity (causes blood effects)	1	NA	0.2	NA
<a href="#">1,1,2-Trichloroethane</a>	carcinogenicity (causes cancer)	0.0003	1×10 <sup>-6</sup>	0.005	2×10 <sup>-5</sup> (two per hundred thousand)
<a href="#">Trichloroethylene (TCE)</a>	carcinogenicity (causes cancer)	0.0017	1×10 <sup>-6</sup>	0.005	3×10 <sup>-6</sup> (three per million)
<a href="#">Trichlorofluoromethane (Freon 11)</a>	accelerated mortality (increase in early death)	1.3	NA	0.15	NA

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

Chemical	Health Risk Category <sup>1</sup>	California PHG (mg/L) <sup>2</sup>	Cancer Risk <sup>3</sup> at the PHG	California MCL <sup>4</sup> (mg/L)	Cancer Risk at the California MCL
<a href="#">1,2,3-Trichloropropane</a> (1,2,3-TCP)	carcinogenicity (causes cancer)	0.0000007 ( $7 \times 10^{-7}$ )	$1 \times 10^{-6}$	none	NA
<a href="#">1,1,2-Trichloro-1,2,2-trifluoroethane</a> (Freon 113)	hepatotoxicity (harms the liver)	4	NA	1.2	NA
<a href="#">Tritium</a>	carcinogenicity (causes cancer)	400 pCi/L	$1 \times 10^{-6}$	20,000 pCi/L	$5 \times 10^{-5}$ (five per hundred thousand)
<a href="#">Uranium</a>	carcinogenicity (causes cancer)	0.43 pCi/L	$1 \times 10^{-6}$	20 pCi/L	$5 \times 10^{-5}$ (five per hundred thousand)
<a href="#">Vinyl chloride</a>	carcinogenicity (causes cancer)	0.00005	$1 \times 10^{-6}$	0.0005	$1 \times 10^{-5}$ (one per hundred thousand)
<a href="#">Xylene</a>	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 <sup>1</sup>	U.S. EPA MCLG <sup>2</sup> (mg/L)	Cancer Risk <sup>3</sup> @ MCLG	California MCL <sup>4</sup> (mg/L)	Cancer Risk @ California MCL
<b>Disinfection byproducts (DBPS)</b>					
Chloramines	acute toxicity (causes irritation) digestive system toxicity (harms the stomach) hematotoxicity (causes anemia)	4 <sup>5,6</sup>	NA <sup>7</sup>	none	NA
Chlorine	acute toxicity (causes irritation) digestive system toxicity (harms the stomach)	4 <sup>5,6</sup>	NA	none	NA
Chlorine dioxide	hematotoxicity (causes anemia) neurotoxicity (harms the nervous system)	0.8 <sup>5,6</sup>	NA	none	NA
<b>Disinfection byproducts: haloacetic acids (HAA5)</b>					
Chloroacetic acid	general toxicity (causes body and organ weight changes <sup>8</sup> )	0.07	NA	none	NA

<sup>1</sup> Health risk category based on the U.S. EPA MCLG document or California MCL document unless otherwise specified.

<sup>2</sup> MCLG = maximum contaminant level goal established by U.S. EPA.

<sup>3</sup> Cancer Risk = Upper estimate of excess cancer risk from lifetime exposure. Actual cancer risk may be lower or zero.  $1 \times 10^{-6}$  means one excess cancer case per million people exposed.

<sup>4</sup> California MCL = maximum contaminant level established by California.

<sup>5</sup> Maximum Residual Disinfectant Level Goal, or MRDLG.

<sup>6</sup> The federal Maximum Residual Disinfectant Level (MRDL), or highest level of disinfectant allowed in drinking water, is the same value for this chemical.

<sup>7</sup> NA = not available.

<sup>8</sup> 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 <sup>1</sup>	U.S. EPA MCLG <sup>2</sup> (mg/L)	Cancer Risk <sup>3</sup> @ MCLG	California MCL <sup>4</sup> (mg/L)	Cancer Risk @ California MCL
* Dichloroacetic acid	carcinogenicity (causes cancer)	0	0	none	NA
* Trichloroacetic acid	hepatotoxicity (harms the liver)	0.02	0	none	NA
Bromoacetic acid	NA	none	NA	none	NA
Dibromoacetic acid	NA	none	NA	none	NA
Total haloacetic acids	carcinogenicity (causes cancer)	none	NA	0.06	NA
<b>Disinfection byproducts: trihalomethanes (THMs)</b>					
* Bromodichloromethane (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
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

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

Chemical	Health Risk Category <sup>1</sup>	U.S. EPA MCLG <sup>2</sup> (mg/L)	Cancer Risk <sup>3</sup> @ MCLG	California MCL <sup>4</sup> (mg/L)	Cancer Risk @ California MCL
<b>Radionuclides</b>					
Gross alpha particles <sup>9</sup>	carcinogenicity (causes cancer)	0 ( <sup>210</sup> Po included)	0	15 pCi/L <sup>10</sup> (includes <sup>226</sup> Ra but not radon and uranium)	up to 1x10 <sup>-3</sup> (for <sup>210</sup> Po, the most potent alpha emitter)
Beta particles and photon emitters <sup>9</sup>	carcinogenicity (causes cancer)	0 ( <sup>210</sup> Pb included)	0	50 pCi/L (judged equiv. to 4 mrem/yr)	up to 2x10 <sup>-3</sup> (for <sup>210</sup> Pb, the most potent beta-emitter)

<sup>9</sup> 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://oehha.studio-weeren.com/media/downloads/water/chemicals/phg/grossalphahealth.pdf>.

<sup>10</sup> pCi/L = picocuries per liter of water.



## PARADISE IRRIGATION DISTRICT

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**TO: Board of Directors**

**FROM: Ed Fortner, District Manager**

**DATE: 10/11/2018**

**RE: November Board of Directors Meeting**

At the January 17, 2018 Board of Directors meeting, action was taken to cancel the regularly scheduled Board of Directors Meeting of November 21, 2018 and set a special meeting date on November 28, 2018 at 6:30 p.m. Kevin Phillips and I are scheduled to attend the Association of California Water Agencies (ACWA) Fall Conference during the week of November 26 and request consideration to revise the special meeting date.

The recommended form of motion would be:

“I move to cancel the special meeting date previously set for November 28, 2018, and set a new special meeting date of the Board of Directors on Monday, November 19, 2018 at 6:30 p.m.”



## **PARADISE IRRIGATION DISTRICT**

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**TO: Board of Directors**

**FROM: Ed Fortner, District Manager**

**DATE: 10/12/2018**

**RE: Proposed Tentative Agreement between Paradise Irrigation District and IBEW Local Union 1245**

At a meeting of employees in the general unit represented by the International Brotherhood of Electrical Workers Local 1245, a vote of the General Unit was conducted on October 11, 2018, resulting in the Proposed Tentative Agreement between Paradise Irrigation District and IBEW Local Union 1245. The term of this Agreement shall be from July 1, 2018 through June 30, 2019.

The recommended form of motion would be:

“I move to ratify the Proposed Tentative Agreement between Paradise Irrigation District and IBEW Local Union 1245 and update the terms of the agreement in the Rules and Regulations Governing Employment Conditions, Salaries, and Benefits for Employees of the Paradise Irrigation District General Unit effective July 1, 2018 through June 30, 2019.”

# Proposed Tentative Agreement Between Paradise Irrigation District and IBEW Local Union 1245

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1. Medical Insurance Paragraph C(2):

The District will offer three (3) health plan options to employees. The employee may select the health plan in which he/she wishes to participate. Effective January 1, 2019, the District shall make monthly contributions to the employee's purchase of the health plan in an amount not to exceed:

Employee:	\$829.96
Couple:	\$1,691.05
Family:	\$2,183.10

Unless otherwise agreed between the union and the District, the District shall provide the ACWA Advantage Health Plan, Classic Health Plan, and Account Based Health Plan options, or their closest ACWA equivalents in the event of a plan change or elimination. *The parties agree to continue meeting to discuss a transition in health care providers.*

New Paragraph:

The District will offer a cash payment to any eligible employee that elects to opt out of District provided health benefits. That employee shall receive a monthly payment in the amount of one half the District's premium contribution of the plan he/she would have selected as set forth above. Any employee wishing to opt out of the District provided health benefits, must first provide reasonable evidence of enrollment in another insurance such as family coverage through a spouse's employer. *This cash payment provision shall only apply if an opt out provision is offered by the health insurance company with which the District has contracted at no additional expense.*

2. Term of Agreement: The term of this Agreement shall be from July 1, 2018 through June 30, 2019.
3. Salary: *Retroactive to July 1, 2018*, the salary range will be increased to provide a cost of living adjustment of 2.5%.
4. Employees who are assigned to perform work in a higher classification for more than 540 days *within a five year time period* shall be reclassified into the higher classification.
5. New Paragraph:

The District will provide eligible employees with reimbursement for cell phone use in accordance with District Policy.

6. Add to the end of Paragraph G, Life Insurance:

An employee shall have the option to purchase life insurance for his/her spouse and/or dependent, at his/her own expense, provided that it is offered by the life insurance company with which the District has contracted.

7. All references in the Agreement to “IBEW” will be replaced with “IBEW Local Union 1245”.



## PARADISE IRRIGATION DISTRICT

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**TO: Board of Directors**

**FROM: Ed Fortner, District Manager**

**DATE: 10/12/2018**

**RE: Proposed Tentative Agreement between Paradise Irrigation District and the Management Unit Represented by Teamsters, Local 137**

Pending a vote of the employees in the Management Unit represented by the Teamsters, Local 137, a proposed Tentative Agreement will be presented to the Board of Directors to consider for ratification between the Paradise Irrigation District and Teamsters, Local 137.

The recommended form of motion would be:

"I move to ratify the Proposed Tentative Agreement between Paradise Irrigation District and Teamsters Union Local 137 and update the terms of the agreement in the Rules and Regulations Governing Employment Conditions, Salaries, and Benefits for Employees of the Paradise Irrigation District Management Unit effective July 1, 2018 through June 30, 2021."

## **Paradise Irrigation District Paradise Lake and Recreation Committee Meeting Minutes October 9, 2018**

**Directors Present:** Bill Kellogg, Marc Sulik

**Staff Present:** Ed Fortner, Jim Passanisi, Greg Dobbs

**Committee Members Present:** Kieran O'Leary - SPI, Darrell Wilson - BCFSC

**Public Present:** Dam Efseaff, PRPD Manager

1. **Water Supply Update:** Jim stated that the Paradise Lake level is lower at this date (Oct. 1) than in the previous two years at this date, approximately 15 feet below spill level. Ed asked if there could be a rainfall graph superimposed on the lake level graph page. Jim stated that a side graph showing rainfall could probably be included on the lake level page and that he would look into including this information.
2. **Potential Opportunities between Paradise Recreation & Park District and Paradise Irrigation District (Dan Efseaff, PRPD Manager):** Dan stated that he would like to foster a good relationship between PRPD and PID and possible partnering on projects with PID. He proposed a possible celebration and event centered on Paradise Lake filling up in the spring. It could be an event partnered with the Aquatic Center at the Oroville Lake Forebay. A question was asked of Dan regarding the status of the proposed Botanical Garden Park in Magalia. Dan stated that PRPD is waiting to see how the recent State Proposition money for park development is distributed. PRPD would seek grant opportunities to fund the development of the Botanical Garden. A question was asked of Dan if they have a grant writer on staff. Dan stated PRPD does not, but he has written grant proposals in the past and may do so again.
3. **A Zone Leak Detection (Manager Fortner):** Ed stated the new PID leak detection equipment is working well and the crews have recently concentrated on looking for leaks in the A Zone. Seven leaks were found and repaired in the A Zone. Ed stated crews will start to look for leaks throughout the entire distribution system in 2019. Ed also stated he thinks there may be a misperception of how the PID water distribution system works. He went on to explain how the water flows from the Water Treatment Plant down into the distribution system. He further explained how the Reservoir B Rehabilitation Project would work and enhance the District's operations when completed.
4. **Proposed Trail from Magalia Reservoir to Paradise Lake (Manager Fortner):** Update from September 19, 2018 Board of Directors meeting in reference to continuing research efforts regarding a proposed trail. Ed stated that the core mission of PID is delivering potable water to its customers and that recreation is a secondary consideration. That being said, Ed stated he wants to put the proposed trail on hold until the PID Strategic Plan is updated. The last update to the Plan was in 2012. The Strategic Business Plan includes the District's mission and goals and would provide direction for recreation opportunities. Ed indicated he would support a partnership with PRPD for recreation development or activities. Director Kellogg stated that PID has an MOU in place with PRPD for the development of the Botanical Garden. The Botanical Garden would be developed on PID property in Magalia. Director

Kellogg further added maintenance of the existing PID recreational facilities at Paradise Lake has greatly improved in recent years and is in good condition.

5. Goats for grazing services to perform Shaded Fuel removal work (Manager Fortner): Ed reported there is potential to partner with SPI on using the goats for shaded fuel removal on PID property. SPI will be doing a small area demonstration project with the goats for fuel removal and depending on how effective they are, will determine if they will be used for a larger fuel removal project. Ed stated there may be grant money available for using the goats for fuel removal. Jim reported he is looking into grant money that might be available for use on future Shaded Fuel projects. Ed added that PID would need to do some public outreach and information sharing prior to any use of goats for a fuel removal project.
6. Paradise Lake Boat Launch Ramp No. 1 - Improvement to Existing Parking Area. Update and discussion regarding proposed improvement to existing parking area (Jim Passanisi): Jim stated the project is being scaled back and alternatives are being considered, including no project. Marc noted a Butte County Grading Permit could possibly be obtained and some minimal improvements to Boat Launch 1 made under such a permit.
7. Project Updates - Informational items (Greg Dobbs): Wildlife images were distributed to the Committee to view and are ready for placement on the Lake bulletin board. The ADA picnic table pad site is being worked on by District crews. Greg noted that approximately 4 trees need to be removed from the site. No work is currently being performed on Shaded Fuel projects as Cal Fire has reduced the number of available personnel to do the work. Lake Permit sales are up from previous years. A question was asked if credit card payments might be able to be implemented for Lake Permits. Ed stated he will ask staff to look into the technology that could provide that; i.e., email/cell phone receipts, etc. Greg discussed an incident at Magalia Reservoir where an ATV was abandoned in the Lake. Butte County Sheriff, CHP, and State Fish and Wildlife were contacted regarding the incident. Greg noted District crews responded with absorbent pads for possible fuel spill removal, but fortunately, no pollution of the Reservoir was observed from the incident.

The next meeting of the Paradise Lake and Recreation Committee was scheduled to be held on Wednesday, December 12, 2018 at 9:00 a.m.