

NOTICE OF PREPARATION AND PUBLIC SCOPING MEETING

NOTICE IS HEREBY GIVEN that the Paradise Irrigation District will prepare an Environmental Impact Report for the Paradise Irrigation District Water Rights Permits Extension Project. In accordance with the California Environmental Quality Act, a Notice of Preparation has been prepared. The District will conduct a public scoping meeting on **Wednesday, January 20, 2010. The scoping meeting will be held in two sessions on that date, at the hours of 1:30 p.m. and 6:30 p.m. at the Paradise Irrigation District offices at 5325 Black Olive Drive, Paradise, California.**

WATER RIGHTS PERMITS EXTENSION. The Paradise Irrigation District is petitioning the State Water Resources Control Board for changes to Permit 271 (Water Right Application 476) and Permit 16040. The proposed changes include: an extension of time to build out water rights projects; change in method of diversion; purpose of use, and place of use. The existing PID project diverts water from Little Butte Creek to storage in both Magalia Reservoir and Paradise Reservoir under appropriative water rights granted in Permit 271. Fill of Paradise Reservoir under this permit is augmented by storage authorized in the companion Water Right Permit 16040. Through the proposed changes, the PID seeks to add direct diversion as a second method of diversion from Little Butte Creek at both Magalia Dam and Paradise Dam. PID proposes to add hydropower generation as a purpose of use along with existing domestic, municipal, and recreation use. The PID also seeks to expand the place of use to include three service areas that are currently within the Del Oro Water Company (i.e., Paradise Pines, Old Magalia and Lime Saddle Districts), and is requesting a 25-year extension of time to construct facilities and put the permitted water from Little Butte Creek to full use.

As a consequence of the project, infrastructure improvements may be implemented in the future and are reasonably foreseeable consequences of implementing the project in order to make full beneficial use of the water allowed under Permits 271 and 16040. These improvements consist of: 1) Repairing and enlarging Magalia Dam; 2) Raising or modifying Paradise Dam; and 3) installation of a small hydropower plant on the outlet conduit from Paradise Dam. The future improvements could consist of one of these infrastructure projects or a combination of them.

The District will also request that the Butte Local Agency Formation Commission approve expansion of the PID's sphere of influence (SOI) by approximately 20,300 acres (from the current SOI of 11,377 acres to a total of 31,677 acres).

In accordance with procedures set forth in the California Environmental Quality Act (CEQA), the City has determined that an Environmental Impact Report is required for this project. The Paradise Irrigation District (District) is the Lead Agency for the preparation of the EIR. The Notice of Preparation (NOP) has been prepared to solicit the views of interested persons and agencies as to the scope and content of the environmental information that is germane to the agency statutory responsibilities in connection with the proposed project. The written public comment begins on Monday, December 21, 2009 and extends through Friday, January 22, 2010. The two public scoping sessions on January 20, 2010 are being offered to provide opportunities to

explain the project and receive comments about the potential environmental impacts of the projects.

Written comments will be accepted until the conclusion of the public comment period, and should be directed to the attention of George Barber, District Manager, Paradise Irrigation District, P. O. Box 2409, Paradise, California 95967. If you have any questions concerning this project, please contact George Barber at 530/877-4971. A copy of the Notice of Preparation and project file is available at the Paradise Irrigation District, 5325 Black Olive Drive, Paradise, California 95969 Monday through Friday, 9:00 a.m. to 4:00 p.m.

PARADISE IRRIGATION DISTRICT
WATER RIGHTS PERMITS EXTENSION
NOTICE OF PREPARATION / INITIAL STUDY

DECEMBER 2009

Prepared for:

**PARADISE IRRIGATION DISTRICT
5325 BLACK OLIVE DRIVE
PARADISE, CA 95969**

Prepared by:



**508 CHESTNUT STREET
SUITE A
MT. SHASTA, CA 96067**



PARADISE IRRIGATION DISTRICT

5325 Black Olive Drive • P.O. Box 2409 • Paradise, California 95967 • 530.877.4971 • Fax 530.876.0483

NOTICE OF PREPARATION

DATE: December 14, 2009

TO: Responsible Agencies, Organizations and Interested Parties

FROM: Paradise Irrigation District
Contact: George Barber, General Manager
5325 Black Olive Drive
Paradise, CA 95969

SUBJECT: Notice of Preparation of a Draft Environmental Impact Report

In discharging its duties under Section 15021 of the California Environmental Quality Act (CEQA) Guidelines, the Paradise Irrigation District (as Lead Agency) intends to prepare an Environmental Impact Report, consistent with Article 9 and Section 15161 of the CEQA Guidelines, for the proposed Water Rights Permits Extension project. In accordance with Section 15082 of the CEQA Guidelines, the Paradise Irrigation District has prepared this Notice of Preparation to provide Responsible Agencies and other interested parties with sufficient information describing the proposal and its potential environmental effects.

An Initial Study, which provides a project description, location, and an initial review of the potential environmental effects of the project, has been prepared pursuant to CEQA Guidelines Section 15063 and **is attached to this notice.**

As specified by the CEQA Guidelines, the Notice of Preparation will be circulated for a 30-day review period. The Paradise Irrigation District welcomes public input during this review. Written comments may be submitted in writing to the address shown above. Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than January 29, 2010.

In the event that no response or request for additional time is received by any Responsible Agency by the end of the review period, the Lead Agency may presume that the Responsible Agency has no response.

Pursuant to State CEQA Guidelines Section 15082(c)(1), a scoping meeting shall be held **on January 20, 2010 at 1:30 p.m. and 6:30 p.m. at the Paradise Irrigation District offices, 5325 Black Olive Drive, Paradise, California.**

The comment period closes on January 29, 2010.

PARADISE IRRIGATION DISTRICT
WATER RIGHTS PERMITS EXTENSION
DRAFT INITIAL STUDY

DECEMBER 2009

Prepared for:

**PARADISE IRRIGATION DISTRICT
5325 BLACK OLIVE DRIVE
PARADISE, CA 95969**

Prepared by:



**508 CHESTNUT STREET
SUITE A
MT. SHASTA, CA 96067**

PARADISE IRRIGATION DISTRICT
WATER RIGHTS PERMITS EXTENSION
DRAFT INITIAL STUDY

Prepared for:
PARADISE IRRIGATION DISTRICT
5325 BLACK OLIVE DRIVE
PARADISE, CA 95969

Prepared by:
PMC
508 CHESTNUT STREET
SUITE A
MT. SHASTA, CA 96067

DECEMBER 2009

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ENVIRONMENTAL CHECKLIST FORM

- 1. Project Title:** Water Rights Permits Extension
- 2. Lead Agency Name and Address:** Paradise Irrigation District
5325 Black Olive Drive
Paradise, CA 95969
- 3. Contact Person and Phone Number:** George Barber, General Manager
(530) 877-4971

4. Project Location:

Paradise Irrigation District (PID or the District) is located in the foothills of central Butte County, California, approximately 90 miles north of Sacramento. PID relies predominately on surface water from Little Butte Creek, a minor stream in the Sacramento Valley drainage that rises in the northwestern foothills of the Sierra Nevada and lies wholly within Butte County. Elevations within the Little Butte Creek watershed range from 2,150 feet to 3,850 feet. **Figure 1** depicts the project's regional location.

The District currently serves domestic water to approximately 10,438 municipal, residential, and commercial customers within its service area, which currently consists of areas in and around the Town of Paradise (see **Figure 2**). The estimated population within the service area is 27,468 (2005 estimate). The District utilizes two surface water storage facilities; Magalia Reservoir and Paradise Reservoir. Magalia Reservoir is located along Little Butte Creek at an elevation of 2,200 feet approximately one half mile north of the community of Magalia and approximately two miles north of the District's service area. Paradise Reservoir is located approximately two miles north and upstream of Magalia Dam, also on Little Butte Creek. The District's groundwater wells are located east of Clark Road (SR 191) near Clear Creek and approximately 1,700 feet west of the intersection of Nunneley and Clark Roads in Paradise, respectively. The District's water treatment plant is located on the southeast side of Magalia Dam. The location of each of these facilities is also shown on **Figure 2**.

For the purposes of this Initial Study, the Project Area consists of the District's proposed Place of Use as well as the sites of the potential future infrastructure improvements associated with the project, which generally lie adjacent to the Town of Paradise and Magalia Dams (see **Figure 2**). The proposed Place of Use encompasses the District's current service area, as described above, some adjacent areas and three adjacent Del Oro Water Company districts: Paradise Pines, Old Magalia and Lime Saddle. The current and proposed Places of Use are illustrated on **Figure 3**.

- 5. Project Sponsor's Name and Address:** Paradise Irrigation District
5325 Black Olive Drive
Paradise, CA 95969
- 6. General Plan Designation:** Town of Paradise General Plan: AR (Agricultural Residential), RR (Rural Residential), TR (Town Residential), MR (Multi-Family Residential), NC (Neighborhood Commercial), CC (Central Commercial), TC (Town Commercial), LI (Light Industrial), BP

(Business Park), CS (Community Service), R (Recreational), PI (Public Institutional), OS/A (Open Space/Agriculture), and TP (timber Production) (See **Figure 4**)

Butte County General Plan: RR (Residential Reserve), LDR (Low Density Residential), MDR (Medium Density Residential), LI (Light Industrial), IR (Industrial Reserve), CC (Community Commercial), HC (Highway Commercial), SC (Service Commercial), CR (Commercial Recreation), O (Office), P (Park), and ES (Elementary School) (See **Figure 5**)

7. Zoning:

Various in the Town of Paradise (See **Figure 6**). In Butte County: A-2-10 (General Agriculture – minimum 10 acres) and P-D (Planned Development)

8. Description of Project:

The proposed project consists of the following related actions:

Water Rights Permits

The Paradise Irrigation District (PID) is petitioning the State Water Resources Control Board for changes to Permit 271 (Water Right Application 476) and Permit 16040. Proposed changes include: an extension of time to build out water rights projects; change in method of diversion; purpose of use; and place of use.

The existing PID project diverts water from Little Butte Creek to storage in both Magalia Reservoir and Paradise Reservoir under appropriative water rights granted in Permit 271. Fill of Paradise Reservoir under this permit is augmented by storage authorized in the companion water right Permit 16040. Through the proposed changes, the PID seeks to add direct diversion as a second method of diversion from Little Butte Creek at both Magalia Dam and Paradise Dam. PID proposes to add hydropower generation as a purpose of use along with existing domestic, municipal, and recreation use. The PID also seeks to expand the place of use to include three service areas that are currently within the Del Oro Water Company (i.e., Paradise Pines, Old Magalia and Lime Saddle Districts), and is requesting a 25-year extension of time to construct facilities and put the permitted water from Little Butte Creek to full use.

As a consequence of the project, infrastructure improvements may be implemented in the future and are reasonably foreseeable consequences of implementing the project in order to make full beneficial use of the water allowed under Permits 271 and 16040. These improvements consist of: 1) Repairing and enlarging Magalia Dam; 2) Raising or modifying Paradise Dam; and 3) installation of a small hydropower plant on the outlet conduit from Paradise Dam. The future improvements could consist of one of these infrastructure projects or a combination of them.

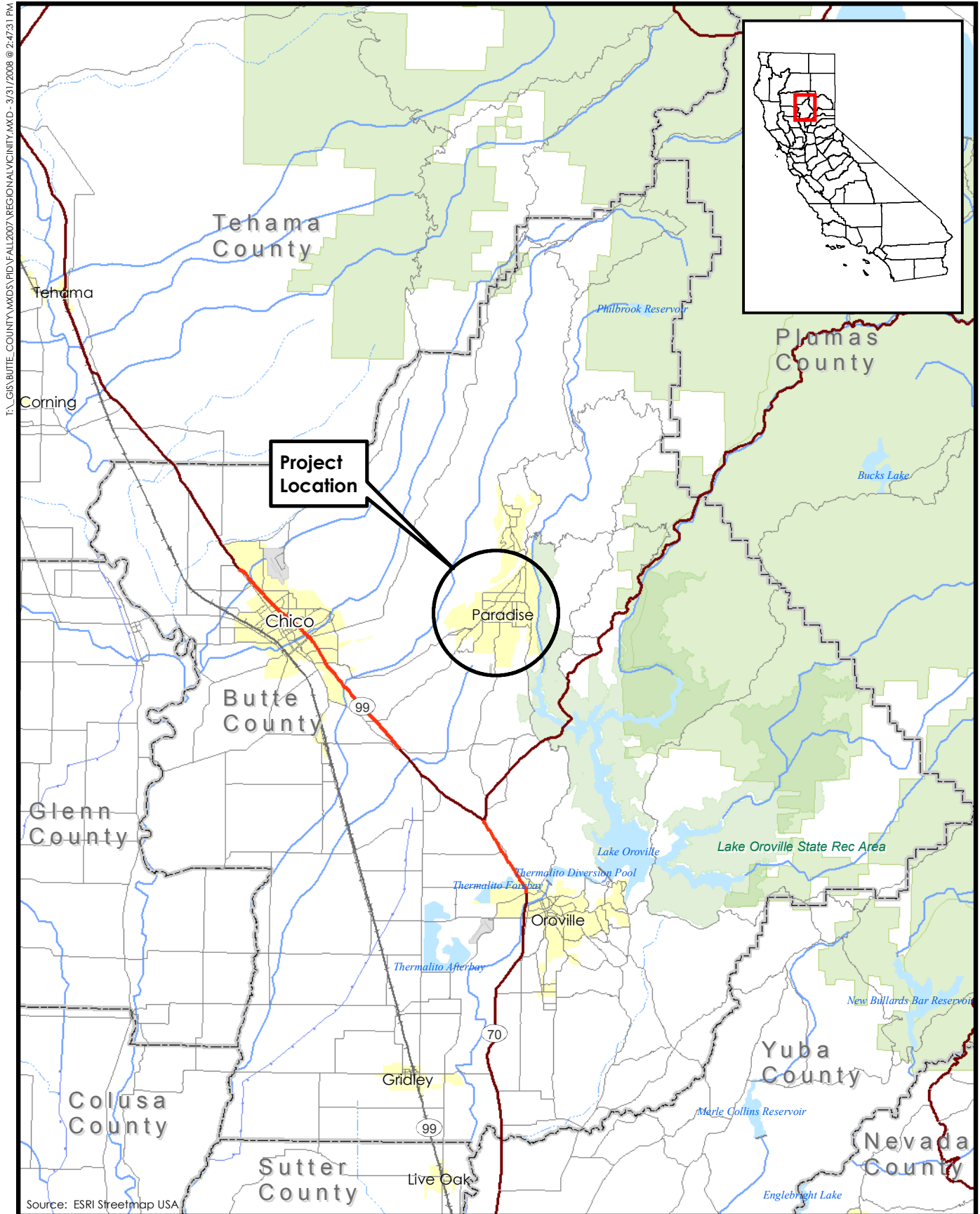


Figure 1
Regional Vicinity Map

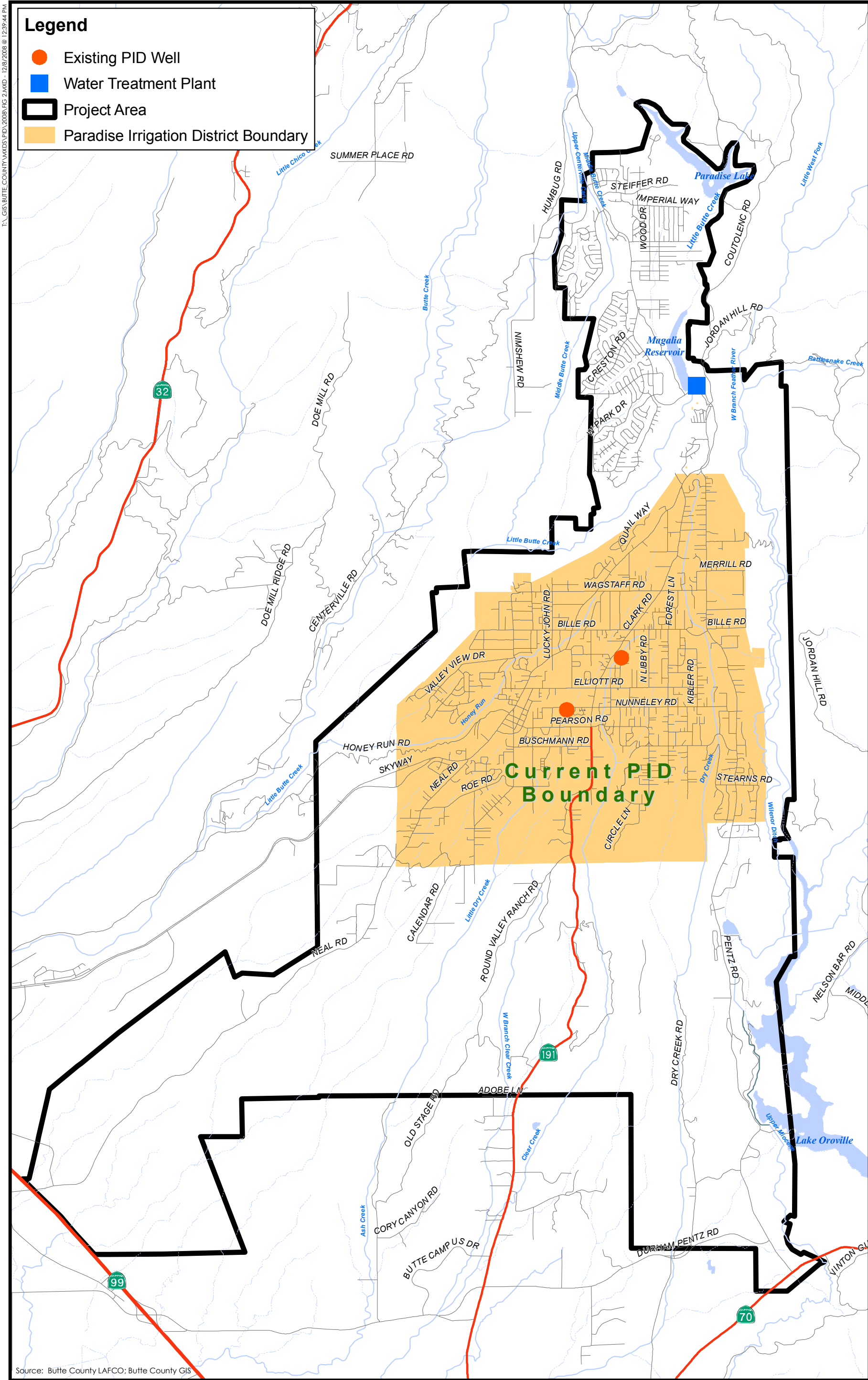


Figure 2
Project Area



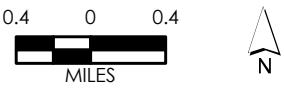
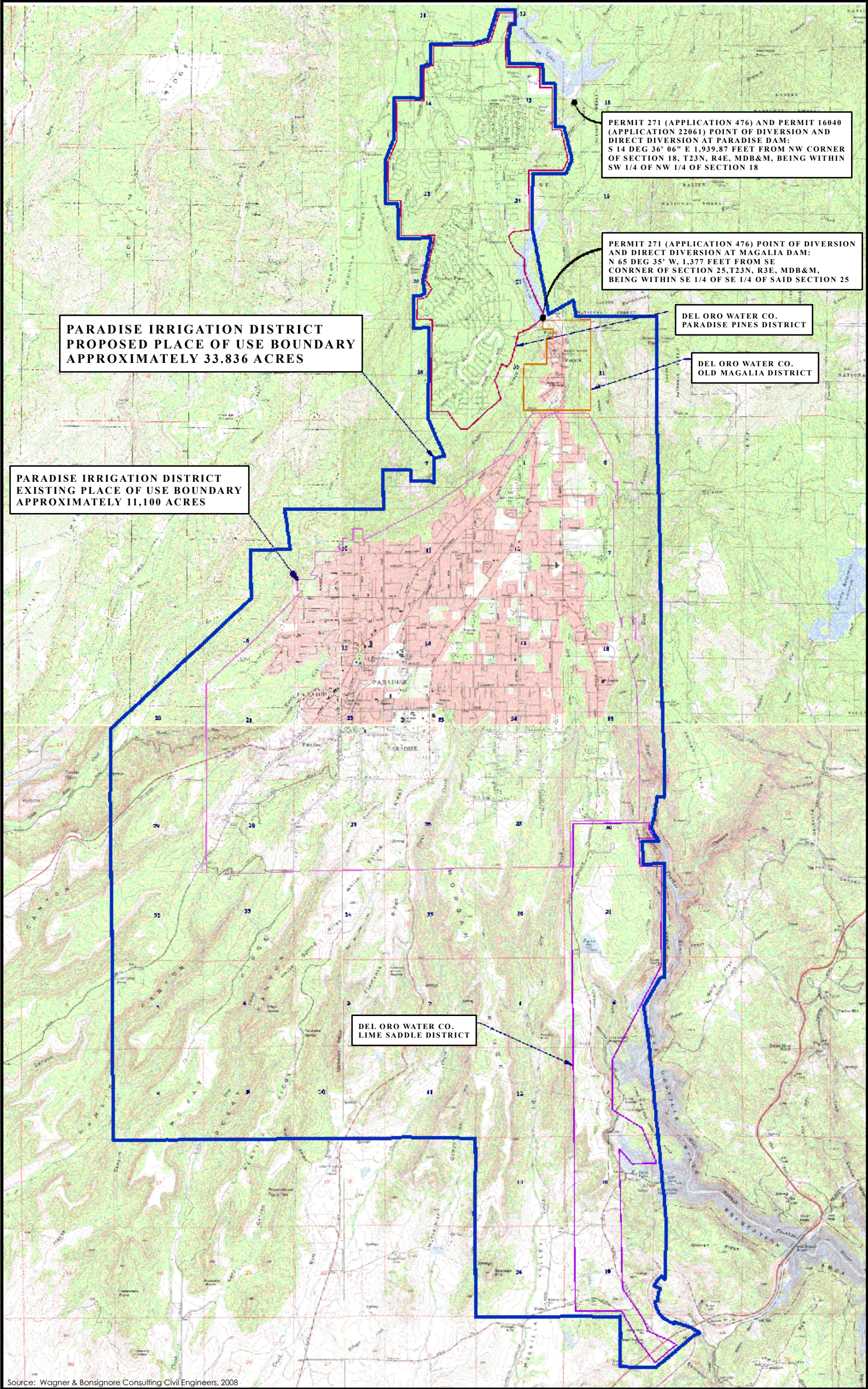


Figure 3
Existing and Proposed Place of Use

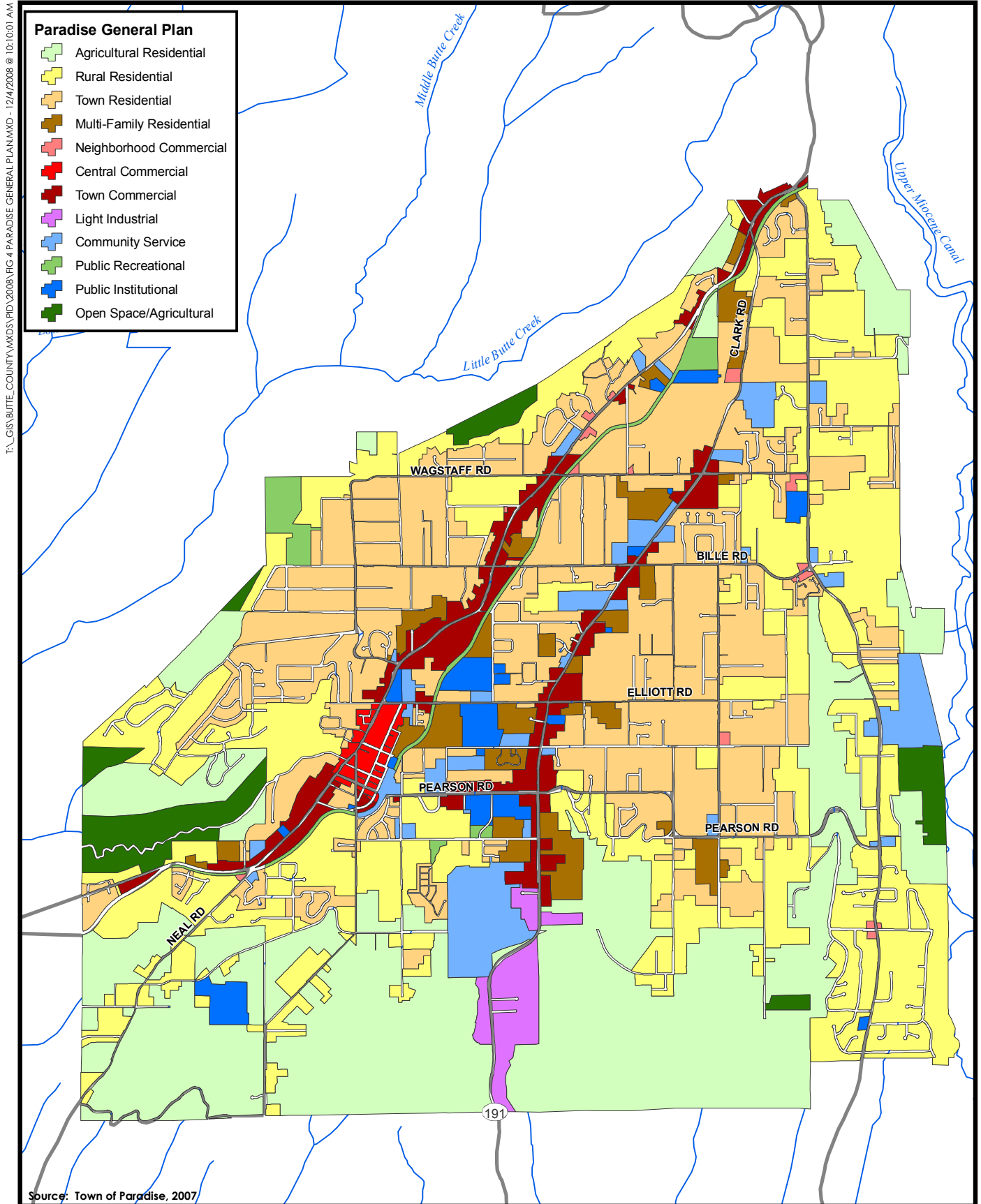


Figure 4
Town of Paradise General Plan

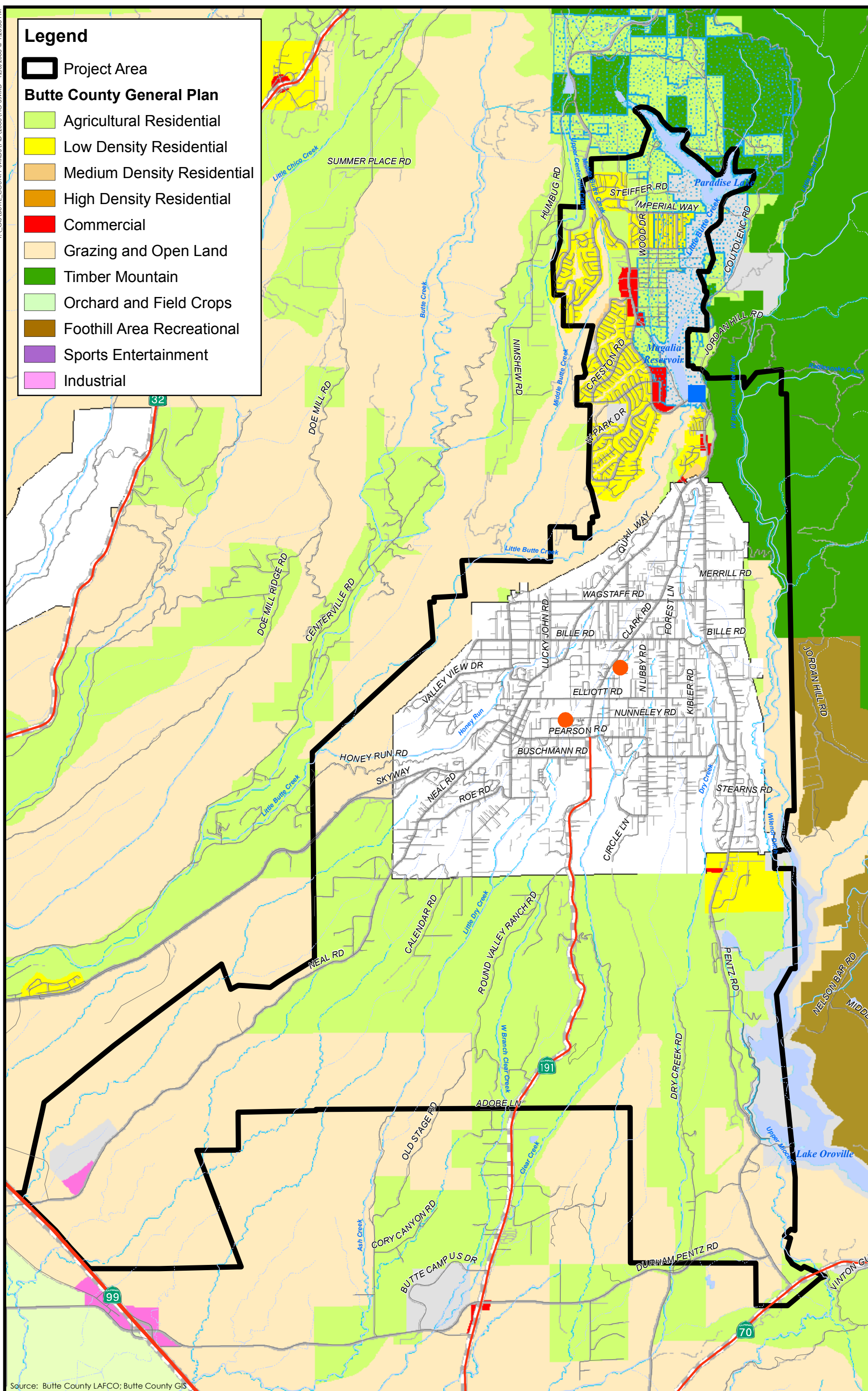


Figure 5
Butte County General Plan

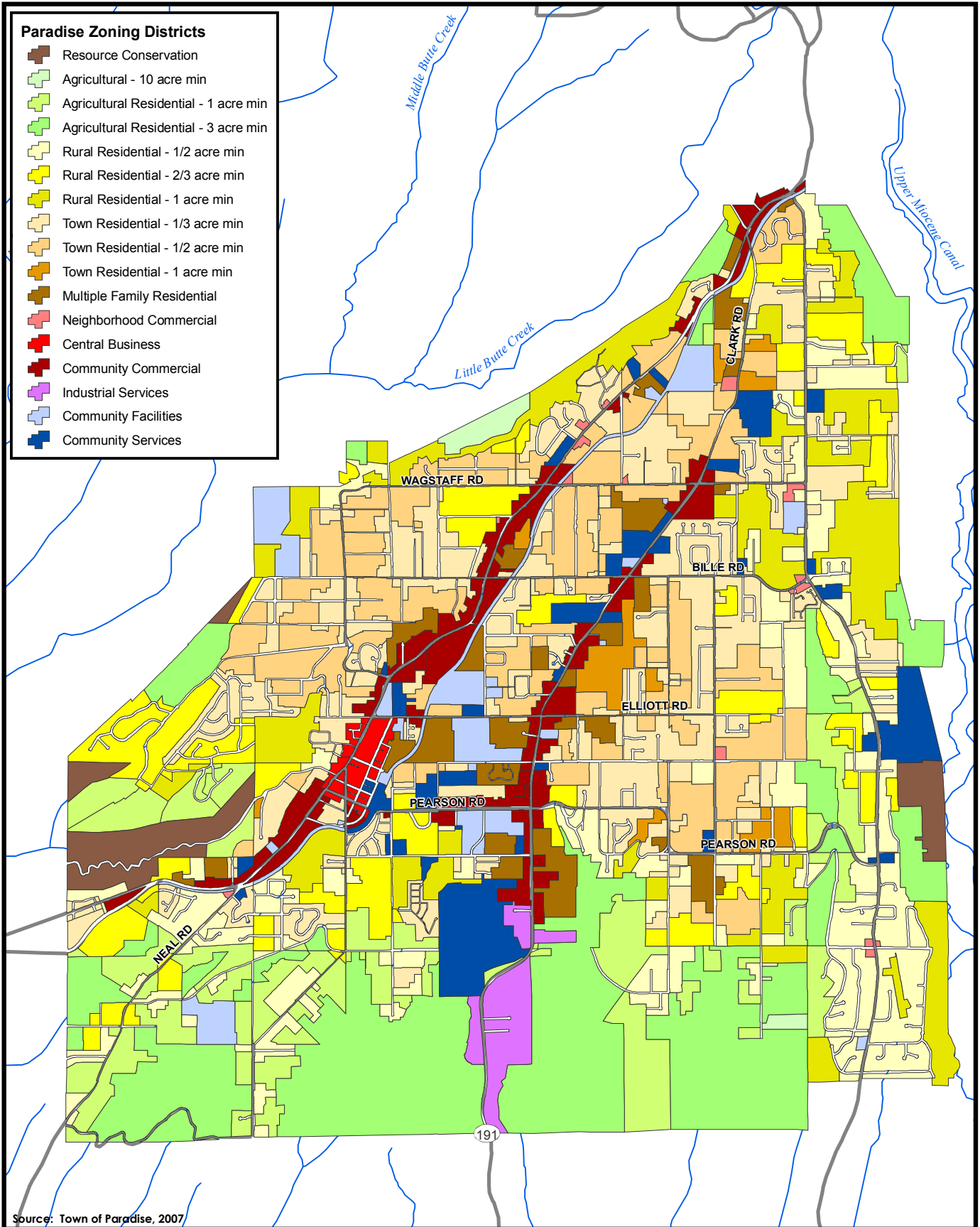


Figure 6
Town of Paradise Zoning Districts

Sphere of Influence Expansion

The PID will also request that the Butte Local Agency Formation Commission approve expansion of the PID's sphere of influence (SOI) by approximately 20,300 acres (from the current SOI of 11,377 acres to a total of 31,677 acres).

A background discussion concerning these proposals and describing them in more detail is provided below.

PROJECT BACKGROUND

Paradise Irrigation District (PID) was established in 1916 to supply water to an area of approximately 11,250 acres and a population of 1,000 people with the express purpose of providing agricultural water to the Paradise area. PID currently serves approximately 26,135 persons within its service boundaries, including residential, commercial, and some agricultural water users¹.

The District relies predominately on surface water sources from Little Butte Creek. Although the creek is perennial, its flows are seasonal and respond to and follow the pattern of precipitation. The watershed tributary to the PID diversion on Little Butte Creek receives a relatively large amount of precipitation resulting in significant runoff. Surface water from Little Butte Creek accrues to the District's Paradise and Magalia Reservoirs. The average annual runoff for the past 97 years has been approximately 15,750 acre-feet. The District's *firm yield*, defined as the amount of water which could be annually utilized from the Little Butte Creek system, is 7,300 acre-feet per year. The District has an additional firm yield of 350 acre-feet per year from a groundwater well. Average runoff far exceeds the District's average needs of 8,000 to 9,000 acre-feet of water demand each year; however, demand exceeds the District's total *firm yield* from all sources of 7,650 acre-feet per year².

The District currently holds appropriate water rights to store approximately 18,300 acre-feet of water from Little Butte Creek under State Water Resource Control Board (SWRCB) Permits 271 and 16040³. Permit 271 authorizes diversion to storage in the Paradise Reservoir and Magalia Reservoir from January 1 through December 31. Permit 16040 authorizes diversion to storage in Paradise Reservoir from October 1 through May 31. Neither Permit provides for the right to take water by direct diversion, which the District believes was an oversight in the original filings. The District also holds a pre-1914 adjudicated right for a year-round direct diversion from Little Butte Creek (documented in Statement of Water Diversion and Use No. 8459 held by PID)⁴. The adjudicated right allowed for the diversion of up to 8 cubic feet per second (cfs) at the point of diversion in order to obtain a maximum of 4.5 cfs at the place of use (allowed for 3.5 cfs in carriage loss). PID has an additional source of approximately 350 acre-feet per year from groundwater, utilizing the District's D Tank Well. This well is used annually for a minimal amount of

¹ Paradise Irrigation District (PID). April 2006. *Final Water Supply Alternatives Environmental Feasibility Analyses Report*. Prepared by Pacific Municipal Consultants.

² Paradise Irrigation District (PID). November 2006. *Urban Water Management Plan 2005*.

³ California State Water Resources Control Board, Division of Water Rights. 2000. Order Approving of Temporary Urgency Change in Place of Use: Permits 271 and 16040 (Applications 476, and 22061).

⁴ Paradise Irrigation District (PID). 10 December 2007. California State Water Resources Control Board Division of Water Rights Petition for Extension of Time: Application 476, Permit 271.

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time to offset any deliveries outside the District's current place of use and for additional supplies later in the year. The well is pumped at about 450 gpm during off peak energy demands for 30-60 days a year^{2,4}.

Little Butte Creek and Watershed

Little Butte Creek is one of three principle streams in the project area, which also include Middle Butte Creek and the West Branch of the Feather River. The creek originates north of Paradise Reservoir and is perennial (flowing year round), draining the region from the northeast to the southwest. The year-round flow is largely attributable to the large average annual rainfall within the watershed, which averages around 63 inches per year. About 285 acre-feet of water from the West Branch of the Feather River is also diverted into the Little Butte Creek watershed by PG&E for the Del Oro Water Company upstream of Paradise Reservoir. In addition, a number of springs and seeps from the surrounding hills also contribute to the overall flow of the watershed. The watershed is primarily forested open space with interspersed residential development⁵.

Magalia Reservoir

Magalia Reservoir, constructed at approximately 96 acres in size, is a man-made impoundment on Little Butte Creek that was completed in 1917, shortly after the District was formed. The reservoir currently acts to provide minimal storage and serves as a raw water storage facility for the District's water treatment plant. The reservoir's permitted capacity is 2,800 acre-feet and, in the past, the actual capacity has been 2,570 acre-feet. However, the current capacity has been restricted to 796 acre-feet by the California Department of Water Resources Division of Safety of Dams due to concerns of seismic risk. Magalia Dam is a hydraulic fill dam that comprises two embankments separated by a rock knoll. The main dam and the 400-foot saddle dam have a combined crest length of 850 feet, with an original crest width of approximately 10 feet. The crest was widened and slightly raised in 1940, bringing the main dam to a height of about 100 feet above the lowest point in its foundation. The saddle dam, east of the knoll, is about 40 feet high. The spillway crest is at an elevation of 2,225.8 feet⁵.

Paradise Reservoir

Paradise Reservoir, located approximately 2 miles upstream from Magalia Reservoir, was constructed in 1956. It is the District's main water storage facility at approximately 250 acres in size. Paradise Dam was constructed as a 148.5 foot-high earth-fill dam. The capacity of the dam was 6,400 acre-feet, with a crest length of 600 feet and a spillway crest elevation of 2,543.5 feet. Between June 1976 and January 1977, Paradise Dam was enlarged by adding earth and rock-fill on the downstream slope and increasing the height of the dam to 175 feet. The enlargement was designed and constructed to increase available storage to its current capacity of 11,500 acre-feet. The reservoir's current permitted capacity is 15,500 acre-feet⁵.

⁵ Paradise Irrigation District (PID). April 2006. *Final Water Supply Alternatives Environmental Feasibility Analyses Report*. Prepared by Pacific Municipal Consultants.

Past Infrastructure Improvements and Planning Projects

Magalia Reservoir Pumping Facility and Raw Water Storage Tank

In 1997, shortly after the PID requested its last petition for extension of time, the Department of Water Resources Division of Safety of Dams directed PID to limit the allowed storage amount of the Magalia Reservoir to 796 acre-feet due to seismic stability concerns. The lower water level required that the water stored in Magalia Reservoir be pumped to PID's treatment plant, rather than conveyed by gravity. PID was required to construct a \$2.85 million dollar pumping facility and raw water storage tank to comply with this directive. The environmental impacts of this project were evaluated in a negative declaration completed in 1994 (SCH# 1994083052).

Water Supply Alternatives Analysis

An Evaluation of Water Supply Alternatives Report, completed in 2004, identified potential options for enhancing the District's operational flexibility of its water supply, including options for increasing storage at Paradise Reservoir. At the conclusion of the Alternatives Report, it was determined that the additional property required for the increase in storage would significantly impact adjacent property owners. PID felt it was necessary to also evaluate increased storage at Magalia Reservoir that could be accomplished almost exclusively on District-owned property before making a final determination on the preferred project.

Magalia Raw Water Bypass

PID recently completed the \$2.8 million Magalia Raw Water Bypass project to convey water released from Paradise Reservoir directly to the PID Water Treatment Plant. This project was necessary for future renovation, expansion or replacement of Magalia Dam without interruption of water service. The environmental impacts of this project were evaluated in a mitigated negative declaration completed in January 2007 (SCH# 2007012006). This project has been completed and is now operational.

Magalia Fault Study

PID has internally begun engineering studies to evaluate various alternatives for permanently restoring Magalia Reservoir to its actual or permitted storage capacity. Prior to having a consulting firm evaluate these alternatives, a study of the Magalia Fault that runs through the east side of Magalia Dam was required because it had not been evaluated in the past. The Magalia Fault study was completed and is currently being reviewed by the Division of Safety of Dams.

District Sphere of Influence Change

PID has proposed to expand its sphere of influence (SOI) to include the District's water treatment plant and the entire conveyance system. The expansion is intended to encompass areas that have the potential to alleviate drought conditions for the District. Three primary areas are included in the expansion. The first area is to the east of Magalia Reservoir, and is intended to bring in the reservoir itself and a portion of the Miocene Canal. The second area is intended to extend along Neal Road toward the valley floor. The purpose of this expansion is to enable the District to establish a well field tapping into the Tuscan aquifer providing water for use during

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drought conditions. The third expansion area would extend to include a portion of Lake Oroville. (See **Figure 7**)

Skyway Road Widening

Skyway Road, currently a two-lane county road, crosses Magalia Dam. Butte County, in cooperation with the Butte County Area of Governments (BCAG) and Caltrans, has completed initial designs for widening this roadway, including the portion that crosses the dam. The County produced an Environmental Assessment and Environmental Impact Report for the widening of the roadway and repair of Magalia Dam in April 2004 (SCH# 2003062066). The environmental documents considered three design options: buttressed fill, retaining wall, and Major Fix. The County has chosen to proceed with the Major Fix design option which will include widening of the upstream side of the dam and would increase safety during seismic events. Implementation of the Skyway Road Widening project would allow PID to consider raising the Magalia Reservoir water elevation to a potential 2,225.8 feet above sea level and the project is awaiting funding opportunities.

PROJECT CHARACTERISTICS

Water Rights Permits

Paradise Irrigation District (PID) filed Petitions with the SWRCB in December 2007 to add direct diversion as a method of diversion, add hydropower generation as a purpose of use, change the place of use, and allow additional time in which to put water to full beneficial use under its Permits 271 and 16040. The proposed project does not include any other infrastructure improvements; however, some additional improvements may be implemented in the future as a consequence of the project in order to put the District's permitted water to full beneficial use. These future improvements may include repair of Magalia Dam and the installation of a small hydroelectric facility at Paradise Dam. Each of these project components is more thoroughly described below.

Petition for Extension of Time

PID's existing water rights permits expired on December 31, 2007. Complete water use was not made prior to expiration of these permits because the growth rate of the District has not been as great as anticipated. As such, additional time is needed to perfect water use under the Permits and PID has submitted petitions to the State Water Resources Control Board Division of Water Rights requesting an additional 25 years in which to put the water to full beneficial use.

In 2005, the District's water use totaled approximately 8,621 acre-feet. According to the District's Urban Water Management Plan, the District projects its water demand will reach 9,964 acre-feet by 2030. Additional time is required to make modifications to the District's facilities in order to provide operational flexibility in meeting projected future demands and to provide for drought protection.

Change in Method of Diversion

PID also filed petitions to add direct diversion as a method of diversion to its water rights permits to conform to historical and current operations. Direct diversion of water has been, and needs to continue to be, an integral part of the operations of Paradise and Magalia diversion facilities in

order to meet annual demands. The average annual direct diversion for calendar years 1995-2007 was 4,733 acre-feet, with the highest rate of diversion occurring in July 1998 at 13.8 cfs. Direct diversions are made at the Magalia Dam outlet works. The Petitions seek to add a combined direct diversion rate of 18 cubic feet per second under the Permits. If permitted, this would increase the District's total direct diversion rights to 26 cfs. Adding direct diversion as a method of diversion under Permits 271 and 16040 will increase PID's operational flexibility and will conform the water rights Permits to historical and current operating conditions. The approval of the change in method of diversion will not require the construction of any new facilities.

It should be noted that CEQA Guidelines section 15125 and related case law (*Riverwatch v. County of San Diego*, 1999; *Kenneth F. Fat v. County of Sacramento*, 2002) indicate that the correct baseline for an EIR or negative declaration is the existing conditions at the onset of the environmental review process, even if prior and existing uses are unauthorized. As noted above, the District's past and ongoing direct diversion of water from Little Butte Creek was not authorized as a method of diversion under its existing Permits. However, the existing methods of diversion, including direct diversion, will constitute the environmental baseline for the purposes of this EIR. The District was not aware that they were operating outside of their permits with respect to direct diversion until the application for the extension of time was initiated.

Change in Purpose of Use

The Petitions also propose to add hydropower as a purpose of use. PID has completed a study to determine the feasibility of hydroelectric generation. The energy landscape is changing rapidly and the clean power produced by hydroelectric power may become a viable project for PID to install at its existing water storage facilities. The installed generating capacity of the plant that was evaluated would be less than one megawatt. The potential for future construction of a small hydroelectric plant is discussed in greater detail below.

Change in Place of Use

PID is requesting an expansion of its place of use under its water rights Permits to include the service areas of the Paradise Pines, Old Magalia and Lime Saddle districts of the Del Oro Water Company. Del Oro Water Company's Stirling Bluffs district receives water pursuant to its contract with PG&E. Such water is treated by PID and is commingled with PID's water in its distribution system for conveyance to the Del Oro districts. The change in place of use will also include lands that would be within the District's proposed sphere of influence that are located outside, but adjacent to, PID's current place of use. This will allow the District to provide water service to projects that may be constructed adjacent to the District's current service area. Additional time is required to put water to beneficial use after the change in place of use and method of diversion has been granted.

Associated Infrastructure Improvements

Three infrastructure improvements at Magalia Dam and/or Paradise Dam, described below, may be implemented in the future as consequences of the current project in order to make full beneficial use of the water allowed under Permits 271 and 16040. The future improvements may consist of one of the three projects, or a combination of the three. The EIR will analyze the potential environmental impacts of these infrastructure improvements as they are reasonably foreseeable consequences of implementing the project. This analysis will be at a program-level as detailed designs and exact locations for each improvement have not yet been determined by the District. Subsequent project-level environmental review may be required prior to implementation of individual improvements.

Repair and Enlarge Magalia Dam

Implementation of the Skyway Road Widening project, described above, would allow PID to consider incorporating modifications to stabilize Magalia Dam and raise the water elevation in Magalia Reservoir to approximately 2,226 feet above sea level, or the original capacity of the reservoir prior to the Division of Safety of Dam's 1997 direction to lower the elevation.

In addition, PID is considering enlarging Magalia Dam in order to enhance operational flexibility of the District's water supply facilities. PID engineers have prepared conceptual designs for options to increase the height of the dam and the capacity of the reservoir. Prior to environmental analysis and implementation of any dam enlargement option, an engineering feasibility study and geotechnical investigation would be required, in addition to consideration and coordination with Butte County's Skyway Road Widening project. If Magalia Reservoir is to be enlarged above the permitted amount of 2,800 acre-feet, approval from the SWRCB would be required to redistribute the permitted storage from Paradise Reservoir to Magalia Reservoir.

Raise or Modify Paradise Dam

PID has evaluated the increased storage in the Paradise Dam reservoir that would be possible though enlargement and/or modification of the dam. The potential enlargement options have been evaluated for height increases of up to 23 feet. When the Paradise Dam was enlarged in 1977, construction included preparation for a future increase. The increased height would be achieved by conventional earth fill methods or a combination of conventional earth fill with a reinforced earth wall crest structure. The alternatives considered would allow the PID to utilize its fully-permitted water right.

A modification to the spillway and dam is also an alternative that is being considered, which would allow up to an additional 1000 acre-feet of storage above the current storage amount. It is anticipated that the maximum rise in surface level of Paradise Reservoir, without an increase in crest height, would be four feet.

Small Hydroelectric Plant at Paradise Dam

The District is considering the installation of a small hydropower plant on the outlet conduit from Paradise Dam. Previous feasibility studies prepared for the District indicate that, based on the available flows and varying head at Paradise Reservoir, a horizontal Francis-type hydroelectric turbine would be the most suitable type of unit. The installed generating capacity of the plant would be less than one megawatt. The plant would operate based on scheduled releases for

beneficial use as well as any flood flow releases from Paradise Reservoir. There would be no change to the release schedule or in the amount of water beneficially used as a result of the installation of the plant. The powerhouse for the plant, which would house the turbine, generator, and other related equipment, would be an indoor type with an overhead crane and would be constructed of reinforced concrete. It is anticipated that the powerhouse would be constructed at the base of Paradise Dam. No environmental review for this project has been completed by the District because it would not be constructed until financially viable.

Expansion of the Existing PID Sphere of Influence

PID's existing service boundary currently encompasses approximately 11,377 acres. PID is proposing to expand their current Sphere of Influence (SOI) to include a total of 31,677 acres. The existing and proposed PID SOI is depicted in **Figure 7** (Existing and Proposed PID Sphere of Influence). The proposed expansion would increase the area encompassed by PID's SOI boundary by approximately 20,300 acres (31,677 – 11,377 acres). Expansion of the PID SOI would require approval from the Butte Local Agency Formation Commission (LAFCO).

PID has proposed to expand its Sphere of Influence to include the District's water treatment plant and the entire conveyance system. The expansion is intended to encompass areas that have the potential to alleviate drought conditions for the District. Three primary areas are included in the expansion. The first area is to the east of Magalia Reservoir, and is intended to bring in the reservoir itself and a portion of the Miocene Canal. The second area is intended to extend along Neal Road toward the valley floor. The purpose of this expansion is to enable the District to establish a well field tapping into the Tuscan aquifer providing water for use during drought conditions. The third expansion area would extend to include a portion of Lake Oroville. (See **Figure 7**)

9. Surrounding land uses and setting:

The Project Area is located on a large ridge between Butte Creek Canyon to the west and, to the east, the West Branch of the Feather River, which includes an arm of Lake Oroville, the reservoir behind Oroville Dam. The Project Area includes the Town of Paradise, Paradise Reservoir and Dam and Magalia Reservoir and Dam, and the immediate surrounding unincorporated areas of Butte County including the Paradise Pines, Lime Saddle, and Old Magalia Districts of the Del Oro Water Company. West and south of the Project Area at the northern end of the Sacramento Valley are the cities of Chico and Oroville. Outside of these urban centers, land uses primarily consist of agriculture and rural residential. The primary highways serving the area are State Highways 32, 70 and 99. Further west, at the county border, is the Sacramento River. Further south is the greater Sacramento Metropolitan area. The northern Sierra Nevada foothills and mountains extend to the north and east of the Project Area with access provided by State Highways 32 and 70. This area is sparsely populated and is characterized as mountainous and heavily wooded. The primary land uses are open space, recreation and forest/timberland.

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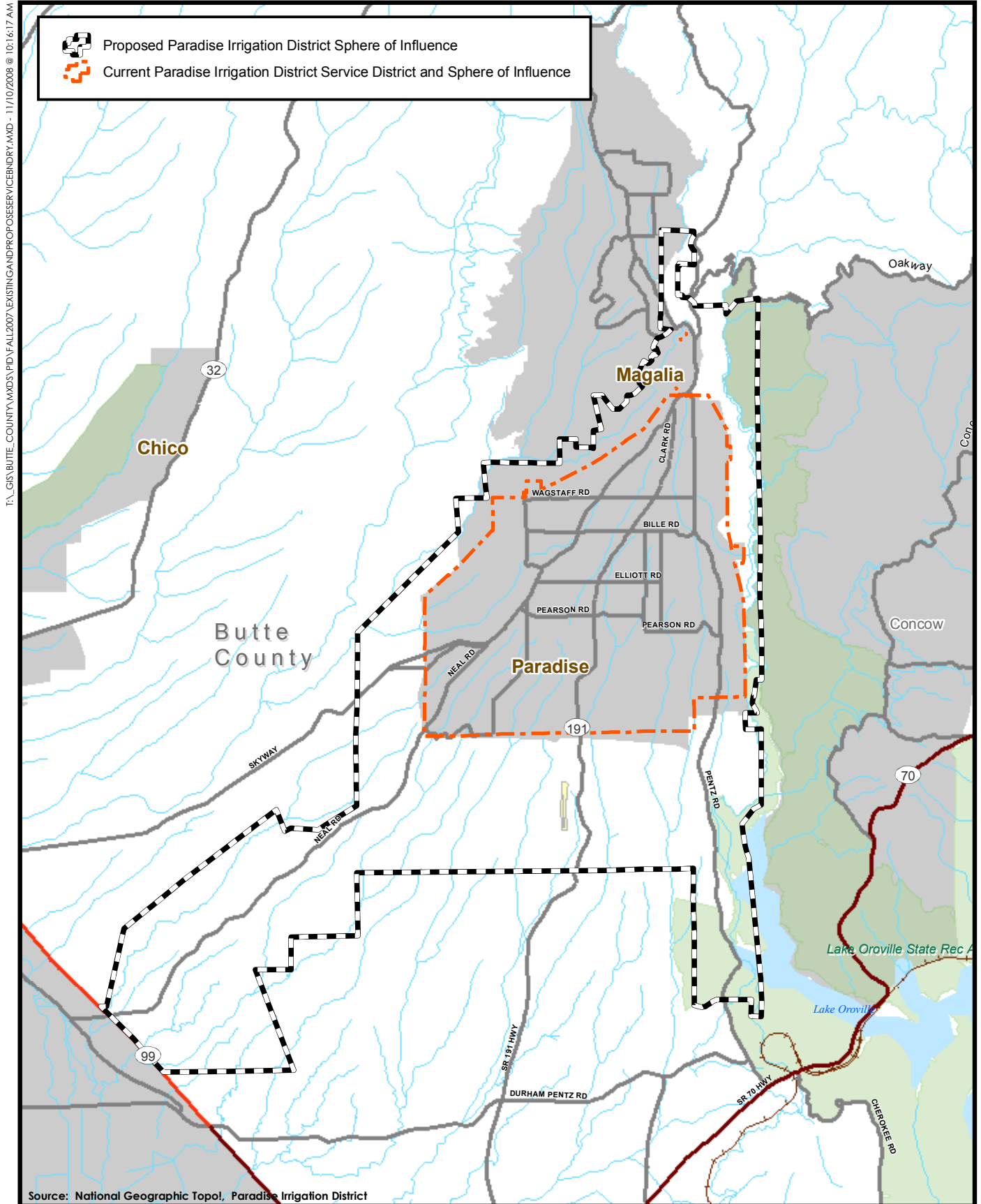


Figure 7
Existing and Proposed PID Sphere of Influence

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.):

The following agencies may utilize this EIR in the future:

- Butte Local Agency Formation Commission
- California State Water Resources Control Board, Division of Water Rights
- California Department of Fish and Game
- California Department of Water Resources Division of Safety of Dams
- National Marine Fisheries Service
- Regional Water Quality Control Board
- United States Army Corps of Engineers
- United States Fish and Wildlife Service

11. Environmental factors potentially affected:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

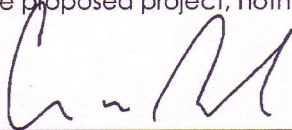
- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input checked="" type="checkbox"/> Geology/Soils |
| <input checked="" type="checkbox"/> Hazards & Hazardous Materials | <input checked="" type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning |
| <input type="checkbox"/> Mineral Resources | <input checked="" type="checkbox"/> Noise | <input checked="" type="checkbox"/> Population/Housing |
| <input checked="" type="checkbox"/> Public Services | <input type="checkbox"/> Recreation | <input checked="" type="checkbox"/> Transportation/Traffic |
| <input checked="" type="checkbox"/> Utilities/Service Systems | <input checked="" type="checkbox"/> Mandatory Findings of Significance | |

INITIAL STUDY

DETERMINATION: (TO BE COMPLETED BY THE LEAD AGENCY)

On the basis of this initial evaluation:

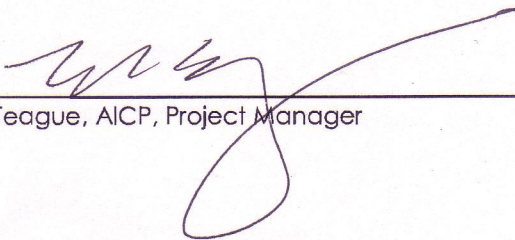
- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☒ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



George Barber, General Manager

12/8/09

Date



Mark Teague, AICP, Project Manager

12/8/09

Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources cited in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved. A "No Impact" answer may also be explained where it is based on project-specific factors as well as general standards.
- 2) All answers take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once it is determined that a particular physical impact may occur, then the checklist will indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. A "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impacts" an EIR is required.
- 4) "Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an impact from "Potentially Significant" to a "Less Than Significant." The lead agency must describe the mitigation measures, and briefly explain how the mitigation measure would reduce the impact to a less than significant level.
- 5) The EIR may rely on earlier analyses where, pursuant to the CEQA guidelines, an impact has been adequately analyzed in an earlier EIR or negative declaration. Section 15063l(3)(D). The Guidelines specify how the earlier analysis should be used.
- 6) Often, the checklist or EIR will rely on existing adopted documents such as general plans, zoning ordinances or development codes to reduce or eliminate impacts. When appropriate, reference to a previously prepared or outside document will identify the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source will be attached, and other sources used or individuals contacted should be cited in the discussion.

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EVALUATION OF ENVIRONMENTAL IMPACTS

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

Discussion of Impacts

a-c) *Would the project have a substantial adverse effect on a scenic vista?*

Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Water Rights Permits and Potential Future Infrastructure Improvements

Approval and implementation of the proposed time extension and changes to the District's water rights permits would not result in any changes to the physical environment and would therefore have no impact on the visual character of the project area or any scenic vistas. However, the proposed permit changes may result in the future construction of certain infrastructure improvements at Magalia and/or Paradise Dams (i.e., repairs at Magalia Dam, raising or modifying Paradise Dam, and/or installation of a hydroelectric plant at Paradise Dam). The construction of these improvements has the potential to impact scenic views and resources in the area. This impact is **potentially significant** and will be addressed further in the EIR.

Sphere of Influence Expansion

The SOI expansion does not include construction activities or other physical improvements that would introduce any changes to the existing visual character of the project area. Scenic vistas and other scenic resources would remain unchanged since no physical alteration of the project area would take place as a result of the proposed project.

The visual character of the project area includes "small town" type urban areas such as the Town of Paradise and wide expanses of coniferous forests, foothill woodlands, and chaparral. As discussed above, the proposed project would not result in any physical development and would

EVALUATION OF ENVIRONMENTAL IMPACTS

therefore not substantially degrade the existing visual quality of the project area and surroundings. **No impact** to visual character would occur.

- b) *Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

Water Rights Permits and Potential Future Infrastructure Improvements

In Butte County, only Highway 70 north of Highway 149 is eligible for state designation as an Official State Scenic Highway. Highway 70 is not located within the project area.

Skyway Road is currently not a California State or Butte County Scenic Highway. However, portions of this roadway are under consideration for inclusion in the scenic highway system. Approval and implementation of the proposed time extension and changes to the District's water rights permits would not result in any changes to the physical environment and would therefore have no impact on any scenic resources within this or any other state scenic highway. However, the proposed permit changes may result in the future construction of certain infrastructure improvements at Magalia and Paradise Dams. The construction of these improvements has the potential to impact scenic views and resources in the area. This is a **potentially significant impact** and will be addressed further in the EIR.

Sphere of Influence Expansion

Approval of the proposed SOI expansion would not result in any physical development. No trees would be removed as a result and no rock outcroppings or historical buildings would be affected. Therefore, the proposed SOI expansion would have **no impact** to scenic resources in the vicinity of Skyway Road or any other designated or eligible state scenic highway.

- d) *Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

Water Rights Permits and Potential Future Infrastructure Improvements

As described above in Responses (a) and (b), approval and implementation of the proposed time extension and other changes to the District's permits would not result in any physical development and would therefore not create any new sources of light or glare. However, the infrastructure improvements that may result from the proposed project could include lighting and reflective materials. This impact is considered **potentially significant** and will be addressed further in the EIR.

Sphere of Influence Expansion

The proposed SOI expansion does not include construction of any structures and does not include any physical alterations to the project area. Vehicular traffic in the project area would not be increased as a result of the proposed expansion. Therefore, **no impacts** resulting from new sources of light and glare would occur.

| | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------------|--|------------------------------------|-------------------------------------|
| II. AGRICULTURE 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. Would the project: | | | | |
| 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 checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion of Impacts

a, c) *Would the project 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?*

Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?

In addition to the definition of Prime Farmland provided by the Farmland Mapping and Monitoring Program of the California Resources Agency, the definition of Prime Farmland utilized by local agency formation commissions (LAFCO) in accordance with Government Code 56064 is considered in this section. According to this definition, Prime Farmland is land that has not been developed for a use other than an agricultural use and that meets any of the following qualifications:

1. Land that qualifies, if irrigated, for rating as Class I or Class II in the USDA Natural Resources Conservation Service land use capability classification, whether or not land is actually irrigated, provided that irrigation is feasible.
2. Land that qualifies for rating 80 through 100 Storie Index Rating.
3. Land that supports livestock used for the production of food and fiber and that has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United States Department of Agriculture in the National Handbook on Range and

EVALUATION OF ENVIRONMENTAL IMPACTS

Related Grazing Lands, July, 1967, developed pursuant to Public Law 46, December 1935.

4. Land planted with fruit or nut-bearing trees, vines, bushes, or crops that have a nonbearing period of less than five years and that will return during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production not less than four hundred dollars (\$400) per acre.
5. Land that has returned from the production of unprocessed agricultural plant products an annual gross value of not less than four hundred dollars (\$400) per acre for three of the previous five calendar years⁶.

Water Rights Permits and Potential Future Infrastructure Improvements

According to the California Resources Agency Farmland Mapping and Monitoring Program, the project area does not contain any land classified as Prime Farmland or Farmland of Statewide Importance⁷. A few small areas of land located in the northeastern and southern portions of the project area are classified as Unique Farmland. Some of this area may meet the criteria to be considered Prime Farmland under Government Code 56064; however, approval and implementation of the proposed time extension and changes to the District's permits would not result in the conversion of any of these areas to non-agricultural uses.

The infrastructure improvements that may result from project implementation would be constructed at Paradise and/or Magalia Dams. These areas are not classified as Important Farmland, are not utilized for agricultural production, and do not meet the Government Code 56064 criteria for Prime Farmland. Furthermore, the area immediately surrounding Magalia Dam, which may become re-inundated if the dam is repaired and the capacity of the reservoir increased, does not contain any land classified as Important Farmland and does not meet the criteria to be considered Prime Farmland according to Government Code 56064. There would be **no impact**.

Sphere of Influence Expansion

According to the California Resources Agency Farmland Mapping and Monitoring Program, there is no Prime Farmland located in the existing or the proposed PID SOI. Some of these areas may meet the criteria to be considered Prime Farmland under Government Code 56064; however, the proposed SOI expansion would not result in a change in land use designation for any properties and therefore would not convert any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses. The proposed SOI expansion would have **no impact** on Farmland or the conversion of Farmland to a non-agricultural use.

- b) *Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?*
-

⁶ California State Assembly, Assembly Committee on Local Government. December 2006. *Guide to the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000*.

⁷ California Department of Conservation, Farmland Mapping and Monitoring Program (FMMP). 2004. *Important Farmland Data*.

Water Rights Permits and Potential Future Infrastructure Improvements

There are a few areas subject to Williamson Act contracts northwest of the Town of Paradise. There are also a few areas zoned for agricultural use west and southeast of the Town. In addition, some portions of the project area are zoned Timber Preserve Zone (TPZ-160) and Timber Mountain Zone (TMZ). None of these areas would be affected by approval and implementation of the proposed time extension and changes to the District's permits or the future infrastructure improvements that may result from the project. There would be **no impact** to any Williamson Act contracts or land zoned for agricultural use.

Sphere of Influence Expansion

There are some parcels zoned for agricultural use and under Williamson Act contracts in the southern portion of the proposed SOI. The parcels are non-prime farmland⁸. The proposed expansion would not change land use designations or locate non-compatible uses adjacent to an agricultural area. No Williamson Act contracts would be affected by the proposed expansion as no physical development or change in land use designations would take place. There would be **no impact** related to conflicts with existing zoning or the Williamson Act.

⁸ California Department of Conservation, Farmland Mapping and Monitoring Program (FMMP). 2004. *Important Farmland Data*.

EVALUATION OF ENVIRONMENTAL IMPACTS

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

Discussion of Impacts

a-c) *Would the project conflict with or obstruct implementation of the applicable air quality plan?*

Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Would the project 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)?

Water Rights Permits and Potential Future Infrastructure Improvements

The proposed time extension and changes to the District's water rights permits will not result in any construction activities or the development of any facilities that will emit air pollutants. Therefore, this portion of the project will have no direct impact to air quality. However, construction and operation of the infrastructure improvements that may result from the proposed project have the potential to result in impacts to air quality from construction activities and operation of the new facilities. These impacts are considered **potentially significant** and will be addressed further in the EIR.

Sphere of Influence Expansion

The SOI expansion area is located within the Northern Sacramento Valley Air Basin (NSVAB). The NSVAB is comprised of the northern portion of the Sacramento Valley and includes the counties of Butte, Colusa, Glenn, Shasta, Sutter, Tehama, and Yuba. The project area is also within the jurisdiction of the Butte County Air Quality Management District (BCAQMD).

The proposed SOI expansion would not create an increase in the emissions in the air basin and would not conflict with the *North Sacramento Valley Air Basin 2003 Air Quality Management Plan*. No construction is proposed as part of this project. Therefore, no construction-related emissions would be generated. Additionally, the expansion would not increase vehicular trips and associated vehicular emissions in the basin.

Butte County has been designated as a non-attainment area for the state standards for fine particulate matter (PM₁₀ and PM_{2.5}), a moderate non-attainment area for the 1-hour state, and a basic non-attainment area for the federal 8-hour Ozone (O₃) standards. No construction or increase in vehicle trips would occur as a result of the expansion of the PID SOI, the potential acquisition/annexation, or the water wheeling option. Compliance with applicable state laws regarding construction vehicle emissions would ensure that no air quality impacts would occur as a result of pump installation. The proposed SOI expansion would not result in any long- or short-term emissions that would contribute to the existing non-attainment status.

The proposed SOI expansion would have **no impact** on implementation of the 2003 AQMP or in relation to air quality standards or existing air quality violations.

No construction-related criteria pollutants would result from the proposed SOI expansion as no construction would occur. No operational criteria pollutants would occur because the PID would not be increasing service or capacity over what is currently provided. Therefore, implementation of the proposed SOI expansion would not cause a cumulatively considerable net increase of ozone precursors (including ROG and NO_x) and PM₁₀ and **no cumulative impacts** would occur.

d-e) *Would the project expose sensitive receptors to substantial pollutant concentrations?*

Would the project create objectionable odors affecting a substantial number of people?

Water Rights Permits and Potential Future Infrastructure Improvements

The proposed time extension and changes to the District's water rights permits would not result in any construction activities or the development of any facilities that would emit pollutants or create odors. In addition, the construction and operation of the infrastructure improvements that could result from project implementation would not emit substantial pollutant concentrations or generate any objectionable odors. There will be **no impact**.

Sphere of Influence Expansion

Sensitive receptors are located throughout the proposed SOI expansion area. However the proposed project would not have an impact on sensitive receptors in the project area since the project involves only a change in the PID SOI boundary. No exposure of sensitive receptors to pollutant concentrations would result from the proposed project.

EVALUATION OF ENVIRONMENTAL IMPACTS

Implementation and operation of the proposed SOI expansion would not result in any objectionable odors affecting the project area as no construction would take place and no operations would occur that involve objectionable odors. **No impact** would occur.

CLIMATE CHANGE AND GREENHOUSE GASES

A number of statutes have been adopted in California to address greenhouse gas emissions and climate change. Senate Bill 97 (SB 97), enacted in 2007, amends CEQA to establish that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis. The bill directs the Governor's Office of Planning and Research (OPR) to develop draft CEQA Guidelines "for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emission" by July 1, 2009 and directs the Resources Agency to certify and adopt the CEQA Guidelines by January 1, 2010. In the meantime, OPR issued interim guidelines on June 19, 2008 in a technical advisory titled *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review*.

Scientific consensus supports the conclusion that significant changes in the global climate are underway, and that humans are impacting the changes by emitting greenhouse gases (GHG) to the atmosphere. There is a vast body of scientific evidence to support the fact that global climate change is taking place. The Intergovernmental Panel on Climate Change (IPCC), a body created by the World Meteorological Organization and the United Nations Environment Program, was created to assess peer-reviewed scientific and technical studies and reports in order to present "comprehensive, objective, open and transparent" information on climate change. (reference – *Principles Governing IPCC Work*, 1998 and amended 2003) The IPCC Fourth Assessment Report made the following statement:

"Global atmospheric concentrations of carbon dioxide, methane and nitrous oxide have increased markedly as a result of human activities since 1750 and now far exceed pre-industrial values determined from ice cores spanning many thousands of years. The global increases in carbon dioxide concentration are due primarily to fossil fuel use and land-use change, while those of methane and nitrous oxide are primarily due to agriculture."⁹

In addition to evaluating criteria pollutants that may have a more localized impact on air quality, project developers are increasingly being required to address the impacts of GHGs emissions on the atmosphere in the context of how those emissions may contribute to climate change. Water management entities have an additional concern in addressing how the changing climate may impact the collection and storage of water resources, as well as how climate change will affect the demand for water supplies and services.

⁹ Contribution of Working Group I to the Fourth Assessment Report of the IPCC. *Climate Change 2007: The Physical Science Basis*. February 2007.

For the purposes of considering how climate change in Northern California may impact water resource providers, it is noted that many climatologists agree on the following:

1. Northern California will experience an increase in individual storm intensity.¹⁰
2. Mountain areas will likely see an increase in precipitation, though the snow/rain mix is likely to change toward more rain and less snow.¹¹
3. California as a whole will experience hotter summers and possibly wetter winters.¹²
4. The potential for wildfires will increase.¹³

Although there are other impacts that will likely occur as a result of climate change (e.g., rising sea levels), the above issues, which are expanded upon below, represent the most immediate and direct impacts in the project area.

More Rain and Less Snow

While individual storm events may be more severe, resulting in more snow and rain within an individual storm, the increase in temperature is expected to result in less snow overall and more rain in the foothills of California. Less snow pack will result in less "natural" storage and gradual runoff as the snow melts. Instead, runoff from rain would be more immediate and less sustained into spring. The California Department of Water Resources has projected that the Sierra snowpack will experience a 25 to 40 percent reduction from its historic average by the year 2050. (However, since the watershed that supplies the PID with its water resource is at a lower elevation that does not receive heavy snowfall, this would not affect the PID as much as other areas of the state that are supplied by watersheds that extend to higher elevations with more extensive snowpack resources.)

Hotter Summers

As summers become hotter for longer periods of time, there will be proportionally greater demand for water use; for example, for landscape irrigation. Energy use patterns and costs are also expected to be effected as temperatures during the summer increase between 5 and 10 degrees, causing greater use of air conditioning. Warmer temperatures and extended dry periods will likely increase evapotranspiration rates and extend growing seasons, thereby increasing the amount of water that will be needed for the irrigation of crops, urban landscaping and environmental water needs. Reduced soil moisture and surface flows will disproportionately affect the environment and other water users that rely on annual rainfall such as non-irrigated agriculture and livestock grazing on non-irrigated rangeland.

Increased Wildfire Danger

As summers become hotter and drier, the already pervasive risk of wildfire will increase even more. It is expected that, because of prolonged dry periods, forests and foothill grass and chaparral lands will experience more frequent and intense fires, resulting in changes in

¹⁰ California Climate Change Center. *Our Changing Climate: Assessing Risks to California*. July 2006.

¹¹ California Climate Change Center. *Scenarios of Climate Change in California*. February 2006.

¹² Union of Concerned Scientists, *Confronting Climate Change in California*, October 2006.

¹³ California Climate Change Center. *Scenarios of Climate Change in California*. February 2006.

EVALUATION OF ENVIRONMENTAL IMPACTS

vegetation cover and, eventually, a reduction in the water supply and storage capacity benefits of a healthy watershed.

Hydroelectric Generation

The California Department of Water Resources has expressed concern about how climate change will affect the reliability of the state's hydroelectric operations, which have been described as the state's largest source of GHG-free energy.

Changes in the timing of inflows to reservoirs may exceed generation capacity, forcing water releases over spillways and resulting in lost opportunities to generate hydropower. Higher snow elevations, decreased snowpack, and earlier melting may result in less water available for clean power generation during hot summer months when energy demand is highest. The impact is compounded overall by anticipated increased energy consumption due to higher temperatures and greater water demands in summer when less water is available. The potential for lengthier droughts may also lower reservoir levels below that which is necessary for power generation.¹⁴

Implications for the PID Project

For the proposed project, the extent of GHG emissions that will be generated by project improvements will need to be considered, especially in the context of contributions that may be made to cumulative impacts and climate change. As noted above, SB 97 amended CEQA to establish that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis. OPR has issued interim guidelines in a technical advisory titled *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review*. Additional CEQA Guidelines for the evaluation and mitigation of greenhouse gas emissions are expected by January 1, 2010.

Other bills in California's growing regulatory framework concerning GHGs and global warming will need to be considered, to the extent that they are applicable to the type of project proposed by the PID, including: Assembly Bill 32, The California Climate Solutions Act of 2006; the Air Resources Board's Climate Change Proposed Scoping Plan to achieve GHG reductions required in AB 32; and the recommendations of documents such as *The California Environmental Quality Act: Addressing Global Warming Impacts at the Local Agency Level*, which includes policy and project-specific methods advocated by the California Attorney General's Office to reduce GHG emissions.

The EIR for this project will also consider how the PID is taking into consideration the expected consequences of global warming on planning proposed water resource facilities and related management practices.

¹⁴ California Department of Water Resources. *Managing an Uncertain Future: Climate Change Adaptation Strategies for California's Water*. 2008.

| | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------------|--|------------------------------------|-------------------------------------|
| IV. BIOLOGICAL RESOURCES. Would the project: | | | | |
| 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 checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal wetlands, etc.), through direct removal, filling, hydrological interruption or other means? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input 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 checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input 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-e) *Would the project 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?*

Would the project 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?

EVALUATION OF ENVIRONMENTAL IMPACTS

Would the project have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal wetlands, etc.), through direct removal, filling, hydrological interruption or other means?

Would the project 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?

Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Water Rights Permits and Potential Future Infrastructure Improvements

The proposed project would not require modification of the historical operation of the existing PID facilities. However, the reasonably foreseeable consequences of the proposed project include infrastructure improvements that may remove the restrictions that limit the holding capacity of Magalia Reservoir and/or Paradise Reservoir in the future to put water to full beneficial use. This could result in increased diversion of water from Little Butte Creek which may affect stream flows potentially impacting fish habitat and other biological resources. In addition, the project may result in a rise of water levels at Magalia Reservoir and/or Paradise Reservoir causing the surrounding habitat to be inundated. Project impacts to biological resources are considered **potentially significant**. A complete biological resources study will be prepared and these impacts will be fully addressed in the EIR.

The California Department of Fish and Game has expressed concern in the form of a Formal Protest of Petition for Extension of Time and Petition for Changes for both Permit 271 and Permit 16040 (letters dated March 18, 2008). Concerns expressed by the Department include issues that the project may result in direct and cumulative adverse impacts to the resources of the Butte Creek watershed by reducing in-stream flow and water availability that is required to maintain riparian habitat and fish spawning and rearing habitat within the drainage. The Department states that Little Butte Creek and Butte Creek support populations of steelhead trout and Chinook salmon (including evolutionary significant units of these species), Foothill yellow-legged frog, and other sensitive plant, fish and wildlife resources. Other species of concern include Red-legged frog, Western pond turtle, silver-haired bat, and plant species including Butte County fritillaria and Mildred's clarkia.

The Department wants information to demonstrate that fish, wildlife, and plant species will be protected with continued or expanded operation of PID diversion facilities, and that adequate flow is provided downstream to maintain fish and aquatic life in good condition. The Department has advised the Division of Water Rights of issues and resource surveys that it wants addressed in a comprehensive study plan, to be approved by the Department, which will provide data on biological species and habitat. Following the collection of environmental data, the Department wants appropriate mitigation measures and specific terms to address such issues as (but not limited to):

1. Provide minimum bypass flows below the dams for maintenance of biological resources, including provision of minimum bypass flows below Magalia Dam for maintenance of cold freshwater habitat suitable for support of steelhead trout and spring-run Chinook salmon in Little Butte Creek;

2. A management program to prevent entrainment of fish and other aquatic life at any point of direct diversion;
3. A plan to monitor compliance with, and the effectiveness of, the stipulated flows, passage features, and other measures for protection of biological resources.

Sphere of Influence Expansion

No physical changes to the environment would take place as a result of the proposed SOI expansion, and therefore no habitat would be modified. In addition, no direct adverse effects to any special-status species or sensitive natural communities would occur.

The California Department of Forestry and Fire Protection manages 5,516 acres of wetlands situated primarily in the western and southwestern portions of Butte County (Butte County DWRC, 2005). The project does not propose any construction and would not remove, fill, or otherwise disturb any of these wetlands. All wetlands would remain unchanged after implementation of the expansion.

The SOI expansion would not conflict with any policies to protect and conserve biological resources and habitats. No impacts to any sensitive natural communities or species identified as a candidate, sensitive, or special status species would occur. Furthermore, the proposed project would have no impact to federally protected wetlands. Finally, wildlife corridors and nursery sites would remain unchanged and therefore **no impact** would occur.

- f) *Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?*

Water Rights Permits and Potential Future Infrastructure Improvements

The Butte County Association of Governments is currently coordinating the development of the Butte Regional Habitat Conservation Plan (HCP) and Natural Community Conservation Plan (NCCP). The preliminary plan area covers most of western Butte County including the cities of Chico, Oroville, Biggs and Gridley but does not include the Town of Paradise or any land within the Project Area. Additionally, the Butte Regional HCP/NCCP has not been completed, approved or permitted. Therefore, the proposed project would have **no impact** to any existing habitat conservation plans.

Sphere of Influence Expansion

See above. The proposed SOI expansion would have **no impact** to any existing habitat conservation plans.

EVALUATION OF ENVIRONMENTAL IMPACTS

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

Discussion of Impacts

a-d) *Would the project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?*

Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Would the project disturb any human remains, including those interred outside of formal cemeteries?

Water Rights Permits and Potential Future Infrastructure Improvements

This portion of the proposed project would not result in any changes to the physical environment and would therefore have no impact to cultural resources. However, several infrastructure improvements have been identified as reasonably foreseeable consequences of the proposed time extension and changes to the District's water rights permits. The repair and raising of Magalia Dam, and/or the raising or modification of Paradise Dam, could result in a rise of water levels in one or both of the reservoirs, causing the surrounding areas to become inundated. In addition, construction activities related to repair and raising of Magalia Dam, raising or otherwise modifying Paradise Dam, and/or installation of the small hydroelectric plant at Paradise Dam could disturb cultural resources. Project impacts to cultural resources are considered **potentially significant** and will be addressed further in the EIR.

Sphere of Influence Expansion

No construction or ground-disturbing activities on previously undisturbed land would occur as a result of the proposed SOI expansion. Therefore, no historical, archaeological or paleontological resources or human remains would be impacted. **No impact** to cultural resources would occur as a result of this portion of the proposed SOI expansion and the issue will not be addressed further in the EIR.

| | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------------|--|------------------------------------|-------------------------------------|
| VI. GEOLOGY AND SOILS. Would the project: | | | | |
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death, involving: | | | | |
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ii) Strong seismic ground shaking? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| iii) Seismic-related ground failure, including liquefaction? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| iv) Landslides? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Result in substantial soil erosion or the loss of topsoil? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input 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 checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input 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, c) *Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death, involving:*
- *Rupture of a known earthquake faults, 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; or*
 - *Strong seismic ground shaking; or*

EVALUATION OF ENVIRONMENTAL IMPACTS

- Seismic-related ground failure, including liquefaction; or
- Landslides?

Would the project 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?

Water Rights Permits and Potential Future Infrastructure Improvements

There are a large number of known faults in the vicinity of the project area including one active fault, the Cleveland Hill fault, and two potentially active faults, the Big Bend Fault and the Chico Monocline Fault. There are also three faults near Magalia Dam that have been conditionally classified as active by the Division of Safety of Dams: (1) the Cohasset Ridge Fault, (2) the Magalia Fault, and (3) the Paradise fault south of Magalia. These faults, in addition to other active faults in the region have the potential to create moderately strong seismic ground shaking and associated hazards in the project area.

Approval and implementation of the proposed time extension and changes to the District's water rights permits would have no direct impact related to geology and soils. However, several infrastructure improvements have been identified as reasonably foreseeable consequences of this portion of the proposed project. The design and implementation of these improvements would be greatly affected by the geotechnical conditions of the region and the potential for seismic hazards. Therefore, these impacts are considered **potentially significant** and will be addressed further in the EIR.

Sphere of Influence Expansion

The proposed SOI expansion does not include the construction of any structures and would not induce population growth in the project area, as no residential homes or services would be constructed. Therefore, the proposed expansion would not expose people or structures to adverse impacts from rupture of an earthquake fault, seismic ground shaking, liquefaction, landslides, or unstable soil. Additionally, the proposed project would not increase the number of water service connections over what is currently provided and would not construct residential homes and therefore would not induce population growth in the project area. **No impacts** would occur.

b) *Would the project result in substantial soil erosion or the loss of topsoil?*

Water Rights Permits and Potential Future Infrastructure Improvements

Approval and implementation of the proposed time extension and changes to the District's water rights permits would not directly result in any development or otherwise have the potential to result in soil erosion or the loss of topsoil. However, several infrastructure improvements have been identified as reasonably foreseeable consequences of this portion of the proposed project. The construction of these improvements may result in soil erosion from vegetation removal, grading, cut and fill, etc. However, standard construction mitigation measures are available that would help avoid or minimize the potential for erosion during construction. This impact will be fully addressed and mitigation measures will be provided in the EIR.

The project may result in future infrastructure improvements at both Paradise and Magalia Dams. The construction of these improvements may result in soil erosion from vegetation removal, grading, cut and fill, etc. However, mitigation measures are available to avoid or minimize the potential for erosion during construction. This impact is considered **potentially significant** and will be fully addressed in the EIR.

Sphere of Influence Expansion

The proposed SOI expansion would not include any construction or grading activities that would remove vegetative ground cover and increase erosion potential. In addition, the project does not propose to construct any structures within the expansion area and therefore would not expose structures or people to existing erosion potential. Therefore, **no impacts** associated with erosion would occur.

d) *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?*

Expansive soils typically contain clay minerals that attract and absorb water causing the soil to swell when subjected to moisture and shrink when dry. This periodic change in soil volume can cause damage to foundations, structures, and roadways. According to the Butte County General Plan, the project area is generally considered to have low to moderate potential for expansive soils.

Water Rights Permits and Potential Future Infrastructure Improvements

Approval and implementation of the proposed time extension and changes to the District's water rights permits would not directly result in any development or otherwise create risks to life or property due to expansive soils. However, several infrastructure improvements have been identified as reasonably foreseeable consequences of this portion of the proposed project. These improvements could be affected by expansive soils depending on the soil conditions at each individual project site. This impact is considered **potentially significant** and will be addressed further in the EIR.

Sphere of Influence Expansion

The proposed SOI expansion area has a high potential for expansive soils. However, the proposed expansion would not create substantial risks to life or property as no structures would be built and no population growth would occur upon implementation of the expansion. **No impacts** associated with expansive soils would occur.

e) *Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?*

None of the components of the proposed project would include the use of any septic tanks or alternative wastewater disposal systems. There will be **no impact**.

EVALUATION OF ENVIRONMENTAL IMPACTS

| | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------------|--|-------------------------------------|-------------------------------------|
| VII. HAZARDS AND HAZARDOUS MATERIALS. Would the project: | | | | |
| 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 checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §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 checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Discussion of Impacts

- a, b) *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Water Rights Permits and Potential Future Infrastructure Improvements

Approval and implementation of the proposed time extension and changes to the District's permits would not result in the routine use, transport or disposal of any hazardous materials. However, several infrastructure improvements have been identified as reasonably foreseeable consequences of this portion of the proposed project. The construction of these improvements may require the use of some common hazardous materials such as gasoline, diesel, adhesives, etc. In addition, operation of the small hydroelectric plant at Paradise Dam may include the use of batteries which can contain hazardous materials. This impact is considered **potentially significant** and will be addressed further in the EIR.

Sphere of Influence Expansion

The proposed SOI expansion would not include the use, transit or disposal of hazardous materials and therefore no accidental releases would occur. **No impacts** will occur relative to hazardous materials or hazardous material releases.

- c) *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

The Project Area is located within the Paradise Unified School District and contains 12 public schools. The Cedarwood Elementary School (K-6) is located at 6400 Columbine Road in Magalia approximately one mile from Paradise Reservoir. The Pine Ridge School (K-8) is located at 13878 Compton Drive in Magalia approximately one mile from Magalia Reservoir. The remaining schools are not located in close proximity to either dam.

Water Rights Permits and Potential Future Infrastructure Improvements

The proposed time extension and changes to the District's water diversion permits would not directly involve the use of any hazardous materials and would not create any risks to schools related to hazardous materials. However, several infrastructure improvements have been identified as reasonably foreseeable consequences of this portion of the proposed project. None of these improvements would emit hazardous emissions. The construction and operation of these improvements could, however, require the use of some common hazardous materials for lubrication and maintenance of heavy machinery as well as adhesive, solvents, and paints. This impact is considered **potentially significant** and will be addressed further in the EIR.

Sphere of Influence Expansion

The proposed SOI expansion would not include the use, transit, or disposal of hazardous waste and would not cause any hazardous emissions in the project area. **No impact** would occur.

- d) *Would the project be located on a site which is included on a list of hazardous materials sites compile pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.*

EVALUATION OF ENVIRONMENTAL IMPACTS

Water Rights Permits and Potential Future Infrastructure Improvements

There are several sites within the Project Area that have been identified as containing leaking underground storage tanks and one site that has been contaminated by operation of an automotive repair facility. However, there are no reported hazardous materials sites at or directly surrounding the sites of the potential future infrastructure improvements that could result from project implementation. Implementation of the proposed time extension and changes to the District's permits would not affect any identified hazardous materials sites, nor would it create a significant hazard to the public or the environment related to hazardous materials. There is **no impact**.

Sphere of Influence Expansion

The proposed SOI expansion does not propose any construction and therefore would not locate any development on one of the hazardous material sites in the project area. No physical change in any hazardous material site would occur as a result of the proposed project. **No impacts** resulting from hazardous material sites would occur.

- e-f) *For a project located within 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 result in a safety hazard for people residing or working in the project area?*

For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

Water Rights Permits and Potential Future Infrastructure Improvements

The Paradise Skypark Airport, located south of the Town of Paradise, is the only airport in the Project Area. Implementation of the proposed time extension and changes to the District's water rights permits and subsequent construction of associated infrastructure improvements would have **no impact** on airport operations or result in any hazards to people in the Project Area related to air traffic.

Sphere of Influence Expansion

The proposed SOI expansion would not include any development and would not create homes or jobs in the vicinity of a public or a private airport. The proposed expansion would have **no impact** in relation to safety hazards and public or private use airports.

- g) *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.*

Water Rights Permits and Potential Future Infrastructure Improvements

Butte County has adopted an Operational Area Disaster Plan which serves as the official emergency plan for the County. The proposed changes to the District's water diversion permits would have no effect on the implementation of this plan. However, several infrastructure improvements have been identified as reasonably foreseeable consequences of this portion of the proposed project, the construction of which could temporarily impede traffic on major roadways in the Project Area due to construction equipment and temporary road closures. Poor

emergency evacuation on rural roads in Paradise and Magalia was identified as a concern during the County's General Plan Update process. This impact is **potentially significant** and will be addressed further in the EIR.

Sphere of Influence Expansion

Implementation of the proposed SOI expansion would not result in the blocking of access to any emergency facilities. There is **no impact**.

- h) *Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?*

Water Rights Permits and Potential Future Infrastructure Improvements

The Project Area is located in a rural region with extensive wildlands surrounding the Town of Paradise and intermixed within the sites of the potential future infrastructure improvements. The area's wildland fire hazard is identified in the Butte County General Plan as "Extreme" due to the close proximity of population density to those areas most likely to be at risk due to prevailing physical and climatic conditions. This proposed project does not include the construction of any housing or other structures that would attract groups of people. However, the project may include the construction of some infrastructure improvements including a small hydroelectric power plant that would be exposed to a substantial risk from wildland fire. This impact is considering **potentially significant** and will be addressed further in the EIR.

Sphere of Influence Expansion

The proposed SOI expansion would not construct buildings or induce population growth within the project area, and therefore, **no impacts** involving wildland fires would occur.

EVALUATION OF ENVIRONMENTAL IMPACTS

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

Discussion of Impacts

a, f) *Would the project violate any water quality standards or waste discharge requirements?*

Would the project otherwise substantially degrade water quality?

Water Rights Permits and Potential Future Infrastructure Improvements

Implementation of the proposed time extension and changes to the District's permits as well as the potential future infrastructure improvements associated with this portion of the project would result in an increased rate of diversion from Little Butte Creek. This increased diversion rate will reduce creek flows potentially resulting in a significant impact to water quality downstream including changes to water temperature and dissolved oxygen levels. Additionally, the possible improvements to Magalia Dam, Paradise Dam, and/or construction of a small hydroelectric plant, which could result from project implementation, may impact water quality, particularly during construction activities. This impact is considered **potentially significant** and will be addressed further in the EIR.

Sphere of Influence Expansion

The proposed SOI expansion does not include any construction activities. No soil disturbing activities would occur and no wastewater would be discharged as a result of the expansion. The physical environment would remain unchanged after implementation of the proposed expansion. Thus, **no impacts** to water quality or waste discharge would occur.

b) *Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?*

The proposed project would not require the extraction or use of any groundwater and would therefore not contribute to a depletion of the local groundwater aquifer. The proposed SOI expansion does contemplate the future use of wells in the Valley to serve as a drought supply; this potential future project would not be undertaken without additional significant environmental evaluation and consultation with Butte County staff and experts. Further, the proposed project would not result in a significant increase in impervious surfaces in the area or otherwise impede recharge of the aquifer. This impact is considered **less than significant**.

c, d) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?*

Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate of amount of surface runoff in a manner which would result in flooding on- or off-site?

EVALUATION OF ENVIRONMENTAL IMPACTS

Water Rights Permits and Potential Future Infrastructure Improvements

This portion of the proposed project includes a time extension and other various changes to the District's water diversion permits. In addition, implementation of the proposed project could result in other infrastructure improvements at Magalia and Paradise Dams.

Implementation of this project could result in changes in the timing of water diversion from that which is presently allowed under the Permits. PID has operated its facilities in this manner historically; therefore, the project would not result in the alteration of any existing drainage patterns. However, the improvements to Magalia and/or Paradise Dams that could result from project implementation may impact drainage. This impact is considered **potentially significant** and will be addressed further in the EIR.

Sphere of Influence Expansion

No streams or rivers would be altered upon implementation of the proposed SOI expansion and therefore no increase in erosion potential would occur. The proposed expansion would not introduce structures that would alter slopes, soil, or vegetation in the project area. The SOI expansion would not introduce impervious surfaces that would increase the amount of surface runoff in the SOI expansion area. The physical environment would not be altered as a result of the proposed SOI expansion. Therefore **no impact** regarding increased potential for on- or off-site erosion or flooding would occur.

- e) *Would the project 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?*

Water Rights Permits and Potential Future Infrastructure Improvements

The requested time extensions and changes to the District's water diversion permits would not directly result in increased runoff. However, several infrastructure improvements have been identified as reasonably foreseeable consequences of this portion of the proposed project. Construction of these improvements could affect drainage in the short-term due to construction activities. The infrastructure improvements will not result in a significant increase in impervious surface area or otherwise cause an increase in runoff in the long-term. This impact is considered **less than significant**.

Sphere of Influence Expansion

The proposed SOI expansion would not result in increased surface runoff in the project area and therefore would have **no impact** to stormwater drainage systems and would not increase polluted runoff.

- g, h) *Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?*

Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

The proposed project would not result in the construction of any housing. In addition, according to the Federal Emergency Management Agency's (FEMA) flood mapping program, the Project Area is not within a flood hazard zone. There is **no impact**.

- i) *Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?*

The proposed project will not expose any people to a risk of flooding from failure of a levee or dam as it will not result in the construction of any housing or other structures or facilities that would attract groups of people. However, as a result of the proposed project, a small hydroelectric plant may be installed at Paradise Dam. Should this dam fail, the hydroelectric plant may be at risk of flooding. Paradise Dam is maintained and inspected annually by the California Department of Water Resources Division of Safety of Dams and the risk of failure is not considered significant. This impact is considered **less than significant**.

The water level of the Magalia reservoir is kept less than the design levels to reduce the potential for flooding in the event of failure. Implementation of the proposed project may enable the District, in coordination with the County and CalTrans, to repair and improve Magalia Dam, allowing for an increase in water levels to meet the design capacity of the reservoir. Also, the District may propose in the future to raise Paradise Dam up to an additional 23 feet, and/or otherwise modify the dam and spillway to expand storage capacity. Any improvement plans for one or both of these dams will be reviewed by the California Department of Water Resources Division of Safety of Dams to ensure that the risk of failure is not considered significant. This impact is considered **less than significant**.

- j) *Would the project result in inundation by seiche, tsunami, or mudflow?*

A seiche is a periodic oscillation of a body of water such as a reservoir resulting from seismic shaking or other causes such as landslides. According to the Butte County General Plan 2030 Setting and Trends Report, seiches have not been recorded in any of the reservoirs in Butte County that are within the jurisdiction of the California Division of Dam Safety. However, the potential for seiches in Butte County does exist, caused either by landslides or from stronger earthquakes that have been experienced in historical times.

A mudflow is a flow of dirt and debris that occurs after intense rainfall or snowmelt, volcanic eruptions, earthquakes and severe wildfires. The Project Area is located in the northern Sierra Nevada foothills and is subject to potential mudflows.

As a result of the proposed project, a small hydroelectric plant may be installed at Paradise Dam. Should a seiche or mudflow occur in this area, the hydroelectric plant may be at risk of being inundated. However, the potential risk of seiche or mudflow is minimal and the impact is considered **less than significant**.

A tsunami is a series of waves that are caused by earthquakes that occur on the seafloor or in coastal areas. As the Project Area is not located near the Pacific Ocean, there is **no impact** associated with tsunamis.

EVALUATION OF ENVIRONMENTAL IMPACTS

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

Discussion of Impacts

a) *Would the project physically divide an established community?*

The proposed project may result in the construction of a limited number of infrastructure improvements located primarily in very rural, sparsely populated areas outside the nearby communities of Paradise and Magalia. These improvements will not result in the division of any established communities. There will be **no impact**.

b) *Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?*

Water Rights Permits and Potential Future Infrastructure Improvements

The proposed time extension and other changes to the District's water diversion permits would not directly result in any changes in land use and would not conflict with any applicable land use plans, policies or regulations. The potential future infrastructure improvements that may result from project implementation would be constructed at or immediately adjacent to Magalia or Paradise Dams. These areas are designated by the City of Paradise General Plan as "PI" Public Institutional which allows for public utilities and facilities. The Butte County General Plan designates these areas as "P" Public/Quasi-Public which also allows for facilities owned and operated by government agencies including dams and reservoirs. Therefore, construction of these improvements would not conflict with either land use plan.

The County has also zoned these areas for Public and Quasi-Public uses with a Watershed Protection overlay zone. The primary purpose of this overlay zone is to limit or restrict land uses having the potential to degrade surface water resources that provide domestic water for county residents. The proposed project will be required to comply with the specific limitations and restrictions adopted for the Little Butte Creek Watershed Protection overlay zone. The

proposed project is not anticipated to conflict with the overlay zone limitations and restrictions; however, the impact is considered **potentially significant** and will be addressed further in the EIR.

Sphere of Influence Expansion

The proposed SOI expansion would not amend the zoning or land use designation of any property, nor would any development result from the expansion. The SOI expansion would not conflict with local zoning and land use plans. Therefore, it would have **no impact** on any applicable land use plan.

- c) *Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?*

The Butte County Association of Governments is currently coordinating the development of the Butte Regional Habitat Conservation Plan (HCP) and Natural Community Conservation Plan (NCCP). The preliminary plan area covers most of western Butte County including the cities of Chico, Oroville, Biggs and Gridley but does not include the Town of Paradise or any land within the Plan Area. Additionally, the HCP/NCCP has not been completed, approved or permitted. Therefore, the proposed project would have **no impact** to any applicable habitat conservation plan or natural community conservation plan.

EVALUATION OF ENVIRONMENTAL IMPACTS

| | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------------|--|------------------------------------|-------------------------------------|
| X. MINERAL RESOURCES. Would the project: | | | | |
| 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) *Would the project 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?*

Would the project 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?

The primary mineral resources in Butte County are sand and gravel. Deposits of sand and gravel are generally located along the Sacramento River in the west and within a band running from north to south down the center of the County. Implementation of the proposed project and associated infrastructure improvements would not result in the loss of availability of any known or unknown mineral resources. In addition, there are no active mineral resource extraction operations in the Project Area. The project would have **no impact**.

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

Discussion of Impacts

a-d) *Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

EVALUATION OF ENVIRONMENTAL IMPACTS

Water Rights Permits and Potential Future Infrastructure Improvements

The requested time extension and other changes to the District's water diversion permits would not directly result in any noise-generating activities. However, several infrastructure improvements at the Magalia Dam and/or Paradise Dam have been identified as reasonably foreseeable consequences of implementing this portion of the project. The construction and operation of these improvements has the potential to generate significant noise, both temporary and permanent. These improvements will be located in relatively remote areas with few people residing or visiting the area. However, the impact is considered **potentially significant** and will be addressed further in the EIR.

Sphere of Influence Expansion

The Butte County General Plan and Butte County Code do not identify maximum noise level policies or codes. However, the General Plan does refer to the 60dB Ldn as a guideline for establishing whether a project may need noise mitigation measures. No construction would take place as a result of the proposed SOI expansion and no operational noise would occur as the level of water service would not increase. Development of the proposed project would not result in exposing persons to excessive noise levels or to noise levels over the 60 dB guideline. The project would therefore have **no impact** in relation to groundborne vibrations or a permanent or temporary increase in ambient noise levels or on exposure of persons to noise levels in excess of established standards.

e-f) *For a project located within 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?*

For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

Water Rights Permits and Potential Future Infrastructure Improvements

The Paradise Skypark Airport is located about three miles south of the Town of Paradise. The airport is privately owned and small, consisting of only one runway that is used primarily for recreation (skydiving). The proposed project does not include the construction of any housing or other structures that would attract groups of people. Therefore, continued operation of the airport will have **no new impact** on people residing or working in the Project Area.

Sphere of Influence Expansion

As the proposed SOI expansion project would not include any development and would not create homes or jobs in the vicinity of a public or a private airport, it would have **no impact** on excessive noise levels from public or private air strips.

EVALUATION OF ENVIRONMENTAL IMPACTS

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

Discussion of Impacts

- a) *Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and business) or indirectly (for example, through extension of roads or other infrastructure)?*

Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

Water Rights Permits and Potential Future Infrastructure Improvements

Historical and current population estimates as well as future population projections for the PID service area (at 1.2 percent), the Town of Paradise, the unincorporated portions of Butte County and the county as a whole are provided in **Table XII-1** below.

**TABLE XII-1
POPULATION ESTIMATES AND PROJECTIONS**

| | 1990 | 2000 | 2005 | 2010 | 2015 | 2020 | 2025 | 2030 |
|-----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| PID Service Area | * | * | 27,468 | 30,455 | 32,327 | 34,313 | 36,422 | 38,661 |
| Town of Paradise | 25,401 | 26,408 | 26,519 | 27,592 | 29,433 | 30,781 | 32,192 | 33,667 |
| Unincorporated Butte County | 98,652 | 96,042 | 93,275 | 93,991 | 98,786 | 103,825 | 109,121 | 114,687 |
| Butte County | 182,120 | 203,171 | 214,280 | 232,075 | 254,224 | 276,277 | 297,882 | 321,315 |

Sources: Department of Finance; Town of Paradise General Plan; PID Urban Water Management Plan; Butte County Association of Governments * - No data available

EVALUATION OF ENVIRONMENTAL IMPACTS

The population served by PID resides within the Town of Paradise and no service is provided outside of the town. However, the population estimates and projections for the two vary slightly as they were developed independently by PID and the Butte County Association of Governments.

Implementation of the proposed project would not result in any residential development or otherwise directly cause population growth within PID's service area or the surrounding region. However, the expansion of the District's water rights, through the addition of direct diversion as a permitted method of diversion, has the potential to indirectly generate growth by making more water available for future development within its service area. This impact is considered **potentially significant** and will be fully addressed in the EIR. Butte County is in the process of updating its General Plan and may alter land uses within the PID boundaries. It is also possible that future growth patterns in the Town of Paradise may also change, resulting in a different growth scenario than shown in the above table. The EIR will evaluate the potential for population growth based on the most current information available from the County and the Town of Paradise.

Sphere of Influence Expansion

The SOI expansion does not include the development of residential housing or commercial development, nor does it propose the extension of roads or infrastructure. Implementation of the proposed SOI expansion would increase the area served by PID, but would not increase the number of people being served.

Therefore, the proposed SOI expansion would not, either directly or indirectly, induce population growth in the project area. There would be **no impact**.

b, c) *Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?*

Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Implementation of the proposed project would not result in the displacement of any housing or people. All infrastructure improvements would be constructed at the site(s) of existing PID facilities. There would be **no impact**.

| | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------------|--|-------------------------------------|--------------------------|
| XIII. PUBLIC SERVICES. Would the project 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 following public services: | | | | |
| a) Fire protection? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Police protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Schools? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Parks? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Other public facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion of Impacts

- a) *Would the project 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 fire protection services?*

Water Rights Permits and Potential Future Infrastructure Improvements

Approval and implementation of the proposed time extension and other changes to the District's water rights permits would have no effect on fire protection services. However, the reasonably foreseeable consequences of the proposed project include several possible infrastructure improvements at Paradise and/or Magalia Dams. Fire hazards in these areas are considered extreme and the construction or expansion of critical facilities such as dams and power facilities in the area may result in an increased demand for fire protection services. This impact is considered **potentially significant** and will be addressed further in the EIR.

Sphere of Influence Expansion

This portion of the proposed project involves a change in the PID SOI boundary. This boundary change would not result in any new development or otherwise increase demand for fire protection services. There would be **no impact**.

- b-e) *Would the project 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 police protection services, public schools, parks, or other public facilities?*

EVALUATION OF ENVIRONMENTAL IMPACTS

The proposed project does not include the construction of any housing or otherwise directly result in increased demand for police protection services, parkland or recreational facilities or any other public services or facilities. Similarly, the proposed project would not directly result in greater public school enrollments.

The project does have the potential to indirectly result in overall population growth by permitting the District to expand its abilities to supply domestic water to customers in its service area. Identification of specific impacts to public services and facilities that may result from this growth would be highly speculative at this time and are beyond the scope of this document. As development occurs to accommodate projected future growth in the region, specific impacts to public services would be addressed as part of the environmental review for individual projects.

The proposed project will have a **less than significant** impact on law enforcement services, parks and recreation, public schools, and other public facilities and services.

| | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------------|--|-------------------------------------|--------------------------|
| XIV. RECREATION. | | | | |
| 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 checked="" type="checkbox"/> | <input 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 checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion of Impacts

a, b) *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?*

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?

See Response XIII(d). Implementation of the proposed project would not directly result in the construction of any housing or schools that may increase demand for parkland or other recreational facilities or services. However, the project may indirectly result in population growth in the Project Area by permitting the District to expand its abilities to supply domestic water within its service area. Potential impacts to recreation resulting from this growth would be speculative at this time but will be addressed in subsequent environmental review for future development projects. The proposed project would have a **less than significant** impact on recreation.

EVALUATION OF ENVIRONMENTAL IMPACTS

| | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------------|--|-------------------------------------|-------------------------------------|
| XV. TRANSPORTATION/TRAFFIC. Would the project: | | | | |
| a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Result in inadequate emergency access? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f) Result in inadequate parking capacity? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion of Impacts

a, b) *Would the project cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?*

Would the project exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

Water Rights Permits and Potential Future Infrastructure Improvements

Similarly, the potential future infrastructure improvements at Magalia Dam and/or Paradise Dam that may result from project implementation would also not be expected to generate substantial vehicle trips or otherwise interfere with regular traffic operations. In addition, each of these potential future improvements will undergo further project-level CEQA analysis prior to

implementation which will provide a detailed analysis of potential traffic impacts. This impact is considered **less than significant** and will not be addressed further in the EIR.

Sphere of Influence Expansion

No construction of PID facilities is proposed as part of the SOI expansion. Therefore the SOI expansion would not create additional construction traffic on project area roadways. In addition, no new development would be accommodated as a result of implementation of the proposed expansion, nor would the expansion induce population growth that could increase traffic on roadways. **No impact** in relation to traffic increases or existing levels of service on the area's roadways and intersections would occur.

- c) *Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?*

Water Rights Permits and Potential Future Infrastructure Improvements

The proposed time extension and other changes to the District's water rights permits would have no effect on air traffic patterns in the Project Area. The infrastructure improvements that have been identified as potential consequences of the project include repairs to Magalia Dam, raising or otherwise modifying Paradise Dam, and/or installing a small hydroelectric plant at Paradise Dam. Neither of these improvements would affect air traffic patterns. There would be **no impact**.

Sphere of Influence Expansion

The proposed SOI expansion would not result in any change to the physical environment and would not result in the construction of any structures. The SOI expansion would have **no impact** on air traffic patterns.

- d) *Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

Water Rights Permits and Potential Future Infrastructure Improvements

Approval and implementation of the proposed time extension and other changes to the District's water rights permits would have no physical effect on the environment and would therefore not have the potential to increase hazards due to a design feature or incompatible uses. The infrastructure improvements that may result from project implementation would expand upon existing uses and would not therefore result in any incompatible uses. It is not anticipated that any of the potential improvements, or a combination of them, would create any hazardous design features; however, specific designs have not yet been prepared. Each improvement would require additional project-level environmental review prior to implementation that would analyze specific impacts of each project. This impact is **less than significant**.

EVALUATION OF ENVIRONMENTAL IMPACTS

Sphere of Influence Expansion

No roadways are proposed as part of the SOI expansion and no development would occur that could locate incompatible uses in a hazardous location. **No impact** in regards to increasing hazards due to design features or incompatible uses would occur.

e) *Would the project result in inadequate emergency access?*

Water Rights Permits and Potential Future Infrastructure Improvements

The proposed time extension and other various changes to the District's water diversion permits will have no effect on emergency access. Construction of the infrastructure improvements at Magalia Dam and/or Paradise Dam that could result from project implementation may temporarily impact emergency access during construction. See Response VII(g). This impact is **potentially significant** and will be addressed further in the Hazards and Hazardous Materials section of the EIR.

Sphere of Influence Expansion

An SOI expansion of the type proposed would not require emergency access as no development is proposed. Therefore, the expansion would have **no impact** on emergency access.

f) *Would the project result in inadequate parking capacity?*

Water Rights Permits and Potential Future Infrastructure Improvements

The proposed time extension and changes to the District's water rights permits would not result in any development and would not therefore require any new parking facilities or impact any existing parking facilities. The sites of the potential future infrastructure improvements currently have adequate parking facilities for maintenance and safety personnel and construction of these improvements would not result in a demand for any new parking. There is **no impact**.

Sphere of Influence Expansion

The SOI expansion would not result in any new development and would therefore not require parking. The project would have **no impact** on parking issues.

g) *Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?*

Implementation of the proposed project would not affect alternative transportation systems or conflict with any adopted policies related to alternative transportation. There is **no impact**.

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

Discussion of Impacts

a, e) *Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*

Would the project 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?

The proposed project and potential future infrastructure improvements would not result in the generation of any wastewater and no wastewater requirements or permit levels would be exceeded. The project will not be served by a wastewater treatment provider and will not affect any such provider. There is **no impact**.

EVALUATION OF ENVIRONMENTAL IMPACTS

- b) *Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

As described above, the proposed project and associated infrastructure improvements would not result in the generation of any wastewater. Therefore, no new or expanded wastewater treatment facilities would be required.

The District's water treatment plant was constructed in 1994 and has a current capacity of 22.8 million gallons per day (MGD). Treated water from the plant meets and exceeds all state drinking water standards. The plant is expected to meet the water demands of the District through the year 2020. The proposed project will allow for continued availability of water for treatment and distribution but will not directly increase demand for water supply or treatment and will not require new or expanded water treatment facilities. There is **no impact**.

- c) *Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

Water Rights Permits and Potential Future Infrastructure Improvements

Approval and implementation of the proposed time extension and other changes to the District's water rights permits would not result in any development or otherwise require new or expanded storm water drainage facilities. Construction and operation of the infrastructure improvements which could result from project implementation could result in increased runoff from the creation of new impervious surfaces and ground disturbances from vegetation removal and grading. This impact is considered **potentially significant** and will be addressed further in the EIR.

Sphere of Influence Expansion

The SOI expansion is not proposing, and would not require, the addition or expansion of existing storm water drainage facilities. **No impact** would occur.

- d) *Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?*

Water Rights Permits and Potential Future Infrastructure Improvements

Approval and implementation of the proposed time extension and other changes to the District's water rights permits would not increase demand for water supply and no new or expanded entitlements would be required. However, this portion of the project would itself result in expansion of the District's existing entitlements by requesting the addition of direct diversion as a purpose of use and increasing the rate at which the District directly diverts water from Little Butte Creek. This impact is considered **potentially significant** and will be addressed in the EIR.

Sphere of Influence Expansion

The proposed SOI expansion includes a change in the PID SOI boundary. The expansion would not result in increased water demand or usage and no changes in existing water entitlements would occur as a direct result of project implementation. **No impacts** would occur.

f, g) *Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?*

Would the project comply with federal, state, and local statutes and regulations related to solid waste?

Water Rights Permits and Potential Future Infrastructure Improvements

Approval and implementation of the proposed project could result in increased diversion of water from Little Butte Creek and a greater volume of water entering the District's water treatment plant. This would result in an increased volume of sludge requiring disposal. This impact is considered potentially significant and will be addressed further in the EIR.

Construction of improvements associated with the proposed project could generate solid waste that would need to be disposed of at a solid waste fill. Concrete, asphalt, pipe, paper and other materials associated with construction could all result from construction of the project. While the quantities are anticipated to be small in comparison to solid waste county-wide, the extent of solid waste is unknown and considered a **potentially significant impact**.

Sphere of Influence Expansion

No construction debris would result from the SOI expansion and no waste-producing uses are proposed that would utilize landfill capacity upon implementation of the proposed expansion. Therefore, the SOI expansion would not be subject to federal, state and local statutes and regulations related to solid waste. **No impact** on solid waste capacity or federal, state, or local compliance would occur in association with the proposed expansion.

EVALUATION OF ENVIRONMENTAL IMPACTS

| | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------------|--|------------------------------------|--------------------------|
| XVII. MANDATORY FINDINGS OF SIGNIFICANCE | | | | |
| 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 wild-life population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of rare or endangered plants or animals, or eliminate important examples of the major periods of California history or prehistory? | <input checked="" type="checkbox"/> | <input 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 checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Discussion of Impacts

- 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?*

See Response IV(a-e). Implementation of the proposed project has the potential to impact fish and wildlife populations and habitat. This impact is considered **potentially significant** and will be addressed further in the EIR.

- b) *Does the project have impacts that are individually limited, but cumulatively considerable?*

Implementation of the proposed project has the potential to result in cumulative impacts related to air quality and biological resources, among others. These impacts are considered **potentially significant** and will be fully addressed in the EIR.

- c) *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

Implementation of the proposed project has the potential to result in several impacts that may cause substantial adverse effects on human beings. This impact is considered **potentially significant** and will be addressed further in the EIR.

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APPENDIX A – GLOSSARY OF TERMS

| Term | Definition |
|----------------------|--|
| Acre-Foot | The volume of one acre of surface area to a depth of one foot. |
| Dam | A barrier that divides waters, and generally serves the primary purpose of retaining water. |
| Firm Yield | The amount of water which could be annually utilized from a water system during a critical drought period. |
| Spillway | A structure used to provide for the controlled release of flows from a dam into a downstream area. |
| Spillway Gate System | A combination of a rubber dam and a series of bottom-hinged steel gate panels that can be used to alter the height of the spillway, reducing the amount of runoff in the spillway, and increasing the amount of water retained behind the dam. |