



**Paradise Irrigation District Water
System Recovery and Reservoir B
Replacement Project**

Proposed Mitigated Negative
Declaration and Initial Study
Administrative Draft (v1)

September 1, 2021

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Abbreviations and Acronyms

°F	degrees Fahrenheit
AB 52	Assembly Bill 52
BCAQMD	Butte County Air Quality Management District
BMP	Best Management Practice
CalOES	California Governor's Office of Emergency Services
CEQA	California Environmental Quality Act
FEMA	Federal Emergency Management Agency
GHG	greenhouse gas
IS	Initial Study
MG	million gallons
MMRP	Mitigation Monitoring and Reporting Program
MND	Mitigated Negative Declaration
NAHC	Native American Heritage Commission
PID	Paradise Irrigation District
PM2.5	particulate matter 2.5 microns or less
PM10	particulate matter 10 microns or less
PRC	Public Resources Code
project	Water System Recovery and Reservoir B Replacement Project
TCR	Tribal Cultural Resource
VOC	volatile organic compounds
WTP	water treatment plant

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Project Information

- 1. Project Title:** Paradise Irrigation District Water System Recovery and Reservoir B Replacement Project
- 2. Lead Agency Name and Address** Paradise Irrigation District
6332 Clark Road
Paradise, California 9596
- 3. Contact Person and Phone Number** Kevin Phillips, District Manager
Paradise Irrigation District
(530) 877-4971
- 4. Project Location**

The recovery project is composed of two elements, both of which are in the town of Paradise, Butte County, California. The water distribution system element of the proposed project is aligned throughout Paradise and involves numerous parcels. It is within Township 22N, Range 3E, Sections 1-3, 9-16, 20-29, and 33-36; Township 22N R4E, Sections 6, 7, 18, 19, and 30; Township 23N, Range 3E, Section 36; and Township 23N, Range 4E, Section 31.

The Reservoir B replacement element is in Township 22N, Range 3E, Sections 1 and 12, Paradise East, California U.S. Geological Survey topographic quadrangle, Mount Diablo Base and Meridian. Accessor Parcel Numbers in the Reservoir B replacement part of the project include:

 - 050-070-075-000
 - 050-070-077-000
 - 050-070-083-000
- 5. Project Sponsor's Name** Paradise Irrigation District
- 6. General Plan Designation**

Reservoir B Element

 - Public Institution (PI)
 - Multi-Family Residential (MR)
 - Town Residential (TR)

Water Distribution System Element

Multiple General Plan Designations, including but not limited to Central Commercial (CC), Community Service (CS), Light Industrial (LI), Multi-Family Residential (MF), Neighborhood Commercial (NC), Public Institutional (PI), Rural Residential (RR), and Town Residential (TR)

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7. Zoning

Reservoir B Element

Community Facilities (CF)
Multiple-Family Residential (MF)
Town Residential (1/2 acre min) (TR ½)

Water Distribution System Element

Multiple Zoning Designations, including but not limited to Central Business (CB), Community Commercial (CC), Community Facilities (CF), Multiple Family Residential (MF), Rural Residential (RR), and Town Residential (TR)

8. Description of Project

Paradise Irrigation District operates a water treatment plant and the accompanying distribution system for Paradise, California. The Camp Fire on November 8, 2018, caused significant damage to Paradise Irrigation District's potable water storage and distribution system infrastructure. Prior to the Camp Fire, the distribution system supplied potable water to 10,507 connections serving a population of approximately 26,000. Approximately 1,500 structures survived the fire and the post-fire estimate of customer connections as of December 2020 is 2,936 connections. The project would replace key components of the water storage and distribution system to serve the connections in the rebuilt community. The project would consist of the following elements:

Reservoir B Replacement Element

- Reservoir B replacement

Water Distribution System Replacement Element

- Almond Street main replacement
- Service lateral replacement
- Meter replacement
- Main replacement and repair

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

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CHAPTER 1.0 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) Water System Recovery 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 (PRC) Section 21000 et seq., and the State CEQA Guidelines. Mitigation measures are proposed to avoid or minimize any significant impacts that were identified. The project is needed due to damage incurred during the Camp Fire in November 2018. Damage to PID's infrastructure from the fire was widespread. This IS/MND evaluates the proposed recovery project composed of the following elements:

Reservoir B Replacement Element

- Reservoir B replacement

Water Distribution System Replacement Element

- Almond Street main replacement
- Service lateral replacement
- Meter replacement
- Main replacement and repair

The initial Paradise Irrigation District Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project was approved by adoption of a CEQA MND in October 2018 (State Clearinghouse Number 2018082044), which included three main project elements: Reservoir B replacement, the Zone A pump station, and the Zone A transmission main. On November 8, 2018, the Camp Fire devastated Paradise and surrounding areas. Conditions changed by the fire have altered project that was previously adopted; therefore, the project has been amended as follows:

- Remove the Zone A pump station from the original project
- Remove the Zone A transmission main from the original project
- Downsize the recommended Reservoir B total volume to 3 million gallons
- The project will include two 1.5-million-gallon, bolted steel tanks instead of two 2.3-million-gallon steel tanks.
- Inclusion of the water system recovery components including replacement of meters, mains, and service laterals

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

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Additional Supplemental Appropriations for Disaster Relief Act, as well as Additional funding has been attained from the California Governor's Office of Emergency Services (CalOES) and the Federal Emergency Management Agency (FEMA). It is anticipated that CalOES will act as the National Environmental Policy Act Lead Agency on behalf of FEMA. PID is also partially funding the project through their insurance and reserves.

1.3 SUPPORTING TECHNICAL STUDIES

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

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 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.

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CHAPTER 2.0 PROJECT DESCRIPTION

2.1 LOCATION

The project would be in PIDs service area in the town of Paradise, Butte County, California. The water system recovery elements would be constructed throughout Paradise, while the Reservoir B replacement element would be located at PIDs existing facility between Skyway Road and Paradise Memorial Trail in Paradise (Figure 1). Paradise is located approximately 12 road miles northeast of Highway 99 and the city of Chico in Butte County, California. The water distribution system replacement element is shown on the *Paradise East, Paradise West, Cherokee, and Hamlin Canyon, California* 7.5-minute U.S. Geological Survey quadrangles, Township 22N, Range 3E, Sections 1-3, 9-16, 20-29, and 33-36; Township 22N R4E, Sections 6, 7, 18, 19, and 30; Township 23N, Range 3E, Section 36; and Township 23N, Range 4E, Section 31. The Reservoir B replacement element is shown on the *Paradise East, California* 7.5-minute U.S. Geological Survey quadrangle, Township 22N, Range 3E, Sections 1 and 12 (Figure 2).

Prior to the Camp Fire, the water distribution system was mostly aligned in Paradise's network of streets. It provided potable water throughout the town for residential and commercial uses. The system alignment passed through areas disturbed by urban development interspersed with semi-natural habitat (e.g., small tree stands). Land ownership is both private and PID-owned parcels.

The 5.9-acre Reservoir B replacement project area included a covered reservoir (Reservoir B), distribution infrastructure, and adjacent areas. Similar to the water distribution system, the land in the reservoir area and vicinity is largely disturbed with small areas of semi-natural habitat located near the existing reservoir. It is located on private and PID-owned parcels.

2.2 PROJECT PURPOSE AND NEED

The purpose of the project is to repair and replace critical potable water and distribution system infrastructure that was damaged by the Camp Fire in 2018. The project is needed to sustain operations and provide water for the anticipated post-fire re-build population within the PID service boundary.

2.3 EXISTING FACILITIES

The PID distribution system is split into seven distribution zones that before the fire varied in the number of individual connections from 61 to 2,808. The distribution system includes approximately 178 miles of pipeline with approximately 49 connections per mile of main. There are five water storage reservoirs in the distribution system. All reservoirs except Reservoir B are steel tank reservoirs, with the latter being an earth embankment lined reservoir that was covered by a flexible membrane cover that was destroyed by the fire. The PID water distribution system is designed to route finished water from its water treatment plant to Reservoir B via a 12,500-foot, 42-inch finished water transmission line. The 42-inch gravity transmission line alignment roughly parallels Little Butte Creek. Reservoir B is integral to the other reservoirs in the system, gravity feeding into reservoirs C, D, and E. Reservoir A is supplied water via Pump Station #2 in Zone B of the distribution system.

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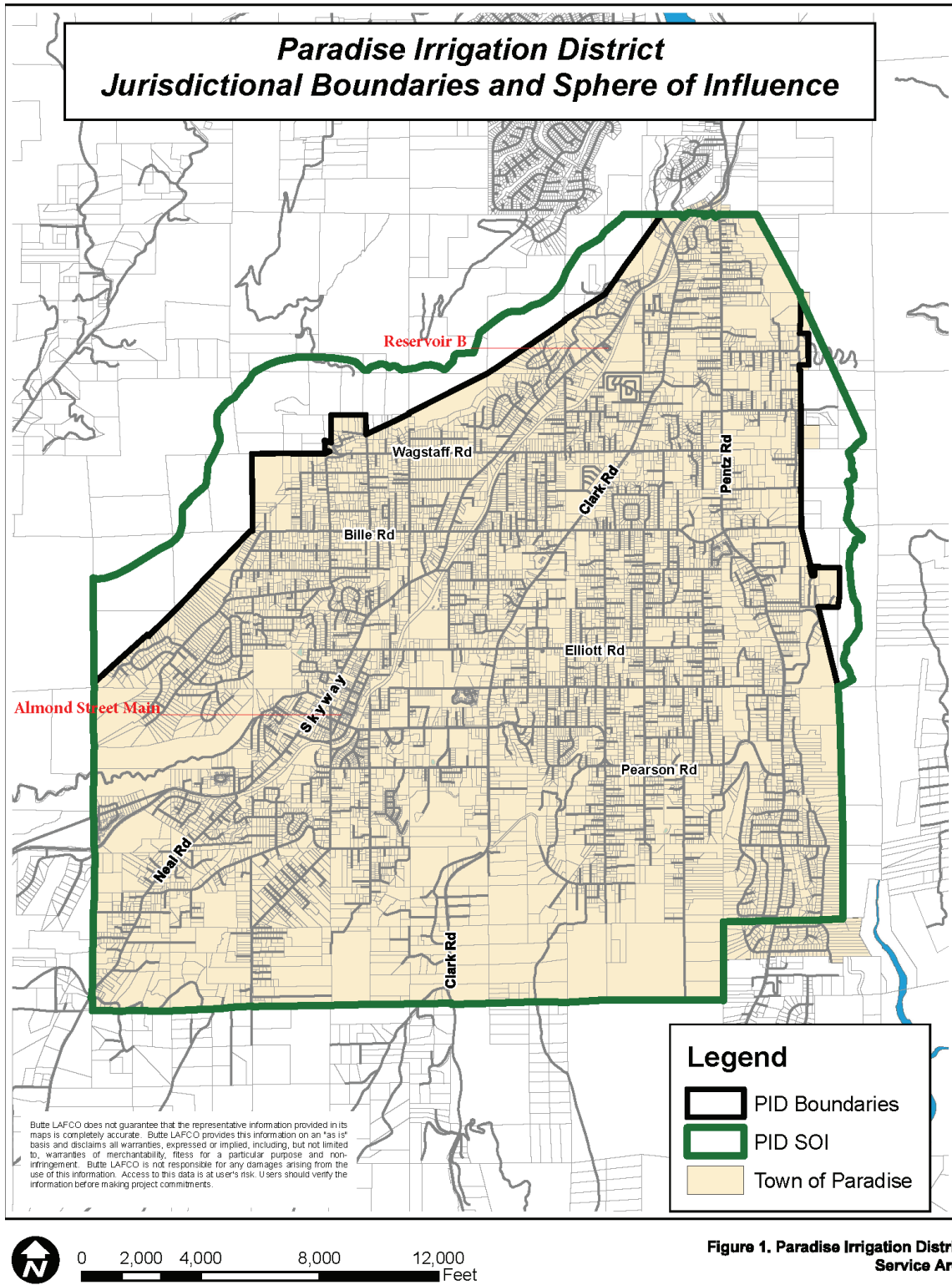


Figure 1. Paradise Irrigation District Service Area

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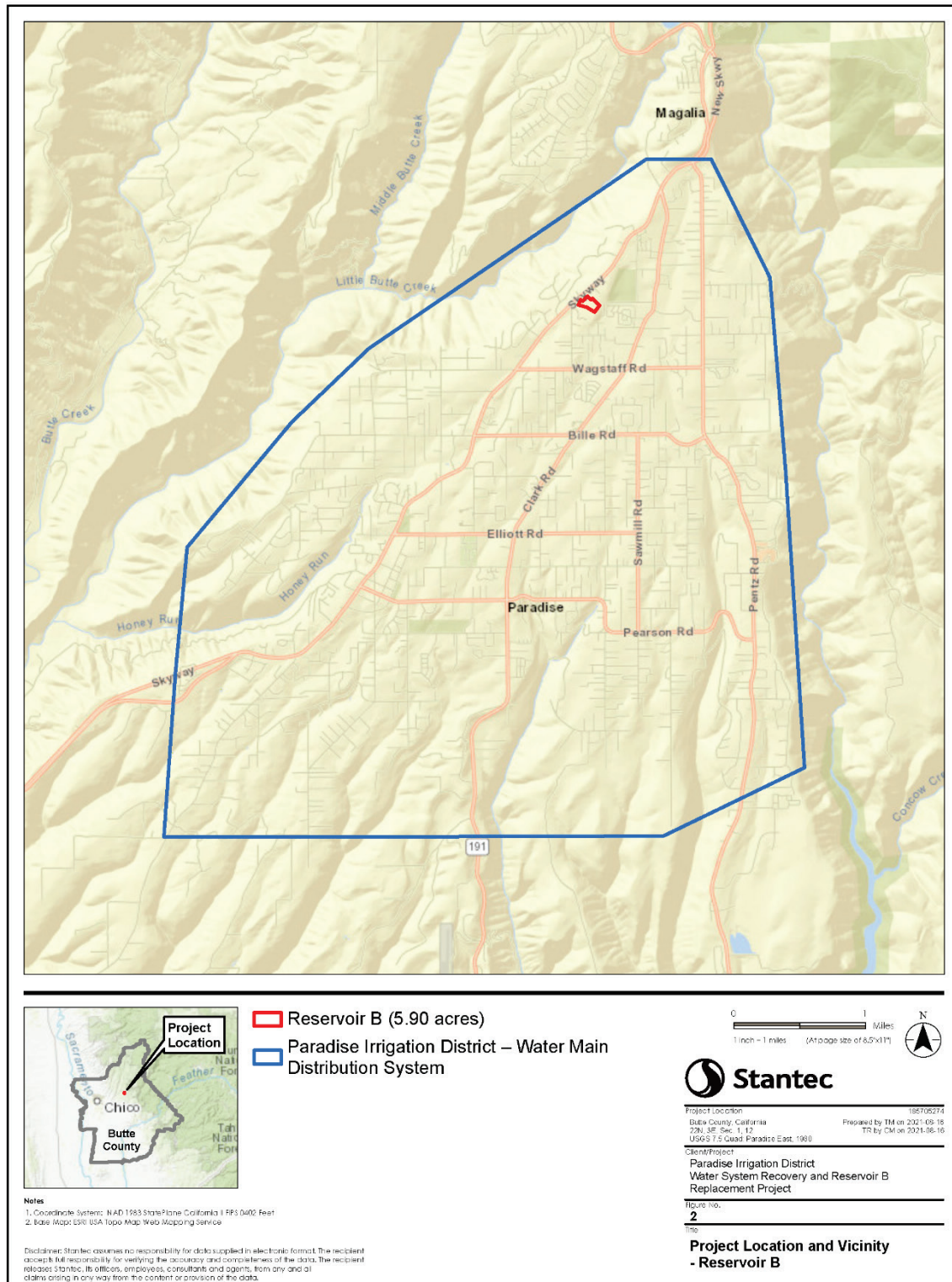


Figure 2. Project Location and Vicinity Map – Reservoir B

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The water treatment plant sustained minor damages during the Camp Fire and continues to produce potable water for PID. The reservoir storage tanks remain operational, except for Reservoir B. The distribution system has undergone a major recovery project since the fire to return potable water service to the customers.

Reservoir B is a Hypalon-lined earthen reservoir with a floating high-density polyethylene cover. The fire melted the cover and liner in multiple locations, destroying them beyond repair. The reservoir could not be placed back into service after the fire because the liner and cover were no longer intact.

Post-fire reconstruction, including heavy debris removal, construction, and logging traffic has destroyed many roads in Paradise. The Almond Street “downtown” corridor is underlain by approximately 2,600 linear feet of 8-inch water main. This section of main currently represents a high likelihood of failure and continuing maintenance requirements due to leaks and damage from necessary and impending roadway improvements. The majority of PIDs customer meters sustained fire damage and were removed from the field. Since that time, PID has operated without volumetric metering.

During and after the fire, open and flowing service connections at destroyed homes caused PIDs water distribution system to depressurize. This negative pressure drew contaminants into the piping where they were absorbed or adhered to the pipe material. This occurred primarily in the smaller diameter service lateral piping where buildings were destroyed. An exhaustive water quality sampling and analysis project (over 400,000 individual tests at 6,000+ locations) was undertaken to characterize and identify the extent and nature of this unprecedented contamination. Each surviving structure’s service lateral was tested and individually evaluated before being put back in potable service. After hundreds of tests, PID, in coordination with CalOES and FEMA, determined that for destroyed structures, the data trend of 50% contamination was sufficiently representative. It was ultimately more cost effective to replace all service laterals serving destroyed structures than to test each and replace those found to contain volatile organic compounds (VOCs) (Water Works Engineers 2021).

2.4 STORAGE CAPACITY AND WATER DEMAND

The California Code of Regulations, Title 22, provides the design standards for determining adequate storage volumes for customer consumption. The domestic water use in Paradise comprises mixed residential and commercial use. The storage volume requirement for the post-fire system was recalculated based on the post-fire buildout population estimate of 13,100 people and typical customer use rates. Storage volumes per zone needed to meet maximum daily demand and 4-hour peak hour demand volumes for the anticipated buildout were calculated according to industry standards (Water Works Engineers 2021). The revised storage volume requirements for PID for the post-fire buildout population are shown in Table 1. The table also shows the current storage volume capacity accounting for the loss of Reservoir B. The final column summarizes the storage excess or deficit for each zone and the system. The Reservoir B replacement element will return necessary storage volume to PID.

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Table 1. Pre- and Post-fire Storage Volume Requirements

Zone	Pre-fire Connections	Post-fire Connections	Served By Reservoir	Pre-fire Total Storage Required (million gallons)	Post-fire Total Storage Required (million gallons)	Post-fire Existing Storage (million gallons)	Post-fire Excess or Deficit
All	10,507	6,121	All	7.91	6.28	6.31	0.03
A	1,224	713	A, B	4.46	4.86	0.98	-3.88
B	2,192	1,277	B	4.82	4.48	0	-4.48
C	2,808	1,636	B, C	5.04	4.61	1.94	-2.67
D	2,462	1,434	B, C, D	4.92	4.53	3.88	-0.65
E	1,195	696	B, C, D, E	4.44	4.83	5.33	0.50
F	565	329	B, C, D, E	4.68	4.39	5.33	0.94
G	61	36	B, C, D, E	4.07	4.04	5.33	1.29

The initial Reservoir B replacement project (2018) targeted a total site volume of 4.6 million gallons (MG) to provide adequate water supply for the pre-fire population and anticipated population growth. FEMA project funding agreements stipulated the funded replacement project will include a total site volume of 3 MG, which was the volume of the original reservoir. The replacement Reservoir B storage volume was added to the existing storage volume to determine the total storage available to PID following the replacement of Reservoir B. According to preliminary engineering calculations which account for maximum day demand and fire-fighting storage volume for a wildland interface, the system may have a storage deficit of 2.35 MG at a population of 13,100 people after the Reservoir B replacement is complete.

The storage calculation was repeated for the 2019 population of 6,650 people (2.14 persons per household is 3,106 connections). PID may have a deficit of 2.23 MG of storage after the Reservoir B replacement is complete with the current population estimate.

In conclusion, the Reservoir B replacement element would not seek to install the remaining 2.35 MG of storage as required by the storage calculations due to the funding limitations put forth by the FEMA agreement. PID may seek funding for a third tank installation project at the Reservoir B site to accommodate the remaining volume deficit. The project site would be designed to accommodate a third tank installation.

2.5 PROPOSED PROJECT

The proposed project includes water system recovery and rehabilitation elements and replacement of Reservoir B. Section 3 presents an assessment of the water distribution system and Reservoir B, both of which were substantially affected by the Camp Fire in 2018.

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2.5.1 Water System Recovery

The Camp Fire resulted in the widespread damage of critical water service infrastructure. Water system recovery would involve replacement and repair of PID's water distribution system. This element of the project would include the following:

- Almond Street main replacement
- Service lateral replacement
- Meter replacement
- Main replacement and repair

Almond Street Main Replacement

The Almond Street main replacement element includes the removal and replacement of approximately 2,600 linear feet of 8-inch water main through the Almond Street downtown corridor of Paradise. The total disturbance area is approximately 20,150 square feet. This section of main currently represents a high likelihood of failure and continuing maintenance requirements due to leaks and damage from necessary and impending roadway improvements. Replacement would help ensure the removal of underperforming pipe, reduce failure risk, reduce maintenance demands, and help ensure the longevity of a critical component of water distribution infrastructure.

Service Lateral Replacement

The service lateral replacement element includes the replacement of between 4,070 and 5,470 service laterals throughout the PID service area. Approximately 50 square feet of ground disturbance would occur for each service lateral, totaling approximately 273,500 square feet for the entire project. Additionally, a hazard mitigation proposal for backflow prevention devices at each service lateral replacement site would be included for a matching number of backflow prevention devices (4,070 to 5,470). Replacement of these service laterals and installation of backflow prevention devices support the restoration of potable water service to each location where a structure is being rebuilt following the 2018 Camp Fire.

Meter Replacement

Prior to the fire, PID used a Zenner metering system to record water use data. The Zenner meter housing was plastic, and most meters were installed in plastic meter boxes. The heat from the fire caused damage to a significant amount of the water meter infrastructure both in terms of accuracy and contamination. PID, in coordination with CalOES and FEMA, determined that the necessary course of action was to replace the damaged centralized metering infrastructure and install all new customer meters with updated technology specifically designed to serve residential fire flow conditions (as required of all rebuilt structures). The new meter system would include brass body meters, concrete meter boxes, and a mesh network infrastructure. PID also adopted a standard response to the fire and mass fire suppression system installations in new buildings requiring the installation of backflow prevention devices at all commercial and residential services. These devices were adopted into the standard detail for new meter installations and would be included in the service lateral replacement element as a hazard mitigation

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component of the project. Approximately 25 square feet of ground disturbance would be required for each meter replaced (5,897 sites) totaling approximately 147,425 square feet for this element of the project.

Main Replacement

Loss of pressure in the water distribution system, exacerbated by continuous water demand for fire-fighting equipment, resulted in unchecked backflow of VOC-contaminated burn residue into the service laterals and the distribution mains. Extensive VOC testing of the distribution system was performed on water samples taken from blowoffs, hydrants, and service laterals. VOC contamination has been identified in 79,500 linear feet of water main pipe throughout PID zones A through G. These contaminated main sections cannot be cleaned by flushing alone and would undergo replacement. Approximately 12 square feet of ground disturbance would be required per linear foot of main replacement totaling 953,592 square feet for the project (Figure 3).

PID uses a system of pressure zones to refer to different areas within its distribution system (Figure 3). These zones are defined by pressure breaks. Because of the general north to south slope of the local topography, distribution pressure increases with distance from PID's water treatment plant located north of town. PID has set up pressure zone breaks determined by pressure reducing valves set at the pressure zone boundaries. These zone breaks reduce the service pressures to appropriate ranges for the pressure zone (usually 40-80 pounds per square inch).

2.5.2 Reservoir B Replacement

Reservoir B would be reconstructed using two 1.5-MG bolted steel water storage tanks. A 500-foot section of large diameter water main on site would be re-routed around the new tank installation. The yard piping design would include connections for a future third tank and valving to operate the two 1.5 MG tanks in series or in parallel. The site civil design would also provide a location for a third future tank. The placement 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 and grading of the existing reservoir berms on the northwest, southwest, and southeast sides of the reservoir. Although most woody vegetation was burned by the fire, remaining vegetation would be removed from the site to accommodate the redistribution of soil material from the tank site grading. The Reservoir B facility boundary encompasses approximately 5.9 acres. About 4.5 acres would incur ground disturbance as a result of the project. The project design is shown on Figure 4.

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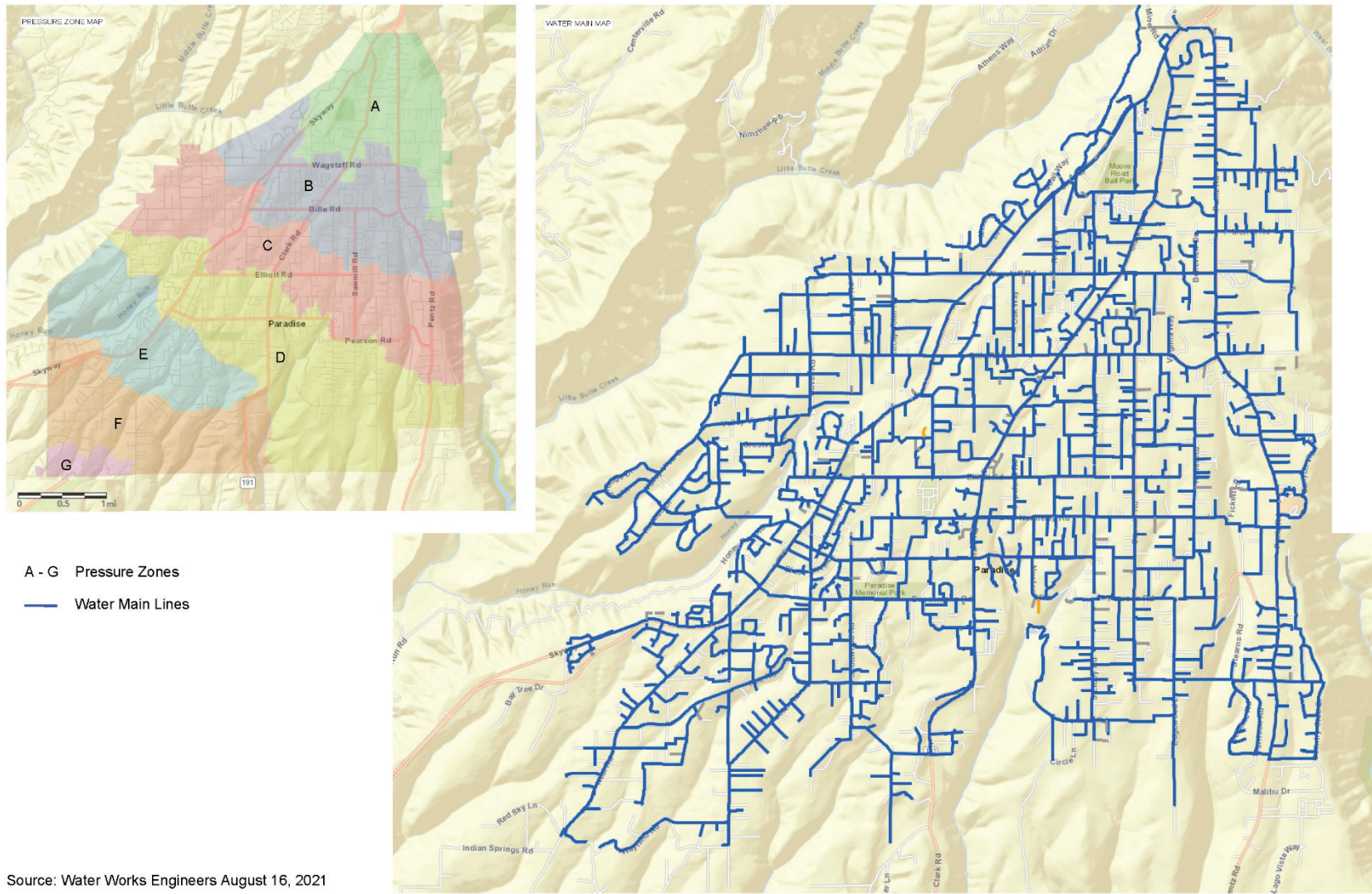


Figure 3 Paradise Irrigation District – Water Main Distribution System and Pressure Zones

Figure 3. Paradise Irrigation District – Water Main Distribution System and Pressure Zones

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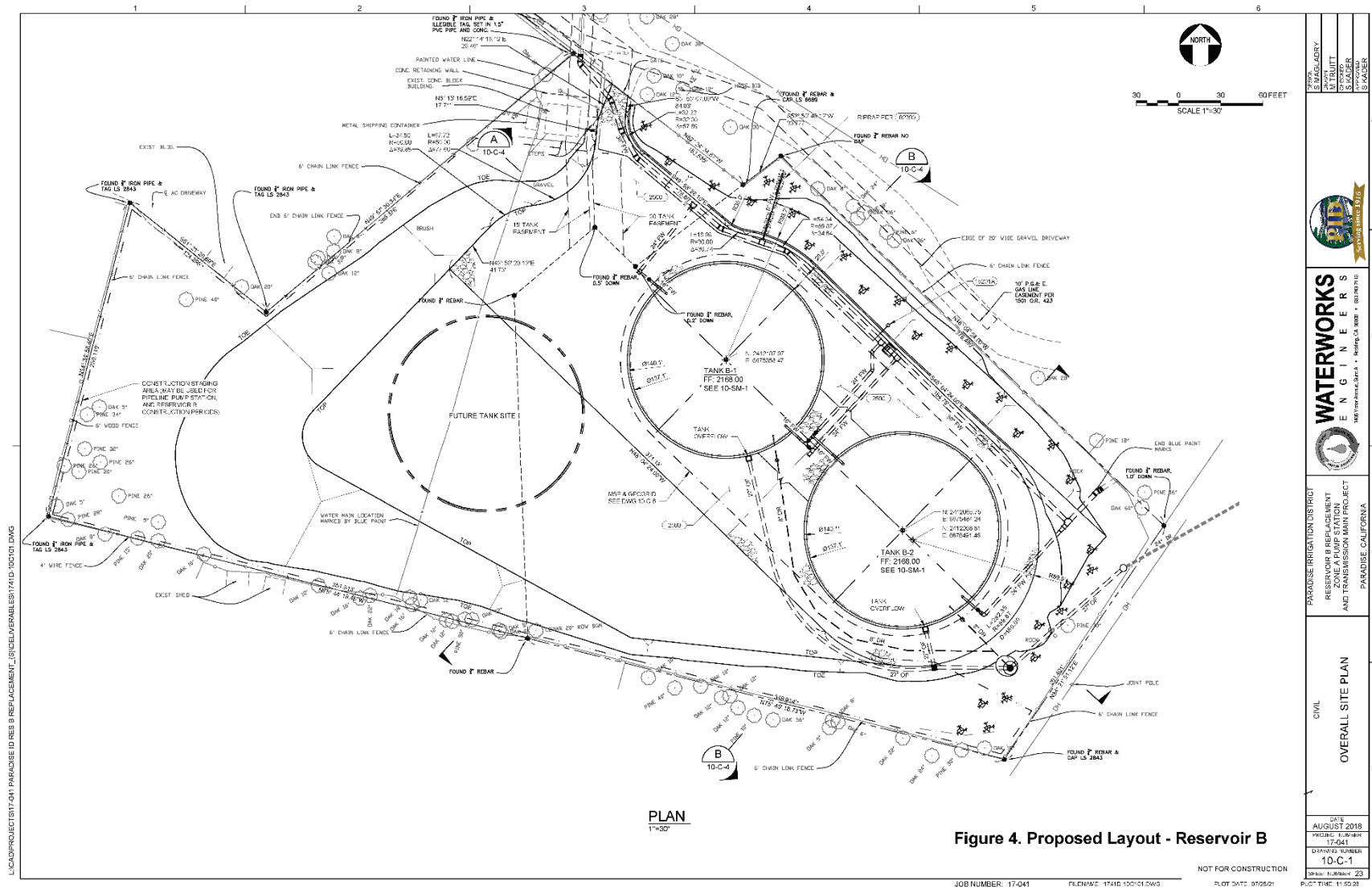


Figure 4. Proposed Layout – Reservoir B

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2.6 PROJECT DESIGN CRITERIA AND BEST MANAGEMENT PRACTICES

The project was designed to avoid or minimize potential environmental impacts. The proposed project improvements would be constructed primarily in previously disturbed areas including PID facilities and work areas. The following best management practices (BMPs) were incorporated into the project design.

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 existing graveled work areas at the Reservoir B site and along existing roads throughout the water system recovery alignment. 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 2021), 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—Water Pollution Prevention

Although the Reservoir B site contains no potential waters of the United States or State and the water system recovery footprint follows preexisting distribution lines, construction activities could affect wetland and waters features that are outside the project footprint. The following BMPs have been incorporated into the proposed project to avoid and minimize the potential for adverse 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

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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.

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Conservation Measure #3—Greenhouse Gas Emissions

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

- Reuse and recycle construction and demolition waste, including, but not limited to soil, vegetation, concrete, lumber, metal, and cardboard.
- See 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 #4—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 PRC 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 #5—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 help ensure the species does not spread to other areas.

2.7 PROJECT APPROVALS

2.7.1 Funding Sources

It is anticipated that the project will be funded in part by Additional Supplemental Appropriations for Disaster Relief Act. Additional funding has been attained from CalOES and FEMA. PID is also partially funding the project through their insurance and reserves.

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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

Following is a list of authorizations and permits anticipated for project compliance under CEQA.

- CEQA Notice of Determination to adopt a Mitigated Negative Declaration – Water System Recovery and Reservoir B replacement element
- Stormwater Pollution Prevention Plan Approval (Central Valley Regional Water Quality Control Board)

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. The proposed project element construction schedule would be as follows:

- Reservoir B replacement element - anticipated to begin in July 2021 with completion in January 2022
- Almond Street main replacement - anticipated to begin in April 2021 with completion in May 2022
- Service lateral replacement - anticipated to begin in 2022 with completion in 2031
- Meter replacement - begin in March 2021 and complete in March 2022
- Main replacement - anticipated to begin in 2022 with completion in 2031

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CHAPTER 3.0 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. This chapter includes the environmental setting, impacts, and mitigation measures for the proposed project.

Addressed in this section are the following 20 environmental categories and mandatory findings of significance:

- Aesthetics
- Agricultural and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- 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
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire
- 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).

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3.1 ENVIRONMENTAL SETTING

3.1.1 Regional Setting

PID's water distribution system recovery alignment and Reservoir B lie 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 220,000.

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 project is in the town of Paradise in central Butte County, California. Reservoir B is located on private and PID lands, while the water distribution system portion of the project is aligned in the town of Paradise's commercial and residential districts.

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 2021).

Existing Land Uses

Surrounding land uses consist of rural residential, mobile home, and urban residential development, commercial businesses, transportation corridors, forest, and local infrastructure. Reservoir B and water distribution system included in this project were established PID facilities prior to the Camp Fire in October 2018.

Topography

The town of Paradise is largely situated on a broad ridgetop that separates the Feather River watershed to the east from the Butte Creek watershed to the west. The topography within and adjacent to the project

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area is gently sloping. Elevation in the project area ranges from about 1,700 to 2,180 feet above mean sea level and slopes upward from west to east.

Hydrological Setting

No hydrologic features occur in the Reservoir B facility footprint. Replacement of the water distribution system would follow the pre-fire alignment; therefore, no new encroachments into hydrologic features are anticipated. 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

Numerous soil map units occur throughout the water distribution system alignment (Natural Resources Conservation Service 2021). These include Ultra Haploxeralfs, mesic-Rockstripe complex, Schott very gravelly loam, Oroshore-Mounthope-Dunstone, and Paradiso Loam. These soil map unit types are well-drained to poorly drained and are not hydric.

One soil map unit occurs in the Reservoir B facility footprint. It is described in the *Soil Survey of Butte Area, California, Parts of Butte and Plumas Counties* (Natural Resources Conservation Service 2021). The soil unit is Paradiso loam, 2 to 15 percent slopes. It is well-drained, not hydric, and a restrictive layer is more than 80 inches below the surface.

Geology

The project area is primarily underlain by Pleistocene-age volcanic flows that underlie the greater Paradise area (Saucedo and Wagner 1992). Artificial fill, colluvium, and alluvium may be present (Vertical Sciences 2017).

No active faults are mapped in the immediate vicinity (Vertical Sciences, Inc. 2017). Although many potentially active and inactive faults have been mapped in the region, none were mapped that may affect the project area. No landslides, incipient or otherwise, were observed during preparation of the previous Reservoir B project geotechnical study (Vertical Sciences, Inc. 2017). The potential for landslides in or near the project area is low (Butte County 2012).

Vegetation Community Types

The project area and vicinity were largely developed prior to the fire in 2018. Vegetation communities occurring in the project area were characterized based on descriptions provided in *A Manual of California Vegetation* (Sawyer et al. 2009). The following vegetation types occur in the project area:

Annual Grassland

Annual grassland occurs along road shoulders and in other disturbed portions of the facility. 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*).

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California Black Oak Forest

California black oak forest occurs in low abundance in the project area. 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. This habitat is dominated by dense stands of canyon live oak but is otherwise similar in species composition to California black oak forest.

Ponderosa Pine Forest

Ponderosa pine forest was present throughout much of the Paradise area before the Camp Fire. The habitat was dominated by ponderosa pine with a relatively low abundance of other trees such as Douglas-fir (*Pseudotsuga menziesii*) and incense-cedar (*Calocedrus decurrens*). The Camp Fire destroyed most pines in the town, and in some areas, early successional shrubs and small trees are currently dominant. The landscape has 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 includes much of the developed part of Paradise, and Reservoir B and its vicinity. This habitat is characterized by ornamental trees and shrubs and a sparse cover of non-native annual plant species in continuously disturbed areas (e.g., graveled areas).

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3.2 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

I. AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:	Significant Impact	Less than Significant with Mitigation Incorporated	Potentially Less than Significant Impact	No Impact
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) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<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.** Neither replacement of the water distribution system nor Reservoir B would affect a scenic vista or scenic resources. Neither is present in the project area.

c) **Less-than-Significant Impact.** Water distribution system components would be consistent with conditions that existed prior to the Camp Fire—mostly subsurface with minor above-ground features such as concrete meter boxes. Construction would occur in an area that is heavily disturbed by concurrent post-fire reconstruction.

The new water tanks at Reservoir B would be partially obscured by the adjacent topography. The exterior walls of the tanks would be painted, although it is anticipated that the tank domes would not be painted. The areas around the tanks would be landscaped with vegetation (i.e., tall trees) to help mask them from nearby residences. Travelers along Skyway may have brief views of the new tanks as they pass by the project area, but the tanks would not substantially alter views from the road.

d) **Less-than-Significant Impact.** During project construction, there may be some nighttime lighting in place along the water distribution system alignment as a matter of public safety. However, no lighting would be needed for operation of the water system.

Nighttime lighting associated with the proposed Reservoir B tanks would be consistent with existing conditions before the fire and may be visible from some existing and future nearby residences and roads. Motion detectors would activate lights if there were unexpected movement on the site or if PID staff are working onsite. Surrounding topography and the distance between the tank site and viewers would minimize the potential for light and glare to affect residents and

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travelers along the roads. Vegetative regrowth over time would further buffer views of the site. The new tanks would be made of steel with a special coating that prevents glare.

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:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 project area or vicinity are mapped as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance by the Farmland Mapping and Monitoring Program (California Department of Conservation 2021a). Onsite soils are not prime agricultural soils. The project would have no impact on Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

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- b) **No Impact.** No parcels in project area or its vicinity are zoned for agricultural use (Town of Paradise Planning Department 2021). No parcels in project area or its vicinity are under a Williamson Act contract (Butte County 2016). Replacement of the water distribution system and Reservoir B would not conflict with existing zoning and would have no impact on agriculture.
- c, d, e) **No Impact.** The project area does not contain any farmland, forest land (as defined by PRC 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)). The majority of trees adjacent to the reservoir were destroyed by the Camp Fire. The water distribution system alignment would generally follow pre-fire distribution layouts. Although some tree removal would occur at Reservoir B and may be necessary to extend the water distribution system to newly rebuilt homes and businesses, 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) 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"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely 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.** Project construction 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 2018 Triennial Air Quality Attainment Plan (SVAQEEP 2018). Replacement of the water distribution system and Reservoir B would not induce unplanned growth in PID's service area or conflict with assumptions made by BCAQMD when preparing its air quality management plans.

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- b) **Less-than-Significant Impact.** Butte County is a non-attainment area for the state and federal ozone standards, the state particulate matter (particulate matter 2.5 microns or less [PM2.5]) standards, and the state particulate matter (particulate matter 10 microns or less; [PM10]) standards (California Air Resources Board 2021). 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 and the federal standards for PM2.5 and PM10 (California Air Resources Board 2021). Construction activities would result in temporary 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 temporary increases in fugitive dust (PM10 and PM2.5) and would generate both reactive organic compounds and nitrogen oxides 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 BMP's 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 tank operations and periodic maintenance trips would be minimal based on the infrequent nature of these emissions. *Conservation Measure #1 – Air Pollution and Dust Control* (described in Section 2.6.2) will be used to maintain air quality and to help ensure that any construction-related impacts would be less than significant.

Operation of the water distribution system would have no impact on criteria air pollutants.

- c) **Less-than-Significant Impact.** Potentially sensitive receptors to air quality impacts are in varying degrees of re-build throughout Paradise. However, the effect to air quality experienced by these sensitive receptors would be similar to the effect generated by existing motor vehicle traffic. 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 because of the project would be less than significant.

- d) **No Impact.** The 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"/>

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Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 state or federally protected wetlands (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 type="checkbox"/>	<input checked="" 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 report (Stantec 2018a) prepared for the prior Reservoir B replacement project analyzed potential similar project-related impacts on biological resources. The Biological Resources Assessment included a U.S. Fish and Wildlife Service species list for the project area. Plant and wildlife habitat was substantially altered by the 2018 Camp Fire; however, because the replacement of Reservoir B proposed under the previous project and the current project would have similar effects on special-status species, the impacts assessment for the current Reservoir B replacement uses the earlier biological resources assessment and findings.

- **Special-Status Plants.** One special-status plant species was determined to have a potential to occur in the vicinity of Reservoir B: Hall's rupertia (*Rupertia hallii*), California Rare Plant Rank 1B.2.

A botanical survey of suitable habitats in the project area was conducted by North State Resources, now Stantec, on June 30 and October 20, 2017, and coincided with the blooming period of the potentially occurring plant. No special-status plant species were observed during the botanical survey, including federal or state listed as threatened or endangered, or candidates for listing. While a subset of annual special-status species follow fire, the special-status species that typically occur in the area do not have this unique characteristic and are not likely to occur, even though the site incurred fire disturbance.

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- **Special-Status Wildlife.** No federal or state listed as threatened or endangered wildlife species, or candidates for listing or other special-status wildlife species were determined to have potential habitat in the Reservoir B facility or vicinity. However, most breeding birds that may use surviving or newly grown vegetation are protected under state and federal regulations.
- **Migratory Birds and Raptors.** Potential nesting habitat for migratory birds and raptors occurs in the trees and other vegetation that remains or is newly grown in or near Reservoir B. Adverse effects on migratory birds and raptors could occur if they are actively nesting in the construction area. 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. Construction activities could also result in a small temporary reduction of nesting or foraging habitat for birds. 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 #1 – Migratory Birds and Raptors* will be used to reduce any potential impacts on migratory birds and raptors to a less-than-significant level.

The water distribution system recovery footprint would follow preexisting distribution lines, mainly in established road right of ways. These areas have been previously disturbed by substantial residential, commercial, and industrial development, and subsequently were substantially affected by the Camp Fire. It is anticipated that biological resource conditions previously assessed by Stantec in 2018 for the Reservoir B and northern water distribution system would be consistent with those of the water distribution system element of the current project. Conservation and mitigation measures described herein will be used throughout the project area to avoid or reduce potential impacts on biological resources to a less-than-significant level.

- b) **No Impact.** No rare natural communities occur in the project area. No additional avoidance or minimization measures are recommended.
- c) **No Impact.** A wetland delineation (Stantec 2018b) was prepared to document and describe potential waters of the United States, including wetlands, in the previous project area, which included the Reservoir B facility. No potential waters of the United States were mapped within the 2018 project area. The water distribution system recovery footprint would follow preexisting distribution lines. No impacts would occur, and no additional avoidance or minimization measures are recommended.
- d) **No Impact.** Proposed activities would be confined to the existing PID Reservoir B site and the pre-fire general water distribution system alignment. These activities would not impede movement of wildlife or fragment migration corridors. The project area does not encompass any wildlife nursery sites. No hydrologic features suitable for salmonid habitat occur within the proposed work area or immediately adjacent areas. During project construction wildlife would be able to move around the site or move through it at night. The project would have no impact on fish or wildlife movement or nursery sites.

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- e) **No Impact.** The project would not conflict with any local biological resource policies or ordinances. There would be 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. Replacement of Reservoir B and the water distribution system 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—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:

- Construction 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 construction 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.
 - To the extent practicable, vegetation should be removed outside of the nesting season. In areas where project activities will not result in vegetation removal or where project activities will not result in increased disturbance over existing conditions (e.g., noise, vibration, construction equipment, human activity), no surveys for nesting birds are required. In areas where vegetation removal or increases in disturbance will occur during the nesting season, measures to avoid the potential for disturbance to active nests will be implemented. These measures may include, but are not limited to, pre-construction identification of project segments where nesting birds could be a concern if activities were to occur during the nesting season, conducting worker environmental awareness training (WEAT) for project personnel, pre-construction inspections for nesting birds conducted by a biologist/biological monitor or other trained personnel, establishing construction-free buffers around active nest sites, monitoring active nests for signs of disturbance resulting from construction activities, and delaying or modifying construction activities if nesting birds are showing signs of disturbance. Inspections for active nests should be conducted by a qualified biologist if a significant amount of vegetation will be disturbed at a location during the nesting season (e.g., multiple large trees, large swaths of dense vegetation). If vegetation removal at a location is minimal (e.g., landscape bushes) or active nests within 20 feet of the active construction would be easily detectable, construction personnel may conduct the inspections for active nests if the procedures for the inspections were included in the WEAT training and the construction personnel successfully completed the WEAT training. If active nests are found, a qualified biologist should be consulted to assist in determining an appropriate size for construction-free buffers and to conduct monitoring as needed.

Timing/Implementation:	Prior to and during construction
Enforcement:	California Department of Fish and Wildlife, PID
Monitoring:	PID and its contractor

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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 pursuant to §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 § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion of Impacts

- a, b) **No Impact.** The Cultural Resources Inventory and Evaluation Report (Stantec 2018c) prepared for the prior Reservoir B replacement and distribution line project analyzed potential similar project-related impacts. The report determined that the 2018 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. There are no recorded historic sites within the Reservoir B site or vicinity. The water distribution system recovery footprint would follow preexisting distribution lines, mainly in established road right of ways. These areas have been exposed to repeated disturbances by urban and infrastructure development, and more recently, the Camp Fire. In accordance with Section 106 of the National Historic Preservation Act, there would be no adverse effect on cultural resources as a result of project activities. The project would have no impact on cultural resources.
- c) **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 excavation activities. *Mitigation Measure #2 – Cultural Resources* and *Mitigation Measure #3 - 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.

Mitigation Measures

Mitigation Measure #2—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 project area 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 under the National

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Historic Preservation Act. 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: Native American Heritage Commission, PID
Monitoring: PID and its contractor

Mitigation Measure #3—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 Native American Heritage Commission by telephone within 24 hours of making that determination (California Health and Safety Code Section 7050.5[c]).

Timing/Implementation: During construction
Enforcement: Native American Heritage Commission, PID
Monitoring: PID and its contractor

VI. ENERGY

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion of Impacts

- a, b) **No Impact.** It would be necessary to use diesel-powered equipment during project construction. This would not be considered wasteful, inefficient, or unnecessary consumption of energy resources. The project will comply with state and Butte County plans for energy efficiency.

Mitigation Measures

No project-specific mitigation is required under this subject.

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VII. GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Directly or indirectly cause 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? Refer to Division of Mines and Geology Special Publication 42.	<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 a geologic unit 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 type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial direct or indirect 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 and there are no active faults mapped in the project area or vicinity (California Department of Conservation 2021b). However, several potentially active and inactive faults have been mapped nearby (California Department of Conservation 2021c), but since no faults pass through the project area, construction would not result in the rupture of any known fault. Due to the lack of active faults near the project, construction and operation would not expose people or structures to seismic ground shaking or seismic-related ground failure. Topography in and around the project area is low to moderately sloping. 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 would require soil excavation throughout the project area. Trenching along parts of the existing water distribution system alignment would be needed to reach some recovery installation sites. Excavated soils would be used to backfill trenches.

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Construction activities in the Reservoir B facility would include soil grading to create suitable replacement tank locations and uniformity throughout the site. Approximately 4.48 acres would be affected by grading.

Overall soil loss would be minimal with use of standard construction practices for dust control and stormwater pollution prevention. Erosion and sediment control measures included in *Conservation Measure #2 – Water Pollution Prevention* (described in Section 2.6.2) and a stormwater pollution prevention plan will be used during construction to minimize the potential for erosion. Long-term erosion would be minimized throughout the project area as appropriate using drainage control devices and use of the existing stormwater system. The project would result in less-than-significant impacts relating to soil erosion and loss of topsoil.

- c) **No Impact.** The project is not located on unstable soils (Vertical Sciences 2017).
- d) **Less-than-Significant Impact.** Some of the soils in the project area are considered expansive (Natural Resources Conservation Service 2021) and could pose a constraint to construction, particularly of Reservoir B. 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 Reservoir B facilities.
- e) **No Impact.** The project does not involve wastewater facilities.

Mitigation Measures

No project-specific mitigation is required under this subject.

VIII. GREENHOUSE GAS EMISSIONS

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 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.** 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, methane, and nitrous oxide (Governor's

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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 replacement and operation of the 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. Replacement and operation of the project would not increase the generation of emissions after construction is complete because services provided by the reservoir would be similar to current conditions. Emissions of GHGs resulting from off-road heavy-duty diesel engines during construction activities would be temporary and minor. Gas or diesel generators permitted by BCAQMD would be used if needed 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 #3 – Greenhouse Gas Emissions* (described in Section 2.6.2) was incorporated into the project design and would be used during construction to help ensure that impacts related to project construction and operation 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 on GHG emissions.

Mitigation Measures

No project-specific mitigation is required under this subject.

IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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"/>

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Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) 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"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<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. BMP's described in *Conservation Measure #2 – 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 area environment.
- c) **No Impact.** There are several private and public schools in the town of Paradise. Although some of them were lost to the Camp Fire, many are in varying degrees of rebuild. Because the project would be constructed in PID's pre-fire water distribution alignments and existing facilities it would have no impact.
- d) **No Impact.** A search of the State Department of Toxic Substances Control EnviroStor database (California Department of Toxic Substances Control 2021) and the State Regional Water Quality Control Board's GeoTracker database (SWRCB 2021) 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 was closed in 2000 (SWRCB 2021). 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.

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The 2018 Camp Fire left enormous volumes of potentially contaminated debris throughout the burn area. Although hazardous materials were not stored or used at the Reservoir B site prior to the fire, the debris left onsite post-fire was subject to hazardous material removal criteria. The two-phase cleanup effort was established by the State Department of Toxic Substances Control, with assistance from the U.S. Environmental Protection Agency and other federal, state, and local agencies. Reservoir B is mapped as having undergone Phase 1 cleanup, but not Phase 2 (Butte County 2021). Extensive Phase 2 cleanup has occurred throughout much of the town of Paradise, including much of the water distribution system recovery area (Butte County 2021).

- e) **No Impact.** The privately-owned Paradise Skypark Airport is approximately 4.8 miles south of Reservoir B and about 2.5 miles south of the southern water distribution system boundary. The project area is outside of 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 project would have no impact on the airport.
- f) **Less-than-Significant Impact.** The project would require temporary road closures during trenching and installation of new water distribution system components. However, traffic controls such as flaggers or signage, and the extensive network of area roads would be used to maintain through traffic during construction. These temporary road closures may be as short as a few minutes or as long as a few days. Construction at Reservoir B would not require any road closures.

The project would not substantially interfere with an adopted emergency response plan or emergency evacuation plan. The project would have a less-than-significant impact on emergency plans.

- g) **Less-than-Significant Impact.** Although the project 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 use of construction equipment in and around vegetated areas increases the potential for wildfire ignition. *Conservation Measure #4 - Wildfire Potential* (described in Section 2.6.2) will be used to reduce the risk of wildfire associated with construction to a less-than-significant level. Project operation would have no impact on wildfire potential.

Mitigation Measures

No project-specific mitigation is required under this subject.

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X. HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<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 or through the addition of impervious surfaces, in a manner which would: i) result in substantial erosion or siltation on- or off-site; ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; iii) 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; or iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion of Impacts

- a) **Less-than-Significant Impact.** Construction and operation of the project would not violate any water quality standards or waste discharge requirements set forth by the Central Valley Regional Water Quality Control Board 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. These measures, in conjunction with *Conservation Measure #2 – 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. Replacement of the water distribution system and Reservoir B would have no impact on groundwater.
- c) **Less-than-Significant Impact.** Replacement of Reservoir B would involve grading activities that would modify contours at the proposed tank site. The overall drainage patterns at the Reservoir B

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site would remain similar to current conditions with surface runoff traveling east toward the existing connection to the stormwater system. Stormwater runoff patterns at the Reservoir B site may be slightly modified by vegetation removal and changes in contours but would be similar to pre-existing conditions— infiltration into the soil or directed into the existing stormwater drain on the east side of the Reservoir B site.

Contours would not be affected by trenching and other construction activities associated with the water distribution system recovery effort. Areas disturbed by construction of this project element would be restored to pre-existing contours. Stormwater runoff in the water distribution system part of the project would continue to be conveyed into the town's existing storm drain system.

No substantial areas of new additional impervious surface areas would be created as a result of construction. The proposed Reservoir B tanks would occupy an area similar to the previous Reservoir B facilities. Similarly, the water distribution system would replace pre-existing infrastructure. The project would not create a substantial increase in stormwater runoff. The impact would be less than significant.

- d) **No Impact.** The project is not in an area with potential for a seiche, tsunami, or mudflow.
- e) **Less-than-Significant Impact.** Construction and operation of the project would not obstruct Central Valley Regional Water Quality Control Board's water quality control plan or groundwater quality protection strategy for the Central Valley region. Construction and operation of the project would involve the use of hazardous materials (i.e., petroleum-based fuels and lubricants). *Conservation Measure #2 – Water Pollution Prevention* (described in Section 2.6.2) will reduce this impact to a less than significant level.

Mitigation Measures

No project-specific mitigation is required under this subject.

XI. LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion of Impacts

- a) **Less-than-Significant Impact.** Project construction activities at Reservoir B would have no effect on the established community. However, recovery of the water distribution system could cause temporary disruptions of traffic circulation and access in the vicinity of active construction. Any temporary divisions would be localized, and alternative routes of passage would be available.

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In the long term, the project would be a benefit, reunifying the town of Paradise. The project would have a less than significant 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. Project construction 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 area is not included in any applicable habitat conservation plan or natural communities' conservation plan. The project would have no impact on land use.

Mitigation Measures

No project-specific mitigation is required under this subject.

XII. MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource 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, b) **No Impact.** The project area has not been mapped by the California Department of Conservation as containing marketable aggregate (California Department of Conservation 2018). The project area is not designated as a mineral resource area, as depicted by the Butte County General Plan Conservation and Open Space and Element (Butte County 2012). Gravel mining activities do not occur at this location. The project would not result in the loss of availability of a valuable mineral resource. There would be no impact.

Mitigation Measures

No project-specific mitigation is required under this subject.

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XIII. NOISE

Would the project result in:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project 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) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or 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"/>

Discussion of Impacts

- a) **Less-than-Significant Impact.** Construction activities would temporarily increase noise levels in the vicinity of project action areas. 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. Most residences, businesses, and infrastructure in Paradise were destroyed by the Camp Fire in 2018. Rebuilding activities would be concurrent with project construction activities. Construction could temporarily expose sensitive receptors, if present, to increased noise levels.

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). 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 2 below.

Noise generated by construction of the water distribution system, and construction and operation of Reservoir B from sources such as heavy equipment and occasional truck traffic are common to the existing daily operations of existing PID facilities and ambient noise in Paradise. Upon completion, operation of the water distribution system would generate no noise. Noise generated by construction and operation of the project would have a less-than-significant impact on the community.

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Table 2. Maximum Allowable Noise Exposure to Non-Transportation Sources

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

Source: Butte County 2012

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.

- 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. 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) **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.

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XIV. POPULATION AND HOUSING

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Induce substantial unplanned 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 people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion of Impacts

The 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 project would recover PID's damaged infrastructure (i.e., water distribution system and Reservoir B) that is no longer functional due to the Camp Fire of 2018. It would provide water for the expected post-fire population, which is anticipated to be similar to the pre-fire population. Because the project would be replacing pre-fire infrastructure it is anticipated to have no impact on population growth in excess of pre-fire conditions.
- b) **No Impact.** Existing housing or people within the town of Paradise 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. The project would have no impact.

Mitigation Measures

No project-specific mitigation is required under this subject.

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XV. PUBLIC SERVICES

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion of Impact

- a) **No Impact.** Project construction would have no impact on public resources, including fire protection, police protection, schools, parks, and other public facilities. Construction of the water distribution system would occur in or adjacent to streets throughout the town of Paradise; however, traffic controls such as flaggers or signage, and the through traffic would be maintained during construction and a network of alternative routes are available if needed. During construction, water distribution where currently available would continue. Temporary service disruptions will be required for certain project elements. The service disruption will be no longer than a day or two and is in compliance with typical PID operating standards. Replacement of Reservoir B would have no impact on public services during construction. The project would benefit PIDs water system customers and restore previous water storage volume for the community.

Mitigation Measures

No project-specific mitigation is required under this subject.

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XVI. RECREATION

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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.

XVII. TRANSPORTATION

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion of Impacts

- a) **Less-than-Significant Impact.** Construction traffic (equipment and materials transport and daily worker traffic) would temporarily increase traffic on local roads during the construction phase. 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. It is anticipated that the project would require temporary road closures during trenching and installation of new water distribution system components. However, traffic controls such as

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flaggers or signage, and the extensive network of area roads would be used to maintain through traffic during construction. Additionally, these temporary road closures may be as short as a few minutes or as long as a few days. Construction at Reservoir B would not require any road closures. The impact would be less than significant.

- b) **Less-than-Significant Impact.** Vehicle miles traveled would increase slightly to accommodate construction workers traveling to and from the site. However, the number of persons on-site at any given time would not be substantial and is anticipated to be consistent with concurrent reconstruction and maintenance activities occurring throughout Paradise. The volume and type of traffic associated with construction would not exceed the level of service for roads in the Paradise area. The project would not conflict with the Butte County General Plan Circulation Element (Butte County 2012). Any impacts on traffic during construction would be temporary and less than significant.
- c) **Less-than-Significant Impact.** The 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 may need to park temporarily along streets throughout the water distribution system alignment, but it would be done in a manner consistent with typical on-street parking practices or off-street when available. Construction vehicles and equipment used at Reservoir B would not need to park on streets outside the Reservoir B site. The project would have a less-than-significant impact.
- d) **Less-than-Significant Impact.** The project would require temporary road closures during trenching and installation of new water distribution system components. However, traffic controls such as flaggers or signage, and the extensive network of area roads would be used to maintain through traffic during construction. These temporary road closures may be as short as a few minutes or as long as a few days. Construction at Reservoir B would not require any road closures.

The project would not substantially impede emergency vehicle access throughout Paradise. The project would have a less-than-significant impact.

Mitigation Measures

No project-specific mitigation is required under this subject.

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XVIII. 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:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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) 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 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 California Register of Historical Resources; 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”

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as defined in subdivision (h) of Section 21083.2 may also be a TCR 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.
- In accordance with AB 52, tribes identified by the Native American Heritage Commission (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 replacement of the water distribution system or Reservoir B and no TCRs were identified in the project area after consultation. However, if such resources are inadvertently discovered during project construction, *Mitigation Measure #2 – Cultural Resources* and *Mitigation Measure #3 - Human Remains* will be used to reduce any potential impacts on cultural resources to a less-than-significant level.

Mitigation Measures

Mitigation Measure #2 – Cultural Resources and *Mitigation Measure #3 - Human Remains* described in Section 3.2, Section V, Cultural Resources, in will be used to reduce any potential impacts on TCRs to a less-than-significant level.

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XIX. UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) 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"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion of Impacts

- a) **Less-than-Significant Impact.** The project would involve constructing new water storage tanks and replacement of substantial portions of the water distribution system. Standard construction measures and mitigation measures described in this document will be implemented to minimize or avoid adverse environmental 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 both the water distribution system and the Reservoir B tank capacity would supply the post-fire re-build population in the PID service area. Site drainage 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.

Replacement of the water distribution system would have no impact on stormwater runoff.

- b) **No Impact.** No new or expanded water entitlements would be required for the project. The project would have no impact.
- c) **No Impact.** The project would not involve the treatment or creation of wastewater. The project would have no impact.
- d, e) **Less-than-Significant Impact.** Construction activities associated with the project would generate solid waste in the form of demolished materials and other trash. Any solid waste generated by

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construction 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 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.

XX. WILDFIRE

Would the project result in:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion of Impacts

- a) **Less-than-Significant-Impact.** The project would require temporary road closures during trenching and installation of new water distribution system components. However, the extensive network of area roads would be used to maintain through traffic during construction. These temporary road closures may be as short as a few minutes or as long as a few days. Construction at Reservoir B would not require any road closures. There would be no impact on adopted emergency response plans or emergency evacuation plans. The impact on through traffic would be less than significant.
- b, c) **Less-than-Significant-Impact.** Based on current mapping, the lands in the project area are mapped as having “low-moderate” fire hazard potential by the U.S. Department of Agriculture (2020) and “extreme” fire risk according to the California Public Utilities Commission Fire-Threat Map (California Public Utilities Commission 2018). Construction activities would not exacerbate fire risks or result in ongoing impacts to the environment. Implementation of *Conservation Measure #4—Wildfire* (described in Section 2.6.2) would further reduce the potential for wildfire.

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Wildfire risk potential associated with replacement and operation of the project would be less than significant.

- d) **No Impact.** The grading profile for Reservoir B would provide sufficient gradient for drainage of site surfaces, and as such, construction would not expose people or structures to significant risks as a result in drainage changes, runoff, or slope instability. The grading profiles relative to the water system replacement work will not be affected by this project.

Mitigation Measures

No project-specific mitigation is required under this subject.

XI. MANDATORY FINDINGS OF SIGNIFICANCE

(To be filled out by Lead Agency if required)	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 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 migratory birds and raptors. Although no cultural resources are anticipated to be impacted by construction, mitigation measures described in Section 3.2, Section V, 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 construction-related environmental effects. The project would have a less-than-significant impact with mitigation incorporated.
- b) **Less-than-Significant Impact.** The project would not result in cumulatively considerable impacts with implementation of standard construction measures and mitigation measures described in this

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IS. The project would not introduce any new land uses or would result in the need for any reasonably foreseeable future projects within the town of Paradise. Impacts associated with the replacement of the water distribution system and Reservoir B would be limited primarily to the construction phase, with no significant operational impacts on the environment. All impacts resulting from the project 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 project, particularly during the construction phase, would result in temporary impacts on human beings. Potential adverse effects would be related to temporary increases in air pollutants, 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 IS would help ensure construction-related impacts on human beings are minimized, and no long-term or operational-related impacts are anticipated.

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CHAPTER 4.0 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 ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Tom Lando, District Manager
Paradise Irrigation District

09/01/2021

Date

CHAPTER 5.0 MITIGATION MONITORING AND REPORTING PROGRAM

This chapter provides the Mitigation Monitoring and Reporting Program (MMRP) for the PID Water System Recovery and Reservoir B Replacement Project (project). The purpose of this MMRP is to memorialize the mitigation responsibilities of PID in implementing the replacement of both significant portions of the water distribution system and Reservoir B. 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 CEQA Section 15370 as a measure that incorporates one of the following:

- 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
- 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 IS/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 PRC). Sections 21002 and 21002.1 of the California PRC 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 PRC 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 help ensure compliance during project implementation.

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- 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 help 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 help 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, California 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.

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- **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 project construction:

5.1.1 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 2021), 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.

5.1.2 Conservation Measure #2—Water Pollution Prevention

Although the Reservoir B site contains no potential waters of the United States or State and the water system recovery footprint follows preexisting distribution lines, construction activities could affect wetland and waters features that are outside the project footprint. The following BMPs have been incorporated into the proposed project to avoid and minimize the potential for adverse 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

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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.

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5.1.3 Conservation Measure #3—Greenhouse Gas Emissions

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

- Reuse and recycle construction and demolition waste, including, but not limited to soil, vegetation, concrete, lumber, metal, and cardboard.
- See 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.

5.1.4 Conservation Measure #4—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 PRC 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.

5.1.5 Conservation Measure #5—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 help 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 PID Reservoir B Replacement Project:

5.2.1 Biological Resources

Mitigation Measure #1—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:

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- Construction 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 construction 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.
 - To the extent practicable, vegetation should be removed outside of the nesting season. In areas where project activities will not result in vegetation removal or where project activities will not result in increased disturbance over existing conditions (e.g., noise, vibration, construction equipment, human activity), no surveys for nesting birds are required. In areas where vegetation removal or increases in disturbance will occur during the nesting season, measures to avoid the potential for disturbance to active nests will be implemented. These measures may include, but are not limited to, pre-construction identification of project segments where nesting birds could be a concern if activities were to occur during the nesting season, conducting worker environmental awareness training (WEAT) for project personnel, pre-construction inspections for nesting birds conducted by a biologist/biological monitor or other trained personnel, establishing construction-free buffers around active nest sites, monitoring active nests for signs of disturbance resulting from construction activities, and delaying or modifying construction activities if nesting birds are showing signs of disturbance. Inspections for active nests should be conducted by a qualified biologist if a significant amount of vegetation will be disturbed at a location during the nesting season (e.g., multiple large trees, large swaths of dense vegetation). If vegetation removal at a location is minimal (e.g., landscape bushes) or active nests within 20 feet of the active construction would be easily detectable, construction personnel may conduct the inspections for active nests if the procedures for the inspections were included in the WEAT training and the construction personnel successfully completed the WEAT training. If active nests are found, a qualified biologist should be consulted to assist in determining an appropriate size for construction-free buffers and to conduct monitoring as needed.

Timing/Implementation:	Prior to and during construction
Enforcement:	California Department of Fish and Wildlife, PID
Monitoring:	PID and its contractor

Verification (sign and date): _____

5.2.2 Cultural Resources

Mitigation Measure #2—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 project area that are considered to be significant, a number of methods may be used to mitigate potential adverse effects. Avoidance

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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 under the National Historic Preservation Act. 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:	Native American Heritage Commission, PID
Monitoring:	PID and its contractor

Verification (sign and date): _____

Mitigation Measure #3—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 Native American Heritage Commission by telephone within 24 hours of making that determination (California Health and Safety Code Section 7050.5[c]).

Timing/Implementation:	During construction
Enforcement:	Native American Heritage Commission, PID
Monitoring:	PID and its contractor

Verification (sign and date): _____

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