KIDDER CREEK ORCHARD CAMP

ZONE CHANGE (Z-14-01) AND

USE PERMIT (UP-11-15)

Partial Recirculated

Draft

Environmental Impact Report

County of Siskiyou
806 S. Main Street
Yreka, CA 96097

April 2022

State Clearinghouse Number 2016092016

PREFACE TO THE RECIRCULATED DRAFT EIR

The County of Siskiyou, as Lead Agency under CEQA, circulated the Draft EIR for the Kidder Creek Orchard Camp Zone Change and Use Permit Project from August 7, 2019 to September 20, 2019. Comments received on most sections of the Draft EIR did not warrant substantial revisions. However, resulting from the comments received during the circulation of the Draft EIR, the analyses in the following subject areas were partially revised:

- Hazards and Hazardous Materials (specifically, wildland fire hazards)
- Hydrology and Water Quality
- Noise

Therefore, consistent with CEQA Guidelines Section 15088.5, the County is recirculating only those three sections of the Draft EIR. This will allow for public review and comment on the revised analyses.

Important Note Regarding Comments and Responses

In accordance with CEQA Guidelines Section 15088.5(f)(2), the County requests that review and comment on the recirculated DEIR be limited to the revised portions of the Draft EIR. The purpose of public circulation is to provide agencies and interested individuals with opportunities to comment on or express concerns regarding the contents of the recirculated portions of the Draft EIR.

Responses to comments provided on the Draft EIR as well to any new comments on this Partial Recirculated DEIR will be included in the Final EIR.

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Kidder Creek Orchard Camp

PARTIAL RECIRCULATED

DRAFT

ENVIRONMENTAL IMPACT REPORT

April 2022

State Clearinghouse Number 2016092016

Prepared for:

County of Siskiyou
806 S. Main Street
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EXECUTIVE SUMMARY

The new information provided in this Partial Recirculated DEIR did not result in an increase of any environmental impacts but further re-affirmed the DEIR analysis determinations. The Executive Summary for this Partial Recirculated DEIR only represents the Partial Recirculated DEIR and is not a revision of the DEIR Executive Summary. Therefore, underline/strikethrough formatting is not used in this section with the exception of Table ES-1 which shows minor additions to mitigation measures MM 4.4, MM 6.1, MM 8.1 and MM 9.1. However, these additions do not result a decrease in mitigation potential but rather provide additional monitoring requirements for biological resources (MM 4.4), native plant usage for revegetation (MM 6.1), monitoring requirements for the emergency access road (MM 8.1) and a verification of water rights for the 7-acre pond with the State Water Resources Control Board (MM 9.1). These additions were recommended by CAL FIRE and the California Department of Fish and Wildlife.

ES.1 Introduction

The Executive Summary is for the Partial Recirculated Draft EIR and has been prepared in accordance with the California Environmental Quality Act (CEQA) Guidelines § 15123(b), which states that an EIR should contain a brief summary of the Proposed Project and its consequences, and should identify:

1. Each significant effect with proposed mitigation measures and alternatives that would reduce or avoid that effect;

2. Areas of public controversy known to the lead agency, including issues raised by the agencies and the public; and

3. Issues to be resolved, including the choice among alternatives and how to mitigate the significant effects.

The County of Siskiyou (County) has been petitioned to consider the Kidder Creek Orchard Camp Project (Project; Proposed Project). As such, the County, in accordance with CEQA, prepared and made available to the public an Initial Study/Mitigated Negative Declaration (IS/MND) in 2016. As a result of comments received on the IS/MND the County prepared and made available to the public a Draft Environmental Impact Report (Draft EIR; DEIR) in August 2019. At the close of the public review period for the DEIR, the County had received 160 letters and post cards commenting on the DEIR. The comments were both for and against the Proposed Project. While many of the comments did not raise concerns with the adequacy of the environmental analysis, there were a number that raised environmental concerns. Because of these concerns, the County determined that some of the comments received on the DEIR required further analysis of the Project's potential impact to specific resource areas. As such, in accordance with CEQA, the County has determined that the new information brought to light by this analysis merits recirculation of portions of the DEIR. Specifically, the following chapters of the DEIR, with the exception of the Executive Summary, have been revised and are being recirculated, all other chapters of the DEIR have not been modified and therefore are not included in this Partial Recirculated DEIR:

- ***Executive Summary.*** The Executive Summary for this Partial Recirculated DEIR only represents the Partial Recirculated DEIR and is not a revision of the DEIR Executive Summary.
- **Section 1.0. *Introduction*.** This chapter discusses the purpose of this Partial Recirculated DEIR, summarizes the revisions being made to the Kidder Creek Orchard Camp Project DEIR and the public review process.
- **Section 2.0. *Project Description***. This chapter is amended to include a reference of the proposed the use of a zip line as a Project feature.
- **Section 3.2. *Hazards and Hazardous Materials***. This chapter is amended to include additional wildland fire emergency action plan information and revisions of mitigation measures as necessary.
- **Section 3.3. *Hydrology and Water Quality.*** This chapter is amended to include information on groundwater/surface water interaction, potential for groundwater depletion, additional information on the 7-acre pond water evaporation, septic system feasibility, and flood zone information.
- **Section 3.4. *Noise.*** This chapter is amended to include analysis of zip line noise and the proposed pond as well as any additional information from the updated noise analysis.

CEQA requires that the Lead Agency, in this case the County of Siskiyou, consider the information contained in the EIR prior to taking any discretionary action on the Project. This EIR may also be used by other public agencies that must make discretionary actions related to the Proposed Project.

ES.2 Project Location and Setting

The Project site is located on 580 acres at the west end of South Kidder Creek Road, approximately two miles west of State Highway 3, south of the community of Greenview in the Scott Valley, (Assessor Parcel Numbers (APNs) 025-370-040 and 380; 024-440-140, 150, 310, 320 and 330; 024-450-390, 400 and 590). See **Figure 1. Project Location.** Adjacent parcels are largely undeveloped. Large commercial timber lands and vacant/open space parcels 80 acres or larger are located to the west and south of the site. Large lot rural residential homes and vacant lands are located to the north and east. These parcels to the north and east are typically 5 to 75 acres in size.

The Project site and surrounding area are within the County's Scott Valley Area Plan (SVAP) as identified in the Siskiyou County General Plan. Those areas directly south of the Project site have the zoning designation of Timber Production (TPZ). East of the site, this area has the zoning designation of TPZ and Rural Residential Agricultural 40-acre minimum (R-R-B-40). West of the site, the zoning designation is R-R-B-40. The areas north of the Project site have the zoning designation of TP, R-R-B-40, Rural Residential Agricultural 10-acre minimum (R-R-B-10) and Non-Prime Agriculture (AG-2), and Rural Residential Agricultural – Mobile Home 5-acre minimum (R-R-MH-B-5).

ES.3 Description of Proposed Project

The Proposed Project is a request to expand the existing use of the site and requires a new use permit (UP-11-15). This would involve rescinding and re-issuing an updated use permit to consolidate all the approved uses into a single use permit. Therefore, all existing use permit conditions of approval and all previously adopted mitigation measures will be reviewed and incorporated into the proposed use permit, where necessary. Conditions of approval and mitigation measures that are no longer necessary, have been complied with, or would be satisfied/fulfilled with new conditions of approval or mitigation measures may be eliminated.

The use permit application requests the increase of allowable occupancy at the camp from 165 guests to a total occupancy of 844 (guests, staff, and volunteers), an increase in the physical size of the camp from 333 to 580 acres and add on it a of number of structures and recreation features to include a second pond and ancillary facilities.

The Project also includes a request for a zone change (Z-14-01) to rezone ±170 acres from TPZ to Rural Residential Agricultural, 40-acre minimum parcel size (R-R-B-40).

As stated above, the Project proposes an increase of allowable occupancy at the camp from 165 guests to a total occupancy of 844 (guests, staff, and volunteers), an increase the physical size of the camp from 333 to 580 acres, and the addition of a number of structures, recreation features, including a second pond and ancillary facilities. See **Figure 5. Proposed Project**.

The Project includes four major new facilities to be constructed and several minor facilities such as those associated with the High Adventure Camps and Basecamps. Major facilities (with reference number for table below) include:

1. Welcome Center and Dining – this building would create new office space, dining hall, and restroom.

2. Equestrian Center – this building would provide new horse facilities for Ranch Camp.

3. Cabins for Pines/Ranch Camp – these are new winterized buildings.

4. Staff housing/ Adult Retreat Centers – these buildings are being proposed, but further study will be needed to determine if Kidder Creek will move forward with these plans. This EIR assumes that these structures would be built.

ES.4 Areas of Controversy

While there are many areas of controversy, environmental and non-environmental, the main areas of controversy for this Partial Recirculated DEIR include wildfire safety (which is evaluated in Section 3.2 Hazards and Hazardous Materials) water rights, groundwater/surface water interaction, flooding (which is evaluated in Section 3.3 Hydrology and Water Quality), and noise (which is evaluated in Section 3.4 Noise). These areas of controversy are addressed in each of the specific resource areas of this Partial

Recirculated DEIR. All other comments received on the DEIR that may raise issues of controversy will be responded to by the County as a part of the Final EIR for this Project.

All other impact analysis areas defined in Appendix G of the CEQA Guidelines and analyzed in the 2016 Draft IS/MND and the 2019 DEIR are not included in this Partial Recirculated DEIR. However, all mitigation measures identified in these sections, as shown In **Table ES-1**, will be included as mitigation in this EIR and in the MMRP.

ES.5 Project Alternatives

CEQA requires an evaluation of the comparative effects of a reasonable range of alternatives to the Proposed Project that would feasibly attain most of the project's basic objectives and that would avoid or substantially lessen any of the significant impacts of the Proposed Project. In this case, all of the significant impacts of the Proposed Project would be mitigated to a less-than-significant by the measures included in the Proposed Project. Nonetheless, three alternatives were evaluated to determine their impacts as compared to those of the Proposed Project: the No Project Alternative (Alternative 1), the No Pond Alternative (Alternative 2) and the Reduced Project Alternative (Alternative 3). All alternatives were deemed feasible and reasonable alternatives to the Proposed Project. However, Alternative 1 would not meet any of the five project objectives.

The additional information provided in this Partial Recirculated DEIR does not result in new or increased environmental impacts and therefore, does not result in a change in the Alternatives nor the Alternatives determination. As discussed in Section 4.0 of the Draft EIR, Alternative 3 (Reduced Project) is the Environmentally Superior Alternative because it meets all five of the Proposed Project objectives while, at the same time, resulting in a reduction in the magnitude of environmental impacts when compared to those of the Proposed Project.

ES.6 Summary of Impacts and Mitigation Measures

Table ES-1 presents a summary of environmental impacts analyzed and identified in the IS and this Draft EIR, the mitigation measures proposed for those impacts (if required), and the level of significance after mitigation.

Table ES-1. Summary of Impacts and Mitigation Measures

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
Environmental Impact Report Mitigation Measures			
Hazards and Hazardous Materials			
Impact 3.2.1: Wildland Fire Hazards	SI	MM 8.1 Prior to the initiation of construction inhabitable structures for the Proposed Project, the emergency access road will be developed by the Project and approved as to form and function by the California Department of Forest and Fire Protection (CAL FIRE) and the Siskiyou County Public Works Department. Additionally, all CAL FIRE required improvements to existing Project roadways shall be implemented. These roadways and the new access roadway shall be maintained by the Project, verified for compliance of the CAL FIRE roadway safety requirements at the start of each Kidder Creek Orchard Camp recreation season by a CAL FIRE approved wildfire expert, and re-approved on an annual basis or as the County and CAL FIRE determines necessary.	LTS
Impact 3.3.7: Flooding as a Result of the Failure of a Levee or Dam	SI	MM 9.1 Prior to any land disturbance activities associated with the construction of the proposed seven-acre pond, the following shall be completed: 1) If the dam necessary to impound the proposed pond is subject to Department of Water Resources, Division of Safety of Dams jurisdiction, proof of full compliance with the required permitting and plan approval shall be provided to the Siskiyou County Community Development Department – Planning Division; or 2) If the dam necessary to impound the proposed pond is not subject to the Department of Water Resources, Division of Safety of Dams jurisdiction, the applicant shall submit plans to the County, stamped by a qualified engineer registered in the State of California, detailing the structural design of the dam. The County will review and approve said plans to ensure that the proposed dam is structurally adequate and is not a hazard. The applicant shall be responsible for paying all costs associated with the County's review of said plans. The County retains the right to hire a third-party engineering firm to review the required plans. 3) Consultation with the State Water Resources Control Board Division of Water Rights to determine if any changes to the existing water rights or any permitting is required for the filling of the pond. If revised water rights and permits are required, proof of full compliance with the required permitting and plan approval shall be provided to the Siskiyou County Community Development Department – Planning Division. All consultation and resulting requirements with the SWRCB shall be provided to the California Department of Fish and Wildlife – Region 1.	LTS

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
Initial Study Mitigation Measures			
Air Quality			
d) Expose sensitive receptors to substantial pollutant concentrations?	SI	MM 3.1: Prior to construction activities, the project applicant shall submit a Dust Control Plan to the Siskiyou County Air Pollution Control District (SCAPCD). This plan shall ensure that adequate dust controls are implemented during all phases of project construction, including the following: 1) Water exposed earth surfaces as necessary to eliminate visible dust emissions; 2) When grading within 100 feet of any residence, park or other sensitive receptor boundary, utilize pre-soaking with sprinkler or water trucks in addition to normal watering for dust control; 3) Suspend grading operations when wind is sufficient to generate visible dust clouds; 4) Pave, use gravel cover, or spray a dust agent on all haul roads; 5) Impose an onsite speed limit on unpaved roads to 15 mph or lower (this speed must be posted); 6) All grading operations shall be suspended when sustained wind speeds exceed 25 mph; 7) All exposed surfaces and overburden piles shall be revegetated or covered as quickly as possible; 8) If fill dirt is brought to, or stockpiled on, the construction site, tarps or soil stabilizers shall be placed on the dirt piles to minimize dust problems; 9) Clean earthmoving construction equipment as needed to ensure that haul trucks leaving the site do not track dirt onto area roadways; 10) Cover all trucks hauling soil, sand, and other loose materials and ensure that all trucks hauling such materials maintain at least two feet of freeboard; 11) Institute measures to reduce wind erosion when site preparation is completed; 12 Install sandbags or other erosion control measure to prevent silt runoff onto public roadways; 13) Designate a person or persons to monitor the dust control programs as approved by the SCAPCD, and to order increased watering, as necessary, to prevent the transport of dust off site. This designee's duties will include holiday and weekend periods when work may not be in progress. A phone number of the applicant's designated contact person shall be included in the Dust Control Plan and updated as necessary.	LTS

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		14) The approved Dust Control Plan shall be included on all development plans, including, but not limited to building permit plans and grading plans.	
Biological Resources			
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 US Fish and Wildlife Service? 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?	SI	MM 4.1 Regarding the two identified populations of *Chaenactis suffrutescens* (Shasta chaenactis), as identified and described in the Botanical Resource Survey (Tyler 2014), the following mitigation measures shall be implemented: a. A qualified botanist shall survey the area identified as containing the two plant populations. The extent of the plant populations shall be mapped at a legible scale, and include setbacks to identifiable natural and/or human-made structures or features. The map shall be provided for review to Planning Division staff. No land disturbances shall occur until said map is reviewed and approved by Planning Division staff. Prior to any land disturbances within 100 feet of the identified plant populations, construction fencing shall be erected to protect the plant populations. The fencing shall be located and secured in a manner that does not adversely impact the plant populations. A qualified biologist shall provide best management practices (BMPs) regarding the placement of construction fencing to ensure that the plant populations are not adversely impacted. b. Interpretative signage shall be placed in proximity to the plant populations to educate camp staff and visitors regarding the plants status as a special status species. A description of the plants habitats and illustrations or photographic images of the plant shall be included on the signage. A minimum of one sign shall be placed at each of the identified plant populations. The proposed signage shall be submitted to Planning Division staff for review and approval. MM 4.2 Regarding Pacific Fishers (Martes pennant), the following mitigation measure shall be implemented. a. Land disturbance and construction activities that involve the removal of vegetation shall take place outside of the Pacific fisher denning period of March through August, when the female Pacific fisher and kits are vulnerable to incidental take while residing in tree dens or ground dens in the area; or b. If construction or land disturbance activities that involves the removal of vegetation takes place during the denning season (March through August), preconstruction surveys shall be completed by a qualified wildlife biologist to ensure that construction activities do not adversely impact denning fishers. The survey shall take place no	LTS

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		more than one week prior to vegetation removal associated with construction or land disturbance activities. If an active den is discovered during the survey, no vegetation shall be removed within ~~50~~ 375 feet of the den until the fishers have vacated the den. The results of the pre-construction survey shall be sent to the CA Department of Fish and Wildlife, Attn: CEQA, 601 Locust Street, Redding, CA 96001. MM 4.3 To reduce potential impacts to Pacific Fishers (Martes pennant) from poisoning due to the eating of dead or dying rodents exposed to rodenticides, the following mitigation measure shall be implemented: • No rodenticides shall be used to control the proliferation of rodents. MM 4.4 In order to avoid impacts to nesting migratory birds and/or raptors, including osprey (*Pandion haliaetus*), protected under California Fish and Game Code Section 3503, one of the following shall be implemented: a. Vegetation removal associated with construction of driveways, structures, and residences shall be limited to September 1 through January 31 when birds are not nesting; or b. If vegetation removal will occur during the avian breeding season of February 1 through August 31, a survey for nesting migratory birds shall be completed by a qualified biologist no more than one week prior to vegetation removal associated with construction of driveways and residences. If an active nest is located during the survey, no vegetation shall be removed until the young have fledged, as determined through additional monitoring by a qualified biologist. The results of the nesting bird survey(s) shall be sent to the Department at: California Department of Fish and Wildlife, Attn: CEQA, 601 Locust Street, Redding, CA 96001.	
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 US Fish and Wildlife Service? 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,	SI	MM 4.5 Where structures, buildings, or other land disturbing activities are proposed to be located less than 150 feet from a naturally occurring waterway or water body, the following shall be completed: a) A stormwater pollution prevention plan (SWPPP), completed by a Qualified Storm Water Pollution Prevention Plan Developer (QSD), shall be submitted to the Siskiyou County Community Development Department – Planning Division for review and approval. The SWPPP shall be developed to the same standards that would be required for Construction General Permit; and	LTS

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
marsh, vernal pool, coastal wetlands, etc.), through direct removal, filling, hydrological interruption, or other means?		b) Stormwater associated with newly created impervious surfaces shall be retained, detained, or directed away from said waterways or water bodies. MM 4.6 Jurisdictional *Waters of the United States*, as regulated by the US Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act, shall be avoided; or If avoidance is not possible, an application for a Section 404 permit shall be approved by the USACE prior to any land disturbance activities that would result in the dredge, fill, or alteration of hydrology to any jurisdictional waters. Where avoidance is not possible measures shall be implemented to minimize unavoidable impacts, restoration procedures, and compensatory creation or enhancement to ensure no net loss of wetland extent or function.	
Cultural Resources			
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5? b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5? c) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature? d) Disturb any human remains, including those interred outside of formal cemeteries? e) Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074?	SI	MM 5.1 If, during the course of project implementation, cultural resources (i.e., prehistoric sites, historic features, isolated artifacts, and features such as concentrations of shell or glass) are discovered, all work shall cease in the area of the find, the Siskiyou County Community Development Department – Planning Division shall be immediately notified, and a professional archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology shall be retained to determine the significance of the discovery. The County shall consider mitigation recommendations presented by a professional archaeologist and implement a measure or measures that the County deems feasible and appropriate. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. MM 5.2 If, during the course of project implementation, paleontological resources (e.g., fossils) are discovered, all work shall cease in the area of the find, the Siskiyou County Community Development Department – Planning Division shall be immediately notified, and a qualified paleontologist shall be retained to determine the significance of the discovery. The County shall consider the mitigation recommendations presented by a professional paleontologist and implement a measure or measures that the County deems feasible and appropriate. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. MM 5.3 If, during the course of project implementation, human remains are discovered, all work shall cease in the area of the find, the Siskiyou County Community Development	LTS

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		Department – Planning Division shall be immediately notified, and the County Coroner must be notified, according to Section 5097.98 of the California Public Resources Code and Section 7050.5 of the California Health and Safety Code. If the remains are determined to be Native American, the coroner will notify the Native American Heritage Commission, and the procedures outlined in California Code of Regulations Section 15064.5(d) and (e) shall be followed.	
Geology and Soils			
b) Result in substantial soil erosion or the loss of topsoil?	SI	MM 6.1 The applicant shall either revegetate soils disturbed by land clearing for construction of improvements or provide and maintain an adequate ground cover within these disturbed areas. Adequate ground cover may be accomplished through paving and/or laying down wood chips, shredded bark, or similar material(s). If construction activities are suspended for six (6) or more months, disturbed soils shall be revegetated or adequately covered until construction activities resume. Upon completion of construction activities, soils shall be revegetated or adequately covered within six (6) months. All revegetation shall be completed with plants native to the area.	LTS
Hydrology and Water Quality			
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?	SI	MM 9.1 Prior to any land disturbance activities associated with the construction of the proposed 7-acre pond, the following shall be completed: a) If the dam necessary to impound the proposed pond is subject to Department of Water Resources, Division of Safety of Dams jurisdiction, proof of full compliance with the required permitting and plan approval shall be provided to the Siskiyou County Community Development Department – Planning Division; or b) If the dam necessary to impound the proposed pond is not subject to the Department of Water Resources, Division of Safety of Dams jurisdiction, the applicant shall submit plans to the County stamped by a qualified engineer registered in the State of California detailing the structural design of the dam. The County will review and approve said plans to ensure that the proposed dam is structurally adequate and is not a hazard. The applicant shall be responsible for paying all costs associated with the County's review of said plans. The County retains the right to hire a third party engineering firm to review the required plans.	LTS
Noise			
a) Exposure of persons to or generation of noise levels in excess of standards established in the	SI	MM 12.1 During project site development construction activities shall be limited to 7:00 a.m. to 7:00 p.m. Monday through Friday, and from 8:00 a.m. to 6:00 p.m. on Saturdays.	LTS

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
local general plan or noise ordinance or of applicable standards of other agencies?		Construction activities are prohibited on Sundays and federal holidays. This condition shall be noted on Building Permits documents and any Improvement Plans required for this project. MM 12.2 The use of loud or amplified sound (i.e. music, stereo equipment, public address (PA) systems, etc.) shall be limited to 8:00 AM to 10:00 PM Monday through Saturday, and 9:00 AM to 10:00 PM Sunday and National and State-recognized holidays. Noise shall be limited to 60 dB Leq at the boundaries of the project site during the hours listed above and 45 dB Leq at all other times[1].	

[1] L_{eq} has been added to the decibel measurement as it provides a more accurate level of measurement of noise levels over a period of time.

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ES.7 References

Tyler, Kathleen

2014. Botanical Resource Survey Addendum For Kidder Creek Orchard Camp Land Use Permit Application. Update May 23, 2014.

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1.0 INTRODUCTION

The County of Siskiyou (County) is recirculating portions of the Draft Environmental Impact Report (Draft EIR; DEIR) prepared for the Kidder Creek Orchard Camp Project (Proposed Project, Project). The Project applicant has submitted to Siskiyou County, applications requesting a revision of an existing use permit (UP-11-15) and a zoning change (Z-14-01) to allow for an expansion of the existing Kidder Creek Orchard Camp. The DEIR was originally circulated for public review on August 7, 2019 and the public review and comment period lasted until September 20, 2019. The County received a large number of public comment letters and postcards on the DEIR, all of which will be responded to as a part of the Final EIR in accordance with Section 15088 of the California Environmental Quality Act (CEQA) Guidelines. However, the County determined that some of the comments received on the DEIR required further analysis of the Project's potential impact to specific resource areas. As such, in accordance with Section 15088.5 of the CEQA Guidelines, the County has determined that the new information brought to light by this analysis merits recirculation of portions of the DEIR. As defined under CEQA Guidelines Section 15088.5(c), "If the revision is limited to a few chapters or portions of the EIR, the lead agency need only recirculate the chapters or portions that have been modified". Therefore, only those portions are included in this Partial Recirculated DEIR. Specifically, the following chapters of the DEIR, with the exception of the Executive Summary, have been revised and are being recirculated, all other chapters of the DEIR have not been modified and therefore are not included in this Partial Recirculated DEIR:

- ***Executive Summary.*** The Executive Summary for this Partial Recirculated DEIR only represents the Partial Recirculated DEIR and is not a revision of the DEIR Executive Summary.
- **Section 1.0. *Introduction*.** This chapter discusses the purpose of this Partial Recirculated DEIR, summarizes the revisions being made to the Kidder Creek Orchard Camp Project DEIR and the public review process.
- **Section 2.0. *Project Description***. This chapter is amended to include a reference of the proposed the use of a zip line as a Project feature.
- **Section 3.2. *Hazards and Hazardous Materials***. This chapter is amended to include additional wildland fire emergency action plan information and revisions of mitigation measures as necessary.
- **Section 3.3. *Hydrology and Water Quality.*** This chapter is amended to include information on groundwater/surface water interaction, potential for groundwater depletion, additional information on the 7-acre pond water evaporation, septic system feasibility, and flood zone information.
- **Section 3.4. *Noise.*** This chapter is amended to include analysis of zip line noise and the proposed pond as well as any additional information from the updated noise analysis.

- ***Appendices.*** New appendices are added to include all new studies and information provided in this Partial Recalculated DEIR. These studies include:
    - Environmental Noise Assessment Update, Bollard Acoustical Consultants, Inc., Updated July 19, 2021
    - Subject: Kidder Creek Orchard Camp (Z-14-01), CAL FIRE, December 12, 2018
    - Supplemental Groundwater and Surface Water Analysis for Kidder Creek Orchard Camp Zone Change (A-14-01) And Use Permit (UP-11-15), Glen S. Pearson, PG, CEG, September 17, 2021
    - Calculation of Base Flood Elevation Kidder Creek. Chris Gaido, P.E., February 20, 2014
    - Onsite Wastewater Feasibility Study for Kidder Creek Camp Site Master Plan, Chris Cummings, C.E., January 2018
    - Estimated Evaporation Water Loss for the Proposed 6.7 Acre Pond at Kidder Creek Camp. Chris Cummings, C.E., January 16, 2017

Upon completion of the environmental analysis for this Partial Recirculated DEIR, it was determined that none of the new and added information resulted in a new or increase of any of the Project's impacts. Additionally, none of the new and additional information provided in this Partial Recirculated DEIR resulted in a need to re-visit those sections not included in this Partial Recirculated DEIR including the following: Section 3.1 Agricultural and Forestry Resources, Section 3.5 Transportation/Traffic, Section 3.6 Emergency Access Road Extension, Section 4.0 Alternatives to the Proposed Project, and Section 5.0 Other CEQA Analysis. Finally, because the new information provided in the Partial Recirculated DEIR does not result in any new or increase of Project's impacts to the physical environment, the re-evaluation of impacts based on new and added information would not result in a different Environmentally Superior Alternative than the alternative identified in the DEIR, Alternative 3, Reduced Project Development.

The recirculated portions of the DEIR are presented in double underline/~~strikethrough~~ format (to indicate additions and deletions) to allow for easier review and so that readers can see what is being changed from the original DEIR.

1.1 Purpose and Use of the Recirculated Draft EIR

This DEIR was prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] §§ 21000-21177) and the Guidelines for the Implementation of CEQA (California Administrative Code §§ 15000 et seq.). As a result of comments received on the DEIR during the public review period, the County determined that recirculation of the DEIR providing further analysis on specific impact areas was necessary. As described Under Section 15088.5 of the CEQA Guidelines, "A lead agency is required to recirculate an environmental impact report (EIR) when significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review under Section 15087 but before certification" (Section 15088.5[a]). Section 15088.5(a) of the CEQA Guidelines provides the following examples of "significant new information" requiring recirculation:

1. A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.

2. A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.

3. A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it.

4. The draft EIR was so fundamentally flawed and basically inadequate and conclusory in nature that meaningful public review and comment were precluded (*Mountain Lion Coalition v. Fish and Game Com.* (1989) 214 Cal. App. 3d 1043).

Section 15088.5(b) clarifies that "Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR." Finally, Section 15088.5(c) states that "If the revision is limited to a few chapters or portions of the EIR, the lead agency need only recirculate the chapters or portions that have been modified."

1.2 Rationale for Recirculated Draft EIR

The County's rationale for recirculating portions of the DEIR is provided below. As discussed, in accordance with Section 15088.5 of the CEQA Guidelines, the County has determined that new information has been presented, including changes to the Proposed Project, which could potentially result in a substantial increase in the severity of a significant impact disclosed in the DEIR. As a result, certain portions of the DEIR are being recirculated.

Note that recirculation is only pertaining to the new information described in this chapter and does not address other aspects of comments received on the DEIR. Therefore, any further revisions to the DEIR, unrelated to the recirculation, that may be deemed appropriate in response to comments received on the original DEIR are not included here but will be included in the Final Environmental Impact Report (FEIR, Final EIR) prepared for the Proposed Project. Additionally, the FEIR will include written responses to all comments received on the DEIR, including the comments on the original DEIR and the comments that may be submitted on the recirculated portions of the DEIR contained herein. As discussed further below, the County requests that public comment on this document be limited to the substantive new information in this document to avoid duplication of comments.

Section 15088.5(d) of the CEQA Guidelines states that recirculation of an EIR requires notice pursuant to Section 15087, and consultation pursuant to Section 15086. As such, in recirculating the portions of the DEIR herein, the County will follow all public noticing requirements typically required of a DEIR, including notifying responsible agencies, trustee agencies, and other applicable federal, state, and local agencies.

Section 15088.5(f) provides guidance for lead agencies in limiting comments on a DEIR where only portions of the DEIR are being recirculated:

> "When the EIR is revised only in part and the lead agency is recirculating only the revised chapters or portions of the EIR, the lead agency may request that reviewers limit their comments to the revised chapters or portions of the recirculated EIR. The lead agency need only respond to (i) comments received during the initial circulation period that relate to chapters or portions of the document that were not revised and recirculated, and (ii) comments received during the recirculation period that relate to the chapters or portions of the earlier EIR that were revised and recirculated. The lead agency's request that reviewers limit the scope of their comments shall be included either within the text of the revised EIR or by an attachment to the revised EIR." (CEQA Guidelines Section 15088.5[f][2])

In Section 1.5 below, the County requests that reviewers limit their comments to the portions of the DEIR being recirculated and, specifically, the new information included within the recirculated portions of the DEIR. The public review period for the recirculated portions of the DEIR will be 45 days. The County will review the comments on the recirculated portions of the DEIR, along with the comments submitted on the original DEIR, and will ensure that all substantive comments are addressed in the FEIR.

1.3 Environmental Review Process

1.3.1 Recirculated Draft EIR

This document constitutes the Recirculated Draft EIR. The Recirculated Draft EIR contains Section 1.0. Introduction, and revisions to Section 2.0. Project Description, Section 3.2. Hazards and Hazardous Materials, Section 3.3. Hydrology and Water Quality, and Section 3.4. Noise incorporating new information using an underline/strikethrough format. The Partial Recirculated Draft EIR also provides additions to the Appendices incorporating the new/revised studies listed previously.

1.3.2 Submittal of Comments

The County is recirculating portions of the DEIR for a 45-day public review and comment period, as indicated in the Notice of Availability (NOA). As of publication of this recirculation, the County does not plan to hold any public meetings during this period. In accordance with CEQA Guidelines Section 15088.5(f)(2), the County requests that review and comment on the recirculated DEIR be limited to the revised portions of the DEIR. The purpose of public circulation is to provide agencies and interested individuals with opportunities to comment on or express concerns regarding the contents of the recirculated portions of the DEIR.

1.3.3 Public Notice/Public Review

Concurrent with the Notice of Completion (NOC), the County will provide public the NOA of the Partial Recirculated Draft EIR for public review and invite comment from the general public, agencies, organizations, and other interested parties. The public review and comment period is 45 days. Notice of the time and location of any public meetings and hearings will be published prior to the meeting/hearing in accordance with applicable law. All comments or questions regarding the Recirculated Draft EIR should be addressed to:

Hailey Lang
Deputy Director of Planning
County of Siskiyou
806 South Main Street
Yreka, California 96097

Comments may be sent to Ms. Lang via e-mail at: planning@co.siskiyou.ca.us

1.3.4 Response to Comments/Final EIR

Following the public review period, a FEIR will be prepared. The FEIR will respond to all comments received during the public review period for the original Draft EIR and the Partial Recirculated Draft EIR that raise significant environmental concerns and may contain revisions to the Draft EIR, if necessary. The Draft EIR and the Partial Recirculated Draft EIR, as revised and combined with responses to comments, will constitute the Final EIR.

1.3.5 Certification of the EIR/Project Consideration

The County of Siskiyou Planning Commission will review and make recommendation to the County Board of Supervisors regarding certification of the EIR and action on the Proposed Project. The Board of Supervisors will then review and consider the FEIR. If the County finds that the FEIR is "adequate and complete," the County may certify the FEIR. Upon review and consideration of the FEIR, the County may take action to approve, revise, or reject the Proposed Project. Any decision to approve the project would be accompanied by written findings in accordance with CEQA Guidelines Sections 15091 and 15093. A MMRP, as described below, must also be adopted for mitigation measures that have been incorporated into or imposed on the Project to reduce or avoid significant effects on the environment. The MMRP will be designed to ensure that these measures are enforceable and carried out during project implementation.

1.3.6 Mitigation Monitoring and Reporting Program

CEQA Section 21081.6(a) requires lead agencies to adopt an MMRP to describe measures that will be adopted and made a condition of Project approval in order to mitigate or avoid significant effects on the environment. The specific reporting or monitoring program required by CEQA is not required to be included in the EIR; however, it must be presented to the Board of Supervisors for adoption.

Throughout the EIR, mitigation measures have been clearly identified and presented in language that will facilitate establishment of an MMRP. Any mitigation measures adopted by the County as conditions for approval of the project will be included in an MMRP to ensure enforceability and verify compliance.

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2.0 PROJECT DESCRIPTION

This section is a revision to the previous Section 2.0 Project Description provided in the DEIR in its entirety. Only those revisions identified by a double underlined/strikethrough format have been changed in this section. These revisions illustrate the additional information added to this section since the time of the DEIR publication. As noted in Section 1.0 Introduction, responses to comments provided on the DEIR as well to any new comments on this Recirculated DEIR will be included in the Final EIR as required by CEQA Guidelines Section 15132(d).

The majority of the following information was acquired from the *Updated Project Description for UP 11-15* provided by Kidder Creek Orchard Camps, Inc. This document is included as **Appendix C** of this EIR.

2.1 Project Location and Setting

The ±580-acre Project site is located at the west end of South Kidder Creek Road, approximately two miles west of State Highway 3, south of the community of Greenview in the Scott Valley, Siskiyou County, California; T42N, R10W, portions of Sections 1 and 2; T43N, R10W, portions of Sections 35 and 36, Mount Diablo Baseline and Meridian (Latitude 41°31'45.00"N, Longitude 122°57'08.00"W). **See Figure 1. Project Location.** The Project is located on 10 parcels including the following:

Accessor's Parcel Numbers	
025-370-040	024-440-320
025-370-380	024-440-330
024-440-140	024-450-040
024-440-150	024-450-390
024-440-310	024-450-590

Elevations at the site range from approximately 3,000 to 3,950 feet. In addition to Kidder Creek, which traverses the northwesterly portion of the site, a number of seasonal waterways and the Barker Irrigation Ditch traverse the site. The low elevation areas include a meadow with some jurisdictional wetlands and remnants of an apple orchard. The remaining apple trees are currently producing apples that are harvested annually. Upland areas are generally forested with conifers, interspersed with oak trees. Natural habitats include riparian woodlands, cobbly/sandy riverbanks, wet meadows, mixed conifer forests, and oak woodlands.

2.1.1 Surrounding Land Uses

Adjacent parcels are largely undeveloped. Large commercial timber lands and vacant/~~open space~~ undeveloped parcels 80 acres or larger are located to the west and south of the site. Large lot rural residential homes and vacant lands are located to the north and east. These parcels to the north and east are typically 5 to 75 acres in size.

The Project site and surrounding area are within the County's Scott Valley Area Plan (SVAP) as identified in the Siskiyou County General Plan. Those areas directly south of the Project site have the zoning designation of Timberland Production (TPZ). East of the site, this area has the zoning designation of TPZ and Rural Residential Agricultural 40-acre minimum (R-R-B-40). West of the site, the zoning designation is

R-R-B-40. The areas north of the Project site, have the zoning designation of TPZ, R-R-B-40, Rural Residential Agricultural 10-acre minimum (R-R-B-10) and Non-Prime Agriculture (AG-2), and Rural Residential Agricultural – Mobile Home 5-acre minimum (R-R-MH-B-5).

2.2 Project Objectives

The Proposed Project objectives are defined as follows:

1) Provide improved facilities and accommodations to support and expand ministry.

2) Enhance the visual perception of the camp property.

3) Maximize the use and experience of water across the property.

4) Separate vehicle and pedestrian traffic.

5) Create a flexible layout that accommodates phased construction.

2.3 Existing Conditions

2.3.1 Project Background

The existing camp was permitted by three separate use permit approvals beginning in 1976. Use permits were approved in 1977 (UP-76-39), 1985 (UP-85-37), and 1996 (UP-95-12). The 1996 use permit approved the current occupancy capacity of 165 guests[1], a maximum annual occupancy of 3,340, with an onsite parking limitation of 215 vehicles, and an average daily traffic volume of 131 vehicles. Mitigated Negative Declarations (MNDs) were prepared for the 1985 use permit (SCH# 1985110397) and for the 1996 use permit (SCH# 1996103658) project approvals. The camp also obtained approval on December 5, 1979, of a use permit (UP-68-79) for a 2.3-x 3-foot (6.9-square-feet) directional sign to be placed at the State Highway 3/South Kidder Creek intersection. Based on the use permits, the Kidder Creek Orchard Camp is approved for the following:

2.3.2 Existing Approvals

Maximum Daily Occupancy:	165 guests (310 including staff and volunteers)[1]
Maximum Annual Occupancy:	3,340 persons
Average Daily Traffic:	131 vehicles
On-Site Parking:	215 vehicles

The Project applicant has submitted applications requesting a revision of an existing use permit (UP-11-15) and a zoning change (Z-14-01) to allow for an expansion of the existing Kidder Creek Orchard Camp to Siskiyou County.

[1] The 1996 use permit allows up to 165 guests. The 1996 use permit does not limit the number of staff and volunteers at the camp. Currently, the maximum daily occupancy, including guests, staff and volunteers, at the camp is 310 persons, which is used as the baseline for this environmental review as it represents the current existing condition.

2.3.3 Existing Site Conditions

The existing Kidder Creek Orchard Camp (KCOC) occupies ±333 acres. The property has been used for residential programs for more than 40 years, and continues to be operated by Scott Valley residents, both paid and volunteer, with seasonal staff hired locally and outside the area.

Elevations at the site range from approximately 3,000 to 3,950 feet. In addition to Kidder Creek, which traverses the northwesterly portion of the site, a number of seasonal waterways and the Barker Irrigation Ditch traverse the site. The low elevation areas include a meadow with some jurisdictional wetlands and an apple orchard. Upland areas are generally forested with conifers, interspersed with oak trees. Natural habitats include riparian woodlands, cobbly/sandy riverbanks, wet meadows, mixed conifer forests, and oak woodlands.

As shown in **Table 2-1**, the existing camp includes four camping areas, a recreational vehicle (RV) camping area and five staff/guest homes. Based on the occupant levels for each area, the maximum total occupancy is 310 persons, including guests and staff, in the summer months and approximately 38 persons in the fall and spring months. The existing approval allows for 165 persons (310 persons with staff and guests as discussed previously), these numbers are used as the occupancy baseline for the environmental analysis as they represent the highest existing capacity potential. See **Figure 2. Existing Site**.

Table 2-1. Existing Uses and Occupancy

Map ID#	Area	Estimated Building/ Area Size	Summer Occupancy	Spring and Fall Occupancy
7	Ranch Camp	280 sq. ft. (each cabin)	5 cabins @ 8 persons (40 persons total)	0 persons
		320 sq. ft. (each cabin)	1 cabin @ 8 persons (8 persons total)	0 persons
9	Base Camp #1	Camp sites	50 persons	0 persons
9	Base Camp #3	Camp sites	20 persons	0 persons
10	Timberline Camp #1	Tent Structures 280 sq. ft.	13 cabins @ 8 persons (104 persons total)	0 persons
		Tent Structures 380 sq. ft.	2 cabins @ 8 persons (16 persons total)	0 persons
		Hilton 560 sq. ft.	1 building (10 persons total)	0 persons
11	RV Area #1	1 acre 12 spaces	24 persons	0 persons
14	Staff Residence #1 (Warken home)	2,200 sq. ft.	6 persons	6 persons
14	Staff Residence #2 (Jones home)	1,248 sq. ft.	6 persons	6 persons
13	Staff/Guest House #1 (Orchard House)	1,728 sq. ft.	10 persons	10 persons
13	Staff /Guest House #2 (Cedar Lodge)	2,000 sq. ft.	10 persons	10 persons
13	Staff/ Guest house #3 (Creekside)	1,850 sq. ft.	6 persons	6 persons
		Total:	310 persons	38 persons

Current routine camp activities and uses include a horse riding/equestrian area, archery course, rifle range, ropes courses, a paintball course, mountain biking, zip line, waterslide and water activities. Off-site activities include hiking, camping, horse-packing, rock climbing, river rafting, swimming, mountain biking and horseback riding on and off national forest lands.

2.4 Proposed Project

2.4.1 Requested Amendments and Entitlements

The Proposed Project is a request to expand the use of the site. Expansion of the site requires a new use permit (UP-11-15). Issuance of a new use permit would allow for the revocation of the previous use permits to consolidate all the approved uses into a single use permit. Therefore, all existing use permit conditions of approval and all previously adopted mitigation measures will be reviewed and incorporated into the proposed use permit, where necessary. Conditions of approval and mitigation measures that are no longer necessary, have been complied with, or would be satisfied/fulfilled with new conditions of approval or mitigation measures may be eliminated.

The use permit application requests approval to increase the allowable occupancy at the camp from 165 guests to a total occupancy of 844 (guests, staff, and volunteers), increase the physical size of the camp from 333 acres to 580 acres, and add a number of structures and recreation features, including a second pond and ancillary facilities.

The Project also includes a request for a zone change (Z-14-01) to rezone ±170 acres from Timberland Production District (TPZ) to Rural Residential Agricultural, 40-acre minimum parcel size (R-R-B-40). The existing zoning and proposed zoning maps are included as **Figure 3. Existing Zoning** and **Figure 4. Proposed Zoning**.

If the proposed zone change and/or use permit is not approved, the existing use permit approvals and mitigation measures would not be revoked and would continue to be effective.

2.4.2 Project Description

New Buildings

As stated above, the Project proposes an increase of allowable occupancy at the camp from 165 guests to a total occupancy of 844 (includes guests, staff, and volunteers), an increase the physical size of the camp from 333 to 580 acres, and the addition of a number of structures and recreation features, including a second pond and ancillary facilities. See **Figure 5. Proposed Project**.

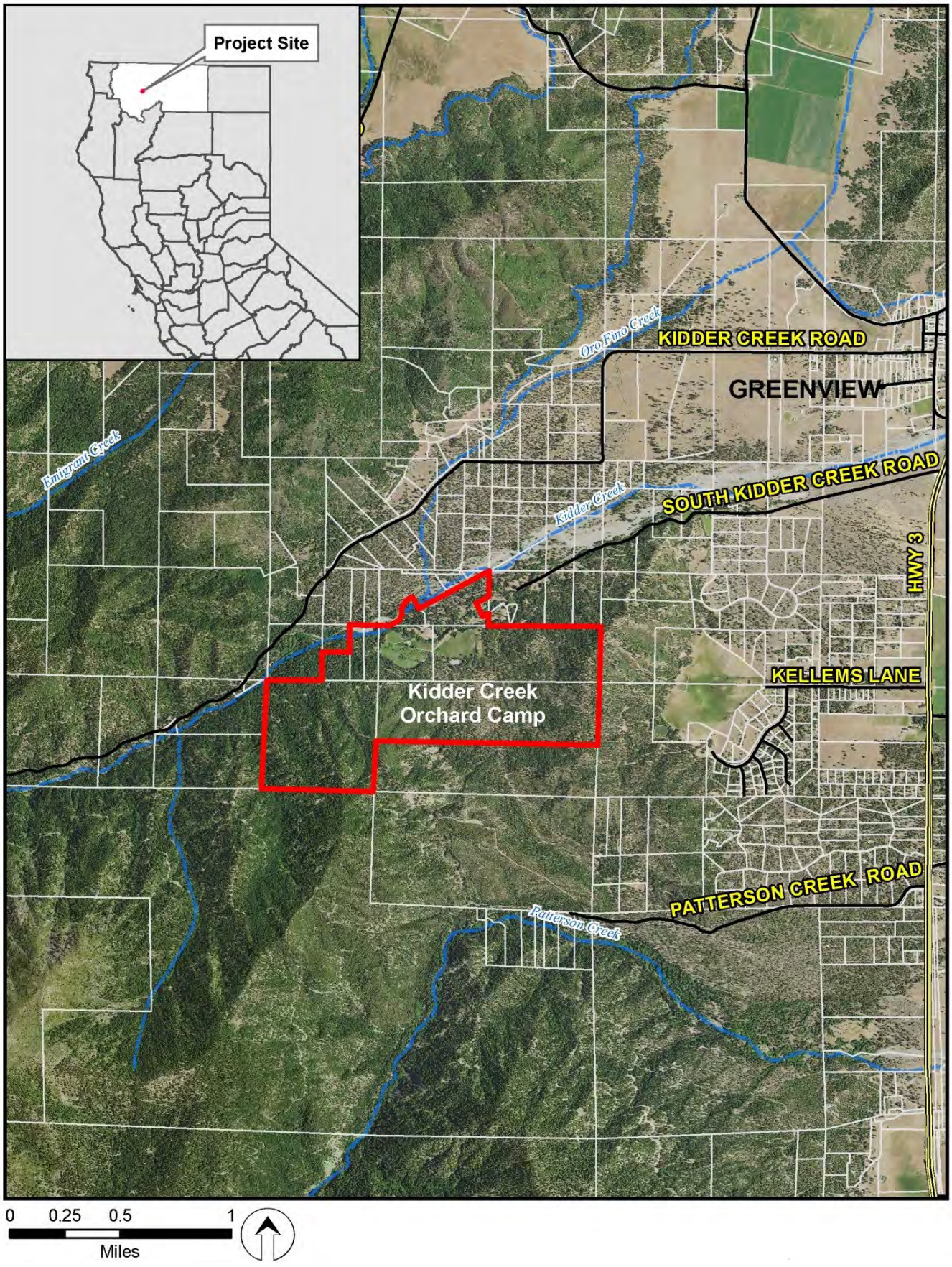

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Figure 1. Project Location
2018-123 Kidder Creek Orchard Camp

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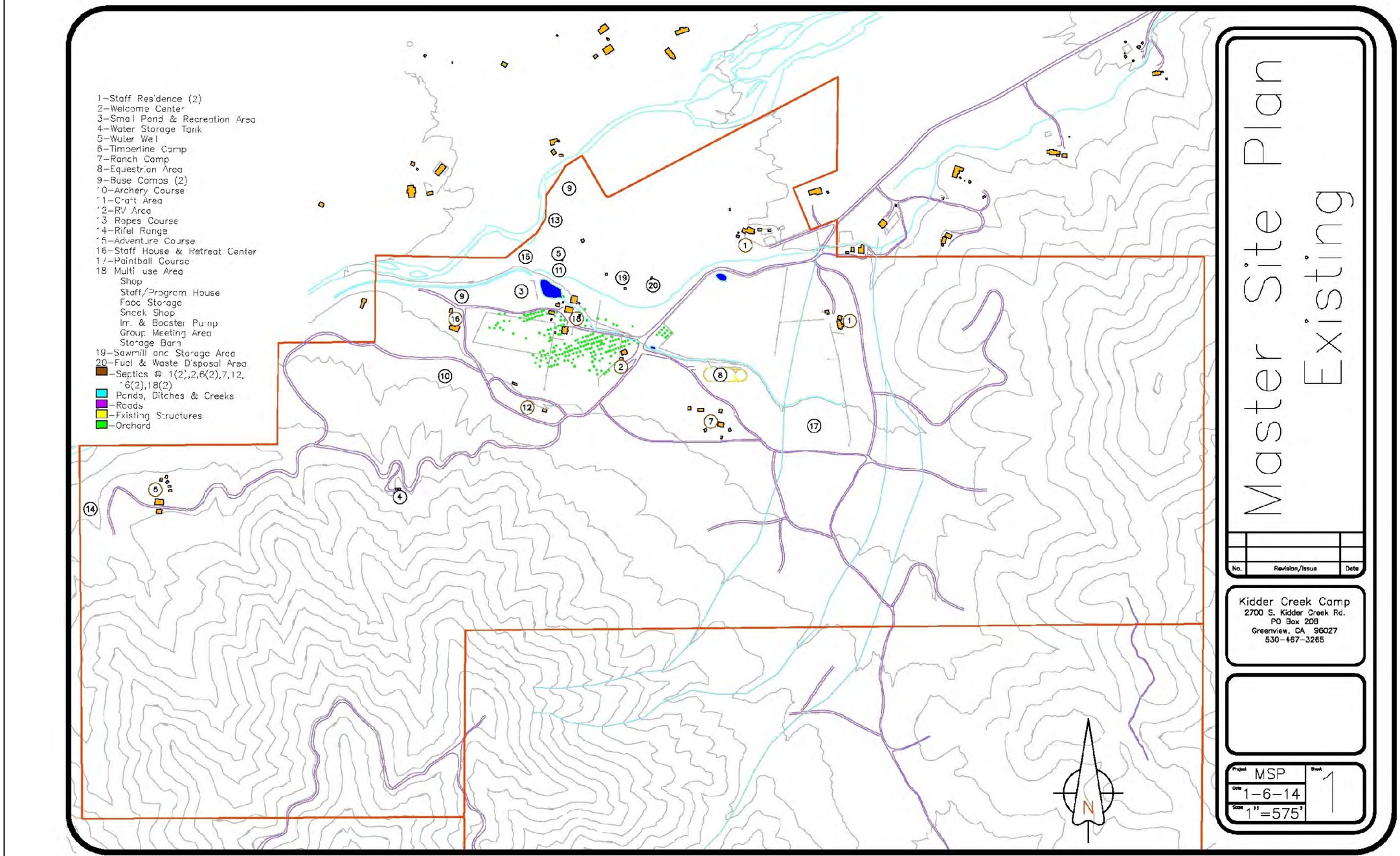

Figure 2. Existing Site

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The Project includes four major facilities to be constructed and several minor facilities such as those associated with the High Adventure Camp, and Basecamps. Major facilities (with reference number for table below) include the following:

1. Welcome Center and Dining – this building would create new office space, dining hall, and restroom.

2. Equestrian Center – this building would provide new horse facilities for Ranch Camp.

3. Cabins for Pines/Ranch Camp – these are new winterized buildings.

4. Staff housing/Adult Retreat Centers – these are new winterized buildings.

It is important to note that there are three areas designated as Base Campsites. These are basic in nature and allow for "outdoor" camping. Future development may include restrooms and showers and basic outdoor dining and meeting facilities.

Table 2-2 illustrates the proposed new buildings and structures on the 580 acre Project site. **Table 2-3** indicates that the Proposed Project results in an increase of 534 persons in the summer and 550 persons in the spring and fall months over existing conditions to meet the proposed occupancy total 844 persons in the summer and 588 in the spring and fall months.

Table 2-2. Proposed Uses and Occupancy

Map ID#	Area	Estimated Building/ Area Size	Summer Occupancy	Spring and Fall Occupancy
1	Welcome Center and Dining	16,200 sq. ft. 3,000 sq. ft. deck	-	-
3	Equestrian Center	20,000 sq. ft.	-	-
6	The Pines	1,152 sq. ft. (each cabin)	10 cabins @ 16 (160 persons total)	10 cabins @ 16 (160 persons total)
		576 sq. ft. (each cabin)	3 cabins @ 8 (24 persons total)	3 cabins @ 8 (24 persons total)
7	Ranch Camp (relocated, allows an increase of 40 persons over existing uses)	1,152 sq. ft. (each cabin)	4 cabins @ 16 persons (64 persons total)	4 cabins @ 16 persons (64 persons total)*
		576 sq. ft. (each cabin)	3 cabins @ 8 persons (24 persons total)	3 cabins @ 8 persons (24 persons total)
9	Base Camp #1 (relocated, no increase in occupation total))	Camp sites	50 persons**	0 persons
9	Base Camp #2	Camp sites	30 persons	0 persons
10	Hi Adventure Camp #2	Tent Structures	40 persons	0 persons
11	RV Area #2	12 spaces	24 persons	24 persons
11	RV Area #3	12 spaces	24 persons	24 persons
12	Staff housing/ Retreat Center #1	4,950 sq. ft.	40 persons	40 persons
12	Staff housing/ Retreat Center #2	4,950 sq. ft.	40 persons	40 persons
15	Adult Retreat Center #1	4,950 sq. ft.	40 persons	40 persons
15	Adult Retreat Center #2	4,950 sq. ft.	40 persons	40 persons
15	Adult Retreat Center #3	4,950 sq. ft.	40 persons	40 persons
14	Staff Residence #3	1,850 sq. ft.	6 persons	6 persons

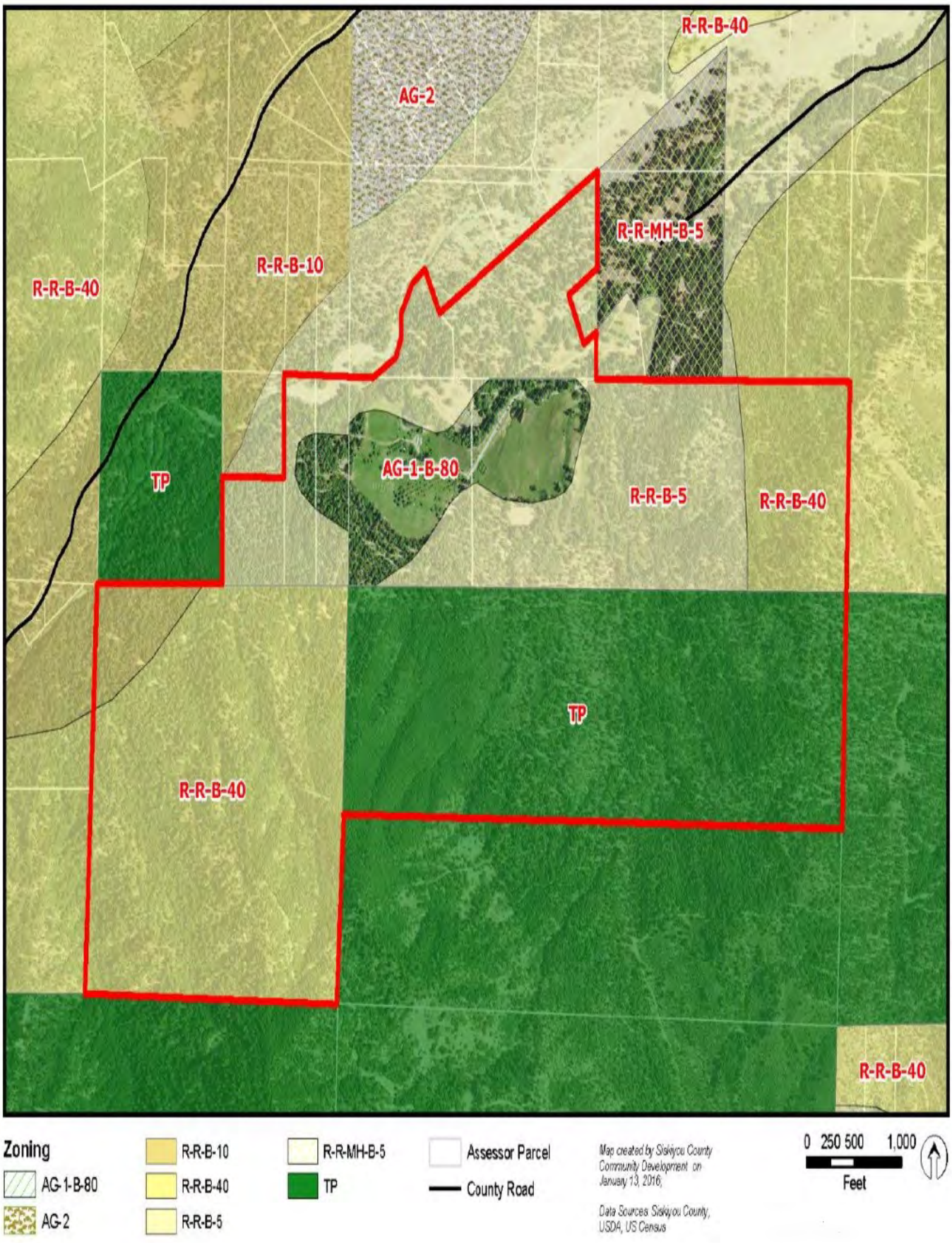

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Figure 3. Existing Zoning
2018-123 Kidder Creek Orchard Camp

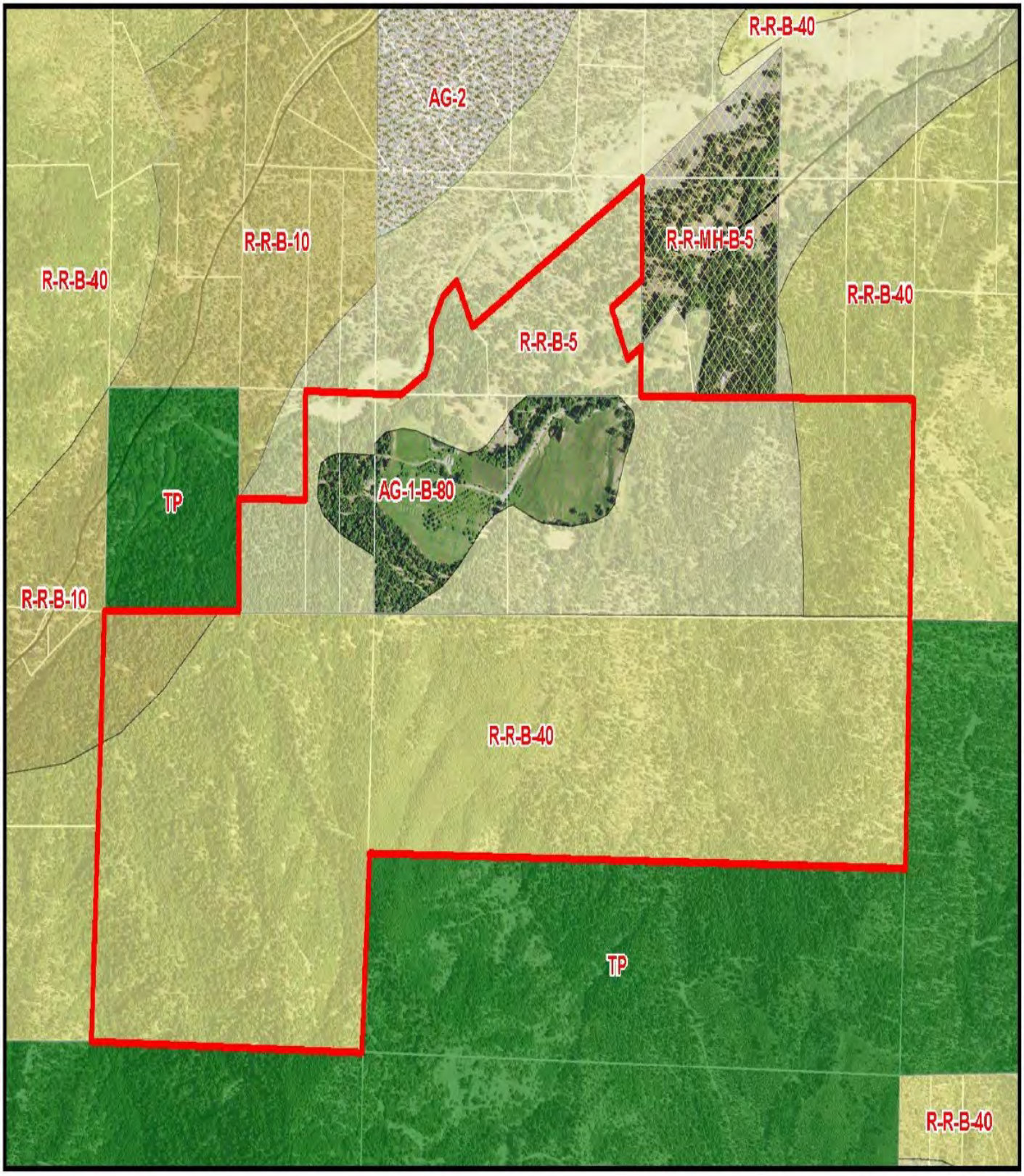

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Figure 4. Proposed Zoning
2018-123 Kidder Creek Orchard Camp

Table 2-3. Proposed Occupancy Levels

Occupancy	Summer	Spring and Fall
Proposed Project Total	534 persons	550 persons
Existing Total	310 persons	38 persons
Proposed Occupancy Total (including existing uses)	844 persons	588 persons

Proposed routine camp activities and uses include a horse riding/equestrian area, archery course, target range, ropes courses, a paintball course, mountain biking, waterslide and water activities. Off-site activities include hiking, camping, horse-packing, rock climbing, river rafting, swimming, mountain biking and horseback riding on and off national forest lands.

The information presented below describes the various existing and new features of the Proposed Project as identified on **Figure 5**.

1. *Main Entrance* – The entrance to the camp will remain in the same location.

2. *Welcome Center and Dining facility* – New arrivals will be directed to the Welcome Center where the registration and administrative offices will be located along with a gift shop and infirmary. The new Dining facility would be adjacent to the Offices and situated to overlook the new Pond and Recreation area.

3. *Small Pond and Recreation Area* – The existing areas would expand to include a new snack shack, a new restroom, and a recreation room.

4. *Large Pond & Recreation area* – This new seven-acre pond would be built in the existing Sawmill and storage area. The source of water for supplying this pond will not change from the current source providing water to the existing pond. Along with the new pond, additional water toys and non-motorized vessels such as kayaks and canoes will also be enjoyed.

5. *Perimeter Road* – This design allows all traffic to be on the perimeter of the camps activities, eliminating crossover of pedestrian and vehicle traffic.

6. *The Pines* – This new area will handle the traditional camp programs currently running at Timberline and will accommodate week-long programs during the summer and weekend and weekend programs during the spring and fall. These cabins will be suitable for all season use.

7. *Ranch Camp* – The existing program will be moved to a new, larger location closer to the camp entrance. These cabins will accommodate week-long programs during the summer and weeklong & weekend programs during the spring and fall. These cabins will be suitable for all season use.

8. *Equestrian Area* - The existing equestrian area will move to a new location with expanded facilities that will allow for all-season use and would include an enclosed Arena and educational building.

9. *Base Camp* - These camps have a basic campground layout with a centralized restroom and shower facility and an outdoor, covered but open dining pavilion. Campers will sleep on the ground in sleeping bags.

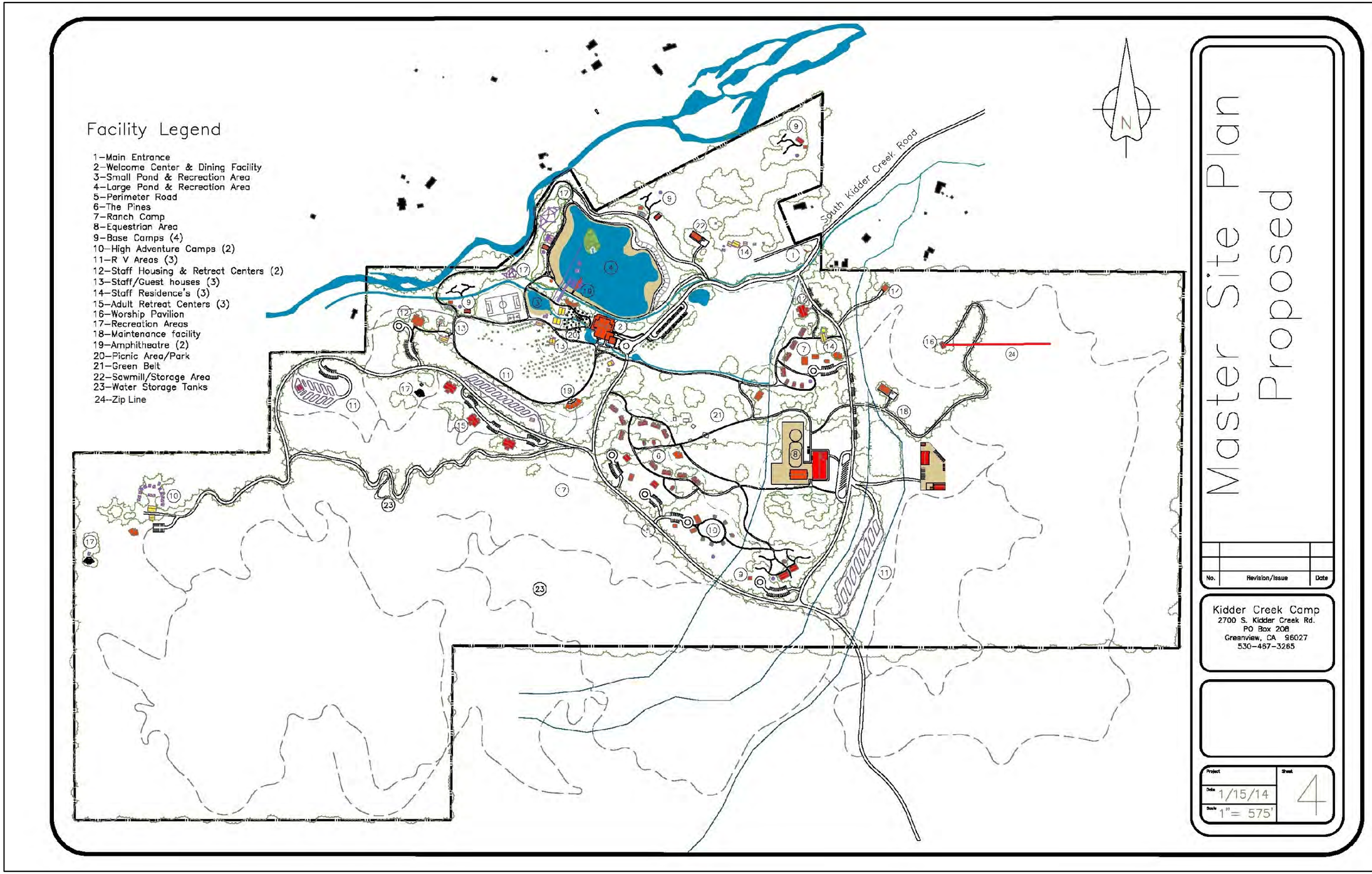

Figure 5. Proposed Project

2018-123 Kidder Creek Orchard Camp

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10. *High Adventure Camps* – These have very simple sleeping structures, with a centralized restroom and shower facility and an outdoor, covered but open dining pavilion. Sleeping structures could be tent platforms or an open-sided, framed structure with a simple roof.

11. *RV Areas* - These areas are not open to the public and would be used by individuals or groups working at the camp, and individuals or groups helping with or involved in a program.

12. *Staff Housing and Retreat Centers* - The primary purpose during the summer would be housing for summer staff. During the spring & fall these structures would be used for adult retreat housing, usually on weekends.

13. *Staff/Guest Houses* – Currently the camp has five homes on the property. These include the Warken home, the Orchard House, Cedar Lodge, Creekside and the Jones home. They are to be used throughout the year by staff and guests.

14. *Staff Residence* – Two of the current residences are included with the homes listed above, the Warken and Jones homes, and one more would be added in the future.

15. *Adult Retreat Centers* - These will be used year-round and would accommodate guests staying two to six days. These cabins are suitable for all season use.

16. *Worship Pavilion* – located on a remote and secluded hill with a panoramic view, this structure would be an open sided, covered pavilion.

17. *Recreation Areas* – These areas are set apart for future development of recreational activities.

18. *Maintenance Facility* – This new area will include a maintenance shop with equipment and storage facilities.

19. *Amphitheatre* – These areas are designed for large group meetings and situated where there is a nice view and where the sound can be projected into a hillside with a large amount of vegetation to absorb noise.

20. *Picnic Area/Park* – This new area would be situated between the new Dining facility and the existing pond and recreation area. Designed for large groups, it would be utilized by the camp programs and for community and special events.

21. *Greenbelt* – Designated to allow for large open spaces in the center part of the camp to protect and preserve the natural beauty of the site.

22. *Sawmill/Storage Area* – The existing sawmill and lumber storage area would be relocated to allow for the development of the new pond.

23. *Water Storage Tanks* – Additional water storage to accommodate the camps expansion would enlarge the existing storage tanks and add a secondary location.

24. Zip Line – A zip line would be constructed within the northeastern portion of the Project site.

2.5 Occupancy

The total number of persons utilizing the camp is proposed to incrementally increase over a 20-year implementation period. At full capacity, the estimated maximum occupancy is 844 during summer time (peak season, a period of approximately 12 weeks per year). Spring and fall occupancy is significantly reduced to a potential of 588 depending on seasonal access. The Project anticipates an incremental increase in occupancy as shown in **Table 2-4**:

Table 2-4. Proposed Incremental Occupancy Increase

Implementation Period	Total Occupancy
Currently	310
After 5 years	450
10 years	600
15 years	724
20 years	844

2.5.1 Occupancy Use Description

In order to address the actual increased numbers that the Project represents the following describes six classifications of housing for the site.

Residential Camps

This classification includes both The Pines and Ranch Camp, which normally accommodate week-long programs during the summer and weeklong and weekend programs during the spring and fall. These cabins are suitable for all season use.

The Pines is a camp that is estimated to be used about 90 percent of the time during the summer and 50 percent of the weekends during the spring and fall months. The average use will be 80-90 percent capacity during the summer and 20-40 percent capacity during the spring and fall. Average stay would be six days per week during the summer and 2½ days in the spring and fall. It would be built to 50 percent capacity in two to six years and would be built to 100 percent capacity in four to 10 years.

Ranch Camp is a camp that is estimated to be used about 90 percent of the time during the summer months and 50 percent of the weekends during the spring and fall. The average use will be 80-90 percent capacity during the summer months and 40-60 percent capacity in the spring and fall. Average stay would be six days per week during the summer and 2½ days during the spring and fall. It will be built to 75 percent capacity in two to seven years and built to 100 percent capacity in four to 10 years.

Base Camps and High Adventure Camps

The Base Camp approach is to allow visitors of the Project to enjoy the access to wilderness, river and natural adventure areas. The majority (95 percent) of these groups will be at the base camps from June to September. These camps have a basic campground layout with a centralized restroom and shower facility

and an outdoor, covered but open dining pavilion. Based on the size of the groups, these facilities would have an average attendance of 50-75 percent of their capacity and occupants would stay for one to three days. Some groups would start at KCOC for a day, and then go on a natural adventure, returning to KCOC two to five days later for a shower, meal and overnight stay.

High Adventure Camps are similar; except they are occupied by KCOC programs and the campers are offsite about 50 percent of the time. Ninety-five percent of these groups attend the camp from June to September. The High Adventure Camps have very simple sleeping structures, with a centralized restroom and shower facility and an outdoor, covered but open dining pavilion. The average use would be about 80-90 percent of their capacity during the summer months, and about 20 percent of their capacity during the spring and fall. The average stay is 3½ days during the summer and 1½ days during the spring and fall.

Currently there are two Base Camps operating. One of the residential camps (Timberline) would be converted to a High Adventure Camp. This means that three camps would be phased in immediately and the other two could be built in the next five to 10 years.

Recreational Vehicle Areas

Three RV areas are designated under the Proposed Project. These areas are not open to the public and would be used by individuals or groups working at the camp, and individuals or groups helping with or involved in a program. One RV area is currently in existence, and the other two are proposed. It is estimated that these would be used 50 percent of the time from March to October, while a minimal number of people will assist the camp during the winter months. The average stay of users is one to three weeks, though some choose to stay for only a few days. The additional RV areas will be added from two to ten years.

Staff Housing and Retreat Centers

These structures are intended to have two purposes depending on the season. The primary purpose during the summer (June through August) would be housing for summer staff. During the spring and fall these structures would be used for adult retreat housing, usually on weekends. Average use would be 60-80 percent of the facility's capacity. Summer staff would stay about three months, while spring and fall guests would stay two to four days. The first of these structures will be built in three to eight years and the second structure would be built in six to 12 years.

Adult and Family Retreat Centers

The Adult Retreat Centers are included as part of the Project as an option for future Adult and Family Program development. They would be used during the spring, summer and fall seasons to accommodate guests staying two to six days. Their average use is anticipated to be about 50-70 percent of occupancy, based on averages within the industry. These would be introduced in 15-20 years.

Staff Residence and Guest Houses

Currently KCOC has five residences on the property. These include the Warken home, the Orchard House, Cedar Lodge, Creekside and the Jones home. Each will retain its use as a residence or housing for small groups. They will be used throughout the year by staff and guests. One additional residence is included in the Proposed Project and is anticipated to be built in 10-15 years.

Large Pond

The Project includes a proposal for an additional new seven-acre pond located to the east of the existing pond. See **Figure 5** for the location. The pond will have a full liner eliminating water loss into the ground. The water for filling the pond would be obtained from the Barker Ditch, which is used to deliver water to five water right holders. The source of water for supplying this pond will not change from the current source providing water to the existing pond located on Camp property. A new canal will be required to supply water to the pond and return water to Barker Ditch.

The height of the water barrier for the pond will not exceed six feet at the spillway point. This pond would be designed to be below the jurisdictional threshold of the Department of Water Resources, Division of Safety of Dams (DSD) regulations (Water Code § 6000 et seq.)[2]. Preliminary analysis provided by the applicant indicates that the pond would impound approximately 36 AF of water with an average depth of six feet. Engineering of the pond has not been completed at this time. The applicant intends to have engineered plans completed should the Project be approved**.**

An analysis of water rights to fill and store water from Barker Ditch for the new pond was completed by Alan B. Lilly, Attorney, from the Bartkiewicz, Kronick and Shanahan law firm. This analysis (see **Appendix C**) determined that because the water diverted from Kidder Creek, via the Baker Ditch, into the new pond would be stored in the pond for a maximum of 30 days before being conveyed down the ditch, such temporary storage would be a reasonable "Regulatory Storage" under the Scott River Adjudication decree (Siskiyou County Superior Court No. 30662). Also, because the pond would be lined to eliminate percolation losses, this storage would not reduce the amounts of water that other water users on Baker Ditch would receive. The Proposed Project applicant has made arrangements with the other users on Barker Ditch to temporarily store water in the new pond from the ditch.

Zip Line

The Project proposes the addition of a zip line at the location shown on Figure 5 (illustrated as #24). The zip line will be approximately 700 feet in length and would have an elevation drop of approximately 60 feet. The height from ground to the zip line varies as the terrain varies. On average, the height from ground surface for the line is between 30 and 60 feet. The zip line is required to meet national safety standards for zip lines and will be installed by professional installers approved for this type of recreational apparatus.

[2] If the dam height is more than 6 feet and it impounds 50 acre-feet or more of water, or if the dam is 25 feet or higher and impounds more than 15 acre-feet of water, it is under DSD jurisdictional oversight.

Special Events

In addition to routine camp activities, Kidder Creek has proposed to accommodate special events (public and private), which may include weddings, birthdays, religious functions, concerts, auctions, picnics, horse clinics, demonstrations, and training events, and similar events. Estimated attendance would be between 20 and 250 guests, average three to eight hours per event, and be held approximately once per month between the months of April and October. These special events would not occur at the same time as regular camp activities but may occur when campers are offsite. In addition to the special event, opening day registration, public events, the annual fall festival, and closing day will bring additional visitors to the Project site. **Table 2-5** provides information about these events.

Table 2-5. Special Events

Type of Event	Anticipated attendance	Duration and frequency of this type of event	Overlap with regular camp session
1. Opening registration	1-400 people	2-3 hours Currently every Sunday from 3:30-6:00 PM, mid-June through August	Starting day of camp session
2. Closing Day	100-400 people	3-4 hours Currently every Friday 4:00-8:00 pm from mid-June through August.	Ending day of camp
3. Private events – Weddings, birthdays, baptisms, church events, group & family events	20-250 people	Most 3-8 hours Average of one private event/month from April to October.	Large events would not be scheduled at the same time as regular camp activity.
4. Public events – i.e. Concerts, auctions, picnics, special church services, community groups, horse clinics and demonstrations, training events	20-250 people	Most 3-8 hours Average of one public event/month from April to October.	Large events would not be scheduled at the same time as regular camp activity.
5. Annual Fall Festival – a free local event as a 'thank you' to the community.	1,250 people	Approximately 8 hours One day per year in September or October.	No other guest activities are scheduled for this day.

Roads, Access and Parking

The primary access to the Project site is South Kidder Creek Road. Considering existing program schedules the maximum traffic use would occur on Sunday afternoons and Friday evenings during summer time occupancy.

Currently the existing camp road cuts through the pasture/open space and perceptually "divides" the camp. The primary pedestrian routes are shared with vehicles. Additionally, the Project will provide pedestrian circulation pathways that maintain a natural experience while navigating the property.

Taylor Divide Road is an unimproved dirt road which provides secondary access to and from the camp (see **Figure 6a. Emergency Access**). There is an existing easement for access by landowners for this road (including KCOC, Ecotrust[3], and Rhodes). This road connects to Patterson Creek Road, a partially paved, county-maintained road. This road is available for use as an ingress/egress route in the event of emergency evacuation. Since 2008, this road has been improved and treated for fire fuels reduction to

[3] [3] Property formally owned by Timbervest Partners California (TPC).

improve access by larger emergency vehicles and to create a buffer zone for firefighters in the event of wildfire.

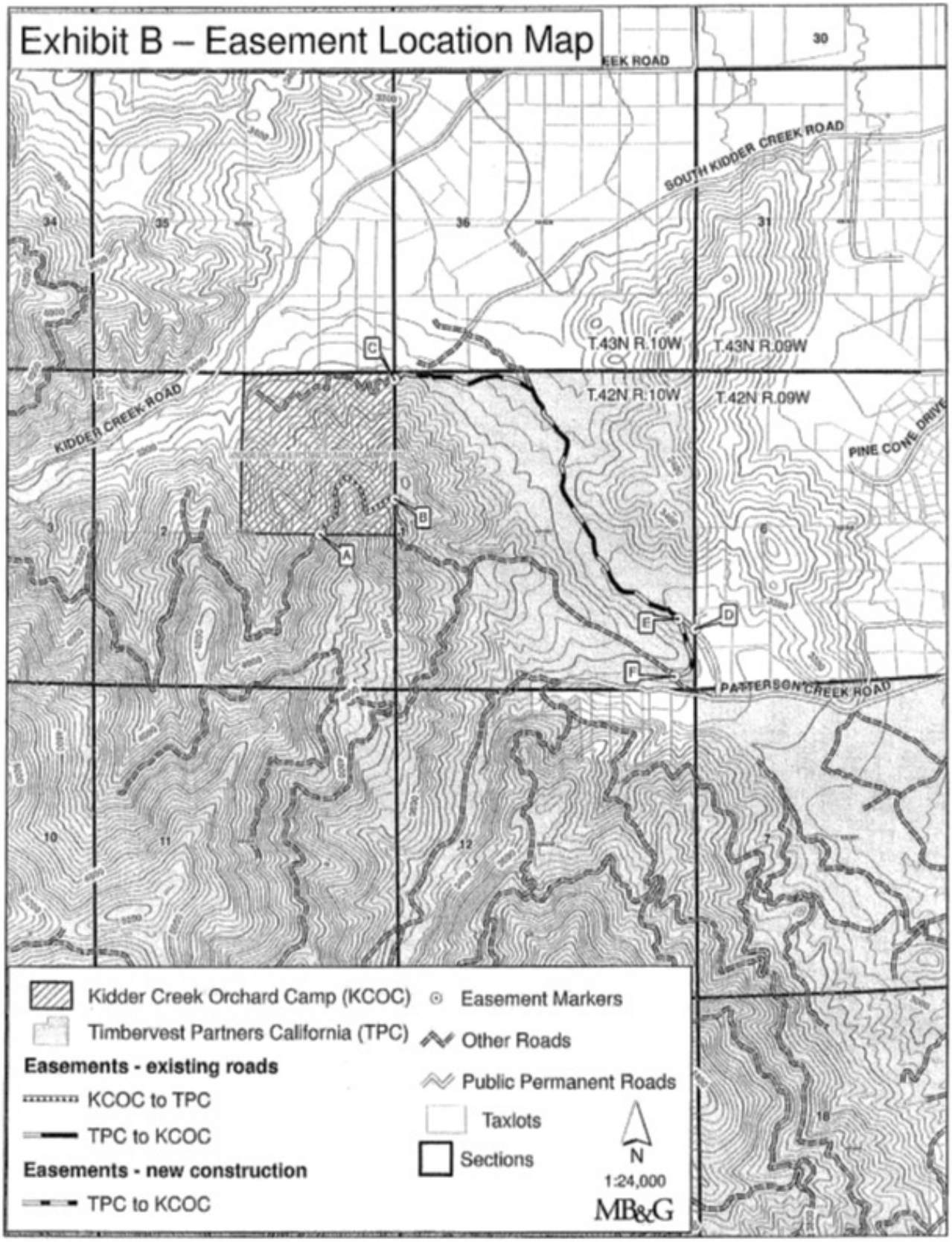
A portion of the secondary access does not exist and will be constructed and maintained by KCOC as a part of the Project. As shown in **Figure 6a**, the roadway between markers E and F would be new roadway of an estimated 1,400-1,500 feet in length. As with the existing roadway, the new portion of the roadway is located in an area of mixed conifer forest. The new roadway alignment would not pass through or require the alteration of any natural waterways as none exist in the area. A portion (approximately 500 feet) of this roadway alignment has been previously partially cleared by Ecotrust (the owners of the property). While this section of roadway is an offsite improvement and the land is not owned by the KCOC, this access road is subject to all of the mitigation measures provided in this EIR.

In October 2018, CAL FIRE inspected the KCOC property including the viability of the secondary emergency access to the camp property. CAL FIRE identified and provided a list of requirements the camp and proposed roads/secondary access would have to meet for fire safe regulations. KCOC will comply with requirements and Fire Safe regulations as is required through the building permit process. The secondary access point will not be used for primary ingress and egress from the site, therefore additional traffic due to the project will not affect this access. The Proposed Project will not use this road as a public entrance for its guests and will maintain a locked gate.

Full buildout of the Project will include a total of 339 parking spaces. Location of these spaces are shown in **Table 2-6** below.

Table 2-6. Site Plan Parking Spaces

Map ID#	Area	Parking Spaces
#2	Welcome Center	50
#6	The Pines Camp	21
#7	Ranch Camp	21
#8	Equestrian Area	64 + 10 pull-through sites
#9	Base Camp 1	7
#9	Base Camp 2	7
#9	Base Camp 3	26
#10	High Adventure Camp 1	15
#10	High Adventure Camp 2	15
#12	Staff Housing/Retreat Center 1	25
#12	Staff Housing/Retreat Center 2	18
#15	Adult Retreat Centers	50
#18	Maintenance Facility	10
	Total:	329 + 10 pull-through sites



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ENVIRONMENTAL CONSULTANTS

Figure 6a. Emergency Access
2018-123 Kidder Creek Orchard Camp

Project Timing

Full buildout of the Project is anticipated to take approximately 20 years. **Table 2-7** illustrates the anticipated timeline for the various facilities of the Project.

Table 2-7. Project Timing

New Feature	Approximate Years To Complete
Maintenance Facility	2 years
Perimeter Road Development	2 years
Base Camps/High Adventure (3)	2-5 years
Base Camps/High Adventure (2)	5-10 years
Additional Residential Camping Facilities	4-10 years
RV Areas	2-10 years
Pond and Recreation Area	5-10 years
Dining Prep Facility & Welcome Center	5-15 years
Staff Housing & Retreat Centers	6-12 years
Staff Residence & Guest Houses	10-15 years
Adult Retreat Centers	15-20 years
Equestrian Center	8-20 years
Amphitheaters	4-20 years

2.6 Regulatory Requirements, Permits, and Approvals Regulatory Requirements, Permits, and Approvals from Other Public Agencies

2.6.1 Project Relationship to Existing Planning Documents

General Plan

California state law requires cities and counties to prepare a General Plan describing the location and types of desired land uses and other physical attributes in the city or county. General Plans are required to address land use, circulation, housing, conservation, open space, noise, and safety. The Siskiyou County General Plan is the County's basic planning document and provides a comprehensive, long-term plan for physical development in the County. The Proposed Project will be located entirely within the unincorporated area of Siskiyou County. The Proposed Project will be required to abide by all applicable goals and policies included in the County's adopted General Plan.

Scott Valley Area Plan

The Project site is within the Scott Valley Area Plan (SVP) boundary. The SVP includes goals and policies pertaining to land use within the Scott River Watershed. The Scott River Watershed encompasses ±330,000 acres of land. The SVP was adopted by the by Board of Supervisors on November 13, 1980.

Zoning Ordinance

The Siskiyou County Zoning Ordinance implements the policies of the General Plan by classifying and regulating the land uses and associated development standards in the County. As discussed previously, development of the Project as proposed would require a rezoning of the property from TPZ to R-R-B-40 in order to be consistent with the County's Zoning Ordinance. A Board of Supervisors approval of the rezoning would be required for development of the Project. This rezoning is a part of the Project and is considered in this Draft EIR.

2.6.2 Permits and Approvals

This EIR and the previously prepared Initial Study will be used by the County of Siskiyou in considering approval of the Proposed Project. In accordance with CEQA Guidelines Section 15126, the EIR will be used as the primary environmental document in consideration of all subsequent planning and permitting actions associated with the project, to the extent such actions require CEQA compliance. The Project may require approvals, permits, and entitlements from other public agencies for which this EIR may be used, including, without limitation, the following:

- California Department of Transportation (Caltrans), District 2
- California Department of Fish and Wildlife (CDFW), Region 1
- California Department of Forestry and Fire Protection (CAL FIRE)
- Regional Water Quality Control Board (RWQCB), Region 1
- Siskiyou County Air Pollution Control District
- Siskiyou County Environmental Health
- State Water Resources Control Board (SWRCB)
- U.S. Army Corps of Engineers (USACE)

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3.0 ENVIRONMENTAL ANALYSIS

This section is a revision to the previous Section 3.0 Environmental Analysis in the DEIR in its entirety. Only those revisions identified by a double underlined/strikethrough format have been changed in this section. These revisions illustrate the additional information added to this section since the time of the DEIR publication. As noted in Section 1.0 Introduction, responses to comments provided on the DEIR as well to any new comments on this Recirculated DEIR will be included in the Final EIR as required by CEQA Guidelines Section 15132(d).

The following is an introduction to the project-specific and cumulative environmental analysis and general assumptions used in the analysis. The reader is referred to the individual technical sections of this Draft Environmental Impact Report (Draft EIR; DEIR) regarding specific assumptions, methodology, and significance criteria used in the analysis.

3.0.1 Introduction

On September 9, 2016, the Kidder Creek Orchard Camp Zone Change (Z-14-01) and Use Permit (UP-11-15) IS/MND (SCH#2016092016) was circulated by the County for a 30-day public review period. As a result of this IS, (see **Appendix A**) a number of impact areas were determined to have a less than significant impact, a less than significant impact with mitigation, or no impact as a result of Project implementation. All mitigation measures identified in these sections will be included as mitigation in this EIR (**Table ES-1)** and in the MMRP. Therefore, the following impact areas will not be discussed in this EIR.

- Aesthetics
- Air Quality
- Biological Resources
- Cultural and Paleontological Resources
- Geology and Soils
- Greenhouse Gas and Climate Change
- Hazards and Hazardous Materials
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Tribal Cultural Resources
- Utilities and Service Systems

As a result of comments on the Draft IS/MND, the County determined that an EIR level of analysis was required for specific impact areas. Those areas include the following:

- Agricultural Resources (loss prime farmland and timberland resources)
- Hazards (wildland fires)
- Hydrology and Water Quality
- Noise
- Transportation/Traffic

On August 2, 2019, the County circulated the DEIR for a 45-day public review period, closing on September 20, 2019. At the close of the public review period, the County had received 160 letters and post cards commenting on the DEIR. The comments were both for and against the Proposed Project. While many of the comments did not raise concerns with the adequacy of the environmental analysis, there were a number that raised environmental concerns. Because of these concerns, the County determined that some of the comments received on the DEIR required further analysis of the Project's potential impact to specific resource areas. As such, in accordance with CEQA, the County has determined that the new information brought to light by this analysis merits recirculation of portions of the DEIR. Specifically, the following chapters of the DEIR, with the exception of the Executive Summary, have been revised and are being recirculated, all other chapters of the DEIR have not been modified and therefore are not included in this Partial Recirculated DEIR:

- Hazards (wildland fires)
- Hydrology and Water Quality
- Noise

This section provides a detailed discussion of the environmental settings, impacts associated with the Proposed Project, and mitigation measures designed to reduce significant impacts to a less-than-significant level.

To assist the reader in comparing information about the various environmental issues, each section presents information under the following headings:

- Environmental Setting
  - The existing environment within and in the vicinity of the Proposed Project is described.
- Regulatory Setting
  - Relevant federal, state, and local regulations pertaining to each issue area.
- Thresholds of Significance
  - Relevant thresholds of significance as identified by CEQA or another relevant standard.
- Environmental Impacts
  - The nature and extent of project impacts relative to the issue areas listed above are analyzed. These analyses address direct (or primary effects of the Proposed Project) as well as indirect (or secondary) effects. Where applicable, impacts are identified as short-term or long-term.
- Mitigation Measures
  - Mitigation measures to reduce or eliminate project impacts are provided, as applicable.
- Residual Impacts After Mitigation
  - A discussion of the significance of each impact after mitigation is provided.

3.0.2 Analysis Assumptions Generally Used To Evaluate The Impacts Of The Project

Baseline Environmental Conditions Assumed in the Draft EIR

Section 15125(a) of the California Environmental Quality Act (CEQA) Guidelines requires that an EIR include a description of the physical environmental conditions in the vicinity of the Project, as they exist at the time the Notice of Preparation (NOP) is published. The CEQA Guidelines also specify that this description of the physical environmental conditions is to serve as the baseline physical conditions by which a lead agency determines whether impacts of a project are considered significant. For the Proposed Project, the physical environment as it existed at the time the NOP was published serves as the baseline, released on August 31, 2018

The environmental setting conditions of the Project area and the surrounding area are described in detail in the technical sections of this Draft EIR (see **Sections 3.1 through 3.6**). In general, these setting discussions describe the setting conditions as they existed when the NOP was released.

Definition of Cumulative Setting

CEQA Guidelines Section 15130(a) requires that an EIR "discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." CEQA Guidelines Section 15130(b) states, "The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by standards of practicality and reasonableness and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact."

However, the cumulative setting varies for each environmental issue area, depending on the resources affected and any relevant boundaries. For example, the area related to cumulative impacts for air quality is much greater in size and is based on the air basin, which can cover hundreds of square miles, while those related to noise can be limited to the immediate Project area. Each technical section of the Draft EIR includes a description of the geographic extent of the cumulative setting for that resource based on the characteristics of the environmental issues under consideration as set forth in CEQA Guidelines Section 15130(b).

The area where the Proposed Project is located is sparsely developed and no development in the area is proposed at this time nor does existing zoning allow for dense development. As such, the cumulative conditions analysis for this EIR considers long-term development that could be anticipated in a 20-year horizon. There are an estimated 17 legal lots that access South Kidder Creek Road that are currently vacant but could be developed under existing zoning policy. These parcels can all be permitted with one single-family dwelling unit. In addition, the County also allows second dwellings where parcels are more than five acres in size and where there is adequate space for necessary septic/leach fields/well separation.

It can be assumed that within the phased Kidder Creek Orchard Camp build-out time frame (two to 20 years), homes could be constructed on the 17 vacant lots. It was estimated that 10 percent of the 52 total

lots that access South Kidder Creek Road would have a second dwelling unit. Therefore, the cumulative conditions analysis includes 23 additional single-family residential units in the Project area.

Consideration of Cumulative Impacts

Each technical section in the Draft EIR considers whether the Project's effect on anticipated cumulative setting conditions is cumulatively considerable (i.e., a significant effect). The determination of whether the Project's impact on cumulative conditions is considerable is based on applicable public agency standards, consultation with public agencies, and/or expert opinion.

SECTION 3.2 HAZARDS AND HAZARDOUS MATERIALS

This section is a revision to the previous Section 3.2 Hazards and Hazardous Materials provided in the DEIR in its entirety. Only those revisions identified by a double underlined/strikethrough format have been changed in this section. These revisions illustrate the additional information added to this section since the time of the DEIR publication. As noted in Section 1.0 Introduction, responses to comments provided on the DEIR as well to any new comments on this Recirculated DEIR will be included in the Final EIR as required by CEQA Guidelines Section 15132(d).

The Initial Study completed for the Proposed Project determined that the Project would have a less than significant impact or no impact in the following impact analysis areas:

1. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

2. Would the project 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?

3. 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?

4. Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, create a significant hazard to the public or the environment?

5. For a project located within an airport land use plan area or, where such a plan has not been adopted, within 2 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?

6. 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?

7. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No comments were received discussing the impact analysis areas shown above by the public and agencies during the Initial Study public review period. As such, these analysis areas are not evaluated in this EIR.

3.2.1 Environmental Setting

The Proposed Project is in the foothills of the Marble Mountains, which are a sub-range of the Klamath Mountains. The highest peak in the Marble Mountains is Boulder Peak at 8,299 feet. Boulder Peak is located approximately eight miles northwest of the Camp.

The 580-acre Project site ranges in elevation from approximately 3,000 to 3,950 feet. Slopes at the site generally range from 0 to more than 30 percent. Vegetation at the site is characterized by meadows, apple orchards, mixed conifer forests, oak woodlands, and shrubs.

3.2.2 Wildland Fire Hazards

A wildfire is an uncontrolled fire spreading through vegetative fuels, posing danger and causing destruction to life and property. Wildfires can occur in undeveloped areas and spread to urban areas where structures and other human development are more concentrated. According to CAL FIRE (2009), the Project site is located in an area designated as a Very High Fire Hazard Severity Zone on the 2009 Very High Fire Severity Zones in Local Responsibility Area (LRA) map.

3.2.3 Wildland Fire Emergency Plan

Kidder Creek Orchard Camp has a Wildland Fire Emergency Plan (Plan) which identifies the camp's policies and regulations regarding wildfire safety. The Plan is required to be reviewed and updated on an annual basis. This Plan (included as **Appendix J** of this Recirculated DEIR) includes policies and requirements for the following: grounds and facilities inspections, forest management, fire suppression staff training, emergency access, emergency procedures and action steps to be taken by the various camp personnel during and emergency evacuation. Included as **Figure 6b** is the Plan's Fire Plan Evacuation Routes.

3.2.4 Regulatory Framework

State

Uniform Fire Code

The Uniform Fire Code contains regulations relating to construction and maintenance of buildings and the use of premises. The code includes specifications for fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and premises. Storage of corrosive materials and liquid and solid oxidizers must be in compliance with Uniform Fire Code § 5404 and 6304, which include provisions for indoor storage, detached storage, liquid-tight floors, and smoke detection, among others.

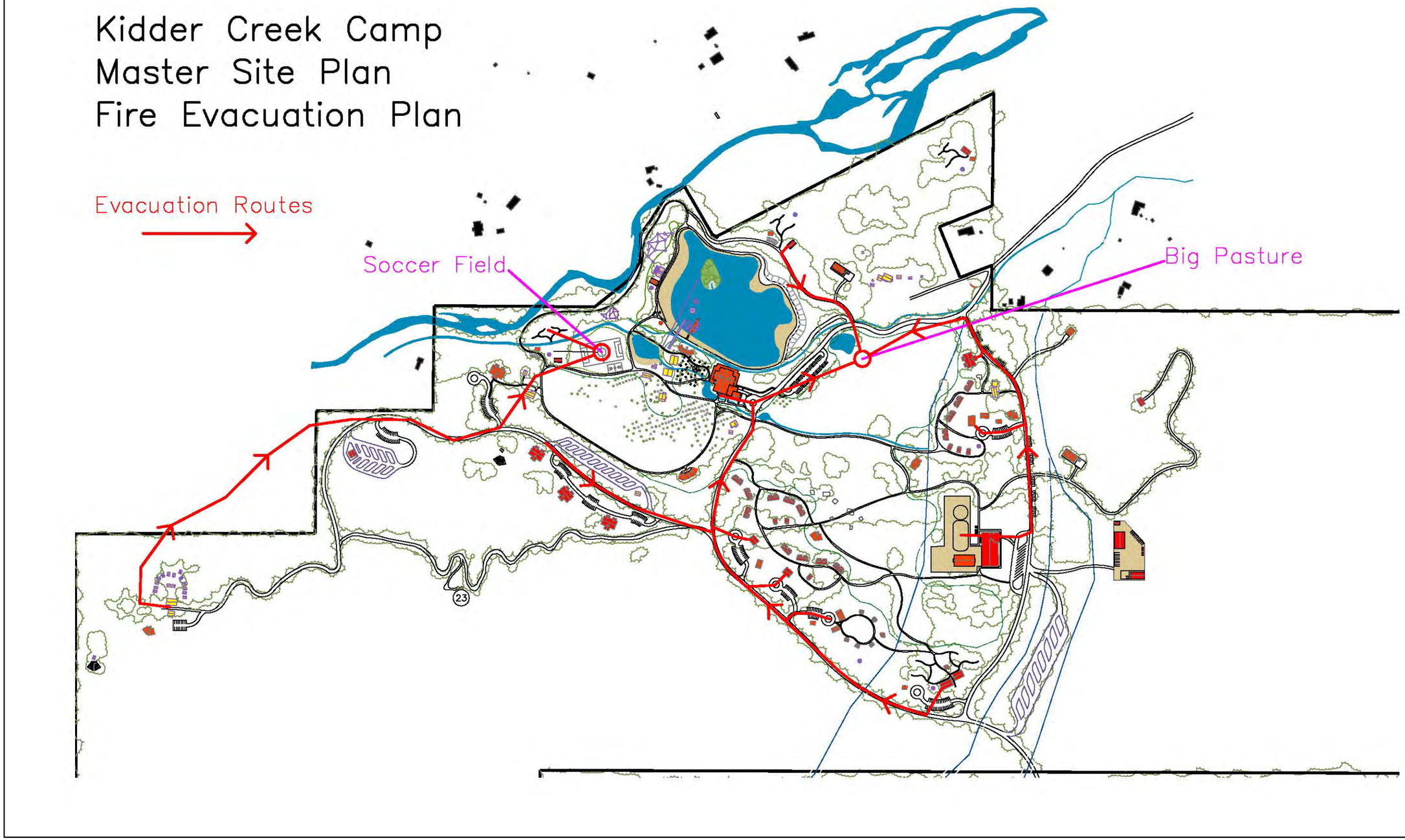


Figure 6b. Fire Evacuation Plan Map

2018-123 Kidder Creek Orchard Camp

3.2.5 Environmental Impacts

Thresholds of Significance

CEQA Guidelines Appendix G states that a project may have a significant effect on the environment if any of the following would occur:

1. 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?

Methodology

The following impact analysis is based primarily on information available from CAL FIRE, proposed uses of the site, the Siskiyou County General Plan, and other relevant materials, as appropriate.

Project Impact Analysis

Impact 3.2.1: Wildland Fire Hazards

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

According to the CAL FIRE, the Project site is located in an area designated as a Very High Fire Hazard Severity Zone on the 2009 High Fire Hazard Severity Zones in LRA map[1] (CAL FIRE 2009). This map also identifies that the Project site is within a State Responsibly Area and therefore is subject to certain building and area improvements to protect from fire related hazards.

Title 24 of the California Code of Regulations (CCR), known as the California Building Standards Code or "Title 24," contains the regulations that govern the construction of buildings in California. Title 24 Part 9 – California Fire Code (CFC) contains regulations consistent with nationally recognized accepted practices for safeguarding, to a reasonable degree, life and property from the hazards of the following:

- Fire and explosion
- Hazardous conditions in the use or occupancy of buildings or premises
- Dangerous conditions arising from the storage, handling and use of hazardous materials and devices

All new buildings located in any Fire Hazard Severity Zone within State Responsibility Areas, such has the Proposed Project, are required to comply with all sections of the CFC. These requirements are included for the Proposed Project on a case-by-case basis as a part of the building permit process.

[1] LRA = Local Responsibility Area

In addition, the Project site is required to comply with the PRC Division 4, Part 2, Chapter 3 Section 4291 which applies to all "persons who own, lease, control, operate, or maintain a building or structure in, upon, or adjoining a mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or land that is covered with flammable material". Section 4291(a)(1) states a person shall at all times do the following:

> "Maintain defensible space of 100 feet from each side and from the front and rear of the structure, but not beyond the property line except as provided in paragraph (2). The amount of fuel modification necessary shall take into account the flammability of the structure as affected by building material, building standards, location, and type of vegetation. Fuels shall be maintained in a condition so that a wildfire burning under average weather conditions would be unlikely to ignite the structure. This paragraph does not apply to single specimens of trees or other vegetation that are well-pruned and maintained so as to effectively manage fuels and not form a means of rapidly transmitting fire from other nearby vegetation to a structure or from a structure to other nearby vegetation. The intensity of fuels management may vary within the 100-foot perimeter of the structure, the most intense being within the first 30 feet around the structure. Consistent with fuels management objectives, steps should be taken to minimize erosion. For the purposes of this paragraph, "fuel" means any combustible material, including petroleum-based products and wildland fuels."

This code is enforced through CAL FIRE's Defensible Space and Hazardous Vegetation Management program. The key to defensible space is managing the hazardous vegetation around houses and reduce the potential severity of wildfire exposure.

The County also requires at least two points of access to the Project site for emergency access. As shown on **Figure 6 Emergency Access** and discussed in **Section 2.0, Project Description**, the Project proposes an emergency access which will be required to comply with CAL FIRE's Fire Safe regulations. While portions of the emergency access road are not on property owned by KCOC, KCOC has easements on these properties (including KCOC, Ecotrust[2], and Rhodes) to allow the use and upkeep of the roadway by KCOC to the point where is connects with Patterson Creek Road. While property ownership may change in the future, the easements would remain in effect as they are bound to the property not the owner.

Patterson Creek Road (also known as Forest Service Road 42N07) is a County public road for the first approximately ½ mile from the Highway 3/Patterson Creek Road intersection. From that point it becomes a USFS road for its remaining length. While this road does pass through private property beyond the County public road portion, the road right-of-way is owned by the USFS. This road is identified by the USFS as a roadway open to all vehicles (USFS 2015).

As a part of the Project review process, CAL FIRE on April 11, 2014 and again on October 31, 2018, inspected the proposed emergency access and determined that once the improvements required by CAL FIRE were made to the road it would serve as an adequate secondary access to the camp property. On December 2, 2018, CAL FIRE provided a letter to the County outlining the requirements for the use of the

[2] Property formally owned by Timbervest Partners California (TPC)

existing Project roadways and the new emergency roadway, as an emergency access route. These requirements include:

- "Improvement of the roadway from South Kidder Creek Road at the camps entrance through the camp to Paterson Creek Road to meet the California Code of Regulations Title 14 Sections 1273.01 to 1273.11 would be required.
- Deeded access from land owners through parcels connecting the unimproved dirt road from Kidder Creek Camp to Paterson Creek Road would be required.
- An emergency Break-Away style gate would be required for any gate on the roadway."

This letter is included as **Appendix K** of this Recirculated DEIR. In partial response to this letter, deeded access to the adjacent landowners' parcels for a connecting road to Paterson Creek Road has been obtained by Kidder Creek Orchard Camp. However, to ensure that the emergency access is adequate and maintained according to CAL FIRE requirements, including those improvements identified above, mitigation measure **MM 8.1** is required.

3.2.6 Mitigation Measures

MM 8.1 Prior to the initiation of construction inhabitable structures for the Proposed Project, the emergency access road will be developed by the Project and approved as to form and function by the California Department of Forest and Fire Protection (CAL FIRE) and the Siskiyou County Public Works Department. Additionally, all CAL FIRE required improvements to existing Project roadways shall be implemented. ~~This~~ These roadways and the new access roadway shall be maintained by the Project, verified for compliance of the CAL FIRE roadway safety requirements at the start of each Kidder Creek Orchard Camp recreation season by a CAL FIRE approved wildfire expert, and re-approved on an annual basis or as the County and CAL FIRE determines necessary.

Timing/Implementation: *Prior to the initiation of construction inhabitable structures.*

Monitoring/Enforcement: *County of Siskiyou Public Works and CAL FIRE*

3.2.7 Residual Impacts After Mitigation

Implementation of mitigation measure **MM 8.1** would ensure the Project site is appropriately investigated and mitigated to minimize risks associated with the potential for hazards related to wildfires and emergency access. Therefore, with implementation of mitigation measure **MM 8.1**, this impact would be ***less than significant***.

3.2.8 Cumulative Setting, Impacts, and Mitigation Measures

Cumulative Setting

Hazardous material, human health, and safety impacts as described in CEQA Appendix G are generally site-specific and not cumulative in nature, as impacts generally vary by land use, site characteristics, and

site history. The cumulative setting for the Proposed Project would be the project as well as existing and future projects in the immediate vicinity.

Cumulative Impacts and Mitigation Measures

Impact 3.2.9: Cumulative Hazardous Materials and Emergency Response Impacts

Threshold:	*Would the Proposed Project, in combination with other existing, proposed, and reasonably foreseeable future development in the area, cumulatively increase exposure of people, property, and the environment to hazardous materials and interference with emergency response?*

Cumulative hazardous materials impacts would result if other existing, planned, or reasonably foreseeable projects in the vicinity of the Project area included the addition of hazardous materials above planning thresholds. This would change the total amount of hazardous materials being transported over public roadways and being used and stored near the Proposed Project site.

There are no identified hazardous materials sites on the Proposed Project site. While the Proposed Project would result in the use of low levels of hazardous materials for residential upkeep and cleaning, this use would be minimal and at the level of use for a project of this type. Based on the existing hazardous material regulatory structure, the Proposed Project would not cause a threat to public safety during Project construction or operation.

The Proposed Project would increase the number of persons or structures to the potential for wildland fires beyond current conditions. However, existing CAL FIRE defensible space regulations and mitigation measure **MM 8.1** would reduce this potential to less than significant. Therefore, development of the Project would not contribute to the potential for hazards and hazardous materials impacts under cumulative conditions. As such, the Project's contribution to significant cumulative impacts to human health associated with hazards and hazardous materials or conditions is considered ***less than cumulatively considerable***.

Cumulative Mitigation Measures

No significant cumulative impacts were identified. No cumulative mitigation measures are required.

3.2.9 References

[CAL FIRE] California Department of Forestry and Fire Protection

2009 Siskiyou County Very High Hazard Severity Zones in LRA map. July 21, 2009. http://frap.fire.ca.gov/webdata/maps/siskiyou/fhszl_map.47.pdf.

2018 Subject: Kidder Orchard Camp (Z-14-01). Letter from Battalion Chief Greg Roath to Siskiyou County Department to Public health and Community Development. December 2, 2018.

[USFS] United States Forest Service

2015 Motor Vehicle Use Map Klamath National Forest Scott River Ranger District. https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5376647.pdf

SECTION 3.3 HYDROLOGY AND WATER QUALITY

This section is a revision to the previous Section 3.3 Hydrology and Water Quality provided in the DEIR in its entirety. Only those revisions identified by a double underlined/strikethrough format have been changed in this section. These revisions illustrate the additional information added to this section since the time of the DEIR publication. As noted in Section 1.0 Introduction, responses to comments provided on the DEIR as well to any new comments on this Recirculated DEIR will be included in the Final EIR as required by CEQA Guidelines Section 15132(d).

This section describes the environmental setting for hydrology and water quality, including the regulatory setting and existing site conditions, the impacts on hydrology and water quality that would result from the Proposed Project, and the mitigation measures that would reduce these impacts.

3.3.1 Environmental Setting

Surface Water

Klamath River Basin

Kidder Creek is part of the Scott River watershed which is part of the Klamath River Basin Hydrologic Unit. The Klamath River Basin covers 10.5 million acres in southern Oregon and northern California. The Klamath River, which starts in Oregon, travels for approximately 250 miles through California before flowing into the Pacific Ocean near Crescent City. The river is impounded by four dams - one for water delivery and three for hydroelectric generation, part of PacifiCorp's Klamath Hydroelectric Project. In California, the Klamath River Basin is located in Siskiyou, Modoc, Trinity, Humboldt, and Del Norte counties. Major tributaries to the Klamath include the Shasta, Scott, Salmon and Trinity rivers (EPA 2015).

The Klamath Basin has been in the forefront of national attention due to contentious resource issues including water allocation, water quality, and threatened and endangered species. The Klamath River has been the third-largest producer of salmon on the West Coast, following closely behind the Sacramento and Columbia rivers. In 2002, a massive die-off of over 33,000 adult salmon on the Klamath River brought renewed attention to this area (EPA 2015). Several water bodies in the Klamath Basin, the Lost River, the Klamath Straits Drain, and the Klamath River from Link River to the Pacific Ocean, are considered to be impaired waters[1] due to too much pollution. In 2013, the California State Regional Water Quality Control Board (RWQCB) issued a news release stating that due to potential health risks from Blue-Green Algae, reaches of the Klamath River including the Copco and Iron Gate Reservoirs, and below to the confluence with Tully Creek were posted with health advisories warning against human and animal contact with the water (SWRCB 2013). In July 2014, RWQCB issued a news release stating that the Copco and Iron Gate Reservoirs and the Klamath River below Iron Gate Dam down to Weitchpec on the Yurok Reservation were

[1] Water quality is impaired when a pollutant or pollutants enter a water body and limit its use for drinking, fishing, swimming, or some other purpose (NRCS 1996).

posted with health advisories for Blue-Green Algae warning against human and animal contact with the water (SWRCB 2014a).

The algal blooms appear as bright green in the water, and blue-green, white or brown foam, scum or mats can float on the water and accumulate along the shore. Recreational exposure to toxic blue-green algae can cause eye irritation, allergic skin rash, mouth ulcer, vomiting, diarrhea, and cold and flu-like symptoms. Liver failure, nerve damage and death have occurred in rare situations where large amounts of contaminated water were directly ingested (RWQCB 2014a).

Scott River Watershed

The Scott River Watershed is an important cold-water tributary to the Klamath River Basin. The Scott River Watershed encompasses over 813 square miles in the Klamath Mountains flowing generally northward into the Klamath River. The watershed shares divides with the Shasta River to the east, the Trinity River to the south, and the Salmon River to the west (SWRCB 2005a). There are 16 subwatersheds in the Scott River watershed. The Project site is located in the Kidder Creek subwatershed which is approximately 9,298 acres in size (UC Davis 2013).

The Scott River a major tributary in the Middle Klamath water basin. It also has substantial cattle grazing industry irrigated extensively from streams in the watershed. Silvicultural activities on both USFS and private lands dominate the steep, highly erodible watersheds flowing into the valley floor. The Scott River alluvial gravels were mined extensively in the 1800's. That activity and more-recent channeling for flood control altered its morphological characteristics dramatically. The Scott River also supports substantial salmon runs. Small towns in the valley such as Etna, Fort Jones and Callahan support the timber and grazing dominated economies. There has been concern expressed that too much water is being used by agriculture at the expense of maintaining instream flows to the extent necessary to maintain a viable salmonid fishery. Another concern is recreational instream suction dredging for gold at the confluence of the Klamath River and possibly in other locations (SWRCB 2005b).

In 2006, the Environmental Protection Agency formally adopted a Total Maximum Daily Load (TMDL) for the Scott River, which lists the river as being impaired for elevated temperature and low dissolved oxygen levels. A TMDL establishes the maximum amount of a pollutant allowed in a waterbody and serves as the starting point or planning tool for restoring water quality (EPA 2006).

Excessive sediment loads and elevated water temperatures have impaired many designated beneficial uses of the Scott River and its tributaries. Several of the primary beneficial uses impaired are those uses associated with the cold-water salmonid fishery. Salmonid populations in the Scott River watershed have declined significantly from historic levels and coho salmon are listed as threatened under the state and federal Endangered Species Acts. Excessive sediment loads and elevated water temperatures have resulted in the non-attainment of water quality objectives for sediment, suspended material, settleable material, and water temperature (SWRCB 2005a).

Scott River Adjudication

When water users within a basin are in dispute over legal rights to the water, a court can issue a ruling known as an adjudication to define the amount of water allowed for use per user. Adjudications can cover

an entire basin, a portion of a basin, or a group of basins and all non-basin locations between. The Scott River system was adjudicated by the Siskiyou County Superior Court in Decree No. 30662 (DWR 1980). This adjudication allotted certain amounts of water to the various users of Scott River water and its tributaries. Both Kidder Creek and Barker Ditch were identified in this adjudication. Also, groundwater was discussed, and some users identified in the decree, but groundwater allotments were not adjudicated in the state at the time of the decree. Currently, the amount of groundwater allocated for use is not adjudicated in the Scott River Valley Groundwater Basin.

Groundwater

The Project site is located in the Scott River Valley Groundwater Basin, which is part of the North Coast Hydrologic Region. The Scott River Valley Groundwater Basin is a narrow alluvial floodplain about 28 miles long and ½- to 4 miles wide. The basin is bounded on the north and northwest by the Scott Bar Mountains, on the west and southwest by the Salmon Mountains, on the south and southeast by the Scott Mountains, and on the east by a northern extension of the Trinity Mountains (DWR 2004).

The Scott River Valley Groundwater Basin has a surface area of 63,900 acres (DWR 2004). The major source of recharge into stream channel and floodplain deposits between Etna and Fort Jones is underflows and surface runoff originating upstream of the vicinity of Etna. This is supplemented by underflow from the western tributaries. Groundwater storage capacity to a depth of 100 feet is estimated to be 400,000 acre-feet for a surface area of 39,900 acres with specific yield ranging from 5 to 15 percent (DWR 2004).

The California Department of Water Resources (DWR) (2018b) provides groundwater depths for seven wells within eight miles of the Project site. **Table 3.3-1** indicates the increase or decrease from the ground surface to the groundwater surface between the spring of 2007 and the spring of 2017. As shown, depth to groundwater varied between a decrease of 9.0 feet to an increase of 9.3 feet over the 10-year span.

Table 3.3-1. Change in Depth to Groundwater from Spring 2007 to Spring 2017

Well Number	Location	Distance from Project	Well Use	Change in Depth from Surface to Groundwater
43N09W02P002M	Fort Jones	7 miles northeast	Residential	-9.0 feet
44N09W29J001M	Scott River Road	7.6 miles northeast	Residential	+1.3 feet
43N09W23F001M	Scott Valley Airport	5.5 miles northeast	Unknown	+1.9 feet
43N09W24F001M	Eastside Road	6.6 miles northeast	Irrigation	+9.3 feet
413348N1225123W001	Scott Valley Airport	5.5 miles northeast	Other	+3.3 feet[1]
42N09W27N002M	Etna	6 miles southeast	Residential	-0.6 feet
412990N1225279W001	Holzhauser Road	4.2 miles southeast	Residential	+1.6 feet[1]

Source: DWR 2018a, 2018b
Notes: Well information only available from 5/2012 to 3/2017

The DWR Sustainable Groundwater Management Program (SGMA) is an on-line interactive program open to the public which provides a multitude of groundwater and surface water information including well drilling information. According to this program, there have been multiple wells drilled within 1. 6 miles of the Project site since 1976. **Table 3.3.2** identifies 22 of those wells and indicates that ground surface to water surface ranges between 15 feet to 53 feet and is purely dependent on location of the well.

Table 3.3.2. Local Well Depth

Year	Location	Depth to 1st Water Contact (feet)	Year	Location	Depth to 1st Water Contact (feet)
1974	N. Kidder Creek Road	17	2000	S. Kidder Loop Road S. Kidder Loop Road	50 50
1976	N. Kidder Creek Road	24	2001	Jaygene Court	50
1978	N. Kidder Creek Road N. Kidder Creek Road	42 29	2002	S. Kidder Creek Road	50
1979	N. Kidder Creek Road S. Kidder Creek Road	42 20	2005	S. Kidder Loop Road S. Kidder Loop Road S. Kidder Loop Road	50 50 53
1992	N. Kidder Creek Road	10	2006	N. Kidder Road	21
1993	N. Kidder Creek Road	23	2007	N. Kidder Road	22
1994	Simpson Way	20	2010	Kellems Lane	50
1995	N. Kidder Creek Road N. Kidder Creek Road S. Kidder Creek Road	15 15 22	2012	N. Kidder Creek Road	15
1997	N Kidder Creek Road S. Kidder Creek Road S. Kidder Creek Road	24 51 50	2013	Hard Rock Road	30
1998	S. Kidder Creek Road	50	2014	S. Kidder Creek Road S. Kidder Creek Road Quartz Valley Road	16 15 17
1999	S. Kidder Creek Road S. Kidder Creek Road	20 20	2015	Hard Rock Road	25

Source: DWR 2018a

In 2008, the University of California, Davis prepared a report titled the Scott River Community Groundwater Study Plan (UC Davis 2008). This Plan provided information about the Scott River Groundwater Basin and its interaction with the Scott River Valley Watershed. Among other things, the Plan identified historic groundwater levels and fluctuations for five wells in the Scott Valley. According to this Plan groundwater levels drop each summer and then recover the following fall/winter for the wells that have long-term records, which is typical for this region. For the wells shown, groundwater levels have remained fairly constant over the last 40 years and have recharged for the most part each year for monitoring wells (UC Davis 2008).

In 2015, Normandeau Associates, Inc authored the Scott River Hydrology and Integrated Surface Water / Groundwater Modeling study. According to this study, groundwater use in the Scott Valley has increased dramatically over the last few decades. In the year 2000, DWR estimated that 45 percent of the irrigated acres in the Scott Valley were using groundwater, compared to two percent just over 30 years ago. Although there is no regulation or quantification of the extraction of water from wells, groundwater levels have remained fairly constant over the last 40 years and have recharged for the most part each year (Normandeau Associates, Inc 2015).

Hydrogeology

A Groundwater and Surface Water Analysis for Kidder Creek Orchard Camp (Pearson 2021) was completed as a part of the hydrological analysis for the Project. This analysis is included in this Recirculated DEIR as **Appendix L**. The analysis identified that the groundwater system in Scott Valley consists of two aquifers: the alluvial deposits aquifer and the bedrock aquifer. The alluvial deposits aquifer consists of various layers of gravel, sand, and clay deposited by tributary streams and the Scott River. While most reports consider the bedrock aquifer as non-water bearing, well completion reports (WCRs) for the area show that some wells do obtain yields of about 5 gpm or greater from the fractured bedrock aquifer. University of California at Davis modeling efforts incorporated a "Mountain Front Recharge[2]" component that contained a significant portion of flow from the bedrock aquifer via springs and subsurface inflow. The alluvial deposits aquifer have primary porosity, and the bedrock has secondary porosity (Pearson 2021). None of the previous studies have shown any kind of confining layer which is consistent with the WCRs in the Project area. Therefore, both aquifers are considered unconfined (Pearson 2021).

Analysis provided in the Groundwater and Surface Water Analysis clearly show that groundwater flows in Kidder Creek Alluvial Fan (KCAF) deposits in an easterly direction from the mountain front (the fan apex) to the Scott River. The groundwater flow divides at the west end of Chaparral Hill with a part flowing towards the Oro Fino Valley and the other part flowing along Kidder Creek to Big Slough and the Scott River. Just downstream of the State Highway 3 bridge, the KCAF gradient flattens, resulting in the groundwater levels approaching the ground surface. This has been an historic groundwater discharge area on the KCAF before Kidder Creek reaches Big Slough and the Scott River. This discharge area provides groundwater to the irrigation wells between the Highway 3 bridge and the Scott River (Pearson 2021).

In the Project area, all but one of the wells are used for domestic supply and are generally less than 100-feet deep which is about the thickness of the KCAF aquifer. Most wells produce about 10-25 gpm which is an indicator of the lower permeability of the aquifer than elsewhere in the valley (Pearson 2021).

The aquifer system of the Project area consists of the KCAF deposits that backfilled the eroded channel in the bedrock created by the ancestral Kidder Creek. KCAF deposits, the main aquifer in the area, are known to be from zero (at the edges with the bedrock) to more than 100 feet thick towards the center of the upper Kidder Creek fan. The Project area is at a part of the upper Kidder Creek fan where the ancestral Kidder Creek was creating the cut bank in the bedrock. The Project area is at the mountain front where Kidder Creek is leaving the bedrock-controlled channel and transforms to a braided stream (where percolation of stream flow starts in significant amounts). While there are no wells south of KCOC, conventional groundwater theory says that groundwater usually follows topography. So, any precipitation and run-off that occurs from Taylor Divide north on the Quaternary Alluvium (Qal) unit will percolate into

[2] Mountain Front Recharge is the amount of water moving from the bedrock formation into the alluvial fan deposits. This recharge was only modeled along the valley's westside as the eastside was considered in the rain shadow of the higher elevation of the westside range. Mountain Front Recharged inputs to the model ranged from about 0.5 cfs to about 5 cfs.

the well-drained soils and likely moves along the Qal / Bedrock contact beneath the camp to Kidder Creek (Pearson 2021).

Groundwater/Surface Water Relationship

The Groundwater and Surface Water Analysis for Kidder Creek Orchard Camp was completed to determine the potential impacts of the proposed Project on potential interconnected surface water and groundwater resources as a result of future groundwater pumping from the Project. The following information was obtained from this analysis. This analysis focuses on three potential impacts of the Project to: Coho salmon fish pools, nearby domestic wells, and impacts on downstream flows in the Scott River.

Groundwater – Surface Water Interactions

The main concerns of groundwater-surface water interactions from this Project are potential impacts on the Coho salmon fish pools, nearby domestic wells, and on downstream flows to the Scott River. According to the Groundwater and Surface Water Analysis, the existing documentation and models did not consider the impact of domestic wells to be a significant impact to stream flow because of the low density of wells and their small amount of water extraction compared to irrigation wells (Pearson 2021). To clarify, the characteristics of a domestic or residential well are:

- They have a well yield in the 5-30 gallons per minute (gpm) range.
- They use cyclic pumping to provide about 70 gpd per capita or a family of four and using about 280 gpd in total.
- In many parts of rural California, more than half of the water used (in this case outside water is part of the use) percolates back to the groundwater supply via the septic tank with the net effect of reducing the consumptive use of the groundwater supply.

The guiding document on stream-aquifer impacts (Barlow 2012) emphasized that the concern is with wells that yield about 700 gpm, located within 300-500 feet of the stream, and with hydraulic connection that could capture 33 percent of its yield from the stream (Pearson 2021). Barlow concludes that once a well is 1,400 feet away from the stream, the stream depletion rates decline to zero at the stream. Additionally, most of the water extracted for domestic use returns to the groundwater supply in a relatively short period of time (typically in 1-2 months), unlike applied irrigation water in Scott Valley where in 2016, it was estimated that approximately 3 to 6 percent percolated back into the groundwater supply (Pearson 2021). According to the Groundwater and Surface Water Analysis, these conditions alone make groundwater-surface water interactions not significant. Additionally, if Kidder Creek is not hydraulically connected to the aquifer, as has been posited here based on existing data, then the whole discussion of groundwater-stream water interactions becomes mute. This is because no matter how much the groundwater table is drawn down by pumping, it doesn't change the amount of water leaving (induced recharge) or entering the stream (capture) (Pearson 2021).

The following discussions focus on the potential impacts on the Coho Salmon Fish Pools, nearby domestic wells, and on downstream flows to the Scott River.

Coho Salmon Fish Pools

According to the Groundwater and Surface Water Analysis, there are eight (8) pools of concern to state and federal fisheries agencies on Kidder Creek with pools 1-5 having the greatest concern. Sommarstrom and Tamer (2013) in their analysis of the pools determined that pool #8 (which is upstream from the Wright/Fletcher Diversion Ditch) was the deepest pool in their study reach, and though the creek bed is dry for 1,550 feet below the flowing creek at pool #4 on September 10, 2012, it retained water throughout the summer. They further posited that this pool might be maintained by seepage from the Barker Ditch or the KCOC's recreational pond. They noticed that there was also spring flow from the left bank and found that flow was continuous downstream to the Wright/Fletcher Diversion Ditch. There are three additional possibilities for the water in pool #8. The first being that the depth of the pool intersects the groundwater table. The second possibility is that pool #8 is maintained by hyporheic flow. Hyporheic flow is the transport of surface water through sediments in the creek bed in flow paths that return to surface water. In a braided stream like Kidder Creek this is very likely. The third possibility is that seepage from deep percolation of applied irrigation water and from the Quaternary Alluvium (Qal) is helping to maintain the pool.

All the pools of concern are up groundwater gradient from the proposed new well on the KCOC propoery. While this does not guarantee that groundwater extraction at KCOC cannot capture groundwater, the cone of depressions of the existing wells and the future well do not intercept any of the pools.

Additionally, the lowest recorded flow in Kidder Creek is 0.6 cubic feet per second (cfs) that was recorded in September 2016, a statewide average water year. At this flow the pool #4 stayed hydrated and as the evapotranspiration in the upper watershed started to lower, Kidder Creek levels rose. As discussed under Impact 3.3.2, the net expected removal of water from the groundwater supply is about 3 gpm. Even if this total amount were subtracted from the flow of Kidder Creek (which current data and analysis shows it will not), it would reduce the lowest recorded amount for Kidder Creek of 0.6 cfs (equivalent to 268 gpm) by 1.1 percent, which is not significant. In fact, this amount is not measurable with existing stream gauging equipment and it is within the measurement error of the existing equipment (Pearson 2021).

Nearby Domestic Wells

When the pump of a well is activated, the pump starts to remove water from the well. The water level will start dropping in the well creating a pressure difference which allows water to flow through the perforations into the well. This creates a cone of depression around the well. This cone of depression will continue to enlarge until a sufficient gradient is established which allows enough water to flow into the well to replace the water being extracted. When the gradient is sufficient and the water flowing into the well equals the water being extracted, the drawdown in the well stabilizes at that level and the cone of depression ceases to grow.

The analysis provided in the Groundwater and Surface Water Analysis shows that the calculated cones of depressions do not intersect the existing wells of neighbors. This is consistent with the decision by previous groundwater modelers to not consider domestic use in their models. Again, these calculations are conservative and assume the wells are pumping continuously for 24-hours and none of the extracted water returns to the groundwater supply (Pearson 2021).

Downstream Flows to the Scott River

Existing groundwater elevation maps show that about one-third of the subsurface flow of Kidder Creek flows down the Oro Fino Valley (Pearson 2021). As Sommarstrom and Tamer (2013) stated "[n]atural flows during the low flow period will likely not be able to keep Kidder Creek connected through the alluvial fan reach below Barker Ditch to below State Highway 3, due to natural geologic conditions and available water." This observation was first reported by the early settlers to the valley and remains unrefuted by all published documents on this subject. Therefore, the potential impacts to the Scott River fall into two time periods: Winter-Spring, and Summer-Fall.

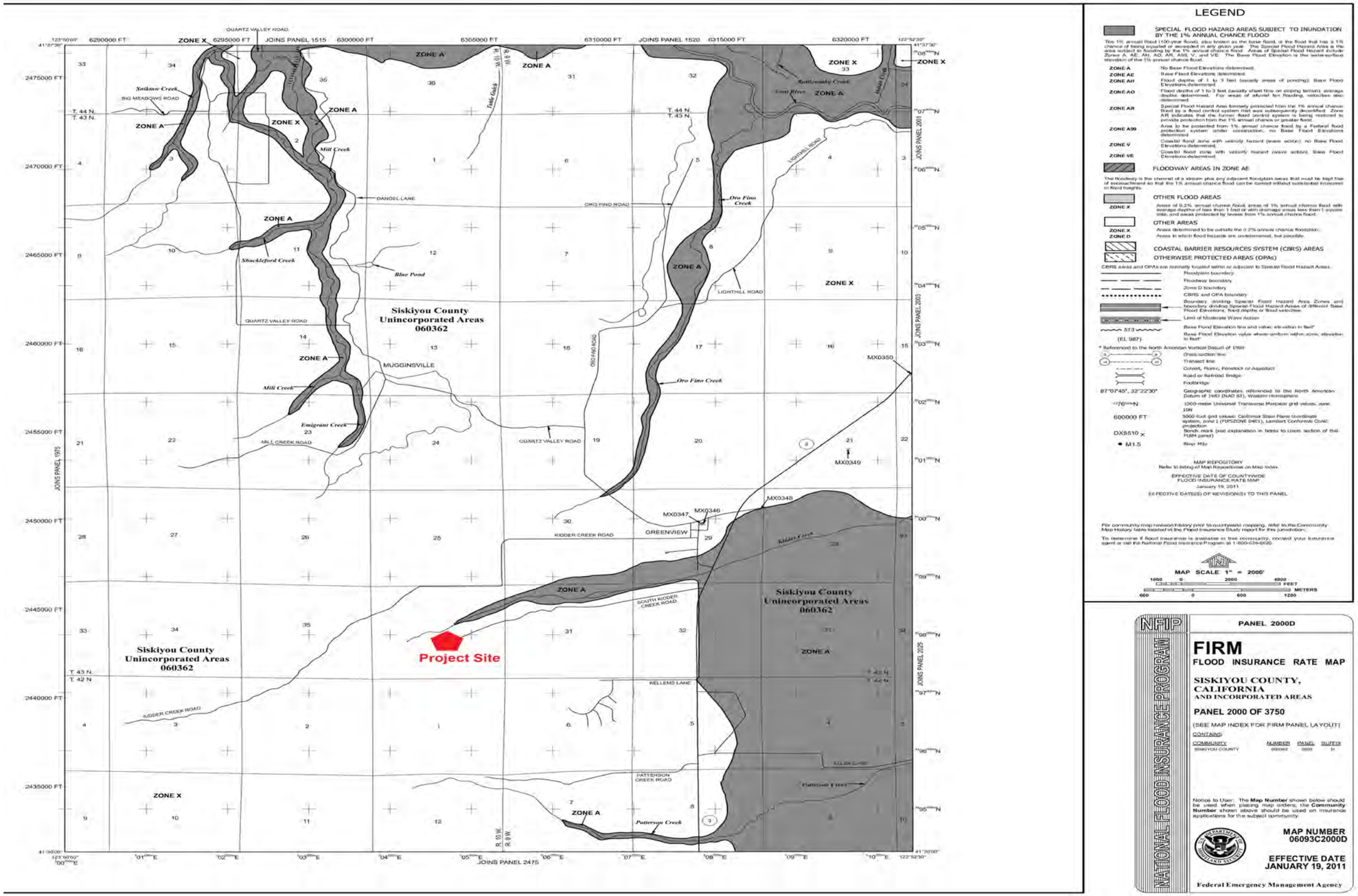
During the Winter-Spring period, Kidder Creek is generally flowing. In October 2016 the flow was about 30 cfs or about 13,000 gpm. Records from KCOC on late Spring flows show flows in the 40-50 cfs range (up to 22,000 gpm). Given these flows, extracting 3 gpm from the aquifer is not significant.

During the Summer-Fall period Kidder Creek ceases to flow below the Barker Ditch by late July. Therefore, any impact to the Scott River would be by reduction in subsurface flow that eventually surfaces in the high-water table area east of State Highway 3. As stated earlier under Outflow, the aquifer's subsurface outflow is about 275 gpm or 0.62 cfs or with the groundwater extraction equaling about one percent. When considering only two-thirds of the subsurface flow travels down Kidder Creek with the rest going down Oro Fino Valley, the impact to the high-water table east of State Highway 3 is about 2 gpm at most. Because the groundwater discharges in this zone and there are several irrigation wells in the area, the probability is very low that any of this reduction in flow would be evident in the Scott River (Pearson 2021).

Flooding

The FEMA Flood Insurance Rate Map for the Project area (Map No. 06093C2000D) shows that the Project site is in Unshaded Flood Zone X, indicating that the site is an area of minimal flood hazard. Unshaded Flood Zone X includes areas outside the Special Flood Hazard Area (SFHA) and higher than the elevation of the 0.2-percent-annual-chance flood (FEMA 2011). **See Figure 8a**. FEMA Flood Insurance Rate Map.

In 2014, a study was completed titled "Calculation of Base Flood Elevation Kidder Creek Approximately 2.5-mi above Br 02-052 SR003 PM 27.03" (Gaido 2014). This study is included as **Appendix M**. This report endeavored to establish a draft base flood elevation (BFE) for Kidder Creek for the impacted areas of the Proposed Project including the proposed pond. The calculated BFE is considered a pre-project condition. The study concluded that the position and orientation of the final embankments for the pond will have minimal impact to upstream BFE. The download stream impacts are limited to the potential streambed lateral movements caused by the new embankment. Based on this conclusion, the location of the proposed pond is not within the Kidder Creek floodplain.



Note: Map resized to fit page

Source: FEMA 2011

Figure 8a. FEMA Flood Insurance Rate Map

2018-123 Kidder Creek Orchard Camp

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3.3.2 Regulatory Framework

Federal

Clean Water Act

The United States EPA is the federal agency responsible for water quality management. The Federal Water Pollution Control Act of 1948 was the first major United States (U.S.) law to address water pollution. As amended in 1972, the law became commonly known as the Clean Water Act (CWA). The CWA establishes the basic structure for regulating discharges of pollutants in the Waters of the U.S. and regulating quality standards for surface waters.

Section 401. Section 401 of the federal CWA requires that any applicant for a federal permit or license that may result in a discharge to waters of the U.S. must obtain certification from the State. The certification declares that the discharge will comply with applicable provisions of the Act, including water quality standards requirements. Most projects receiving a U.S. Army Corps of Engineers (USACE) nationwide permit also need individual Section 401 certification. The State Water Resource Control Board (SWRCB), through the Regional Water Quality Control Board (RWQCB) Los Angeles Region, administers these permits.

Section 402

The National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the U.S. The State of California is authorized to administer various aspects of the NPDES permit under Section 402 of the CWA. The General Construction Permit treats any construction activity over one acre as an industrial activity, requiring a permit under the State's General NPDES permit. The SWRCB administers these permits.

Section 404. In 1972

Section 404 of the federal CWA established a program to regulate the discharge of dredged or fill material into waters of the U.S. The CWA defines Waters of the U.S. to include tributaries to navigable waters, interstate wetlands, wetlands which could affect interstate or foreign commerce, and wetlands adjacent to other Waters of the U.S.

The program is jointly administered by the USACE and the EPA. The USACE is responsible for the day-to-day administration and permit review and the EPA provides program oversight. The fundamental rationale of the program is that no discharge of dredged or fill material should be permitted if there is a practicable alternative that would be less damaging to aquatic resources or if significant degradation would occur to the nation's waters. Permit review and issuance follows a sequence process that encourages avoidance of impacts, followed by minimizing impacts and, finally, requiring mitigation for unavoidable impacts to the aquatic environment. The sequence is described in the guidelines at Section 404(b)(1) of the CWA.

Proposed activities are regulated through a permit review process. An individual permit is required for potentially significant impacts. Individual permits are reviewed by the USACE, which evaluates applications under a public interest review, as well as the environmental criteria set forth in the Section 404(b)(1)

guidelines. However, for most discharges that will have only minimal adverse effects, a general permit may be suitable. General permits are issued on a nationwide, regional, or state basis particular categories of activities. The general permit process eliminates individual review and allows certain activities to proceed with little or no delay, provided that the general or specific conditions for the general permit are met.

State

Fish and Game Code Section 1602

The California Department of Fish and Wildlife (CDFW) requires notification before beginning an activity that will substantially modify a river, stream, or lake. If CDFW determines that the activity could substantially adversely affect an existing fish and wildlife resource, a Lake or Streambed Alteration Agreement is required.

Local

Siskiyou County General Plan

The County of Siskiyou General Plan has objectives and policies designed to reduce potential for hydrology and water quality issues in the County. While many of these policies and action items require the County to take certain actions, they are not related to development of a particular project. Objectives and policies that pertain to the Proposed Project are listed below.

Conservation Element

Objective: *To preserve the quality of the existing water supply in Siskiyou County and adequately plan for the expansion and retention of valuable water supplies for future generations and to provide for a comprehensive program to sustain multiple use of watershed lands through reduction of fire hazards, erosion control and type conversion of vegetation where desirable and feasible.*

Land Use Element

Policy 41.5: All development will be designed so that every proposed use and every individual parcel of land created is a buildable site, and will not create erosion, runoff, access, fire hazard or any other resources or environmentally related problems.

Policy 41.7: Evidence of water quality and quantity acceptable to the Siskiyou County Health Department must be submitted prior to development approval.

Scott Valley Area Plan

Section 6, *Water Management*, of the Scott Valley Area Plan (SVAP) addresses development in the Scott Valley area and the Scott River watershed. Specific polices include areas related to agriculture, critical deer habitat, flooding, landslides, and excessive slopes. Polices related to hydrology would be those flooding

policies listed in the SVAP. The following are those hydrological/water quality policies that would pertain to the Proposed Project.

Policy 8: No development shall be allowed within the designated floodways, and any development within the 100-year flood hazard boundary outside of designated floodways shall be in accordance with the requirements of the county's flood plain management ordinance. Proof that is not within the designated floodway can only be made when so indicated by the county engineer. The county engineer must take this determination prior to any action by the county on any proposed development.

Policy 9: Only agricultural, residential, open space, and small scale commercial, industrial, recreational uses, and public or quasi public uses may be permitted [within flood areas].

Policy 10: Residential, small scale commercial, industrial, recreational uses, and public or quasi public uses may only be permitted when they are clearly compatible with the surrounding and existing uses of the land [within flood areas].

3.3.3 Environmental Impacts

Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would have significant effect on the hydrology and water environment if it would:

- Violate any water quality standards or waste discharge requirements;
- 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);
- 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 that would result in substantial erosion or siltation on- or off-site;
- 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;
- 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;
- Otherwise substantially degrade water quality;

- Place within a 100-year flood hazard area structures that would impede or redirect flood flows; or
- 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.

Methodology

The evaluation of potential hydrology and water quality impacts is based on several documents and available information, including the County of Siskiyou General Plan, the FEMA Flood Insurance Rate Map, the DWR Water Data Library, and UC Davis.

Project Impacts Analysis

Impact 3.3.1: Water Quality Standards/Waste Discharge Requirements

Threshold:	*Would the project violate any water quality standards or waste discharge requirements?*

Stormwater runoff from the Project site discharges to the existing ponds, drainage channels, Barker Ditch, and Kidder Creek or percolates into the groundwater basin. Polluted runoff can have harmful effects on drinking water, recreational water, and wildlife. Runoff pollution may include a wide array of environmental, chemical, and biological compounds from both point and nonpoint sources. On the Project site, stormwater characteristics depend on site conditions (e.g., land use and impervious cover), rain events (duration, amount of rainfall, intensity, and time between events), soil type and particle sizes, multiple chemical conditions, the amount of vehicular traffic, and atmospheric deposition.

Short-Term Construction

The potential impacts of construction activities on water quality focus primarily on sediments, turbidity, and pollutants that might be associated with sediments (e.g., phosphorus and legacy pesticides). Construction-related activities that are primarily responsible for sediment releases are related to exposing soils to potential mobilization by rainfall/runoff and wind. Such activities include removal of vegetation, grading of the site for new buildings, construction of new buildings, associated infrastructure including internal roads and parking areas, and the creation of a 7-acre pond and drainage channel. Non-sediment-related pollutants that are also of concern during construction include waste construction materials; chemicals, liquid products, and petroleum products used in building construction or the maintenance of heavy equipment; and concrete-related waste streams.

Projects that disturb one or more acres of soil or projects that disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (General Permit). Therefore, the Proposed Project would be subject to the requirements of a General Permit. Construction activities subject to this permit include clearing, grading, and disturbances to the ground such as stockpiling, or excavation, but does not include regular maintenance activities. The General Permit requires the preparation and implementation of a Stormwater Pollution Prevention Plan

(SWPPP). The SWPPP would list Best Management Practices (BMPs) to prevent construction pollutants and products from violating any water quality standard or waste discharge requirement.

Mitigation measure **MM 4.5** of the Initial Study, and incorporated by reference into this EIR, requires a SWPPP to be completed by a Qualified SWPPP Developer for the Proposed Project. This mitigation also requires that any stormwater associated with newly created impervious surfaces shall be retained, detained, or directed away from said waterways or water bodies.

With the implementation of mitigation measure **MM 4.5**, water quality impacts from the Proposed Project during construction would be ***less than significant***.

Long-Term Operations

Implementation of the Proposed Project would develop the Project site and would result in an alteration to the existing site conditions. This conversion would increase the impervious surface area of the site through the introduction of 65,384 square feet of new buildings (see **Table 2-2**) and other hard surfaces. Additionally, the Proposed Project would increase the RV camping and parking areas. An increase in impervious surface areas, RV camping and parking lots would increase runoff potentially containing oil and grease, heavy metals, chemicals, and other pollutants. Runoff from the Project site would be a contributing factor to water quality degradation and the introduction of pollutant sources. However, mitigation measure **MM 4.5** requires that all stormwater associated with newly created impervious surfaces to be retained, detained, or directed away from said waterways or water bodies. This measure would ensure that runoff from any RV camping areas and parking lots impervious surfaces would not allow for contaminated water to flow into the existing waterways. This would be a ***less than significant*** impact.

The use of the seven-acre pond would include swimming, fishing, and use of large pond toys and non-motorized vessels such as kayaks and canoes. However, none of these activities are known to be substantial sources of water pollution. As such the use of the pond would not violate any water quality standards.

An onsite wastewater feasibly study was completed for the Project in 2018 (Cummings 2018). This study is included as **Appendix N**. As a part of this study, test pits were dug at five separate locations throughout the camp to determine the soil types in these locations and feasibility for the use of a septic system at these locations. The test pits were well distributed throughout the area proposed for wastewater producing facilities and showed varying soils from sandy loam to silty loam to sandy clay and clay. The predominate soil types found at depths most suitable for conventional leach fields was sandy/silty loamy clay that were well to moderately well-draining. Test pits ranged in a depth of seven to eight feet and no free groundwater or soil mottling[3] were found. Class 3 soils that are poor draining were the exception and were found at a depth of six feet in test pit #3 and on the surface of test pits #1 and #2. Test pit #3 was

[3] Soil mottling means the presence of irregular areas of different colors in the soil observed during a soil evaluation. Such mottling indicates poor aeration and impeded drainage characteristics, usually from seasonal saturation of the soil.

located in the field directly adjacent to and down slope from the existing leach field by the Ranch Camp arena. However, the clay layer at the six-foot depth did not show perched or free water or mottling. This indicates that the clay loam and silty clay at the depth of 24 to 72 inches is adequately functioning for conventional leaching without excessively migrating horizontally at that location (Cummings 2018).

The onsite wastewater feasibly study provides estimated wastewater volumes by gallons per day per person based on comparable commercial and institutional facilities as well as the plumbing facilities and uses of the various future development types for the Proposed Project. According to the estimated wastewater volumes, the Project would produce a maximum of 30,660 gpd of wastewater at full capacity (Cummings 2018).

Additionally, the study provided four wastewater treatment alternatives and concluded that future design of leach fields will require individual leach field tests to accommodate specific facility wastewater volumes. The onsite wastewater feasibly study concluded that the size of the site and availability of large areas available for wastewater disposal indicate that conventional leach systems are feasible and could accommodate future wastewater produced by the Project.

The Project site currently disposes of wastewater through nine County-approved septic systems. It is anticipated that the expansion of facilities would be accommodated through conventional septic systems. However, the central dining facility may require an alternative system. Depending on the wastewater flows of the central dining facility, a waste discharge permit though the North Coast RWQCB may be necessary if average flows exceed 1,500 gallons per day. As the improvements are developed, adequate wastewater disposal systems would be required and approved by the Siskiyou County Environmental Health Division and the North Coast RWQCB (as necessary) prior to issuance of a building permit for a specific improvement. Approval by these entities would assure that the Proposed Project would not exceed any wastewater discharge requirements. The Project would have a ***less than significant*** impact in this area.

Impact 3.3.2: Groundwater

Threshold:	*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)?*

With development of the Project, some of the pervious soils on the site will be replaced with impervious surfaces such as paving and buildings. The addition of impervious surfaces would decrease the area available for water penetration, thereby reducing local groundwater recharge potential. However, all rain water from those impervious surfaces would flow onto the adjacent soil and into the existing natural drainage on the Project site. This would allow the rain water to percolate into the groundwater basin as is currently does. Therefore, the Project site would not substantially interfere with groundwater recharge.

The applicant has determined that at least one new groundwater well will be required with the proposed expansion. Additionally, a water storage and delivery system will be constructed to accommodate projected daily demand plus required storage for fire suppression. The camp is currently regulated by the

State Office of Drinking Water (ODW), and would continue to be permitted, monitored, and inspected by ODW.

The only potable water supply for the KCOC is from groundwater. On average, each person at a youth camp consumes approximately 45 gallons per day (gpd) of water[4] (Siskiyou County 2018). **Table 3.3-3** illustrates the estimated groundwater demand to serve the existing uses and Proposed Project. Currently, based on 310 persons occupying the camp, approximately 13,920 gpd of water are utilized. At full buildout of the Project, the estimated maximum occupancy is 844 during summer time (peak season, a period of approximately 12 weeks per year). At a full occupancy of 844 occupants, approximately 37,980 gpd of water would be utilized during the summer months[5]. Spring and fall occupancy are reduced to a potential of 588 depending on seasonal access. During this time, approximately 26,460 gpd would be utilized. This results in an annual demand of 8,181,000 gallons or an increase of 6,617,700 gallons over existing conditions.

Table 3.3-3. Project Groundwater Demand

	Existing			Proposed Project at Buildout			Difference		
Time Period	Occupancy	Daily Demand (gal)	Annual Demand (gal)	Occupancy	Daily Demand (gal)	Annual Demand (gal)	Occu-pancy	Daily Demand (gal)	Annual Demand (gal)
Spring/Fall180 days	38	1,710	307,800	588	26,460	4,762,800	550	24,750	4,455,000
Summer 90 days	310	13,920	1,255,500	844	37,980	3,418,200	534	24,030	2,162,700
Total			2,575,800			8,181,000			6,617,700
Acre Feet[1]			4.8			25.1			20.3

Special Events							
Event	Time Period	Total Events	Attendance per Event	Total Attendance	Water Demand per Event (gal)[2]	Total Per Year(gal)	Total Per year (acre-feet)
Private	1 per month	7	250	1,750	3,750	26,250	0.08
Public	1 per month	7	250	1,750	3,750	26,250	0.08
Fall Festival	1 per year	1	1,250	1,250	18,750	18,750	0.06
Total		15		4,750	26,250	71,250	0.2

Note:
1) One-acre foot equals 325,851 gallons.
2) Based on 15 gallons for 8-hour period. (Special events last from 3 to 8 hours. Average water demand is 45 gallons per 24-hour period per person. 8-hour per = 15 gallons per person)

DWR estimates that the Scott River Valley Groundwater Basin has approximately 400,000 acre-feet of groundwater storage. As shown in **Table 3.3-3**, the Proposed Project's estimated annual groundwater

[4] Water demand was determined by the Siskiyou County Environmental Health Department based on the following: The EPA Design Manual has gallon usage listings. For campground development: 31.7 gallons of water per day (gpd) per person. Day camp (no meals): 13.2 gpd per person. This results in 45 gpd/person.

[5] 45 gpd/person X 844 persons = 37,980 gpd.

demand is estimated to increase by 20.5-acre feet (20.3 acre feet for camp and .02 acre feet for special events) over current conditions. This increase represents 0.005 percent[6] of the available groundwater in the Scott River Valley Groundwater Basin. Additionally, as discussed previously, records from DWR shown in **Table 3.3-1** and the studies completed by UC Davis and Normandeau Associates indicate that there has not been a substantial decrease in available groundwater since 2007 and groundwater levels have remained fairly constant over the last 40 years.

The Groundwater and Surface Water Analysis determined that there are three wells, one on the Project site and two adjacent to the site, that had sufficient data to calculate hydraulic conductivity values (see **Figure 8b. Well Location and Well Interference** and **Table 3.3-4**). Given the K values it is possible to calculate, using the USGS predictive tool, a conservative distance from a well where the cone of depression ceases. The available pump-tests show that within an hour or two the cone of depression ceases to grow. The University of California at Davis (UCD) modeling of the alluvial aquifer used a specific yield of about five percent for the Kidder Creek subwatershed. **Table 3.3-4** shows the data that was used in the USGS predictive tool and the calculated radius of the cone of depression. While this predictive tool will calculate the cone of depression out to 10,000ths of a foot, for practical purposes and keeping within the accuracy of the data, it was assumed that "zero" was at about a tenth of a foot (Pearson 2021).

Wells 001 and 002 are characteristic of the cone of depressions for the area of KCOC and south of Kidder Creek and the Well 823 gives a good approximation for the area north of Kidder Creek. South of Kidder Creek, the aquifer is shallower and has a lower hydraulic conductivity. North of Kidder Creek, the aquifer is thicker, and the wells are deeper, resulting in higher hydraulic conductivities.

Table 3.3-4. Cone of Depression Radius Calculation

	Well #001		Well #002		Well #823	
Parameter	Equation	Graphical	Equation	Graphical	Equation	Graphical
Depth (ft)	73	73	40	40	95	95
Yield (gpm)	21	21	9	11	60	60
SWL[1] (ft)	25	25	15	15	15	15
Drawdown (ft)	25	25	15	15	20	20
Aquifer Thickness (ft)	48	48	25	25	80	80
Storage Coefficient	0.05	0.05	0.05	0.05	0.05	0.05
K[2] (feet/day)	2.5	3.4	4.8	5.9	7.5	10.1
Radius of Cone of Depression (ft)	200	200	150	150	350	350

Source: Pearson 2021
Notes: 1) SWL = Static Water Level, the non-pumping groundwater level in the well.
2) K = Hydraulic conductivity.

These calculations of the cone of depression are very conservative for the following four reasons.

- The Predictive Tool calculates the radius of the cone of depression for 24-hours of continuous pumping. As mentioned earlier, two of the pump tests data showed that pumping equilibrium

[6] 20.5 acre feet / 400,000 acre feet = 0.005 percent.

was reached after approximately 1 to 2 hours as the cone of depression stabilized and did not continue to expand.

- Well 823 was tested at 60 gpm and that was the value used in the Predictive tool. The parcel does not reveal a high water use and a pump rated at about 20 gpm was probably installed. The actual pumping rate would be closer to 20 gpm or less.
- Based on the discussion on consumptive residential water use, these three wells consume less than 20 gpd per household. The water returning to the septic tank and percolating into the aquifer would reduce the size of the cone of depression by providing recharge.
- Domestic wells do not run continuously like irrigation wells. Domestic wells pump water into a pressure tank and then cycle off until the pressure drops to a set level. When using the water for outside use, the pump can stay on for hours. But with just inside use, the pump cycles of and on at a rate depending on the use. During the non-pumping periods, the cone of depression is reducing in size as the aquifer reaches equilibrium.

These cones of depression radii were plotted on the area map to show the spatial relationship of the cones and the potential impact concerns (**Figure 8a**). It cannot be stated enough that these calculations are conservative for the reasons listed above and therefore, there is a significant safety factor in these calculations.

At a full occupancy of 844 occupants, approximately 37,980 gpd of water would be used during the summer months. This is equal to about 26 gpm of groundwater extraction to meet this need (with 90 percent or 23 gpm returning to groundwater supply as little or no groundwater is used for outside watering). It is anticipated that another well yielding 20 gpm will be needed. **Figure 8b** shows a possible location for this well and its cone of depression (based on calculation from Well 001). With both wells performing cyclic pumping the cone of depression would be reduced. Since an estimated 23 gpm is returned to the groundwater supply, the net groundwater extracted from the aquifer is 3 gpm. This fundamental concept is important for understanding impacts and the groundwater – surface water interactions.

The Groundwater and Surface Water Analysis for Kidder Creek Orchard Camp reached the following conclusions about groundwater use and how the Proposed Project would affect groundwater/surface water interrelationship.

- There are 21 published documents that were identified that contain pertinent data useful to determining the impacts of the Project on the groundwater supply and to Kidder Creek.
- There was universal acceptance that the aquifer system in Scott Valley consists of the alluvial deposits and the bedrock. Additionally, it is accepted that the alluvial deposits are an unconfined aquifer. Earlier investigations considered the bedrock non-water bearing. This current evaluation, using wells constructed since these earlier investigations, show WCRs that indicate that the bedrock in its fractured zones is water bearing for domestic supply.

- The Scott Valley Fault, previously referred to as the West Side Fault, has enough shearing that it could form a groundwater dam.
- Kidder Creek from the Barker Ditch downstream is generally dry from late July to early October depending on when it starts raining in the Fall. There is a portion of Kidder Creek downstream from State Highway 3 to Big Slough where the creek bed intersects the groundwater table.
- There were 18 WCRs and 3 pump test reports tied to parcels that are representative of the aquifer characteristics.
- The alluvial deposits, for this analysis have been named the Kidder Creek Alluvial Fan deposits. These deposits are up to 100 feet thick in the upper Kidder Creek Fan area and yield about 10-60 gpm and have a hydraulic conductivity ranging from 2.5-10 feet/day. The depth to water is about 15-30 feet.
- Groundwater flows in the aquifer from the mountain front towards the Big Slough-Scott River area and also down Oro Fino Valley. The groundwater is generally 15-30 feet below ground surface and contouring the groundwater level data indicates that Kidder Creek, in the Project area, is not hydraulically connected to the groundwater body. This means that the recharge to the groundwater supply from Kidder Creek is only limited by the hydraulic head in the creek, the wetted area, and the hydraulic conductivity of the creek bed. A groundwater gradient to or from the creek bed does not exist. Given these hydrogeologic conditions, state of the art Stream Depletion equations do not apply, as no matter how much the groundwater table is drawn down by pumping, it doesn't change the amount or rate of groundwater recharge.
- When looking at the impact of a domestic well on the groundwater supply, it is important to understand how the domestic well is different from other water uses of the aquifer. For the KCOC, the per capita water use is about 45 gpd. This is mostly because all outside water use is accomplished by surface water from the Barker Ditch. All water from the well that is used for washing, food preparation, and toilets is not consumptively used, it returns to the groundwater supply via the septic system. This means that about 40 gpd per capita (about 90 percent) ends up back into the groundwater supply which is a conservative estimate. The well drained soils and the shallow water table (about 20 feet) allows this water to reach the water table rapidly (in less than a day or two). This return of non-consumed water is why the net extraction of a domestic well under these conditions is less than 3 gpm for a well that produces about 20 gpm.
- All but one of the pools of concern for the Coho fishery are up groundwater gradient of the Project area.
- The USGS Predictive Tool calculated that wells pumping on the KCOC property had a 150-200-foot radius for a cone of depression. This Predictive Tool assumes continuous pumping of the well. In actual operations, the well, along with all domestic use wells, pump on a cyclic pattern, which equates to a much smaller cone of depression or impact to the aquifer. This means that even if Kidder Creek was hydraulically connected to the groundwater table, the cone of

depression would not impact the creek nor capture sufficient water to impact the fish pools or nearby adjacent wells.

- The impact on Scott River flows is not significant. The 3 gpm of net groundwater extraction is about 1 percent of the 183-gpm subsurface flow down Kidder Creek calculated from the aquifer characteristics. This amount is immeasurable with current technology.

Conclusions from the Groundwater and Surface Water Analysis indicate that the impacts from current and future groundwater use for the Project are:

1. Not significant on the fish pools along Kidder Creek,
2. Not significant on nearby wells,
3. Not significant for impacts to Scott River flow.

The common law public trust doctrine in California derives from the State's role as trustee over tidelands, submerged lands, and lands underlying inland navigable waters, which the State and its grantees hold for public trust purposes. Such trust purposes were traditionally confined to navigation, commerce, and fisheries, but later extended to include recreation and preservation of trust lands in their natural state. In 1983, the California Supreme Court applied the public trust doctrine for the first time to potentially limit the appropriation of water from navigable streams and nonnavigable tributaries. Specifically, the Court held that "[t]he state has an affirmative duty to take the public trust into account in the planning and allocation of water resources" and to "preserve" those resources to the extent "feasible." (*National Audubon Society v. Superior Court* (1983) 33 Cal.3d 419, 446-447.) What is "feasible" in a particular instance, however, is a matter for the trustee agency to determine in light of the "public interest." (*Id.*; see also *State Water Resources Control Board Cases* (2006) 136 Cal.App.4th 674, 777-778 (State fulfilled its public trust duties in implementing water quality control plan under state clean water laws).) Thus, as the Supreme Court noted, the State may "approve appropriations despite foreseeable harm to public trust uses" so long as it "consider[s] the effect of the taking on the public trust" and finds that such taking is "consistent with the public interest..." (*National Audubon Society v. Superior Court*, *supra*, 33 Cal.3d at 446-447.) Accordingly, the State may authorize non-trust activities even if they impair trust uses, so long as it balances trust values against the general public interest in non-trust purposes. (*Id.*)

Source: Pearson 2021

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Figure 8b. Well Location and Well Interference
2018-123 Kidder Creek Orchard Camp

While the public trust doctrine has no direct application to groundwater, the Third Appellate District recently extended *National Audubon*, holding that the doctrine applies to the extraction of groundwater where it adversely impacts public trust uses and values in navigable waterways. (*Environmental Law Foundation v. State Water Resources Control Board* ("*ELF v. SWRCB"*) (2018) 26 Cal.App.5th 844; compare *Santa Teresa Citizens Action Group v. City of San Jose* (2003) 114 Cal.App.4th 689, 709 (the public trust doctrine "has no direct application to groundwater.") The Third District also held that counties, as legal subdivisions of the state, "share responsibility for administering the public trust" and "may not approve of destructive activities without giving due regard to the preservation of those resources." (*ELF v. SWRCB*, *supra*, 26 Cal.App.5th at 867-868.) In turn, the test for determining whether a particular activity is inconsistent with the trust is whether the activity will substantially impair or impede public trust uses or values (e.g., commerce, navigation, fisheries, recreation, or ecological uses). (*World Business Academy v. California State Lands Commission* (2018) 24 Cal.App.5th 476, 509-510; see also *National Audubon*, 33 Cal.3d at 439, citing *Boone v. Kingsbury* (1928) 206 Cal. 148, 192-193.)

Here, the Initial Study and Draft EIR chapters address the direct, indirect, and cumulative effects associated with the Project, including the effects that additional groundwater pumping might have on the aquifer and interconnected surface waters. The DEIR has fully evaluated the Proposed Project's impacts, including the impact of the Proposed Project on the condition of the Scott River Valley Groundwater Basin. Although the Proposed Project involves the expansion of impervious surface area, which will decrease the area available for water penetration, the Proposed Project will not substantially interfere with groundwater recharge because all water from those impervious surfaces will flow onto the adjacent soil and into the site's natural drainage. Further, while the Proposed Project involves an increase in groundwater extraction, the increase in estimated annual groundwater demand represents only .005 percent of the available groundwater in the Scott River Valley Groundwater Basin - a Basin that fluctuates and has been at its highest level in years. This very low level of increased pumping is determined to have a less than significant impact on groundwater recharge and supply and is therefore not expected to impair the watershed on an individual or cumulative level (DEIR, 3.3-~~11~~16). Because the level of pumping will have an insignificant impact on the watershed, it will not impair or interfere with instream public trust uses or values such as recreation or fishing on an individual or a cumulative level. Indeed, the DEIR has also fully evaluated the impacts of the Proposed Project on recreation and has determined that the project's impact on recreational values will be *insignificant*. (DEIR, Recreation.) Therefore, the Proposed Project will not substantially impair the public's right to navigation or fishing or substantially interfere with the public trust needs or values related to the Scott River. Therefore, the potential impact on local groundwater recharge and supplies from operation of the Proposed Project would be ***less than significant***.

Impact 3.3.3: Drainage Patterns

Threshold:	*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 that would result in substantial erosion, siltation, or flooding on- or off-site?*

Figure 8c. Natural Drainage illustrates the various natural drainages on the Project site. As shown, one stream, Kidder Creek, and three drainage ditches have flowing water at any one time. All other drainages are intermittent and only have water in them during a storm event. The majority of the proposed facilities would be constructed within or along existing roadways, roadway shoulders, or on access roads along flood control channels. During construction, grading of project sites would be required; however, drainage patterns would not be significantly altered from the existing conditions. Furthermore, the Proposed Project would be required to comply with mitigation measure **MM 4.5.** This mitigation measure requires a SWPPP and any stormwater associated with newly created impervious surfaces to be retained, detained, or directed away from said waterways or water bodies. These measures would ensure that no substantial erosion, siltation, or flooding on- or off-site would occur. Impacts would be ***less than significant***.

The Project also proposes a new seven-acre pond east of the existing pond. The proposed pond would impound approximately 36 AF and have an average depth of 6 feet. The addition of a seven-acre pond would alter the existing drainage pattern to the extent of water that would be taken from the Barker Ditch until the pond is full. This removal of this water would only occur during the rainy season when water extraction would not affect downstream flow.

A preliminary design for the pond was submitted with the original use permit application in 2011. Subsequently, the applicant purchased additional land, which has been included in a revised application submittal and is now part of this Project. The pond was modified to move it away from wetlands; the overall volume will stay the same and the depth of the dam will stay the same. Construction of the pond would also be required to comply with mitigation measure **MM 4.5**. Implementation of this mitigation during construction of the pond would ensure that no substantial erosion, siltation, or flooding on- or off-site would occur. Impacts would be ***less than significant***.

Proposed Pond

As discussed in Section 2.0 Project Description, an analysis of water rights to fill and store water from Barker Ditch for the new pond was completed by Alan B. Lilly, Attorney, from the Bartkiewicz, Kronick and Shanahan law firm. This analysis determined that because the water diverted from Kidder Creek, via the Baker Ditch, into the new pond would be stored in the pond for a maximum of 30 days before being conveyed down the ditch, such temporary storage would be a reasonable "Regulatory Storage" under the Scott River Adjudication decree (Siskiyou County Superior Court No. 30662). Also, because the pond would be lined to eliminate percolation losses, this storage would not reduce the amounts of water that other water users on Baker Ditch would receive. The Proposed Project applicant has made arrangements with the other users on Baker Ditch to temporarily store water in the new pond from the ditch.

However, while the Project has water rights to fill and store water from Barker Ditch for the proposed pond, the pond may require permits or amendments to the existing rights from the SWRCB. As such mitigation measure **MM 9.1** requires consultation with the SWRCB Division of Water Rights prior to construction of the pond.

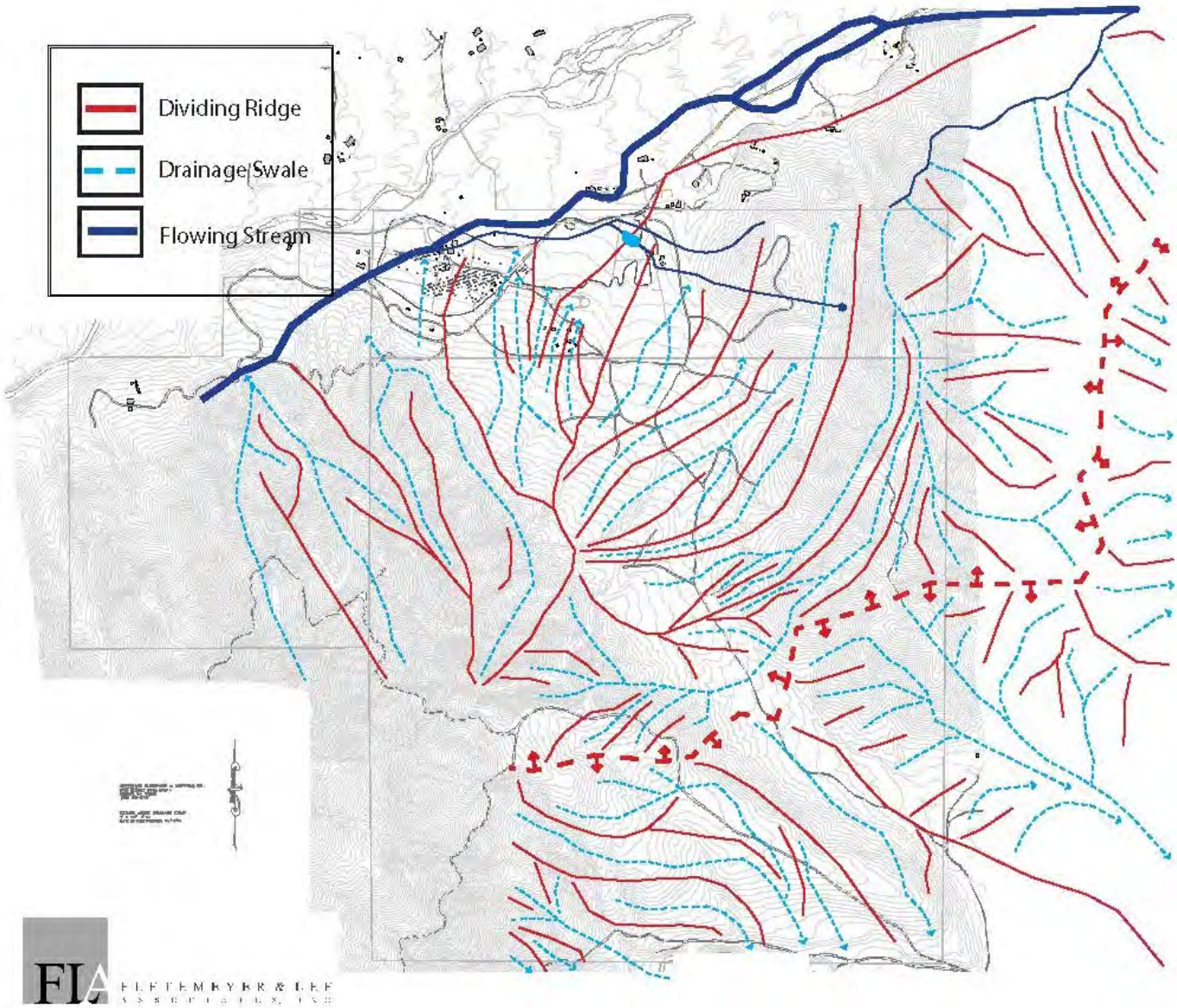

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Figure 8c. Natural Drainages
2018-123 Kidder Creek Orchard Camp

Estimated Evaporation

A study was completed in January 2017 to determine the amount of water lost from the proposed pond due to evaporation. This study titled, Estimated Evaporation Water Loss for the Proposed 6.7 Acre Pond at Kidder Creek Camp Greenview, Ca, (Cummings 2017), is included in **Appendix O**. Please note, the analysis refers to the proposed pond as a 6.7 acre pond instead of the seven-acre pond referred to throughout this EIR. This is because the 6.7-acre area represents the estimated water surface area of the seven-acre pond.

The estimated evaporation water loss analysis is derived from data and information included in "Evaporation from Water Surfaces in California" Department of Water Resources Bulletin 73-79 November 1979. This is the most site specific and accurate data known to be available for estimating evaporation at the site of the proposed pond. Pan evaporation data collected at the Fort Jones Ranger Station for the months of May – September recorded in 1955 is available and data collected at Montague for the months of October – April recorded from 1959-1964 is available.

Calculated water loss from evaporation for the proposed pond is then combined with average normal rainfall data from US Climate Data to produce an estimated net water loss. One cubic foot per second water right is also considered and a percentage of estimated water loss is compared to this volume of water. See **Table 3.3-5 Evaporation Calculation Data.**

Table 3.3-5 Evaporation Calculation Data

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Water Evaporation Data												
Fort Jones								5.5"	10.1"	10.9"	10.4"	3.8"
Montague	3.1"	0.9"	0.6"	0.5"	1.7"	2.8"	5.3"					
Adjusted with pan coefficient (x 0.76*)	2.4"	0.7"	0.5"	0.4"	1.3"	2.1"	4.0"	4.2"	7.7"	8.3"	7.9"	3.0"
Rainfall Data												
Etna	2.91"	6.38"	9.71"	8.35"	4.61"	4.65"	2.2"	2.1"	1.1"	0.35"	0.47"	0.67"
Net Monthly Water Loss												
Adjusted Evaporated Rainfall	-0.5"	-5.7"	-9.2"	-7.9"	-3.3"	-2.6"	1.8"	2.1"	6.6"	8.0"	7.4"	2.3"

Source: Cummings 2017
Notes: * From "Evaporation from Water Surfaces in California" Bulletin 73-79

Water Loss Calculation

Yearly water balance (see "Adjusted Evaporated Rainfall" in Table 3.3-5): (-0.5)+(-5.7)+(-9.2)+(-7.9)+(-3.3)+(-2.6)+(1.8)+(2.1)+(6.6)+(8.0)+(7.4)+(2.3) = -1.0 inch (this result in 1.0 inch more water accumulation in pond from rain as an average than total yearly estimated evaporation).

Summer months (June – September) balance: (6.6")+ (8.0")+(7.4")+(2.3") = 24.3 inches.

For the 24.3 inches of evaporation water loss in the summer months, comparison to the 1cfs water right calculation is as follows:

- 6.7 acres X (24.3"/12" per foot) = 13.6 acre feet of water loss from June through September,

- (1 CFS X 122 days X 24 hours per day X 60 minutes per hour X 60 seconds per minute) / 43,560 sq. ft. per acre = 242 acre feet of water right from June through September,

- 13.6 acre feet of water loss / 242 acre feet of water right = 5.6 percent of total water right evaporation from June to September.

As shown above, the resultant yearly water loss as a result of addition of the pond is estimated to be less than or equal to the annual rainfall captured by the pond. Surface inflow from adjacent down sloping terrain was not added so this analysis is conservative. The location of the pond on the easterly side of the adjacent hill allowing some late afternoon reduced sun exposure and inflow of cool water from Barker Ditch are likely to result in less evaporation than historic adjusted pan evaporation data also making the calculation conservative. Results also depend on rainfall that meets the average annual rainfall.

Comparison of estimated evaporation loss only during the summer months to one cubic feet per second water right from Kidder Creek shows estimated evaporation to be 5.6 percent of water right for the months of June through September.

As discussed in **Section 2.0 Project Description,** an analysis of water rights to fill and store water from Barker Ditch for the new pond was completed by Alan B. Lilly, Attorney, from the Bartkiewicz, Kronick and Shanahan law firm. This analysis (see **Appendix C**) determined that because the water diverted from Kidder Creek, via the Barker Ditch, into the new pond would be stored in the pond for a maximum of 30 days before being conveyed down the ditch, such temporary storage would be a reasonable "Regulatory Storage" under the Scott River Adjudication decree (Siskiyou County Superior Court No. 30662). As discussed previously, the resultant yearly water loss as a result of addition of the pond is estimated to be less than or equal to the annual rainfall captured by the pond. Also, because the pond would be lined to eliminate percolation losses, this storage would not reduce the amounts of water that other water users on Barker Ditch would receive. The Proposed Project applicant has made arrangements with the other users on Barker Ditch to temporarily store water in the new pond from the ditch**.** Therefore, the use and storage of water would not affect downstream water availability.

Impact 3.3.4: Stormwater Runoff and Flow Rates

Threshold:	*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?*

As described above, the Proposed Project would convert naturally vegetated open space to 65,384 square feet of new buildings (see **Table 2-2**) and other hard surfaces. This conversion would substantially increase the impervious surface area of the site through the introduction of parking areas, rooftops, and other surfaces. An increase in impervious surface area would substantially increase runoff. However, all drainage on the site is from natural drainage and therefore would not impact an existing or planned stormwater drainage system implemented by the County. In addition, because the Proposed Project is located on a large area (580 acres), the impervious surfaces represent an extremely small portion of the

area and any increase in runoff would be contained by the existing drainages in the area. Impacts would be ***less than significant***.

Impact 3.3.5: Water Quality

Threshold:	*Would the project otherwise substantially degrade water quality?*

The causes of water pollution vary and may be both natural and human activities. However, the most common causes of water pollution are related to human activities including:

• Agriculture runoff, stormwater runoff	• Burning of fossil fuels	• Improper disposal of batteries
• Accidental leaks and spills	• Plastic materials/waste in contact with water	• Leaking landfills
• Deliberate/illegal discharges of waste	• Disposal of personal care products and household chemicals	• Animal waste

The Proposed Project does include the majority of these activities. For things such as accidental leaks and spills, mitigation measure **MM 4.5** of the Initial Study, and incorporated by reference into this EIR, requires a SWPPP to be completed by a Qualified SWPPP Developer for the Proposed Project. Implementation of this mitigation measure would assist in the protection of water

The SWRCB and the California Department of Toxic Substances Control (DTSC) are the two California governmental agencies that maintain lists of accidental hazardous materials releases and sites known to have hazardous substances present in the environment. Both agencies maintain up-to-date lists on their websites.

SWRCB's GeoTracker is the data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater. GeoTracker contains records for sites that require cleanup, such as leaking underground storage tank (UST) Sites, Department of Defense Sites, and Cleanup Program Sites. GeoTracker also contains records for various unregulated projects as well as permitted facilities including: Irrigated Lands, Oil and Gas production, operating Permitted USTs, and Land Disposal Sites.

EnviroStor is the DTSC data management system for tracking cleanup, permitting, enforcement and investigation efforts at hazardous waste facilities and sites with known contamination or sites where there may be reasons to investigate further.

A search of the DTSC (2019) and SWRCB (2019) databases indicate that the existing KCOC operation has not been identified as having a hazardous materials release which resulted in water quality impact. While the Proposed Project would result in an expanded camp and recreational facilities, this expansion, with incorporation of mitigation measure **MM 4.5**, would continue to operate in a manner similar in use to the existing KCOC and would not substantially degrade water quality. As such, the Proposed Project would have a ***less than significant*** impact in this area.

Impact 3.3.6: 100-Year Flood Hazard Area

Threshold:	*Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows?*

The FEMA Flood Insurance Rate Map for the Project area (Map No. 06093C2000D) shows that the Project site is in Flood Zone X, indicating that the site is an area of minimal flood hazard. Flood Zone X includes areas outside the Special Flood Hazard Area (SFHA) and higher than the elevation of the 0.2-percent-annual-chance flood. Therefore, since the Project site is outside of a designated floodplain, the site is subject to a minimal risk of flooding and the impact is ***less than significant***.

Impact 3.3.7: Flooding as a Result of the Failure of a Levee or Dam

Threshold:	*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?*

There are no levees or dams adjacent to or upstream of the Project site. The Project would not expose people or structures to a significant risk of loss, injury or death involving flooding as a result of the failure of an existing levee or dam. There would be ***no impact*** in this area.

The Project proposes a seven-acre pond which will have a water barrier not to exceed six feet at the spillway point. Initial Study mitigation measure **MM 9.1** (as shown below) requires all aspects of the pond, including the six-foot water barrier, are required to be designed by a qualified engineer and approved by the County. Design and approval would ensure that the pond water barrier would not fail and expose people or structures to a significant risk of loss, injury or death involving flooding. This would a ***less than significant*** impact.

3.3.4 Mitigation Measures

MM 9.1 Prior to any land disturbance activities associated with the construction of the proposed seven-acre pond, the following shall be completed:

1) If the dam necessary to impound the proposed pond is subject to DWR, Division of Safety of Dams jurisdiction, proof of full compliance with the required permitting and plan approval shall be provided to the Siskiyou County Community Development Department – Planning Division; or
2) If the dam necessary to impound the proposed pond is not subject to the Department of Water Resources, Division of Safety of Dams jurisdiction, the applicant shall submit plans to the County stamped by a qualified engineer registered in the State of California detailing the structural design of the dam. The County will review and approve said plans to ensure that the proposed dam is structurally adequate and is not a hazard. The applicant shall be responsible for paying all costs associated with the County's review of said plans. The County retains the right to hire a third-party engineering firm to review the required plans.

3) Consultation with the State Water Resources Control Board Division of Water Rights to determine if any changes to the existing water rights or any permitting is required for the filling of the pond. If revised water rights and permits are required, proof of full compliance with the required permitting and plan approval shall be provided to the Siskiyou County Community Development Department – Planning Division. All consultation and resulting requirements with the SWRCB shall be provided to the California Department of Fish and Wildlife – Region 1.

Timing/Implementation: *Prior to land disturbance activities associated with pond construction*

Enforcement/Monitoring: *Siskiyou County Community Development - Planning Division*

3.3.5 Residual Impacts After Mitigation

Implementation of mitigation measure **MM 9.1** would ensure the Project site is appropriately investigated and mitigated to minimize risks associated with the potential for floodng impacts from dam failure. Therefore, with implementation of mitigation measure **MM 9.1**, this impact would be ***less than significant***.

3.3.6 Cumulative Setting, Impacts, and Mitigation Measures

Cumulative Setting

The cumulative setting for hydrology and water quality includes the Kidder Creek subwatershed as described in the Environmental Setting subsection above.

Cumulative Impacts to Hydrology and Water Quality

Impact 3.3.8: Cumulative Hazardous Materials and Emergency Response Impacts

Threshold:	*Would the Proposed Project, in combination with other existing, proposed, and reasonably foreseeable future development in the area, alter drainage conditions, rates, volumes, and water quality, which could result in potential erosion, flooding, and water quality impacts?*

The Proposed Project, when considered in combination with existing, approved, proposed, and reasonably foreseeable development in the watershed, would alter cumulative drainage conditions, rates, volumes, and water quality, which could result in potential flooding and stormwater quality impacts within the overall watershed. However, as discussed in **Impacts 3.3.1, 3.3.3, and 3.3.5**, implementation of mitigation measure **MM 4.5** would reduce the Project's contributions to water quality and runoff impacts to levels that are less than significant. **MM 4.5** requires that stormwater associated with newly created impervious surfaces to be retained, detained, or directed away from said waterways or water bodies. This requirement helps to remove contaminants and debris from the stormwater and retains/detains stormwater before it enters the Kidder Creek watershed. As such, the Project is rendered noncontributory to cumulative hydrology impacts. The Proposed Project's contribution to cumulative water quality, runoff, and downstream flooding impacts is considered to be **less than cumulatively considerable.**

Cumulative Mitigation Measures

No significant cumulative impacts were identified. No cumulative mitigation measures are required.

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SECTION 3.4 NOISE

This section is a revision to the previous Section 3.4 Noise in the DEIR in its entirety. Only those revisions identified by a double underlined/strikethrough format have been changed in this section. These revisions illustrate the additional information added to this section since the time of the DEIR publication. As noted in Section 1.0 Introduction, responses to comments provided on the DEIR as well to any new comments on this Recirculated DEIR will be included in the Final EIR as required by CEQA Guidelines Section 15132(d).

This section discusses the existing noise setting, identifies potential noise impacts associated with implementation of the Proposed Project, and prescribes mitigation measures to address potential impacts. This section is based on the *Kidder Creek Orchard Camp Use Permit Application – UP 11-15 Environmental Noise Assessment* prepared by Bollard Acoustical Consultants, Inc. (2017). This report is attached as **Appendix E**. This report was updated in 2021. The revisions were required due to recent changes in the California Environmental Quality Act (CEQA) noise guidelines, and, due to the inclusion of a zip line which was not proposed at the time of the 2017 report. In addition to these revisions, additional revisions are provided to address public comments on the 2017 noise study. The updated report is included in this Recirculated DEIR as **Appendix E**.

3.4.1 Technical Background

Acoustic Fundamentals

Noise is generally defined as sound that is loud, disagreeable, or unexpected. Sound is mechanical energy transmitted in the form of a wave because of a disturbance or vibration. Sound levels are described in terms of both amplitude and frequency. Amplitude is defined as the difference between ambient air pressure and the peak pressure of the sound wave. Amplitude is measured in decibels (dB) on a logarithmic scale. For example, a 65-dB source of sound, such as a truck, when joined by another 65-dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by 3 dB). Amplitude is interpreted by the ear as corresponding to different degrees of loudness. Laboratory measurements correlate a 10-dB increase in amplitude with a perceived doubling of loudness and establish a 3-dB change in amplitude as the minimum audible difference perceptible to the average person.

The frequency of a sound is defined as the number of fluctuations of the pressure wave per second. The unit of frequency is the Hertz (Hz). One Hz equals one cycle per second. The human ear is not equally sensitive to sounds of different frequencies. For instance, the human ear is more sensitive to sound in the higher portion of this range than in the lower, and sound waves below 16 Hz or above 20,000 Hz cannot be heard at all. To approximate the sensitivity of the human ear to changes in frequency, environmental sound is usually measured in what is referred to as A-weighted decibels (dBA). On this scale, the normal range of human hearing extends from about 10 dBA to about 140 dBA (EPA 1971). The most common sounds vary between 40 dBA (very quiet) and 100 dBA (very loud). Normal conversation at 3 feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA, which can cause serious discomfort. Common community noise sources and associated noise levels, in dBA, are depicted in **Table 3.4-1**.

Noise can be generated by a number of sources, including mobile sources, such as automobiles, trucks, and airplanes, and stationary sources, such as construction sites, machinery, and industrial operations. Noise generated by mobile sources typically attenuates at a rate between 3.0 and 4.5 dBA per doubling of distance. The rate depends on the ground surface and the number or type of objects between the noise source and the receiver. Mobile transportation sources, such as highways, and hard and flat surfaces, such as concrete or asphalt, have an attenuation rate of 3.0 dBA per doubling of distance. Soft surfaces, such as uneven or vegetated terrain, have an attenuation rate of about 4.5 dBA per doubling of distance from the source. Noise generated by stationary sources typically attenuates at a rate of approximately 6.0 to 7.5 dBA per doubling of distance from the source (EPA 1971).

Sound levels can be reduced by placing barriers between the noise source and the receiver. In general, barriers contribute to decreasing noise levels only when the structure breaks the "line of sight" between the source and the receiver. Buildings, concrete walls, and berms can all act as effective noise barriers. Wooden fences or broad areas of dense foliage can also reduce noise but are less effective than solid barriers.

Table 3.4-1. Representative Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	—110—	Rock band
Jet flyover at 1,000 feet	—105—	
	—100—	
Gas lawn mower at 3 feet	—95—	
	—90—	
Diesel truck at 50 mph at 50 feet	—85—	Food blender at 3 feet
	—80—	Garbage disposal at 3 feet
Noisy urban area, daytime	—75—	
Gas lawn mower at 100 feet	—70—	Vacuum cleaner at 10 feet
Commercial area	—65—	Normal speech at 3 feet
Heavy traffic at 300 feet	—60—	
	—55—	Large business office
Quiet urban daytime	—50—	Dishwasher in next room
	—45—	
Quiet urban nighttime	—40—	Theater, large conference room (background)
Quiet suburban nighttime	—35—	
	—30—	Library
Quiet rural nighttime	—25—	Bedroom at night, concert hall (background)
	—20—	
	—15—	Broadcast/recording studio
	—10—	
	—5—	
Lowest threshold of human hearing	—0—	Lowest threshold of human hearing

Source: Bollard Acoustical Consultants, Inc. (2017)

Noise Descriptors

Environmental noise descriptors are generally based on average, rather than instantaneous, noise levels. The most commonly used figure is the equivalent level (L_{eq}). Equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in dBA. The L_{eq} represents a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. In addition, the hourly L_{eq} is the noise metric used to collect short-term noise level measurement samples and to estimate the 24-hour Community Noise Equivalent Level (CNEL). CNEL is the weighted average of the intensity of a sound with corrections for time of day and averaged over 24 hours. CNEL does not represent the actual sound level heard at any particular time, but rather represents the total sound exposure. The time of day corrections require the addition of 5 decibels to dBA L_{eq} sound levels in the evening from 7 p.m. to 10 p.m. and the addition of 10 decibels to dBA L_{eq} sound levels at night between 10 p.m. and 7 a.m. These additions are made to account for the noise-sensitive periods during the evening and night hours when sound is perceived to be louder. Common noise level descriptors are summarized below.

- L_{eq}, the equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time; thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- L_{dn}, the Day-Night Average Level, is a 24-hour average L_{eq} with a 10 dBA weighting added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn}.
- CNEL, the Community Noise Equivalent Level, is a 24-hour average L_{eq} with a 10 dBA weighting added to noise during the hours of 10:00 p.m. to 7:00 a.m. and an additional 5 dBA weighting during the hours of 7:00 p.m. to 10:00 p.m. to account for noise sensitivity in the evening and nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.7 dBA CNEL.
- L_{min}, the minimum instantaneous noise level experienced during a given period of time.
- L_{max}, the maximum instantaneous noise level experienced during a given period of time.
- L_n, the A-weighted noise levels that are exceeded 1 percent, 10 percent, 50 percent, and 90 percent (L_{01}, L_{10}, L_{50}, L_{90}, respectively) of the time during the measurement period.

Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels. When

community noise interferes with human activities or contributes to stress, public annoyance with the noise source increases. The acceptability of noise and the threat to public well-being are the basis for land use planning policies preventing exposure to excessive community noise levels.

Unfortunately, there is no completely satisfactory way to measure the subjective effects of noise or of the corresponding reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance and habituation to noise over differing individual experiences with noise. Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of it to the existing environment to which one has adapted—the so-called "ambient" environment. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged. Regarding increases in A-weighted noise levels, knowledge of the following relationships will be helpful in understanding this analysis:

- Except in carefully controlled laboratory experiments, a change of 1 dB cannot be perceived by humans.
- Outside of the laboratory, a 3-dB change is considered a just-perceivable difference.
- A change in level of at least 5 dB is required before any noticeable change in community response would be expected. An increase of 5 dB is typically considered substantial.
- A 10 dB change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

A limitation of using a single noise-level increase value to evaluate noise impacts, as discussed above, is that it fails to account for pre-development noise conditions. With this in mind, the Federal Interagency Committee on Noise (FICON) developed guidance to be used for the assessment of project-generated increases in noise levels that take into account the ambient noise level. The FICON recommendations are based on studies that relate aircraft noise levels to the percentage of persons highly annoyed by aircraft noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, these recommendations are often used in environmental noise impact assessments involving the use of cumulative noise exposure metrics, such as the average-daily noise level (i.e., CNEL, L_{dn}). FICON-recommended noise evaluation criteria are summarized in **Table 3.4-2**.

Table 3.4-2. FICON-Recommended Criteria for Evaluation of Increases in Ambient Noise Levels

Ambient Noise Level Without Project	Increase Required for Significant Impact
<60 dB	5.0 dB, or greater
60–65 dB	3.40 dB, or greater
>65 dB	1.5 dB, or greater

Source: Bollard Acoustical Consultants, Inc. (2017)

As depicted in **Table 3.4-2**, an increase in the noise level of 5.0 or greater, would typically be considered to result in increased levels of annoyance where existing ambient noise levels are less than 60 dB. In areas where the ambient noise level ranges from 60 to 65 dB, increased levels of annoyance would be anticipated at increases of 3 dB, or greater. Increases of 1.5 dB, or greater, could result in increased levels of annoyance in areas where the ambient noise level exceeds 65 dB. The rationale for the FICON-

recommended criteria is that as ambient noise levels increase, a smaller increase in noise resulting from a project is sufficient to cause significant increases in annoyance (FICON 2000).

Effects of Noise on Human Activities

The extent to which environmental noise is deemed to result in increased levels of annoyance, activity interference, and sleep disruption varies greatly from individual to individual depending on various factors, including the loudness or suddenness of the noise, the information value of the noise (e.g., aircraft overflights, child crying, fire alarm), and an individual's sleep state and sleep habits. Over time, adaptation to noise events and to increased levels of noise may also occur. In terms of land use compatibility, environmental noise is often evaluated in terms of the potential for noise events to result in increased levels of annoyance, sleep disruption, or interference with speech communication, activities, and learning. Noise-related effects on human activities are discussed in more detail below.

Speech Communication

For most noise-sensitive land uses, an interior noise level of 45 dB L_{eq} is typically identified for the protection of speech communication in order to provide for 100 percent intelligibility of speech sounds. Assuming an average 20-dB reduction in sound level between outdoors and indoors (which is an average amount of sound attenuation that assumes windows are closed), this interior noise level equates to an exterior noise level of 65 dBA L_{eq}. For outdoor voice communication, an exterior noise level of 60 dBA L_{eq} allows normal conversation at distances up to 2 meters with 95 percent sentence intelligibility (EPA 1971). Based on this information, speech interference begins to become a problem when steady noise levels reach approximately 60 to 65 dBA. Within interior noise environments, an average-hourly background noise level of 45 dBA L_{eq} is typically recommended for noise-sensitive land uses, such as educational facilities (Caltrans 2002).

Annoyance and Sleep Disruption

With regard to potential increases in annoyance, activity interference, and sleep disruption, land use compatibility determinations are typically based on the use of the cumulative noise exposure metrics (i.e., CNEL or L_{dn}). Perhaps the most comprehensive and widely accepted evaluation of the relationship between noise exposure and the extent of annoyance was one originally developed by Theodore J. Schultz in 1978. Schultz's research findings provided support for L_{dn} as the descriptor for environmental noise. His research identified a correlation between the cumulative noise exposure metric and individuals who were highly annoyed by transportation noise. When expressed graphically, this relationship is typically referred to as the Schultz curve. The Schultz curve indicates that approximately 13 percent of the population is highly annoyed at a noise level of 65 dBA L_{dn}. It also indicates that the percentage of people describing themselves as being highly annoyed accelerates smoothly between 55 and 70 dBA L_{dn}. A noise level of 65 dBA L_{dn} is a commonly referenced dividing point between lower and higher rates of people describing themselves as being highly annoyed (Caltrans 2002).

The Schultz curve and associated research became the basis for many of the noise criteria subsequently established for federal, state, and local entities. Most federal and California regulations and policies related to transportation noise sources establish a noise level of 65 dBA CNEL/L_{dn} as the basic limit of

acceptable noise exposure for residential and other noise-sensitive land uses. For instance, with respect to aircraft noise, both the Federal Aviation Administration (FAA) and the State of California have identified a noise level of 65 dBA L_{dn} as the dividing point between normally compatible and normally incompatible residential land use generally applied for determination of land use compatibility. For noise-sensitive land uses exposed to aircraft noise, noise levels in excess of 65 dBA CNEL/L_{dn} are typically considered to result in a potentially significant increase in levels of annoyance (Caltrans 2002).

Allowing for an average exterior-to-interior noise reduction of 20 dB, an exterior noise level of 65 dBA CNEL/L_{dn} would equate to an interior noise level of 45 dBA CNEL/L_{dn}. An interior noise level of 45 dB CNEL/L_{dn} is generally considered sufficient to protect against activity interference at most noise-sensitive land uses, including residential dwellings, and would also be sufficient to protect against sleep interference (EPA 1971). In California, the California Building Code establishes a noise level of 45 dBA CNEL as the maximum acceptable interior noise level for residential uses (other than detached single-family dwellings). Use of the 45 dBA CNEL threshold is further supported by recommendations provided in the Governor's OPR's General Plan Guidelines, which recommend an interior noise level of 45 dB CNEL/L_{dn} as the maximum allowable interior noise level sufficient to permit "normal residential activity" (OPR 2003).

The cumulative noise exposure metric is currently the only noise metric for which there is a substantial body of research data and regulatory guidance defining the relationship between noise exposure, people's reactions, and land use compatibility. However, when evaluating environmental noise impacts involving intermittent noise events, such as aircraft overflights and passing trains, the use of cumulative noise metrics may not provide a thorough understanding of the resultant impact. The general public often finds it difficult to understand the relationship between intermittent noise events and cumulative noise exposure metrics. In such instances, supplemental use of other noise metrics, such as the L_{eq} or L_{max} descriptor, may be helpful as a means of increasing public understanding regarding the relationship between these metrics and the extent of the resultant noise impact (Caltrans 2002).

Sound Propagation and Attenuation

Geometric Spreading

Sound from a localized source (i.e., a point source) propagates uniformly outward in a spherical pattern. The sound level decreases (attenuates) at a rate of approximately 6 decibels for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 decibels for each doubling of distance from a line source, depending on ground surface characteristics. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or a body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver, such as soft dirt, grass, or scattered bushes and trees), an excess ground-attenuation value of 1.5 decibels per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation for soft surfaces results in an overall attenuation rate of 4.5 decibels per doubling of distance from the source.

Atmospheric Effects

Receptors located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) from a highway due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects.

Noise Reduction

A large object or barrier in the path between a noise source and a receiver can substantially attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Natural terrain features (e.g., hills and dense woods) and human-made features (e.g., buildings and walls) can substantially reduce noise levels. Walls are often constructed between a source and a receiver specifically to reduce noise. A barrier that breaks the line of sight between a source and a receiver will typically result in minimum 5 dB of noise reduction. Taller barriers provide increased noise reduction.

Noise reductions afforded by building construction can vary depending on construction materials and techniques. Standard construction practices typically provide approximately 15 dBA exterior-to-interior noise reductions for building façades, with windows open, and approximately 20 to 25 dBA with windows closed. With compliance with current Title 24 energy efficiency standards, which require increased building insulation and inclusion of an interior air ventilation system to allow windows on noise-impacted façades to remain closed, exterior-to-interior noise reductions typically average approximately 25 dBA. The absorptive characteristics of interior rooms, such as carpeted floors, draperies, and furniture, can result in further reductions in interior noise.

Additional noise control techniques commonly used for transportation noise sources include traffic control, such as prohibiting heavy-duty trucks and reducing speed limits along primarily affected corridors. However, an approximately 20-mile-per-hour reduction in speed would typically be required to achieve a noticeable decrease in noise levels. In some instances, the use of noise-reducing pavements, such as rubberized asphalt, has also been used to reduce traffic noise. However, when compared with hard site surfaces (i.e., asphalt, concrete, stone, and very hard packed earth), soft site surfaces or natural surfaces (i.e., earth and ground vegetation covers) are the most effective method used to reduce traffic-associated noise by resulting in a drop-off rate of 4.5 dBA per doubling of distance (Caltrans 2013) and thus are better at reflecting traffic-associated noise levels. Hard site surfaces typically result in a 3.0 dBA drop-off rate (Caltrans 2013).

Fundamentals of Environmental Groundborne Vibration

Sources of earthborne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or manmade causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous (e.g., factory machinery) or transient (e.g., explosions).

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One is the peak particle velocity

(PPV); another is the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. The RMS velocity is defined as the average of the squared amplitude of the signal. The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration.

Table 3.4-3 displays the reactions of people and the effects on buildings produced by continuous vibration levels. The annoyance levels shown in the table should be interpreted with care since vibration may be found to be annoying at much lower levels than those listed, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. In high noise environments, which are more prevalent where groundborne vibration approaches perceptible levels, this rattling phenomenon may also be produced by loud airborne environmental noise causing induced vibration in exterior doors and windows.

Ground vibration can be a concern in instances where buildings shake and substantial rumblings occur. However, it is unusual for vibration from typical urban sources such as buses and heavy trucks to be perceptible. Common sources for groundborne vibration are planes, trains, and construction activities such as earth-moving which requires the use of heavy-duty earth moving equipment.

Table 3.4-3. Human Reaction and Damage to Buildings for Continuous or Frequent Intermittent Vibration Levels

Peak Particle Velocity (inches/second)	Human Reaction	Effect on Buildings
0.006–0.019	Range of threshold of perception	Vibrations unlikely to cause damage of any type
0.08	Vibration acceptable only if there are an infrequent number of events per day.	Vibrations unlikely to cause damage of any type
0.1	Vibrations readily perceptible	Recommended upper level to which ruins and ancient monuments should be subjected
0.2	Level at which continuous vibrations may begin to annoy people, particularly those involved in vibration sensitive activities	Virtually no risk of architectural damage to normal buildings
0.4–0.6	Vibrations may begin to annoy people in buildings	Threshold at which there is a risk of architectural damage to normal dwellings
0.006–0.019	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Architectural damage and possibly minor structural damage

Source: Bollard Acoustical Consultants, Inc. (2017)

3.4.2 Environmental Setting

Noise-Sensitive Land Uses

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as parks, historic sites, cemeteries, and recreation areas are also considered sensitive to increases in exterior

noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses.

Due to the substantial size of the Project area, many of the camp facilities and activities are, or will be, located hundreds to thousands of feet from the nearest noise sensitive receptors (residences). However, some proposed camp facilities and activities, such as the proposed 7-acre pond, will be located in relatively close proximity to some existing residences. The existing residences are located primarily to the north of the KCOC boundaries, as well as along South Kidder Creek Road. The locations of the ~~twelve~~ 17 nearest residences to the Project site and South Kidder Creek Road are shown on **Figure 9. Noise Measurement Locations** which has been revised from the previous figure to indicate the 17 nearest residences.

Existing Noise Conditions

The existing noise environment within the overall Project area varies depending on proximity to Kidder Creek (water noise), South Kidder Creek Road (traffic noise), or various camp activities. To quantify the existing ambient noise environment at locations representative of the noise environment on the Project site and at the nearest sensitive receptors to the Project site, long-term noise level measurements were conducted at four locations at various times between June 15 and June 30, 2017, for a total monitoring period of 18 days (See **Figure 9** for noise monitoring locations and nearest sensitive receptors). During the noise monitoring period, camp staff reported that normal camp operations currently allowed under existing conditions were in effect. See **Appendix E** for noise output files.

Noise Measurement Site 1 was ~~intended~~ specifically selected to be representative of existing ambient conditions at Receptor B, which was located in close proximity. Ambient Noise Measurement Site 1 was also intended to be representative of ambient conditions at Receptors C, D, F & G (see **Figure 9**), which are located roughly comparable distances from water noise generated by the Kidder Creek flow. Because Noise Measurement Site 1 was completely removed from Kidder Creek Camp activities occurring during the noise survey, it is representative of baseline ambient conditions experienced at the nearest residential receptors in the absence of camp-generated noise.

Noise Measurement Site 2 was specifically selected to capture the noisiest onsite aspects of camp operations. Specifically, Site 2 was located 130 feet from the center of the existing pond where swimming activities currently occur, and 270 feet from the center of the soccer field. This data was used to project noise impacts at the nearest residences resulting from both existing operations and the creation of the new pond area.

Noise Measurement Site 3 was specifically selected to be representative of average ambient conditions at Receptor E, as that receptor and the sound level meter at Site 3 were located equal distances from Kidder Creek generated flow noise. Because there was no camp or other typical human activity in the vicinity of Site 3, maximum noise levels measured at that location are believed to be lower than maximum noise levels occurring at Receptor E, which would include neighborhood-generated noise in addition to Kidder Creek flow noise. As a result, maximum noise level data collected at noise measurement Site 1 was used to assess noise impacts at Receptor E relative to CEQA guidelines.

Noise Measurement Site 4 was specifically selected to capture traffic noise on South Kidder Creek Road. The microphone located at Measurement Site 4 was approximately 100 feet from the centerline of South Kidder Creek Road. That data was used to extrapolate existing ambient conditions at the existing residences located along that roadway. Because monitoring Site 4 was located in relatively close proximity to the Kidder Creek Camp entrance, with the exception of traffic generated by residential receptors "H" and "I", all traffic noise monitored at Site 4 was generated by Camp traffic. At other residences located further from the camp entrance, the contribution of noise generated by non-camp traffic would be greater as traffic generated by those intervening residences would be greater.

It should be noted that noise measurements were not conducted at all 17 of the nearest homes to the Project location. However, industry protocols do not require the monitoring of noise at each individual residence in a project vicinity if it can be reasonably determined that groups of residences have acoustical equivalence and can be represented by an ambient noise monitoring location with similar acoustical equivalence. Such is the case for this Project. In addition, in the case of locations affected primarily by traffic noise, measurements conducted at a fixed distance to the roadway can be extrapolated to establish ambient conditions at unmonitored locations which are located different distances from the roadway than the noise measurement site.

As described above, ambient monitoring sites utilized for this assessment were specifically selected to be representative of either ambient conditions at nearby sensitive receptors (residences), locations which could be used to extrapolate ambient conditions at sensitive receptor locations, or at locations used to establish reference noise generation levels for the project. This approach has been utilized by Bollard Acoustical Consultants, Inc, authors of the original and updated noise study, in hundreds of CEQA evaluations in the past 20+ years, all of which have been certified as CEQA compliant by lead agencies in the State of California.

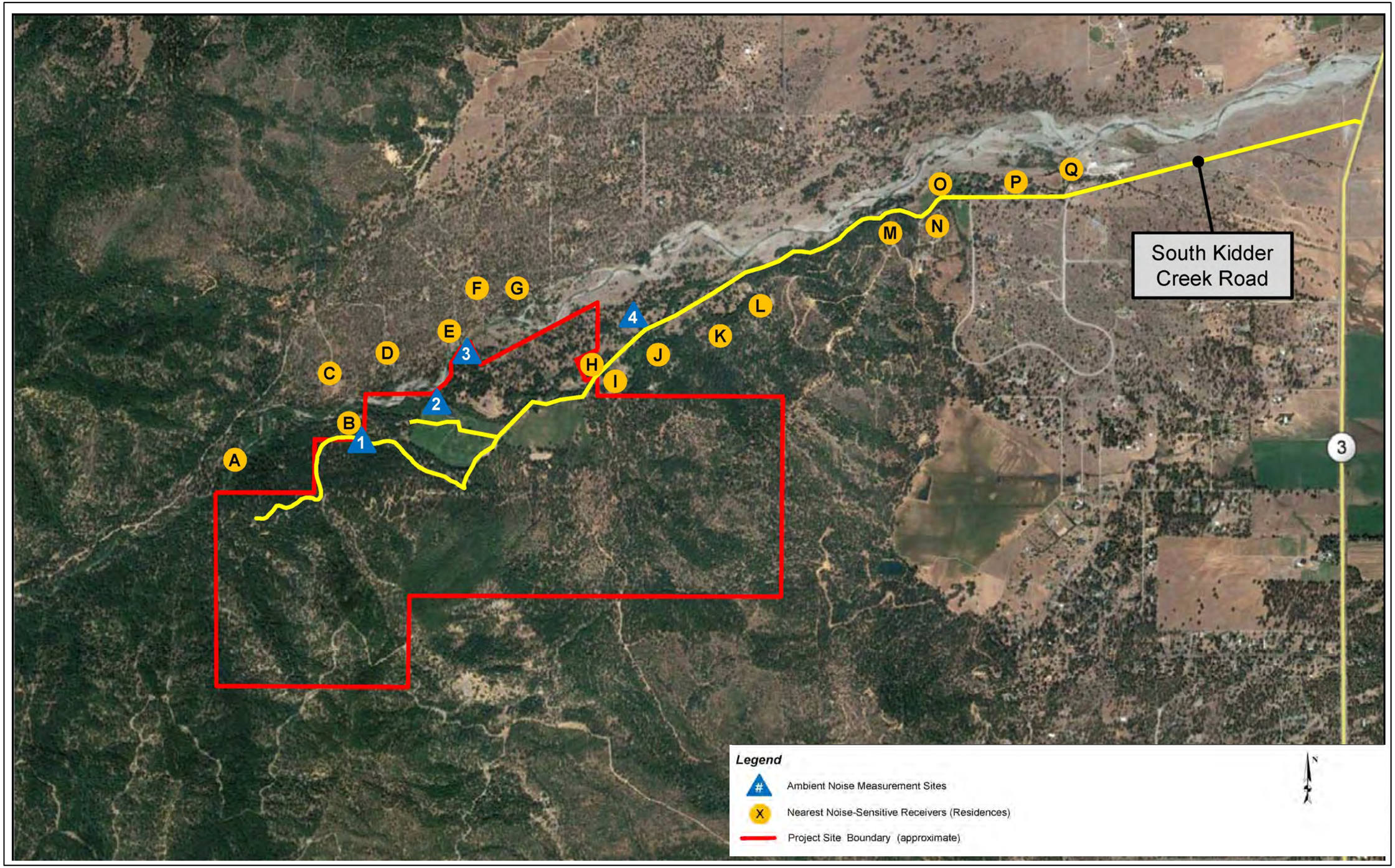
Measured ambient noise levels over the measurement period were averaged are summarized in **Table 3.4-4**.

Table 3.4-4. Summary of Measured Ambient Noise Levels

Site	Average Noise Level (dB Leq)		Maximum Noise Level (dB Lmax)		Day-Night Average (dB Ldn)
	Daytime (7:00 a.m. – 10:00 p.m.)	Nighttime (10:00 p.m. – 7:00 a.m.)	Daytime (7:00 a.m. – 10:00 p.m.)	Nighttime (10:00 p.m. – 7:00 a.m.)	
1	44	42	64	52	49
2	54	52	69	56	60
3	49	50	53	50	56
4	44	43	61	53	50

Source: Bollard Acoustical Consultants, Inc. (2017, 2021)

The **Table 3.4-4** data indicate that typical measured average noise levels were generally comparable at Sites 1 and 4, and highest at Site 2. The elevated noise levels at Site 2 were due to activities at the existing small pond area and soccer field.



Map Date: 12/9/2021
Photo (or Base) Source: Bollard Acoustical Consultants, Inc. 2021

Figure 9. Noise Measurement Locations

2018-123 Kidder Creek Orchard Camp

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

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3.4.3 Regulatory Framework

State

California Building Code

Title 24 of the California Code of Regulations (CCR) contains standards for allowable interior noise levels associated with exterior noise sources (California Building Code [CBC], 1998 edition, Volume 1, Appendix Chapter 12, Section 1208A). The standards apply to new hotels, motels, dormitories, apartment houses, and dwellings other than detached single-family residences. The standards state that the interior noise level attributable to exterior sources cannot exceed 45 dBA in any habitable room. Proposed residential structures to be located where the annual L_{dn} or CNEL exceeds 60 dBA require an acoustical analysis showing that the proposed building design would achieve the prescribed allowable interior noise standard. The noise metric (measurement period, such as hourly or daily) is either the day-night average sound level (L_{dn}) or the CNEL, consistent with the noise element of the local general plan. Worst-case noise levels, either existing or future, are used as the basis for determining compliance with these standards (Caltrans 2002).

Local

Siskiyou County General Plan Noise Standards

The Siskiyou County General Plan Noise Element was adopted in 1978. Because the background noise information contained in the Noise Element is 43 years old, it is reasonable to conclude that the ambient noise conditions in the County have increased substantially over that time. Because noise standards developed for General Plan Noise Elements are typically influenced by the ambient conditions present at the time the Noise Element is being prepared, it is also reasonable to conclude that the County's Noise Element policies and standards are conservatively low. However, in order to provide a conservative approach to evaluating project noise impacts, the Siskiyou County General Plan standards and policies adopted in 1978 are used in this analysis.

Chapter 3 of the Siskiyou County General Plan Noise Element is titled "Noise Element Standards and Policy". Table 13 of Chapter 3 of the ~~The~~ Siskiyou County General Plan Noise Element contains ranges of acceptable noise levels for a variety of land use types. That table, which is reproduced below as **Table 3.4-5**, identifies acceptable noise environments of 60 dBA Ldn for residential land uses. In addition, the Noise Element also identifies that interior ~~CNEL~~ noise levels, with windows closed, attributable to exterior sources, shall not exceed a CNEL of 45 dBA Ldn in any habitable room.

As noted previously, a -5 dBA offset is applied to noise sources consisting primarily of speech or music. As a result, the exterior noise standard utilized to assess noise impacts for sources of noise consisting of speech or music is 55 dBA Ldn. The corresponding interior noise standard within nearby residential receptors would be 40 dBA Ldn. However, the exterior and interior noise standards applicable to all other noise sources not consisting of speech or music are 60 dBA and 45 dBA Ldn, respectively.

Table 3.4-5. Siskiyou County Land Use Compatibility for Exterior Community Noise

Land Use Category	Noise Ranges (Ldn)			
	1	2	3	4
Auditoriums, concert halls, amphitheaters, music halls Passively-used open space (quiet or contemplation areas of public parks)	50	50-55	55-70	70
Residential. All Dwellings including single-family, multifamily, group quarters, mobile homes, etc. Transient lodging, hotels, motels. School classrooms, libraries, churches. Hospitals, convalescent homes, etc. Actively utilized playgrounds, neighborhood parks, golf courses.	60	60-65	65-75	75
Office buildings, personal business and professional services. Light commercial. Retail, movie theaters, restaurants. Heavy commercial. Wholesale, industrial, manufacturing, utilities, etc.	65	65-70	70-75	75

Source: Siskiyou County General Plan Noise Element, Table 13
Note:
Noise Range 1: Acceptable land use. No special noise insulation or noise abatement requirements unless the proposed development is itself considered a source of incompatible noise for a nearby land use (i.e., and industry locating next to residential uses).
Noise Range 2: New construction or development allowed only after necessary noise abatement features are included in design. Noise studies may be required if the proposed development is itself considered a source of incompatible noise for a nearby land use.
Noise Range 3: New construction or development should generally be avoided unless a detailed analysis of noise reduction requirements is completed and needed noise abatement features included in design.
Noise Range 4: New construction or development generally not allowed.

3.4.4 Environmental Impacts

Thresholds of Significance

Criteria for determining the significance of noise impacts were developed based on information contained in CEQA Guidelines Appendix G. According to those guidelines, a project may have a significant effect on the environment if it would result in the following conditions:

1. Would the project result in the 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?

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

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

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

5. For a project located within an airport land use plan area or, where such a plan has not been adopted, within 2 miles of a public airport or a public use airport, would the project result in the exposure of people residing or working in the project area to excessive noise levels?

6. For a project in the vicinity of a private airstrip, would the project result in the exposure of people residing or working in the project area to excessive noise levels?

Impacts Not Further Evaluated

The Project is not located in the vicinity of either public or private use airports. Therefore, standards of significance 5 and 6 are not addressed further in this EIR.

Methodology

This analysis of the existing and future noise environments is based the Environmental Noise Assessment prepared by Bollard Acoustical Consultants, Inc. (2017). As defined in the County's General Plan Noise Element, noise-sensitive land uses include public schools, hospitals, and institutional uses such as churches, museums, and private schools. Typically, residential uses are also considered noise-sensitive receptors. The General Plan established noise standards that represent the maximum acceptable exterior noise level, as measured at the property boundary, which is used to determine noise impacts. Therefore, for the purposes of this analysis, the nearest sensitive receptors to the Project site would be the residential uses identified in **Figure 9**.

Long-Term Operational Camp Activity Noise

Predicted noise levels associated with on-site noise sources for the Project were calculated by Bollard Acoustical Consultants, Inc. (2017). Operational noise levels were predicted assuming an average noise attenuation rate of 6 dB per doubling of distance from the source. Operational noise levels were calculated at the Project site and nearby land uses for comparison to the County's noise standards.

Long-Term Traffic Noise

Traffic noise levels at the nearest residences were calculated by Bollard Acoustical Consultants, Inc. using the Federal Highway Administration (FHWA) Traffic Noise Prediction Model based on traffic volumes obtained from the Traffic Impact Analysis (TIA) prepared for the Proposed Project. The TIA forecast future traffic volumes on South Kidder Creek Road based on an assumed 844 persons at the camp, including guests and staff. Based on 844 persons present at the camp, the TIA computed that the peak Saturday Project trip generation would be 1,448 daily trips.

Groundborne Vibration

Groundborne vibration levels associated with construction-related activities for the Project were evaluated utilizing typical groundborne vibration levels associated with construction equipment, obtained from the Caltrans guidelines. Potential groundborne vibration impacts related to structural damage and human annoyance were evaluated taking into account the distance from construction activities to nearby land uses and typically applied criteria for structural damage and human annoyance.

Short-Term Construction Noise

Predicted noise levels at nearby noise-sensitive land uses were calculated using typical noise levels and usage rates associated with construction equipment, derived from representative data obtained from similar construction projects. Construction noise levels were predicted assuming an average noise attenuation rate of 6 dB per doubling of distance from the source.

Project Impact Analysis

Impact 3.4.1: Exposure to Noise Levels in Excess of Standards

Threshold:	*Would the project result in the 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?*

General Plan Compatibility

The ambient noise level data presented in **Table 3.4-4** indicate that measured existing ambient noise levels at Sites 1, 3 and 4, which are considered representative the nearest residences to the Project site, were all below the Siskiyou County General Plan noise level standard of 60 dB L_{dn}. Because the measurement results included noise generated by existing camp activities, it can be concluded that existing camp activities were within compliance with the applicable County noise standards.

Construction Noise Level Impacts

During Project construction, heavy equipment would be used for grading excavation, paving, and building construction, which would increase ambient noise levels when in use. Noise levels would vary depending on the type of equipment used, how it is operated, and how well it is maintained. Noise exposure at any single point outside the Project site would also vary depending on the proximity of construction activities to that point. Standard construction equipment, such as graders, backhoes, loaders, and trucks, would likely be used for this work.

The range of maximum noise levels for various types of construction equipment at a distance of 50 feet is presented in **Table 3.4-6**. The noise values represent maximum noise generation, or full power operation of the equipment. As one increases the distance between equipment, or increases separation of areas with simultaneous construction activity, dispersion and distance attenuation reduce the effects of combining separate noise sources.

Table 3.4-6. Typical Construction Equipment Noise Levels

Equipment	Typical Noise Level (dBA L_{max}) 50 Feet from Source
Air Compressor	81
Backhoe	80
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Dozer	85
Generator	81
Grader	85
Impact Wrench	85
Jackhammer	88
Loader	85
Pneumatic Tool	85
Pump	76
Roller	74
Saw	76

Source: Bollard Acoustical Consultants, Inc. (2017)

As depicted in **Table 3.4-6**, noise levels generated by individual pieces of construction equipment typically range from approximately 74 dBA to 88 dBA L_{max} at 50 feet (Federal Transit Administration [FTA] 2006). Short-term increases in vehicle traffic, including worker commute trips and haul truck trips, may also result in temporary increases in ambient noise levels at nearby receptors.

The closest receivers are located approximately 400+ feet from proposed construction activities on the Project site. The noise levels from construction operations decrease at a rate of approximately 6 dB per doubling of distance from the source. At the nearest residence, located approximately 400 feet away, maximum noise levels from construction activities would attenuate to approximately ~~70~~60 dBA L_{max}. This level is not expected to substantially exceed existing maximum noise levels currently received by nearby residences. In addition, the majority of project construction operations would occur at distance greater than 400 feet, thereby resulting in even lower noise exposure at the nearest residences. Finally, the analysis of construction noise does not include consideration of excess attenuation of construction noise by intervening vegetation (pine trees), or intervening topography, both of which would further reduce construction noise at the nearest residences.

The County does not regulate construction noise. Therefore, the Project would not result in noise levels beyond County standards and the impact is ***less than significant***.

Operational Noise Level Impacts

Large Pond Area Activities

The main noise source of concern for this Project is noise generated from the proposed large pond area at the northern end of the Project site. The nearest noise sensitive uses to the proposed pond are identified on **Figure 9** as being Receptors D-G. The primary noise source associated with the proposed large pond area will be shouting campers. For the assessment of large pond area noise generation relative to the Siskiyou County General Plan, the long-term ambient data from Measurement Site 2 was utilized, reported in **Table 3.4-4**. As mentioned previously, noise level measurements at Site 2 were intended to be representative of noise generated from camp activities at the existing small pond area at the north end of the Project area.

Ambient noise levels measured at Site 2 ranged from 55 to 66 dB L_{dn} (average of 59 dB L_{dn}) at a distance of approximately 130 feet from the center of the existing small pond area (See **Appendix E**). According to information obtained from the Project applicant, the capacity for activities at the large pond will be larger than those currently occurring at the small pond. To account for the increase in future activities at the large pond area, an upward adjustment of +3 dB was conservatively applied to the measured ambient noise levels measured levels at Site 2. Assuming standard spherical spreading loss (-6 dB per doubling of distance), future noise exposure was projected from the center of the proposed large pond area to the nearest noise-sensitive uses (residences). The results of those projections are presented in **Table 3.4-7.**

Table 3.4-7. Predicted Noise Generation at Nearest Residences & County Standards- Large Pond Area

Receptor	Distance to Center of Large Pond & Recreation Area (feet)	Predicted Exterior Noise Level, Ldn/CNEL (dBA)[1]	~~Siskiyou County Exterior Noise Standard (Residential)~~[2]	Exceedance of County 55 dBA Ldn Noise Standard?
D	1,500	42	~~60~~	No
E	900	46	~~60~~	No
F	1,500	42	~~60~~	No
G	1,400	42	~~60~~	No
H	1,400	44		No

Source: Bollard Acoustical Consultants, Inc. (2017, 2021)
Notes:
Distances measured from center of proposed large pond area to nearest receivers.
Predicted levels are based on a sound attenuation rate of 6 dB per doubling of distance and a reference noise level of 63 dB Ldn at a distance of 130 feet.

The **Table 3.4-7** data indicate that predicted Day/Night Average Noise Level (Ldn) noise exposure from the proposed large pond area would ~~satisfy~~ range from 42 to 46 dBA DNL at the nearest sensitive receptors. This range of predicted noise levels would be well below the adjusted the Siskiyou County ~~60~~ 55 dBA L_{dn} exterior noise level standard applied to noise sources consisting primarily of speechor music (noise generated by large pond activities would consist primarily of speech) at each of the nearest residences. As a result, no additional consideration of large pond area exterior noise mitigation measures would be warranted for this Project relative to the adjusted Siskiyou County General Plan noise standard of 55 dBA Ldn.

~~As indicated in **Table 3.4-7**, exterior noise levels from the proposed large pond area are predicted to range from 42-46 dB L_{dn} at the nearest residences.~~To evaluate project noise exposure within the interior areas of nearby residences relative to the adjusted County interior noise standard of 40 dBA DNL, the noise attenuation of the building façade must be considered. Standard construction (wood or stucco siding, STC-27 windows, door weather-stripping, exterior wall insulation, composition plywood roof), results in an exterior to interior noise reduction of at least 25 dBA with windows closed and approximately 10-15 dBA with windows open. ~~As a result, noise levels from the proposed large pond area are also predicted to satisfy the Siskiyou County 45 dB CNEL interior noise level standard within those nearest residences by a wide margin even with windows in the open configuration.~~ As a result, provided exterior noise levels do not exceed 50 dBA, interior noise levels within the nearest residences would not exceed 40 dBA DNL when windows of the nearest residences are in the open position. Because the worst-case predicted exterior noise level is 46 dBA DNL at the nearest residence, interior noise levels would be 36 dBA DNL or less within all of the nearest residences using the conservative assumption of 10 dBA provided by the building façade with windows open. Because this level is well below the Siskiyou County 40 dBA DNL interior noise level standard applicable to noise sources consisting of speech of music, no interior noise impacts are identified relative to County noise standards even with windows in the open position. When windows are in the closed position, interior noise levels would be approximately 10-15 dBA further below the County's interior noise standard. As a result, this impact is ***less than significant.***

Amphitheater Activities

The Master Plan identifies future amphitheaters at two locations on the Project site. The closest proposed amphitheater location would be on the southwest side of the proposed new pond, approximately 1,100

feet from the nearest residence (Receptor E). The other amphitheater location is identified as being approximately 700 feet further south, or 1,800 feet from the nearest residence (Receptor E). Both amphitheater locations indicate that the sound system (presumably a public address [P/A] system), would face away from the nearest residences.

Based on the Project Site Plan (**Figure 5**), the seating area of the amphitheaters would be approximately 50 feet deep. According to Bollard Acoustical Consultants, given the relatively small size of the amphitheaters, it is likely that the P/A system associated with either amphitheater would generate maximum noise levels of approximately 80 dBA at a distance of 50 feet from amphitheater speakers. Because the amphitheater speakers would face away from the nearest residences, a noise reduction of at least 10 dBA can conservatively be assumed due to the directionality of P/A speakers.

Based on a sound level decay rate of 6 dBA per doubling of distance from the speakers, sound generated by the amphitheater P/A system (70 dBA at 50 feet) would attenuate to approximately 43 dBA L_{max} at the nearest residence from the closest amphitheater and approximately 39 dBA at the further amphitheater location. These predicted sound levels do not include any downward adjustments for shielding by intervening topography or excess vegetation (pine trees).

A computed maximum sound level of approximately 43 dBA at the nearest residence would translate to an L_{dn} ~~of~~ well below 40 dBA, which would be well within compliance with County noise standards. However, to limit the potential for adverse noise impacts associated with either amphitheater location, implementation of Initial Study mitigation measure **MM 12.1** (which is restated under in **Section 1.0 Introduction** of this EIR) is required.

Zip Line Activities

Since the preparation of the 2017 noise study for the Project, a zip line has been added to the Project's proposed uses at the location shown on **Figure 5.** The distance from the zip line to the nearest residences (Receptors I, J, K on **Figure 9**) ranges from approximately 1,000 to 1,250 feet. Noise level measurements of the zip line in normal operation were conducted on January 20, 2020 from a position 100 feet perpendicular to the end of the zip line.

As discussed further under Impact 3.4.3, given the distance between the zip line activities and nearest residences, zip line operations are not predicted to result in a measureable increase in ambient noise levels at those residences. As such, the zip line would not increase operational noise levels at a level which would result in a significant impact.

Offsite Vehicular Traffic

The Project TIA forecast future traffic volumes on South Kidder Creek Road based on an assumed 844 persons at the Camp, including guests and staff. Based on 844 persons present at the camp, the TIA computed that the peak Saturday Project trip generation would be 1,448 daily trips.

The FJWA Traffic Noise Prediction Model was used to predict the traffic noise levels at the nearest residences to both the Project site (Receptors H through L (see **Figure 9**), as well as the other residences to the northeast, including the closest residence to that roadway (Receptor P located 70 feet from the centerline). Vehicle speeds along South Kidder Creek Road reflect posted speed limits and slowing which

must occur for residences located on or near curves in the roadway. The complete listing of FHWA Model Inputs and predicted levels are provided in **Appendix E**. **Table 3.4-8** contains the results of the FHWA traffic noise prediction model at the nearest existing residences along Kidder Creek Road between the Project site and Highway 3.

Table 3.4-8. Predicted Off-Site Traffic Noise Levels at Nearest Residences to South Kidder Creek Road

Receptor	Distance to Centerline	Existing Traffic Ldn, dBA	Existing + Project Ldn, dBA	Change
H	220	36	41	5
I	270	35	40	5
J	300	36	41	5
K	500	34	39	5
L	380	37	42	5
M	200	40	44	4
N	150	41	46	4
O	70	46	50	4
P	70	50	54	4
Q	300	42	46	4

Source: Bollard Acoustical Consultants, Inc. (2021)

The data identified in **Table 3.4-8** indicate that the increase in traffic noise levels along Kidder Creek Road resulting from the Project expansion would range from 4 to 5 dBA Ldn. However, the baseline ambient noise environment is affected by sources of noise other than Kidder Creek Road, (natural sounds including wind in trees Kidder Creek flow, property maintenance, etc.). For example, **Table 3.4-4** indicates that the baseline Ldn at ambient noise measurement Site 4 averaged 50 dBA whereas **Table 3.4-8** predicts an existing traffic noise level of 36 dBA Ldn at 220 feet (41 dBA Ldn at 100 feet). So, although the increase in traffic noise levels resulting from the project computes to 4 to 5 dBA Ldn, the increase in overall baseline ambient noise levels would be considerably lower (i.e., less than 3 dB). Because the overall increase in ambient noise levels at the nearest residences to South Kidder Creek Road would be less than the 5 dBA significance threshold, and because predicted project traffic noise levels would be well below the Siskiyou County 60 dBA Ldn exterior noise standard applicable to residential uses, this impact would be ***less than significant***.

~~As shown in **Appendix E**, the results of the FHWA traffic noise prediction modeling indicate that the worst-case traffic noise exposure at the nearest residence to South Kidder Creek Road (70 feet from the centerline), would be approximately 52 dB L_{dn}. At Receptors H – L (see **Figure 9**), the predicted Project-generated traffic noise levels range from 39 to 44 dB L_{dn}. Each of these levels is well below the Siskiyou County 60 dB L_{dn} exterior noise level standard for residential uses.~~

Impact 3.4.2: Exposure to Excessive Groundborne Vibration or Noise Levels

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

Construction Vibration Level Impacts

During Project construction, the heavy equipment would be used for grading excavation, paving, and building construction, would generate very localized vibration in the immediate vicinity of the construction. Based on the Project site plan, the distances from the onsite construction activity and nearest existing residences to the Project area would be approximately 400+ feet.

To quantify reference vibration levels commonly generated by construction equipment, the publication, *Transportation and Construction Vibration Guidance Manual* (Caltrans 2013), was utilized. Table 18 of that publication, which is reproduced below as **Table 3.4-9~~8~~**, contains reference peak particle velocity data for such equipment. This impact discussion utilizes Caltrans' (2002) recommended standard of 0.2 inch per second (in/sec) PPV with respect to the prevention of structural damage for normal buildings and annoyance to humans.

Table 3.4-9~~8~~. Representative Vibration Source Levels for Construction Equipment

Equipment	Approximate Peak Particulate Velocity (in/sec) 50 Feet
Large Bulldozer	0.042
Caisson Drilling	0.042
Loaded Trucks	0.035
Jackhammer	0.016
Small Bulldozer/Tractor	0.001

Source: Bollard Acoustical Consultants, Inc. (2017)

Based on the vibration levels presented in **Table 3.4-8**, ground vibration generated by heavy-duty equipment at 50 feet would not be anticipated to exceed approximately 0.042 in/sec PPV. Therefore, the use of virtually any type of construction equipment would most likely not result in a groundborne vibration velocity level above 0.2 in/sec and predicted vibration levels at the nearest structures would not exceed recommended criteria. Additionally, this would be a temporary impact and would cease completely when construction ends. No construction-generated vibration mitigation measures would be warranted for this Project. The Project would have a ***less than significant*** impact regarding construction vibration levels.

Operational Vibration Level Impacts

Once operational, the Project would not be a source of groundborne vibration. The Project would have ***no impact*** regarding operation vibration levels.

Impact 3.4.3: Permanent Increase in Ambient Noise Levels

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

Neither Siskiyou County nor CEQA statues define what constitutes a substantial permanent or temporary noise level increase. However, it is generally recognized that a 3 dBA or greater increase in noise levels due to a project would be considered significant where exterior noise levels would exceed 60 dBA (for residential uses). Where pre-project ambient conditions are at or below 60 dB, a 5 dBA increase is commonly applied as the standard of significance.

Because noise sources consisting primarily of speech or music have been shown to result in a higher degree of annoyance than broad-band noise, many jurisdictions apply a -5 dBA penalty to noise sources consisting primarily of speech or music. In order for project-related noise level increases to not exceed 5 dB, the new noise source cannot exceed existing ambient conditions by more than 3 dBA. For example, when a project noise source generating 53 dBA is added to a baseline ambient noise level of 50 dBA, the resulting baseline plus project noise level is 55 dBA[1], which constitutes a 5 dBA increase over ambient conditions.

When 5 dBA is subtracted from the allowable project noise level in this example to account for the noise source consisting of speech or music, the project noise generation could not exceed 48 dBA (53 dBA less 5 dBA for speech/music penalty). When the acceptable project noise level of 48 dBA is added to the baseline ambient level of 50 dBA, the resulting combined existing plus project noise level computes to 52 dBA, or a 2 dBA increase over ambient. As a result, for this Project, noise impacts would be considered potentially significant if the increase in ambient conditions resulting from a noise source consisting primarily of speech or music is 3 dBA or more. For all other noise sources, the threshold of significance used to evaluate project noise impacts is 5 dBA.

It is important to note that the Proposed Project is an expansion of the existing Kidder Creek Camp. As such, sounds of campers playing, swimming, and engaging in various outdoor activities are currently part of the baseline noise environment. This includes periodic sounds consisting of speech and music. Nonetheless, given the sensitivity of the nearby residences, this analysis conservatively applies the more restrictive noise thresholds for sounds consisting of speech or music in evaluating Project noise impacts at the nearest residential neighbors to the project site. It should also be noted that audibility is not a test of

[1] The decibel (dB) scale is logarithmic, not linear, and therefore sound levels cannot be added or subtracted through ordinary arithmetic. For example, a 65-dB source of sound, such as a truck, when joined by another 65 dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by three dB). Under the decibel scale, three sources of equal loudness together would produce an increase of five dB.

significance according to CEQA. If this were the case, any project which added any audible amount of noise to the environment would be considered unacceptable according to CEQA. However, CEQA requires a substantial increase in noise levels before noise impacts are identified, not simply an audible change.

Large Pond Area Activities

The primary noise source associated with the proposed large pond area will be shouting campers. Ambient noise levels measured at Site 2 ranged from 55 to 66 dBA L_{dn} (average of 59 dBA L_{dn}) at a distance of approximately 130 feet from the center of the existing small pond area (See **Appendix E**). In addition, average daytime noise levels at ambient noise measurement Site 2 were 54 dBA Leq at the reference distance of 130 feet from the center of the existing pond. Measured maximum noise levels at Site 2 were 79 dBA. However, because the nearest beach area of the existing pond area was approximately 80 feet from noise measurement Site 2, the reference distance for the projection of maximum noise levels is considered to be this 80 foot distance.

Because average noise levels represent the cumulative contribution of noise from all areas, industry standard convention is to project average noise levels (Leq and DNL) from the effective noise center of the activity area to the potentially affected sensitive receptor locations. Conversely, because maximum noise levels typically result from activities closer to the receptor, common practice is to project maximum noise levels from the portion of the activity area located closest to the sensitive receptor. This common evaluation methodology was employed for this impact assessment.

According to information obtained from the Project applicant, the capacity for activities at the large pond will be larger than those currently occurring at the small pond. To account for the increase in future activities at the large pond area, an upward adjustment of +3 dBA was conservatively applied to the measured ambient noise levels measured levels at Site 2. Assuming standard spherical spreading loss (-6 dBA per doubling of distance), future noise exposure was projected from the center of the proposed large pond area to the nearest noise-sensitive uses (residences) to the west and north. The results of those projections are presented in **Table 3.4-10~~9~~**.

Table 3.4-9 shows the predicted noise levels from large pond area activities at the nearest existing noise-sensitive receivers to the Project site. **Table 3.4-10~~9~~** also shows existing ambient conditions, existing ambient conditions plus predicted large pond area noise levels, and the increases in ambient noise levels which would result from activities at the large pond area.

Table 3.4-10~~9~~. Predicted Noise Generation at Nearest Residences & Project-Related Increases- Large Pond Area

Receptor	Existing Ambient, dBA			Existing Plus Project, dBA			Project-Related Increase		
	L_{eq}	L_{max}	L_{dn}	L_{eq}	L_{max}	L_{dn}	L_{eq}	L_{max}	L_{dn}
D	44	64	49	45	~~66~~ 59	50	1	~~2~~ 1	1
E	49	53	56	50	~~67~~ 57	~~56~~ 57	1	~~3~~ 1	~~0~~ 1
F	44	64	49	45	~~66~~ 60	50	1	~~2~~ 1	1
G	44	64	49	45	~~66~~ 59	50	1	~~2~~ 1	1
H	44	61	50	45	59	51	1	2	1

Source: Bollard Acoustical Consultants, Inc. (2017, 2021)

~~As mentioned previously, it is generally recognized that a 3 dB or greater increase in noise levels due to a project would be considered significant where exterior noise levels would exceed 60 dB (for residential uses), or a 5 dB increase where pre-project ambient conditions are at or below 60 dB (see **Table 3.4-2**).~~ As mentioned previously, for noise sources consisting of speech or music, this impact assessment considered a project-related increase of 3 dBA or more to be significant. As shown in **Table 3.4-10~~9~~**, increases in ~~ambient~~ average hourly (Leq), average daily (Ldn), and single-event maximum noise levels at the nearest residences ~~were~~ are below 3 dBA threshold ~~relative to measured existing conditions~~. As a result, no significant impacts from increases in average or maximum ambient noise levels at the nearest residences would result from activities at the proposed large pond area.

Amphitheater Activities

As previously discussed in **Impact 3.4.1**, the Master Plan identifies future amphitheaters at two locations on the Project site. The closest proposed amphitheater location would be on the southwest side of the proposed new pond, approximately 1,100 feet from the nearest residence (Receptor E). The other amphitheater location is identified as being approximately 700 feet further south, or 1,800 feet from the nearest residence (Receptor E). Both amphitheater locations indicate that the sound system (presumably a P/A system), would face away from the nearest residences.

A computed maximum sound level of approximately 43 dBA at the nearest residence would translate to an L_{dn} ~~of~~ well below 40 dBA. The predicted maximum noise levels would be below existing maximum sound levels currently experienced at the nearest residences and increases in ambient noise levels resulting from the amphitheater areas would be below the 2 dBA threshold. However, to limit the potential for ambient noise level impacts associated with either amphitheater location, implementation of Initial Study mitigation measure **MM 12.1** (which is restated in **Section 1.0** of this EIR) is required.

Zip Line Activities

Since the preparation of the 2017 noise study for the Project, a zip line has been added to the camp grounds at the location shown on **Figure 5.** The distance from the zip line to the nearest residences (Receptors I, J, K on **Figure 9**) ranges from approximately 1,000 to 1,250 feet. Noise level measurements of the zip line in normal operation were conducted on January 20, 2020 from a position 100 feet perpendicular to the end of the zip line. This location had a clear line of sight to the zip line. Eight riders were utilized for the zip line noise testing, with 5 adults and 3 children. During the 8 zip line tests, maximum noise levels ranged from 35 to 47 dBA Lmax. Average noise levels were approximately 5 dBA lower than measured maximum noise levels for each zip line event. For a conservative assessment of zip line noise impacts at the nearest sensitive receptors, a maximum noise level of 47 dBA for the zip line was used as a reference level at 100 feet. This level was projected to the nearest residences assuming standard spherical spreading of sound (6 dBA decrease per doubling of distance from the zip line). The predicted zip line noise levels at the nearest residences are provided in **Table 3.4-11**.

Table 3.4-11.Predicted Noise Generation at Nearest Residences & Project-Related Increases - Zip Line

Receptor	Existing Ambient, dBA			Existing Plus Project, dBA			Project-Related Increase		
	L_{eq}	L_{max}	L_{dn}	L_{eq}	L_{max}	L_{dn}	L_{eq}	L_{max}	L_{dn}
I	44	61	50	44	61	50	0	0	0
J	44	61	50	44	61	50	0	0	0
K	44	61	50	44	61	50	0.	0	0

Source: Bollard Acoustical Consultants, Inc. (2021)

As indicated in **Table 3.4-11**, given the distance between the zip line activities and nearest residences, zip line operations are not predicted to result in a measureable increase in ambient noise levels at those residences. Furthermore, zip line noise levels in isolation were computed to range from 25 to 27 dBA DNL at the nearest residences, which is several orders of magnitude below the Siskiyou County 60 dBA DNL noise standard. With brief periods of zip line riders yelling excitedly during zip line usage, generating maximum noise levels of up to 88 dBA at a distance of 3 feet, predicted maximum zip line noise levels at the nearest residences would range from 36 to 38 dBA, which is also well below baseline ambient conditions. As a result, no adverse noise impacts are identified for zip line operations.

Offsite Vehicular Traffic

The FHWA Traffic Noise Prediction Model was used to predict the traffic noise levels at the nearest residences to both the Project site, as well as the closest residence to that roadway (Receptor P located 70 feet from the centerline). The FHWA Model Inputs and predicted levels are provided in **Appendix E.**

The data illustrated in **Table 3.4-8** indicate that the increase in traffic noise levels along Kidder Creek Road resulting from the Project expansion would range from 4-5 dBA Ldn. However, the baseline ambient noise environment is affected by sources of noise other than Kidder Creek Road, (natural sounds including wind in trees Kidder Creek flow, property maintenance, etc.). For example, **Table 3.4-4** indicates that the baseline Ldn at ambient noise measurement Site 4 averaged 50 dBA whereas **Table 3.4-8** predicts an existing traffic noise level of 36 dBA Ldn at 220 feet (41 dBA Ldn at 100 feet). So, although the increase in traffic noise levels resulting from the Project computes to 4-5 dBA Ldn, the increase in overall baseline ambient noise levels would be considerably lower (i.e., less than 3 dB). Because the overall increase in ambient noise levels at the nearest residences to South Kidder Creek Road would be less than the 5 dBA significance threshold, and because predicted Project traffic noise levels would be well below the Siskiyou County 60 dBA Ldn exterior noise standard applicable to residential uses, this impact would be ***less than significant***.

~~As shown in **Appendix E,** the results of the FHWA traffic noise prediction modeling indicate that the worst-case traffic noise exposure at the nearest residence to South Kidder Creek Road (Receptor P located 70 feet from the centerline), would be approximately 52 dB L_{dn}. At Receptors H – L (see **Figure 9**), the predicted Project-generated traffic noise levels range from 39 to 44 dB L_{dn}.~~

~~As indicated in **Table 3.4-4**, the computed average existing L_{dn} at Noise Measurement Site 4, which was located 100 feet from the centerline of South Kidder Creek Road, was 50 dB L_{dn}. At the nearest residence from that roadway, located at a distance of approximately 70 feet, the computed ambient level from the Site 4 Measurement results is 52 dB L_{dn}. As a result, at even the closest residence to South Kidder Creek Road, a substantial increase in ambient noise levels resulting from the proposed expansion of the camp~~

~~would not occur. As a result, traffic noise impacts resulting from the proposed expansion are predicted to be ***less than significant***.~~

Impact 3.4.4: Temporary Increase in Ambient Noise Levels

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

Construction noise represents a short-term impact on the ambient noise levels. Noise generated by construction equipment, including trucks, graders, bulldozers, concrete mixers, and portable generators, can reach high levels, typically greater than ambient noise levels. Because the area in the vicinity of the Proposed Project site is already developed, it is possible that construction noise will result in a short-term increase in ambient noise. Noise levels associated with typical construction equipment were previously summarized in **Table 3.4-6.** As noted earlier, the closest receivers are located approximately 400+ feet from proposed construction activities on the Project site. The noise levels from construction operations decrease at a rate of approximately 6 dB per doubling of distance from the source. At the nearest residence, located approximately 400 feet away, maximum noise levels from construction activities would attenuate to approximately ~~70~~60 dBA L_{max}. This level is not expected to exceed existing maximum noise levels currently received by nearby residences. ~~Therefore,~~ However, to reduce the potential for annoyance at those nearby residences during construction activities ~~to a less than significant level~~, the Project shall adhere to mitigation measure **MM 12.2** listed in the Initial Study and shown in **Section 1.0** of this EIR.

3.4.5 Mitigation Measures

Implement mitigation measures **MM 12.1** and **MM 12.2**.

3.4.6 Residual Impacts After Mitigation

Implementation of mitigation measures **MM 12.1** and **MM 12.2** would ensure the Project would not exceed the noise standards established by the County during construction and operation. Therefore, with implementation of mitigation measures **MM 12.1** and **MM 12.2**, these impacts would be ***less than significant***.

3.4.7 Cumulative Setting, Impacts, and Mitigation Measures

Cumulative Setting

The geographic context for the analysis of cumulative noise impacts depends on the impact being analyzed. For construction impacts, only the immediate area around the Proposed Project site would be included in the cumulative context. For operational/roadway related impacts, the context is buildout of the Siskiyou County General Plan, including existing and future development of cumulative projects in Siskiyou County, as well as adjacent communities that would be potentially impacted. This cumulative impact analysis considers development of the Proposed Project, in conjunction with other development in the vicinity of the Proposed Project site in Siskiyou County and surrounding jurisdictions. Noise is by definition a localized phenomenon and significantly reduces in magnitude as distance from the source

increases. Consequently, only projects and growth in the Siskiyou County area would be likely to contribute to cumulative noise impacts.

Cumulative Impacts and Mitigation Measures

Impact 3.4.6: Contribution to Cumulative Noise Levels

Threshold	*Would the project, in combination with existing, approved, proposed, and reasonably foreseeable development in nearby areas, result in the direct or indirect in a substantial contribution to cumulative noise levels?*

Cumulative Construction Noise

Construction activities associated with the Proposed Project and other construction projects in the area may overlap, resulting in construction noise in the area. However, construction noise impacts primarily affect the areas immediately adjacent to the construction site. Construction noise for the Proposed Project was determined to be less than significant following compliance with mitigation measure **MM 12.2**. Therefore, the Project would not contribute to cumulative impacts and impacts in this regard are ***less than cumulatively considerable***.

Cumulative Operational Noise

Long-term noise sources associated with of the development at the Project, including vehicular traffic and camp activities, combined with other cumulative projects could cause local noise level increases. Noise levels associated with the Proposed Project and related cumulative projects together could result in higher noise levels than considered separately. However, related cumulative projects would be required to comply with the County's noise level standards and include mitigation measures if this standard is exceeded. Therefore, cumulative noise impacts from stationary noise sources would be ***less than cumulatively considerable***.

Cumulative Mitigation Measures

None required.

3.4.8 References

Bollard Acoustical Consultants, Inc.

2017 *Environmental Noise Assessment for Kidder Creek Orchard Camp Use Permit Application* – UP 11-15. October 24, 2017.

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