KIDDER CREEK ORCHARD CAMP

ZONE CHANGE (Z-14-01) AND

USE PERMIT (UP-11-15)

2nd Partial Recirculated

Draft

Environmental Impact Report

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

June 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. Following the Draft EIR, the County of Siskiyou circulated the partial Recirculated Draft EIR from April 4, 2022 to June 20, 2022. Because of an unintentional error related to traffic counts used in the *Environmental Noise Assessment,* the County has chosen to circulate the 2nd Partial Recirculated Draft EIR and update the noise analysis in order to correct those errors. As shown in the 2nd Partial Recirculated Draft EIR, the re-evaluation of traffic related noise resulted in a significant and unavoidable impact.

Therefore, consistent with CEQA Guidelines Section 15088.5, the County is recirculating only those sections of the Draft EIR/Partial Recirculated Draft EIR that would be affected as a result of the revised *Environmental Noise Assessment*. This includes Section 3.4 Noise and Section 4.0 Alternatives. 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 2nd Recirculated DEIR be limited to the revised portions of the Draft EIR/Partial Recirculated Draft EIR. These revisions are shown in strikethrough / double underlined form. 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, Partial Recirculated Draft EIR as well to any new comments on this 2nd Partial Recirculated DEIR will be included in the Final EIR.

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Kidder Creek Orchard Camp

2nd PARTIAL RECIRCULATED

DRAFT

ENVIRONMENTAL IMPACT REPORT

June 2022

State Clearinghouse Number 2016092016

Prepared for:

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

Prepared by:

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

55 Hanover Lane, Chico, California 95973

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EXECUTIVE SUMMARY

This 2nd Partial Recirculated DEIR has been completed to address an unintentional error in traffic average daily trips (ADT) provided in the original and update Environmental Noise Assessment for the Proposed Project. The original 2017 noise assessment as well as the 2021 updated noise assessment used traffic ADTs of 1,067. This error in ADTs was commented on in a letter commenting on the DEIR. However, the comment was not decerned until after the Partial Recirculated DEIR was circulated for public review. The actual ADT for the Project is 1,448. As such, the 2nd Partial Recirculated DEIR has been completed to address this increase in traffic ADTs. All other sections of the DEIR use 1,448 ADTs to evaluate the potential for impact to the environment. Therefore, only those section of the DEIR which are affected by the incorrect ADT count, Section 3.4 Noise and Section 4.0 Alternatives, are being recirculated as a part of this 2nd Partial Recirculated DEIR.

The Executive Summary for this 2nd Partial Recirculated DEIR only represents the 2nd Partial Recirculated DEIR and is not a revision of the DEIR or Partial Recirculated DEIR Executive Summaries. Therefore, underline/strikethrough formatting is not used in this section with the exception of Table ES-1 which includes an additional noise impact summary with the increase in ADTs.

ES.1 Introduction

The Executive Summary is for the 2nd 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 and a Partial Recirculated DEIR in June 2022. As stated previously, there was an error in ADTs used as a part of the noise analysis which was not discovered until after the Partial Recirculated DEIR was made available for public review. 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 2nd 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 2nd 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 has not been changed from the Partial Recirculated DEIR but is included herein to provide a description of the Project for the reader of this document.
- **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.
- **Section 4.0 *Alternatives.*** This chapter is amended to include the change in the noise analysis and the resultant Alternatives determinations.

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) 024-370-040 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 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].	
b) Exposure of persons to or generation of nighttime noise levels.	SI	MM 12.3 The Project shall enforce the following in order to limit the potential for nighttime noise disturbances. • Camper pick up and drop off hours shall be set to avoid the need for traffic on South Kidder Creek Road between the hours of 10 pm and 7 am. All other camp traffic should be limited to daytime hours to the maximum extent practical. • Quiet periods between the hours of 10 pm and 7 am shall be established and strictly enforced by camp personnel.	LTS
c) The Project would generate a substantial, permanent increase in ambient noise levels due to noise produced by traffic increases.	SI	None feasible, this impact is significant and unavoidable.	SU
d) The Project, when considered with future development, is likely to have a significant cumulative impact due to traffic noise sources.	CC	None feasible, this impact is cumulatively considerable and significant and unavoidable.	CC, SU

Notes: CC = cumulatively considerable impact, LTS = less than significant, SI = significant impact, SU = significant and unavoidable impact.

[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 (DEIR or Draft EIR), which includes the 2019 DEIR and 2022 Partial Recirculated 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 and a and a Partial Recirculated DEIR in circulated from April 5, 2022 to June 20 2022. This 2nd Partial Recirculated DEIR has been completed to address an unintentional error in traffic average daily trips (ADT) provided in the original and update Environmental Noise Assessment for the Proposed Project. The original 2017 noise assessment as well as the 2021 updated noise assessment used traffic ADTs of 1,067. This error in ADTs was commented on in a letter commenting on the DEIR. However, the comment was not decerned until after the Partial Recirculated DEIR was circulated for public review. The actual ADT for the Project is 1,448. As such, the 2nd Partial Recirculated DEIR has been completed to address this increase in traffic ADTs. All other sections of the DEIR use 1,448 ADTs to evaluate the potential for impact to the environment. Therefore, only those section of the DEIR which are affected by the incorrect ADT count, Section 3.4 Noise and Section 4.0 Alternatives, are being recirculated as a part of this 2nd Partial Recirculated DEIR.

Because of this error, 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 2nd 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.
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- **Section 2.0. *Project Description***. This chapter has not been changed from the Partial Recirculated DEIR but is included herein to provide a description of the Project for the reader of this document.
- **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.

- **Section 4.0 *Alternatives.*** This chapter is amended to include the change in the noise analysis and the resultant Alternatives determinations.

- ***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 June10, 2022

Upon completion of the environmental analysis for this 2nd Partial Recirculated DEIR, it was determined that new information resulted in an increase of any of the Project's impacts regarding traffic noise. However, none of the new and additional information provided in this 2nd Partial Recirculated DEIR resulted in a need to re-visit those sections not included in this 2nd Partial Recirculated DEIR including the following: Section 3.1 Agricultural and Forestry Resources, Section 3.3 Hydrology and Water Resources, Section 3.5 Transportation/Traffic, Section 3.6 Emergency Access Road Extension, and Section 5.0 Other CEQA Analysis. Finally, the new information provided in the 2nd Partial Recirculated DEIR results in an increase of Project's impacts related to traffic noise to a significant and unavoidable impact level. However, 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 or Partial Recirculated 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. As discussed further below, the County requests that public comment on this document be limited to the substantive new information in this 2nd Partial Recirculated DEIR 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])

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 2nd Partial Recirculated Draft EIR

This document constitutes the 2nd Partial Recirculated Draft EIR. The 2nd Partial Recirculated Draft EIR contains Section 1.0. Introduction, Section 2.0. Project Description, and revisions to Section 3.4. Noise and Section 4.0 Alternative incorporating new information using a double underline/strikethrough format. The 2nd 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 provided in this 2nd Recirculated 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 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 , the Partial Recirculated Draft EIR, and the 2nd Partial Recirculated Draft EIR that raise significant environmental concerns and may contain

revisions to the Draft EIR, if necessary. The Draft EIR, the Partial Recirculated Draft EIR and the 2nd 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

Section 2.0 Project Description of the Partial Recirculated DEIR is provided in its entirety. Please note: this section has not been revised from the Partial Recirculated Draft EIR. This section is only provided herein for reference to assist in the review of the 2nd Partial Recirculated Draft EIR.

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	
024-370-040	024-440-320
024-370-380	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/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**.

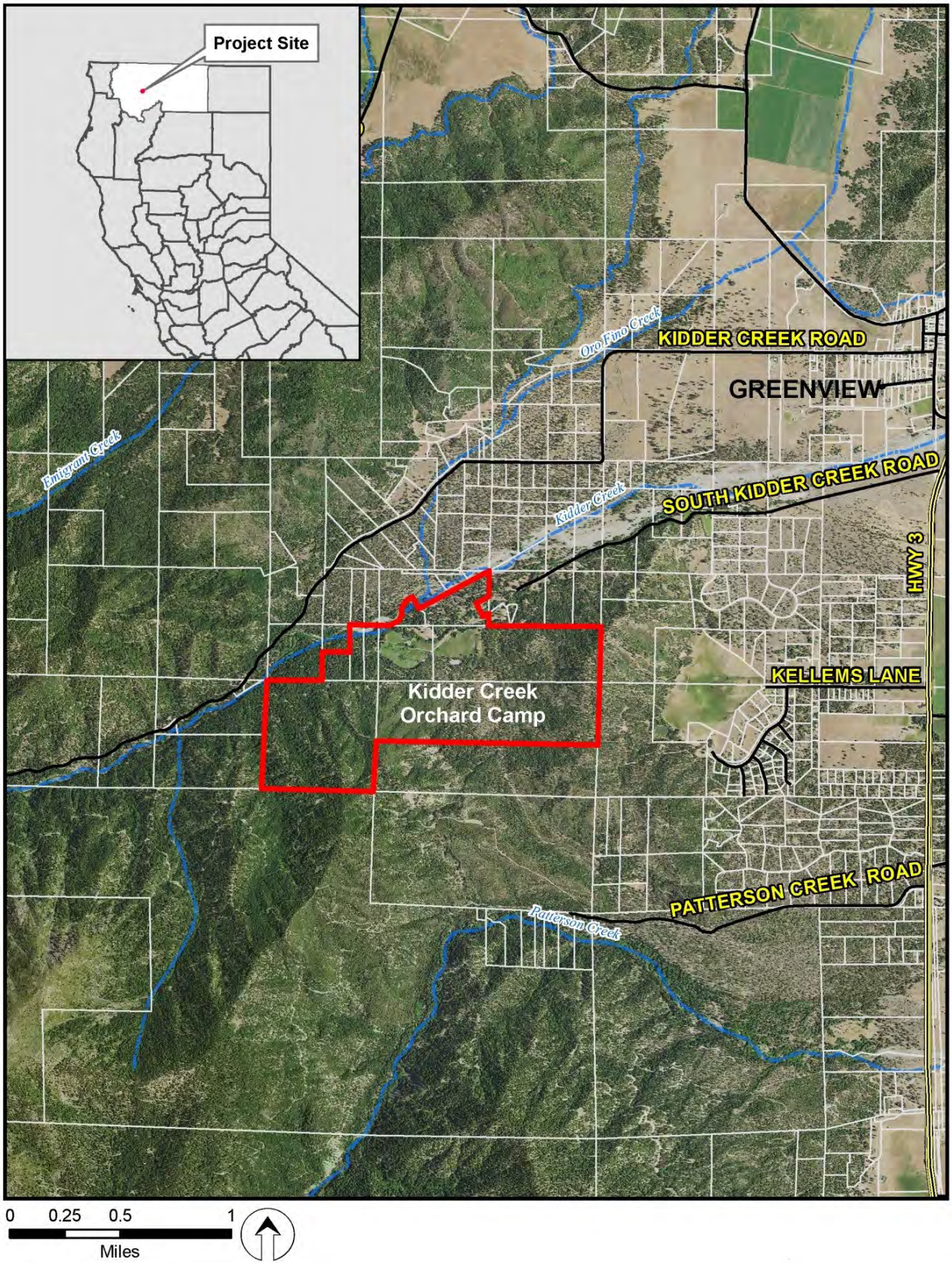

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Figure 1. Project Location
2018-123 Kidder Creek Orchard Camp

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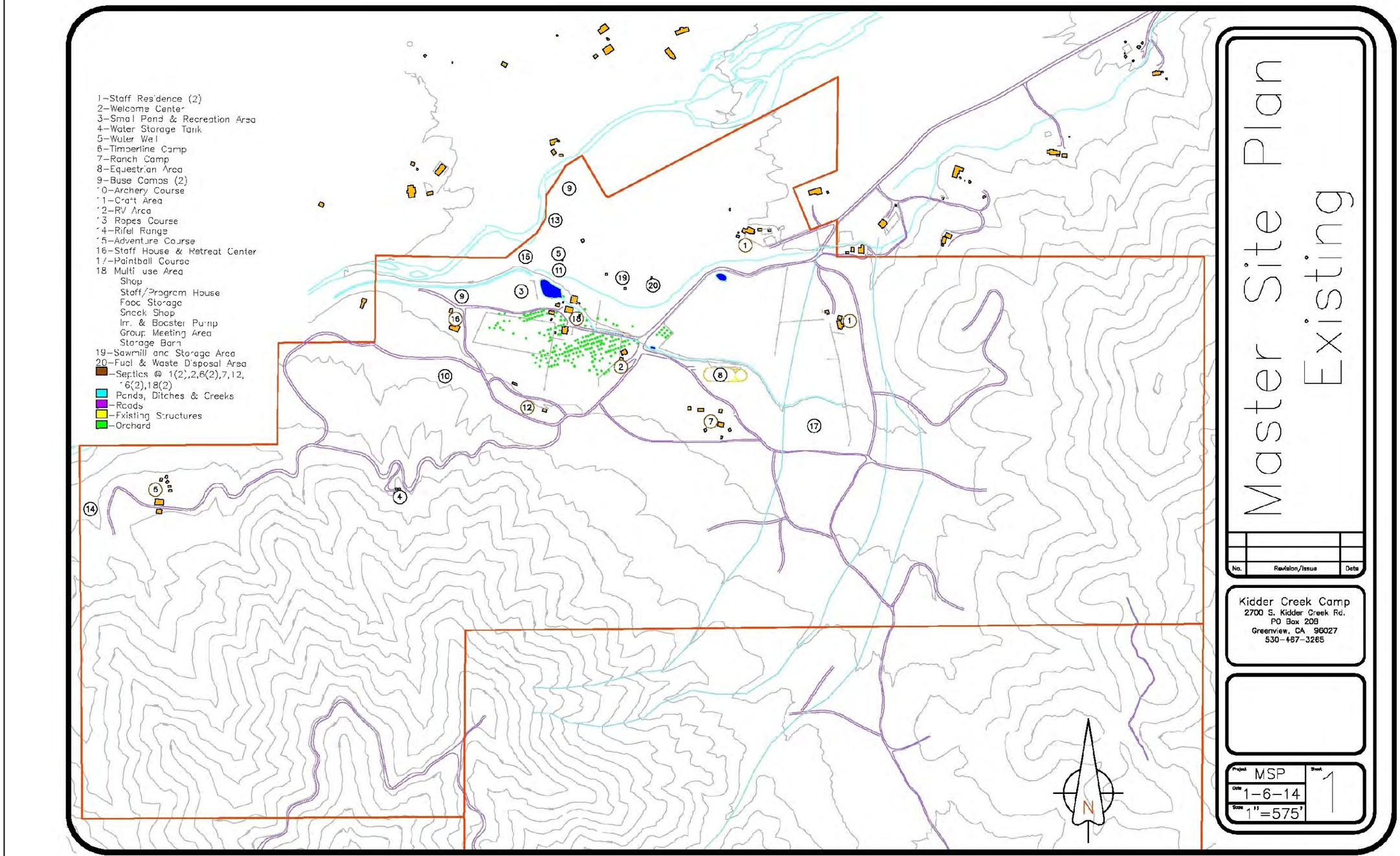

Figure 2. Existing Site

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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

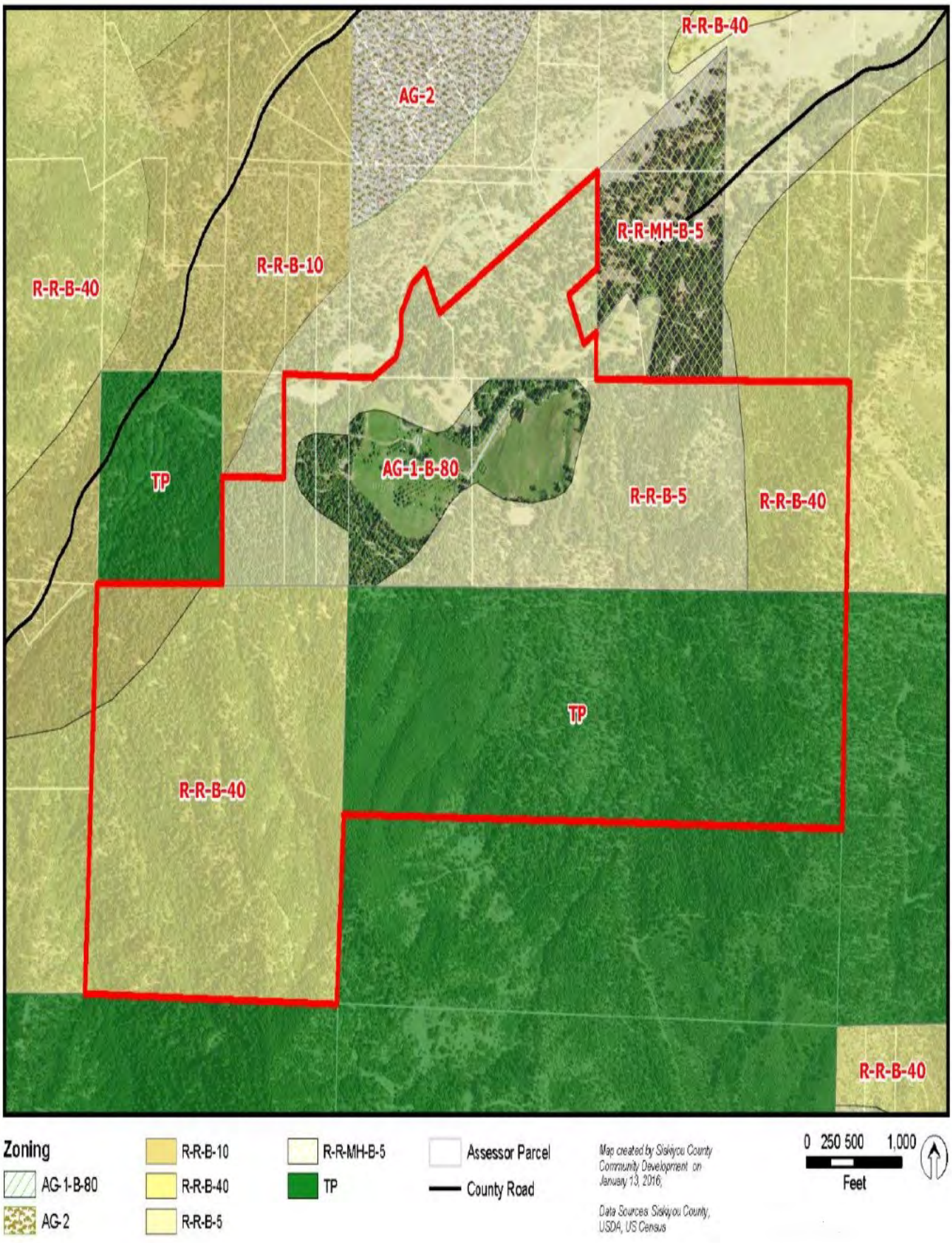

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Figure 3. Existing Zoning
2018-123 Kidder Creek Orchard Camp

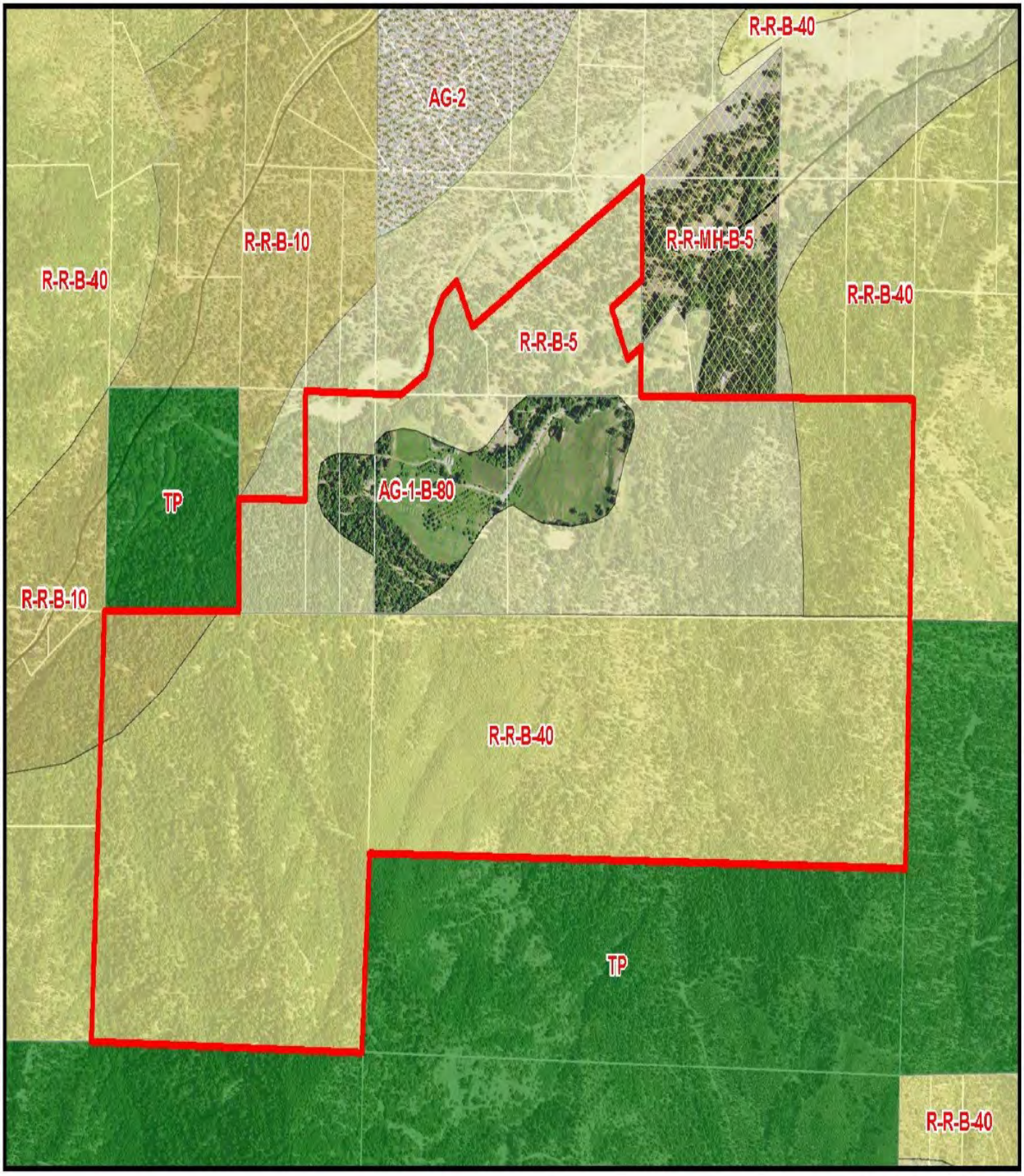

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Figure 4. Proposed Zoning
2018-123 Kidder Creek Orchard Camp

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.

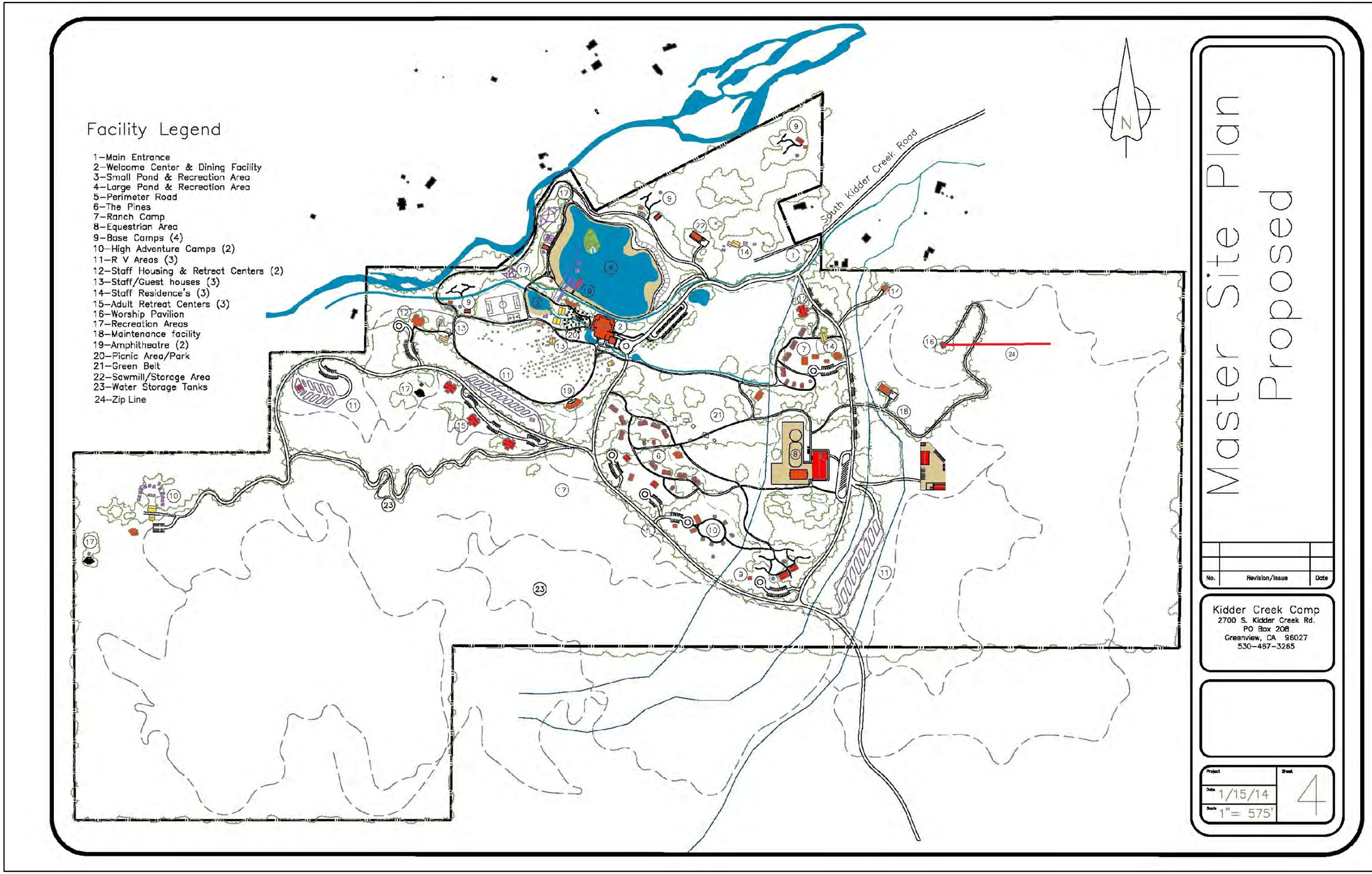

Figure 5. Proposed Project

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.

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

[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.

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 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

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

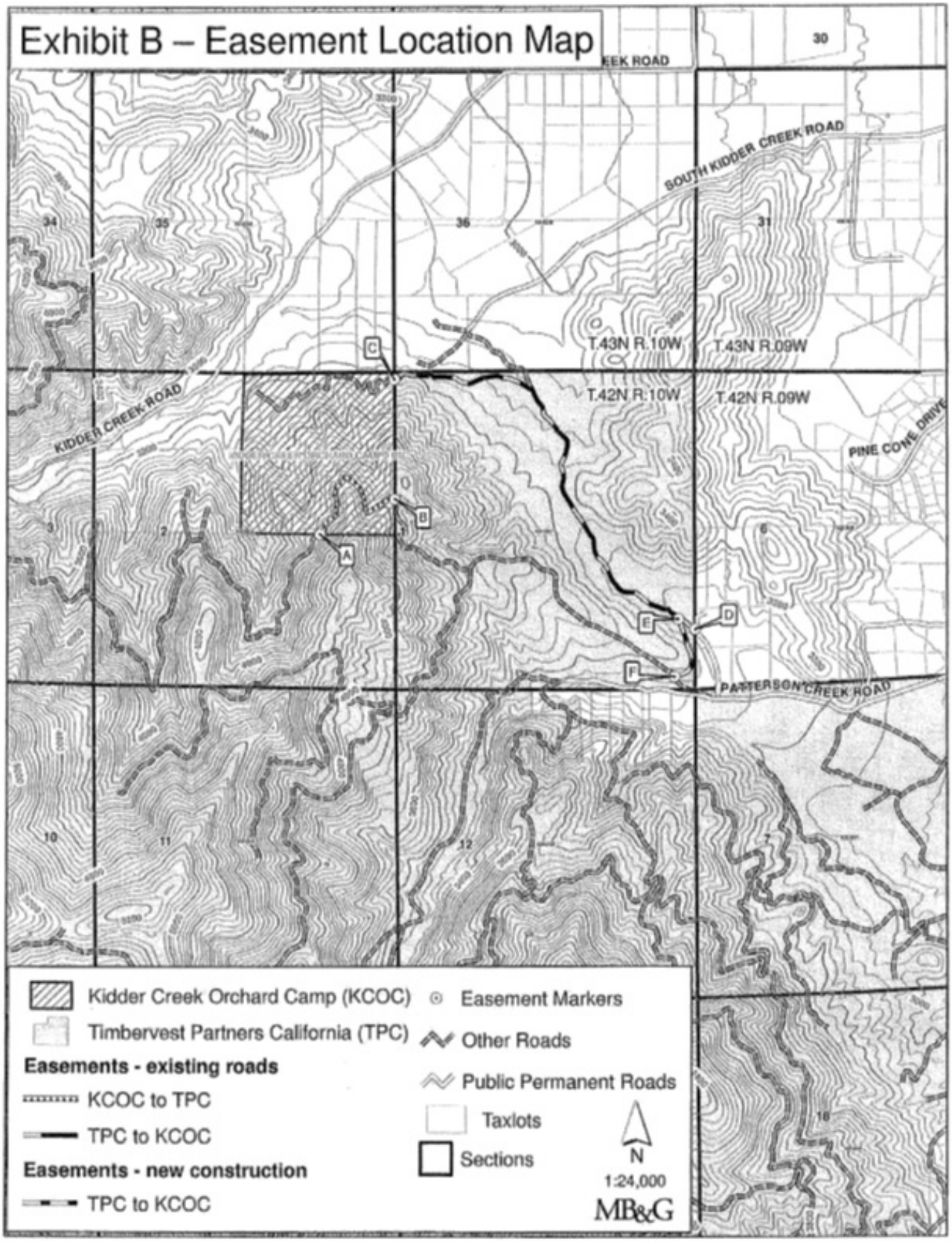
of an estimated 1,400-1,500 feet in length. As with the existing roadway, the new portion of the roadway is located in an area of mixed conifer forest. The new roadway alignment would not pass through or require the alteration of any natural waterways as none exist in the area. A portion (approximately 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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SECTION 3.4 NOISE

This section is a revision to the previous Section 3.4 Noise in the Partial Recirculated 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 Partial Recirculated 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 and This 2nd Partial 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**.

This 2nd Partial Recirculated DEIR has been completed to address an unintentional error in traffic average daily trips (ADT) provided in the original and update Environmental Noise Assessment for the Proposed Project. The original 2017 noise assessment as well as the 2021 updated noise assessment used traffic ADTs of 1,067. This error in ADTs was commented on in a letter commenting on the DEIR. However, the comment was not decerned until after the Partial Recirculated DEIR was circulated for public review. The actual ADT for the Project is 1,448. As such, the 2nd Partial Recirculated DEIR has been completed to address this increase in traffic ADTs.

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)

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	—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 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 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.

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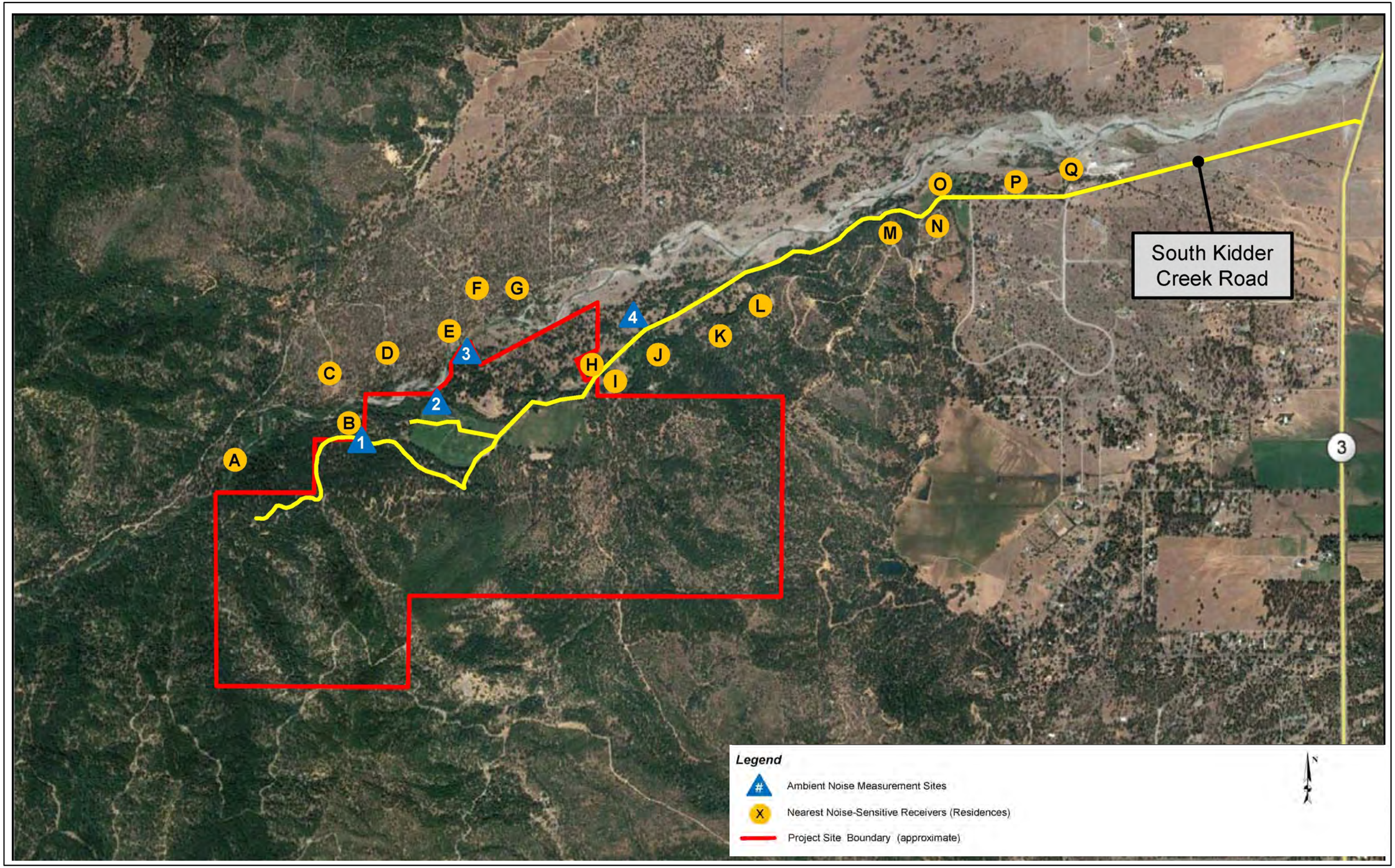

Map Date: 12/9/2021
Photo (or Base) Source: Bollard Acoustical Consultants, Inc. 2021

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 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 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]	Exceedance of County 55 dBA Ldn Noise Standard?
D	1,500	42	No
E	900	46	No
F	1,500	42	No
G	1,400	42	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 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.

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, 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~~43	~~5~~7
I	270	35	~~40~~41	~~5~~6
J	300	36	~~41~~42	~~5~~6
K	500	34	~~39~~40	~~5~~6
L	380	37	~~42~~44	~~5~~7
M	200	40	~~44~~45	~~4~~5
N	150	41	~~46~~47	~~4~~6
O	70	46	~~50~~52	~~4~~6
P	70	50	~~54~~56	~~4~~6
Q	300	42	~~46~~47	~~4~~5

Source: Bollard Acoustical Consultants, Inc. (2021, 2022)

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~~5 to ~~5~~7 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 to ~~5~~7 dBA Ldn, the increase in overall baseline ambient noise levels would be considerably lower (i.e., less than 3 dB). In addition, Table 7 indicates that the predicted worst-case Saturday traffic noise levels would be below the Siskiyou County 60 dBA DNL exterior noise standard applicable to residential uses. Nonetheless, because the predicted increases in traffic noise levels at the nearest residences to South Kidder Creek Road could exceed the 5 dBA significance threshold during worst-case Saturday project trip generation conditions, although only be 1-2 dBA, this impact is identified as being significant.

Because off-site mitigation of traffic noise impacts would be infeasible (i.e. construction of off-site noise barriers, reductions in posted speed limits, relocation of the roadway or residences to create larger setbacks, etc.), the noise impact identified for increases in off-site traffic noise levels at existing residences located along South Kidder Creek Road is considered ***significant and unavoidable***.

~~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***.~~

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 3.4-98**, 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. 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 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.

[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.

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. 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	59	50	1	1	1
E	49	53	56	50	57	57	1	1	1
F	44	64	49	45	60	50	1	1	1
G	44	64	49	45	59	50	1	1	1
H	44	61	50	45	59	51	1	2	1

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

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 average hourly (Leq), average daily (Ldn), and single-event maximum noise levels at the nearest residences are below 3 dBA threshold. 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 to ~~5~~7 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). Nonetheless, because the predicted increases in traffic noise levels at the nearest residences to South Kidder Creek Road could exceed the 5 dBA significance threshold during worst-case Saturday project trip generation conditions, although only be 1-2 dBA, this impact is identified as being significant.

Because off-site mitigation of traffic noise impacts would be infeasible (i.e. construction of off-site noise barriers, reductions in posted speed limits, relocation of the roadway or residences to create larger setbacks, etc.), the noise impact identified for increases in off-site traffic noise levels at existing residences located along South Kidder Creek Road is considered ***significant and unavoidable***.

~~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***.~~

Sleep Disturbance

A comment was received that the noise study should include an evaluation of potential sleep disturbance impacts. Such impacts were not thoroughly investigated in the 2017 noise study because the project does not propose any nighttime activities and the overwhelming majority of project traffic is predicted to occur during daytime hours (conservatively assumed to be 95% of project traffic). In addition, traffic generated by residents residing on or near South Kidder Creek Road is not precluded from occurring during nighttime hours. Therefore, it is unrealistic to assume that nighttime traffic on South Kidder Creek Road does not currently occur. Because the majority of the Project's traffic occurs during daytime hours, it is unrealistic to assume that a substantial increase in nighttime traffic would result from the Project. However, sleep disturbance impacts may result from this expansion Project, and as such, mitigation measure **MM 12-3** been included to minimize the potential for nighttime noise generation. Implementation of this mitigation measure would reduce this potential impact to a less than significant level.

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 60 dBA L_{max}. This level is not expected to exceed existing maximum noise levels currently received by nearby residences. However, to reduce the potential for annoyance at those nearby residences during construction activities, 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**.

MM 12.3 The Project shall enforce the following in order to limit the potential for nighttime noise disturbances.

- Camper pick up and drop off hours shall be set to avoid the need for traffic on South Kidder Creek Road between the hours of 10 pm and 7 am. All other camp traffic should be limited to daytime hours to the maximum extent practical.
- Quiet periods between the hours of 10 pm and 7 am shall be established and strictly enforced by camp personnel.

Timing/Implementation: Ongoing, throughout the life of the Project.

Monitoring/Enforcement: County of Siskiyou Planning Department

No mitigation measures to reduce traffic noise to a less than significant level are feasible therefore this remains a significant and unavoidable impact.

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 Offsite Vehicular Traffic Noise

Long-term noise sources associated with of the development at the Project, related to vehicular traffic, combined with other cumulative projects could cause local noise level increases. As discussed under Impact 3.4.1, 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 5-7 dBA Ldn and increase the predicted traffic noise levels at the nearest residences to South Kidder Creek Road would exceed the 5 dBA significance threshold during worst-case Saturday project trip generation conditions.

Because off-site mitigation of traffic noise impacts would be infeasible (i.e. construction of off-site noise barriers, reductions in posted speed limits, relocation of the roadway or residences to create larger setbacks, etc.), the noise impact identified for increases in off-site traffic noise levels at existing residences

located along South Kidder Creek Road is considered ***cumulatively considerable*** *and* ***significant and unavoidable***.

Cumulative Mitigation Measures

None required for construction noise and stationary noise. No mitigation measures to reduce traffic noise to a less than significant level are feasible.

4.0 ALTERNATIVES TO THE PROPOSED PROJECT

This section is a revision to the previous Section 4.0 Alternatives 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 and Partial Recirculated DEIR publication. Because only Section 3.4 Noise was revised, the revisions to this chapter only affect the noise discussions under each alternative. No other revisions are necessary to this chapter.

As noted in Section 1.0 Introduction, responses to comments provided on the DEIR, Recirculated DEIR and this 2nd Partial Recirculated DEIR will be included in the Final EIR as required by CEQA Guidelines Section 15132(d).

The alternatives analysis consists of the following components: an overview of California Environmental Quality Act (CEQA) requirements for alternatives analysis, descriptions of the alternatives evaluated, a comparison between the anticipated environmental effects of the alternatives and those of the Proposed Project, and identification of an environmentally superior alternative.

4.1 Introduction

4.1.1 CEQA Requirements for Alternatives

CEQA requires that an EIR consider a reasonable range of alternatives to a proposed project that can attain most of the basic project objectives but has the potential to reduce or eliminate significant adverse impacts of the proposed project and may be feasibly accomplished in a successful manner, considering the economic, environmental, social, and technological factors involved. An EIR must evaluate the comparative merits of the alternatives (CEQA Guidelines § Section 15126.6(a), (d) and (e)). If certain alternatives are found to be infeasible, the analysis must explain the reasons and facts supporting that conclusion.

Section 15126.6(d) also requires that, if an alternative would cause one or more significant effects in addition to those caused by a proposed project, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed. One of the alternatives analyzed must be the "No Project" alternative (CEQA Guidelines Section 15126.6(e)). The EIR must also identify alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and should briefly explain the reasons underlying the lead agency's determination (CEQA Guidelines Section 15126.6(c)).

CEQA Guidelines Section 15126.6(e)(2) requires that the EIR identify the environmentally superior alternative. If that alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. The environmentally superior alternative is discussed in Section 4.5.

4.1.2 Development of Project Alternatives

This section discusses the reasoning for selecting and rejecting alternatives and summarizes the assumptions identified for the alternatives. The range of alternatives included for analysis in an EIR is governed by the "rule of reason." The primary objective is formulating potential alternatives and choosing which ones to analyze to ensure that the selection and discussion of alternatives fosters informed decision making and informed public participation. This is accomplished by providing sufficient information to enable readers to reach conclusions themselves about such alternatives. This approach avoids assessing an unmanageable number of alternatives or analyzing alternatives that differ too little to provide additional meaningful insights about their environmental effects. The alternatives addressed in this Draft EIR were selected in consideration of one or more of the following factors:

- The extent to which the alternative would avoid or reduce any of the identified significant effects of the project and yet would accomplish most of the basic objectives of the project.
- The feasibility of the alternative, taking into account site suitability and surrounding existing land uses, and consistency with applicable public plans, policies, and regulations.
- The appropriateness of the alternative in contributing to a reasonable range of alternatives necessary to permit a reasoned choice.

The alternatives analyzed in this Draft EIR were ultimately chosen based on each alternative's ability to feasibly attain the basic project objectives while avoiding or reducing one or more of the project's significant effects. The analysis provides readers with adequate information to compare the effectiveness of identified mitigation or significant adverse impacts and to enable readers to make decisions about the project. CEQA requires EIRs to address a reasonable range of reasonable alternatives, but not all potential alternatives.

4.1.3 Project Objectives

As noted above, an EIR must describe a reasonable range of alternatives to a project that would feasibly attain the basic project objectives while avoiding or reducing one or more of the project's significant effects (CEQA Guidelines Section 15126.6(a)). In identifying the range of alternatives for analysis in this EIR, the project objectives identified in **Section 2.0 Project Description** are reiterated below:

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.

4.2 Alternatives Descriptions and Analysis

4.2.1 Description of Alternatives

Alternative 1: No Project

CEQA Guidelines Section 15126.6(e)(1) states that a No Project Alternative must be analyzed in every EIR. Alternative 1 evaluates the environmental impacts if the Project site were to remain in its current state as four camping areas, an RV camping area and five staff/guest homes. Based on the occupant levels for each area, the maximum daily occupancy is 310 persons in the summer months and approximately 150 persons in the fall and spring months. As discussed in **Section 2.0**, the existing Kidder Creek Orchard Camp (KCOC) occupies ±333 acres. The property has been used for camping for 40 years, and continues to be operated by Scott Valley residents, both paid and volunteer, with seasonal staff hired locally and outside the area. The existing use permit with an occupancy of 165 guests (310 including staff and volunteers) would remain as well as the existing zoning on the project site.

Alternative 2: No Pond

Alternative 2 would eliminate the proposed seven-acre pond from the Proposed Project. This alternative was chosen for analysis to determine if the elimination of the pond would reduce noise and water impacts from the site. All other proposed uses would be the same as the Proposed Project.

As with the Proposed Project, this alternative would require a new use permit to allow for a total occupancy of 844 persons and rezone to change the current TPZ zoning district to R-R-B-40.

Alternative 3: Reduced Project Development

The Reduced Project Development Alternative would include all of the proposed uses of the Project but would reduce the size of the Project to only accommodate 622 persons instead of the 844 persons for the Project. As with the Proposed Project, Alternative 3 would also require a rezone from TPZ to R-R-B-40 and a new use permit. The proposed seven-acre pond, amphitheaters, equestrian area, roadways, trails, and emergency access would the same as the Proposed Project. Only the occupancy level and accommodations to support this occupation level would be reduced with this alternative. See **Table 4-1**. for these changes.

The Proposed Project would increase the maximum occupancy over the existing KCOC by 508 persons. This, plus the existing maximum occupancy level of 310 persons results in the 844-total person occupancy. However, Alternative 3 would only add an additional 286 persons to the maximum occupancy level, which is a reduction of 43.7 percent over the Proposed Project and results in a maximum of 622-person occupancy level. Based on this, **Table 4-1** provides the uses and occupancy levels for Alternative 3.

Table 4-1. Alternative 3 Uses and Occupancy

Map ID#	Area	Estimated Building/ Area Size	Occupancy	
			Summer	Spring and Fall
New Structures				
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)	176 persons
		576 sq. ft. (each cabin)	2 cabins @ 8 (16 persons total)	
7	Ranch Camp (relocated)	1,152 sq. ft. (each cabin)	4 cabins @ 16 persons (64 persons total)	80 persons
		576 sq. ft. (each cabin)	2 cabins @ 8 persons (16 persons total)	
10	High Adventure Camp #2	Tent structures	40 persons	0 persons
11	RV Area #2	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
Alternative 3 Total			440 persons	400 persons
Existing Structures				
10	High Adventure Camp #1	Tent Structures	120 persons	0
11	RV Area #1	12 spaces	24 persons	24 persons
14	Staff Residence #1	2,200 sq. ft.	6 persons	6 persons
14	Staff Residence #2	1,248 sq .ft.	6 persons	6 persons
13	Staff/Guest House #1	1,728 sq. ft.	10 persons	10 persons
13	Staff/Guest House #2	2,000 sq. ft.	10 persons	10 persons
13	Staff/Guest House #3	1,850 sq. ft.	6 persons	6 persons
Existing Total			*182 persons*	*62 persons*
		Total:	622 persons	462 persons

Table 4-2 illustrates difference between the Proposed Project and Alternative 3 in regard to the square footage of the occupancy, structure and RV space. For example, The Pines (Map ID #6) will have five fewer cabins and will accommodate 72 fewer people than the Proposed Project.

Table 4-2. Comparison of Alternative 3 to Proposed Project

Map ID#	Area	Compared to Project, Alternative 3 Will Result In	
		Estimated Building/ Area Size	Occupancy (Based on Summer Occupancy)
1	Welcome Center and Dining	Same	-
3	Equestrian Center	Same	-
6	The Pines	Same	Same
		Total of 576 sq. ft. less of cabins (1 cabin)	(8 fewer persons)
7	Ranch Camp (relocated)	same	same
		Total of 576 sq. ft. less of cabins (1 cabin)	(8 fewer persons)
9	Base Camp #1 (relocated)	not relocated	not included
9	Base Camp #2	not included	not included
10	High Adventure Camp #2	same	same
11	RV Area #2	same	same
11	RV Area #3	not included	not included
12	Staff housing/ Retreat Center #1	same	same
12	Staff housing/ Retreat Center #2	same	same
15	Adult Retreat Center #1	same	same
15	Adult Retreat Center #2	not included	not included
15	Adult Retreat Center #3	not included	not included
14	Staff Residence #3	not included	not included
	Total:	12,902 sq. ft. less of building space, 12 fewer RV spaces, 2 fewer Adult Retreat Centers 1 fewer staff residence 2 fewer cabins 1 fewer base camp	222 fewer persons

A smaller project would generally have incrementally fewer air quality, GHG, noise, and traffic impacts as well as lower demand for water and wastewater services. Therefore, Alternative 3 was chosen for analysis to determine if this alternative would result in fewer impacts to the physical environment than the Proposed Project and still meet the majority of the Proposed Project's objectives.

Alternatives Considered but Rejected as Infeasible

Alternate Site Alternative

An alternative with the Project on an alternate site in the general area of the Proposed Project was considered but rejected for a number of reasons: the ability to assemble and purchase acreages of the size of the Project would be cost prohibitive and infeasible; an alternate site would essentially double the number of camps as the existing camp would continue to operate and therefore would result in greater impacts than the Proposed Project site; insufficient vacant correctly zoned lots to accommodate the Project; and the Project site is already used for the proposed purpose and, therefore, the increase of this use would have less impact than the development of an new camp on vacant undisturbed land.

Significance Findings of the EIR

This EIR determined that the Proposed Project either resulted in no impacts or impacts that could be reduced to a less-than-significant level through implementation of mitigation measures. The alternatives discussion focuses on environmental impacts of the Proposed Project that either require mitigation measures or that could not be mitigated to less than significant. Please refer to **Table ES-2** in the Executive Summary for a complete listing of project impacts and mitigation measures.

4.2.2 Analysis of Alternatives

Because the Initial Study determined that only certain impact analysis areas were to be analyzed in this EIR, each alternative is compared to the Proposed Project using the analysis presented in this EIR as well as the analysis from the Initial Study. The Project alternatives are evaluated in less detail than those of the Proposed Project, and the impacts are described in terms of difference in outcome compared with implementing the Proposed Project. **Table 4-5** in **Section 4.3** provides an at-a-glance comparison of the environmental benefits and impacts of each alternative. **Table 4-6** compares the alternatives to the basic project objectives.

Alternative 1: No Project

Under the No Project Alternative, future development of the Proposed Project would not occur, and the Project site would remain as it currently exists, that of the KCOC with an occupancy maximum of 310 persons.

Aesthetics and Scenic Resources

The Initial Study completed for the Proposed Project determined that Project would not result in any significant impacts to aesthetics and scenic resources.

Alternative 1 would not result in the development of any new buildings or RV parking facilities on the site. The site would remain in its current condition and, therefore Alternative 1 would neither impact views of scenic resources nor substantially degrade the existing visual character or quality of the site. Also, Alternative 1 would not introduce new sources of light and glare, which would affect daytime or nighttime views in the area.

Impacts to aesthetics, including new structures from the Proposed Project, were determined as a part of the Initial Study analysis to be less than significant with no mitigation measures necessary. However, Alternative 1 would not alter the existing aesthetics and scenic resources in any way. Therefore, Alternative 1 is considered superior to the Proposed Project with regard to impacts to aesthetics and scenic resources.

Agriculture and Forestry Resources

As discussed in **Section 3.1**, the Proposed Project would not result in impacts to agricultural resources. The 24.8 acres identified as Prime Farmland by the DOC are located in the valley area of the Project site. The Project proposes a new Welcome Center (#32 on **Figure 5**) and an Amphitheater (#19 on **Figure 5**),

located in the area identified as Prime Farmland by DOC. However, the construction of these uses would not remove the ability to use the remaining area as farmland, if so desired in the future, as these structures are relatively small in size and the construction sites are on the edge of the Prime Farmland area.

Alternative 1 includes a number of existing structures such as the Welcome Center (#2 on **Figure 2**), shop, staff house, food storage, snack shop, booster pump, group meeting area and storage barn (#18 on **Figure 2**) in the area. These are located in an area identified as Prime Farmland by the DOC. These uses would not be expanded in Alternative 1 and any issues related to agricultural resources would remain as they currently exist and would not expand. However, although the Proposed Project would have a less than significant impact to agricultural resources, the Proposed Project would increase the number of structures in the Prime Farmland area. As such, Alternative 1 is considered superior to the Proposed Project with regard to impacts to agricultural resources.

Alternative 1 would not result in the rezoning of 170 acres of timber production land to rural residential uses as proposed for the Project. The TPZ District uses will remain as they currently exist. As such, Alternative 1 is considered superior to the Proposed Project with regard to impacts to forestry and timber resources.

Air Quality

As discussed in the Initial Study, the Project-generated air emissions would not exceed applicable air quality thresholds, not result in toxic air contaminant (TAC) impacts, and not conflict with regional air quality management planning. However, due to portions of the site being classified as high for erosion, there is the potential for fugitive dust during land disturbance activities. As such, implementation of mitigation measure **MM 3.1** was required to reduce this impact to a less than significant level.

Alternative 1 would not exceed any air quality thresholds as the site would remain in its existing condition and therefore no impact to air quality would occur. As such, the impacts to air quality under this alternative are less than the Proposed Project.

Biological Resources

The Proposed Project would result in potential impacts to special status species, riparian habitats, wetlands, migratory species. However, as defined in the Initial Study, mitigation measures **MM 4.1 through MM 4.6** would reduce these potential impacts to a less than significant level. As no new construction or other uses are proposed with Alternative 1, this alternative would not result in impacts to biological resources beyond those currently existing. However, the Proposed Project's mitigation measure does provide one mitigation that would be beneficial for implementation in Alternative 1. Mitigation measure **MM 4.1** requires interpretative signage to be placed in proximity to the plant populations to educate camp staff and visitors regarding the plants status as a special status species. This would assist in the education of camp visitors to the concerns for special status species. However, Alternative 1 is still considered superior to the Proposed Project with regard to impacts to biological resources as the impacts to these resources would be greater with the Proposed Project than with Alternative 1.

Cultural Resources

The Initial Study prepared for the Proposed Project determined that the Project would result in potential impacts to unknown/undiscovered historical, archaeological, paleontological and tribal resources. However, as defined in the Initial Study, mitigation measures **MM 5.1 through MM 5.3** would reduce these potential impacts to a less than significant level. As no new construction is proposed with Alternative 1, this alternative would not result in impacts to cultural resources. As such, the impacts to cultural resources under this alternative are less than the Proposed Project and Alternative 1 is considered superior to the Proposed Project with regard to impacts to cultural resources.

Geology and Soils

The Initial Study prepared for the Proposed Project determined that the Project would result in potential impacts due to a substantial amount of soil erosion. However, as defined in the Initial Study, mitigation measure **MM 6.1** would reduce this potential impact to a less than significant level. As no new structures or other uses are proposed with Alternative 1, this alternative would not result in soil erosion impacts. As such, the impacts resulting from soil erosion under this alternative are less than the Proposed Project and Alternative 1 is considered superior to the Proposed Project with regard to impacts to geology and soils.

Greenhouse Gases and Climate Change

The Proposed Project's GHG emissions were determined to be less than significant as no GHG thresholds have been established for the Siskiyou County Air Pollution Control District (SCAPCD) and the Project would not produce large amounts of GHG emissions.

Although Alternative 1 currently produces GHG emissions from automobiles, campfires and other uses, Alternative 1 would have no additional development and therefore no increase of GHG emissions would occur. As such, Alternative 1 is considered superior to the Proposed Project with regard to impacts from GHG and climate change.

Hazards and Hazardous Materials

The Initial Study prepared for the Proposed Project determined that the Project would not result in any impact from hazardous materials. However, there is a potential for wildland fire hazards. This impact analysis area is discussed in this EIR and the Project site is within a Very High Fire Severity Zone according to CAL FIRE. As discussed in **Section 3.2**, existing regulation reduces the potential for wildland fire impacts on the Project site. Additionally, it has been determined that the site has roadway easements to provide emergency access to and from the site. Mitigation measure **MM 8.1** requires that the roadway be maintained by the Project and approved by the County and CAL FIRE on an annual basis. This mitigation would reduce wildland fire emergency access to a less than significant level.

Alternative 1 is in the same location and has the same uses, although to a lesser degree, as the Proposed Project. As such, this alternative would have the same result regarding hazardous materials sites and hazards from the site. Additionally, the potential to expose people or structures to a significant risk of loss, injury, or death involving wildland fires would be similar. However, the Proposed Project would potentially

expose more people to this hazard due the greater number of people allowed at the site at any one time. As such, Alternative 1 is considered superior to the Proposed Project with regard to impacts from wildland fires.

Hydrology and Water Quality

The Proposed Project would have a less than significant impact to water quality with the implementation of mitigation measure **MM 4.5.** The Project site is not within a 100-year flood zone. Additionally, the there is adequate groundwater within the Scott River Valley Groundwater Basin to serve the Project's additional water demand and not affect other groundwater users. 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. The Proposed Project would have a less than significant impact in these areas. Development of the pond would require a dam to contain the pond water. Mitigation measure **MM 9.1** would ensure that this dam is constructed properly and the potential for impact would be less than significant.

Alternative 1 would not result in the construction of new buildings, RV parking areas, roadways or the development of a pond. Alternative 1 would be the continuation of a use that currently exists and would not impact hydrology and water quality beyond those already existing. As such, Alternative 1 is considered superior to the Proposed Project with regard to impacts to hydrology and water quality.

Land Use

As with the Proposed Project, development of Alternative 1 would not result in the physical division of an established community or conflict with a habitat conservation plan or natural community conservation plan. The Proposed Project requires a zone change of 170-acres from TPZ to R-R-B-40. Alternative 1 would not result in any changes to the zoning for the Project site and therefore would not have any potential conflicts with existing Siskiyou County land use policies or regulations. As such, impacts on land use would be less for Alternative 1 than those anticipated under the Proposed Project.

Mineral Resources

The Initial Study determined that there were no impacts to mineral resources from development of the Proposed Project. Alternative 1 would have a similar impact.

Noise

The Proposed Project will create noise during construction and operation of the new facilities. Through mitigation measures **MM 12.1** and **MM 12.2,** the Proposed Project's noise impacts would be mitigated to a less than significant level with the exception of traffic noise which will be cumulatively considerable and significant and unavoidable.

Section 3.4 identifies current noise levels at the Project site. Alternative 1 would not result in increased noise levels. Because Alternative 1 would not result in changes to the existing conditions of the site, no

noise impacts would occur. Overall, Alternative 1 would have less of an impact related to noise than the Proposed project.

Population and Housing

As discussed in the Initial Study, the Proposed Project is not expected to result in a substantial increase in permanent population or new housing to the area and the impact is considered less than significant.

No additional development of the site would occur under Alternative 1. As such, Alternative 1 would not result in population growth. Neither the Proposed Project nor Alternative 1 would remove housing or displace persons. While the Proposed Project would result in only a temporary increase in population to the area during the spring, summer and fall months, Alternative 1 would have no impact regarding population and housing over existing conditions and therefore would have less impact than the Proposed Project.

Public Services

The Initial Study determined that implementation of the Proposed Project would result in less than significant impacts to law enforcement, fire protection, schools, and parks and recreation. While none of the Proposed Project's impacts would require new or expanded facilities, the Proposed Project would increase the use of nearby recreation areas. However, this increase in use would not result in new or expanded facilities.

Alternative 1 would have no increase in development. The demand for public services would be the same as it currently exists. As such, continuation of the site for Alternative 1 would have no impact to public services. Alternative 1 would result in less impact when compared to the Proposed Project regarding public services.

Recreation

The Initial Study determined that the Proposed Project would have a negligible impact on local recreation facilities and would not cause deterioration or the need for expanded or new facilities.

Alternative 1 would have no increase in visitors to the site. The demand for recreational facilities would be the same as it currently exists. As such, continuation of the site for Alternative 1 would have no impact to recreation. Alternative 1 would result in less impact when compared to the Proposed Project regarding recreation.

Transportation and Circulation

The Traffic Impact Study prepared for the Proposed Project determined that the Project would increase daily traffic volume by 1,110 trips over existing conditions. However, based on the County's and Caltrans' level of service (LOS) for the area roadways, this increase would not exceed the roadway LOS thresholds. As such, the Project would not result in a significant impact. Additionally, the Proposed Project would not result in significant impacts to public transit or bicycle/pedestrian facilities.

Alternative 1 would result in no increases in traffic nor increases in the demand for public transit or bicycle/pedestrian facilities. While the Proposed Project would not result in a significant impact, the Project would substantially increase the number of vehicle trips to and from the Project site. As such, Alternative 1 would have less impact when compared to the Proposed Project regarding transportation and circulation.

Utilities

As determined in the Initial Study, the Proposed Project would result in less than significant impacts to water, wastewater, stormwater drainage, and solid waste capacity and facilities. Alternative 1 would have no increase in development. The demand for utilities would be the same as it exists currently. As such, continuation of the site for Alternative 1 would have no impact to utilities. Alternative 1 would result in less impact when compared to the Proposed Project regarding utilities.

To summarize, while Alternative 1 avoids all of the environmental impacts of the Proposed Project, it does not meet any of the five project objectives.

Alternative 2: No Pond

Under the No Pond Alternative, the proposed Project would be completed without the seven-acre pond. The area set aside for the pond would remain in its current state. All other development proposed as a part of the Project would be completed as proposed. This alternative would require a zone change and new use permit as required for the Proposed Project. The No Pond alternative was chosen for analysis because much of the noise and hydrological impacts are a result of development of the pond.

Aesthetics and Visual Resources

The Initial Study completed for the Proposed Project determined that Project would not result in any significant impacts to aesthetics and scenic resources.

Because this alternative would have the same occupancy level, same construction, with exception of the pond, same emergency access, same equestrian center, and same roadways/trails as the Proposed Project, Alternative 2 would have a similar impact to aesthetics and scenic resources as the Proposed Project impacts.

Agriculture and Forestry Resources

As discussed in **Section 3.1**, the Proposed Project would not result in impacts to agricultural resources. The 24.8 acres identified as Prime Farmland by the DOC are located in the valley area of the Project site. The Project proposes a new Welcome Center (#32 on **Figure 5**) and an Amphitheater (#19 on **Figure 5**), located in the area identified as Prime Farmland by DOC. However, the construction of these uses would not remove the ability to use the remaining area as farmland, if so desired in the future, as these structures are relatively small in size and the construction sites are on the edge of the Prime Farmland area.

Alternative 2 would also construct the Welcome Center and Amphitheater and in the same locations. As such, Alternative 2 would have the same impact to agricultural resources as the Proposed Project. Alternative 2 would also result in the rezoning of 170-acres of timber production land to rural residential uses as proposed for the Project. As such, Alternative 2 is considered equal to the Proposed Project with regard to impacts to forestry and timber resources.

Air Quality

As discussed in the Initial Study, the Project-generated air emissions would not exceed applicable air quality thresholds, not result in TAC impacts, and not conflict with regional air quality management planning. However, due to portions of the site being classified as high for erosion, there is the potential for fugitive dust during land disturbance activities. As such, implementation of mitigation measure **MM 3.1** was required to reduce this impact to a less than significant level.

Alternative 2 would also not exceed applicable air quality thresholds, not result in TAC impacts, and not conflict with regional air quality management planning. Mitigation measure **MM 3.1** would still be required for the alternative to reduce this potential impact. However, not creating a seven-acre pond would also reduce the amount of fugitive dust from construction with this alternative. Although the Proposed Project's impact would be less than significant with implementation of mitigation measure **MM 3.1**, Alternative 2 would result in less area of erosion potential and therefore less fugitive dust requiring mitigation. While both the Proposed Project and Alternative 2 would result in a less than significant impact to air quality, Alternative 2 is considered superior to the Proposed Project with regard to impacts to air quality as Alternative would create less air quality emissions during construction.

Biological Resources

The Proposed Project would result in potential impacts to special status species, riparian habitats, wetlands, migratory species. However, as defined in the Initial Study, mitigation measures **MM 4.1 through MM 4.6** would reduce these potential impacts to a less than significant level.

Alternative 2 would not include the development of seven acres of land that are currently occupied by natural biological resources. The *Botanical Resource Survey Addendum* completed by Resource Management (2013) for the Proposed Project indicates that the area of the proposed pond is occupied by mixed conifer forest and barren ground[1]. While the proposed pond area was not specifically surveyed for special status species and migratory species as a part of the Initial Study and while mitigation measures provided in the Initial Study reduced impacts to biological resources to a less than significant impact, no disturbance of the pond area, as would be the case in Alternative 2, would eliminate the potential for impacts to biological resources in this area. As such, Alternative 2 is considered superior to the Proposed Project with regard to impacts to biological resources.

[1] See Initial Study Appendix C *Botanical Resource Survey Addendum* Proposed Plans for Site with Plant Communities in Background map.

Cultural Resources

The Initial Study identified that the Project site was surveyed for cultural and historical resources in 2010 and 2013 by Resource Management archaeologists (Siskiyou County 2016). No prehistoric or historic archaeological sites were identified during the surveys. The Initial Study determined that the Project would result in potential impacts to unknown/undiscovered historical, archaeological, paleontological and tribal resources. However, as defined in the Initial Study, mitigation measures **MM 5.1 through MM 5.3** would reduce these potential impacts to a less than significant level.

With exception of the seven-acre pond site, Alternative 2 would have similar development in the areas identified for development in the Proposed Project's site plan. As no cultural resources were found during the cultural resources survey, it can be assumed that this would be the same for Alternative 2. Alternative 2 would also require mitigation for potential impacts to unknown/undiscovered historical, archaeological, paleontological and tribal resources. As with the Proposed Project, these mitigation measures would reduce the potential impacts of Alternative 2 to a less than significant level. However, implementation of Alternative 2 would result in less ground-disturbing activities than the Proposed Project and therefore, less potential to uncover unknown cultural resources. As such, Alternative 2 would be superior to the Proposed Project in the potential for impacting cultural resources.

Geology and Soils

The Initial Study prepared for the Proposed Project determined that the Project would result in potential impacts due to a substantial amount of soil erosion. However, as defined in the Initial Study, mitigation measure **MM 6.1** would reduce this potential impact to a less than significant level.

Alternative 2 would also have the potential for erosion impacts, which will require mitigation. However, due to elimination of the pond in Alternative 2, the land disturbance will be less than the Proposed Project. All other geology and soils impacts would be similar to the Proposed Project as Alternative 2 is located on the same site as the Proposed Project and geology and soils impacts are generally based on location.

Greenhouse Gases and Climate Change

The Proposed Project's GHG emissions were determined in the Initial Study to be less than significant as no GHG thresholds have been established for the SCAPCD and the Project would not produce large amounts of GHG emissions.

GHG emissions from the Proposed Project would come from car and truck emissions during construction, car and truck emissions during operation, campfires, fireplaces, waste disposal, energy use, and other GHG-producing activities. Alternative 2 would not include the construction of the seven-acre pond. This would eliminate the GHG emissions from the vehicles and worker trips used during this construction. All other GHG emissions would be the same as the Proposed Project. As such, Alternative 2 is considered superior to the Proposed Project with regard to impacts to from GHG emissions and climate change. In any case, as a mitigation measure is not required to reduce GHG emissions, both Alternative 2 and the Proposed Project would have a less than significant GHG and Climate Change impact.

Hazards and Hazardous Materials

The Initial Study prepared for the Proposed Project determined that the Project would not result in any impact from hazardous materials. However, there is a potential for wildland fire hazards. This impact analysis area is discussed in this EIR and the Project site is within a Very High Fire Severity Zone according to CAL FIRE. As discussed in **Section 3.2**, existing regulation reduces the potential for wildland fire impacts on the Project site. Additionally, it has been determined that the site has roadway easements to provide emergency access to and from the site. Mitigation measure **MM 8.1** requires that the roadway be maintained by the Project and approved by the County and CAL FIRE on an annual basis. This mitigation would reduce wildland fire emergency access to a less than significant level.

Alternative 2 is in the same location and has the same uses, with the exception of the pond, as the Proposed Project. As such, this alternative would have the same result regarding hazardous materials sites and hazards from the site. Additionally, the potential to expose people or structures to a significant risk of loss, injury, or death involving wildland fires would be similar. The elimination of the pond would not reduce the number of persons allowed on the site at any one time. As such, Alternative 2 is considered be equal to the Proposed Project with regard to impacts from wildland fires.

Hydrology and Water Quality

The Proposed Project would have a less than significant impact to water quality with the implementation of mitigation measure **MM 4.5.** The Project site is not within a 100-year flood zone. Additionally, the there is adequate groundwater within the Scott River Valley Groundwater Basin to serve the Project's additional water demand and not affect other groundwater users. 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. The Proposed Project would have a less than significant impact in these areas. Development of the pond would require a dam to contain the pond water. Mitigation measure **MM 9.1** would ensure that this dam is constructed properly and the potential for impact would be less than significant.

Alternative 2 would be comparable to the Proposed Project regarding water quality impacts. Alternative 2 would also require mitigation to protect water quality such as mitigation measure **MM 4.5**. However, elimination of the pond would lessen the potential for water quality issues during construction as the pond would not be developed. Additionally, Alternative 2 would not require 36 AF of water or the alteration of the existing drainage pattern to fill the pond. However, Alternative 2 would not meet one of the main objectives of the Proposed Project, that of "maximize the use and experience of water across the property". Further, an argument can be made that the addition of a seven-acre pond on the site would add to the visual character of the property. Thus, elimination of the pond would also not meet another Project objective, that of "enhance the visual perception of the camp property".

On a purely environmental basis, Alternative 2 would be the superior project. However, CEQA Guidelines Section 15126.6 requires that an alternative should "attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project". Because Alternative 2

does not meet two of the five Project objectives, and **Section 3.3 Hydrology and Water Quality** identifies that all water quality and hydrology impacts from the proposed Project are less than significant or can be mitigated to less than significant level, the Proposed Project is superior to Alternative 2.

Land Use

As with the Proposed Project, development of Alternative 2 would not result in the physical division of an established community or conflict with a habitat conservation plan or natural community conservation plan. The Proposed Project requires a zone change of 170 acres from TPZ to R-R-B-40. As such, impacts to land use would be the same for Alternative 2 as the Proposed Project.

Mineral Resources

The Initial Study determined that there were no impacts to mineral resources from development of the Proposed Project. Alternative 2 would have a similar impact.

Noise

The Proposed Project will create noise during construction and operation of the new facilities. Through mitigation measures **MM 12.1 and MM 12.2,** the Proposed Project's construction noise and noise from the amphitheaters would be reduced to a less than significant level. However, traffic noise from 844 occupants would result in significant and unavoidable impact and a cumulatively considerable and significant and unavoidable impact.

As with the Proposed Project, Alternative 2 would include the development of two amphitheaters. Noise from the amphitheaters would subject to mitigation measure **MM 12.1,** which would eliminate nighttime noise from the amphitheaters. The Alternative 2 would result in similar construction, although without the pond, the construction period would be shorter. As with the proposed Project, Alternative 2's construction noise would be mitigated through mitigation measure **MM 12.2**.

One of the main noise sources of concern for the Proposed Project is noise generated from the seven-acre pond. The primary noise source associated with the proposed large pond area will be shouting campers. As discussed in **Section 3.4 Noise**, exterior noise levels from the proposed large pond area are predicted to range from 42-46 dB L_{dn} at the nearest residences. 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 dB with windows closed and approximately 15 dB 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. Additionally, increases in ambient noise levels due to the pond at the nearest residences were below 3 dB relative to measured existing conditions. As a result, no significant impacts from increases in ambient noise levels at the nearest residences would result from activities at the proposed large pond area.

Alternative 2 would eliminate the potential for noise from the proposed pond. However, as discussed above, noise from pond activities would not exceed the County's noise standards at the nearest residential

unit. As shown in **Table 3.4-9**, the development of the pond would raise the ambient noise level in the area and therefore, Alternative 2 would have less impact with regard to noise when compared to the Proposed Project. In any case, as a mitigation measure is not required to reduce noise from the pond, both Alternative 2 and the Proposed Project would have a less than significant noise impact.

As stated previously, traffic noise from 844 occupants would result in significant and unavoidable impact and a cumulatively considerable and significant and unavoidable impact. Since Alternative 2 has the same number of potential occupants as the Proposed Project, the traffic noise would exceed the ambient noise level thresholds from traffic as well.

Population and Housing

As discussed in the Initial Study, the Proposed Project is not expected to result in a substantial increase in permanent population or new housing to the area and the impact is considered less than significant. Alternative 2 would have the same impact to population and housing.

Public Services

The Initial Study determined that implementation of the Proposed Project would result in less than significant impacts to law enforcement, fire protection, schools, and parks and recreation. While none of the Proposed Project's impacts would require new or expanded facilities, the Proposed Project would increase the use of nearby recreation areas. However, this increase in use would not result in new or expanded facilities. Alternative 2 would have the same impact to law enforcement, fire protection, schools, and parks and recreation as the Proposed Project.

Recreation

The Initial Study determined that the Proposed Project would have a negligible impact on local recreation facilities and would not cause deterioration or the need for expanded or new facilities. Alternative 2 would have a similar negligible impact.

Transportation and Circulation

The Traffic Impact Study prepared for the Proposed Project determined that the Project would increase daily traffic volume by 1,110 trips over existing conditions as shown in **Table 3.5-6**. However, based on the County's and Caltrans' LOS for the area roadways, this increase would not exceed the roadway LOS thresholds. As such, the Project would not result in a significant impact. Additionally, the Proposed Project would not result in significant impacts to public transit or bicycle/pedestrian facilities.

Alternative 2 would have the same maximum occupancy level as the Proposed Project. Therefore, Alternative 2 would be equal to the Proposed Project regarding transportation and circulation.

Utilities

As determined in the Initial Study, the Proposed Project would result in less than significant impacts to water, wastewater, stormwater drainage, and solid waste capacity and facilities. Alternative 2 would have

the same development potential as the Proposed Project. Therefore, Alternative 2 would also have a less than significant impact to water, wastewater, stormwater drainage, and solid waste capacity and facilities. Alternative 2 would equal to the Proposed Project with regard to impacts to utilities.

Alternative 3: Reduced Project Development

The Reduced Project Development Alternative would include all of the proposed uses of the Proposed Project but would reduce the development and occupation levels by approximately 44 percent. Alternative 3 would accommodate a maximum occupancy of 622 persons instead of the 844 persons for the Project. As with the Proposed Project, Alternative 2 would also require a rezone from TPZ to R-R-B-40 and a new use permit. The proposed seven-acre pond, amphitheaters, equestrian area, roadways, trails, and emergency access would the same as the Proposed Project. Only the occupancy level and accommodations to support this occupation level would be reduced with this alternative.

Aesthetics and Visual Resources

The Initial Study completed for the Proposed Project determined that Project would not result in any significant impacts to aesthetics and scenic resources.

Alternative 3 would construct fewer buildings, smaller buildings and fewer RV parking spaces than the Proposed Project. However, the construction and use of these facilities does not necessarily result in fewer impacts to aesthetics and scenic resources than the Proposed Project as Alternative 3 would still place these structures in areas that do not currently have them. As discussed in the Initial Study, the Proposed Project with its the greater amount of facilities, does not result in an impact to aesthetics and visual resources.

Alternative 3, with fewer buildings and RV spaces, would also result in less potential for new sources of light and glare than the Proposed Project which would affect daytime or nighttime views in the area. The Initial Study determined that the Proposed Project would have a less than significant impact in this area as the Project would be subject to Section 10-6.5602 of the Siskiyou County Code, which requires that exposed sources of light, glare, or heat be shielded so as not to be directed outside the premises. Alternative 3 would also be required to comply with this ordinance.

Therefore, Alternative 3 is considered to be equal to the Proposed Project with regard to impacts to aesthetics and scenic resources.

Agriculture and Forestry Resources

As discussed in **Section 3.1**, the Proposed Project would not result in impacts to agricultural resources. The 24.8 acres identified as Prime Farmland by the DOC are located in the valley area of the Project site. The Project proposes a new Welcome Center (#32 on **Figure 5**) and an Amphitheater (#19 on **Figure 5**) which are located in the area identified as Prime Farmland by DOC. However, the construction of these uses would not remove the ability to use the remaining area as farmland, if so desired in the future, as these structures are relatively small in size and the construction sites are on the edge of the Prime Farmland area.

Alternative 3 would also construct the Welcome Center and Amphitheater and in the same locations. As such, Alternative 3 would have the same impact to agricultural resources as the Proposed Project. Alternative 3 would also result in the rezoning of 170-acres of timber production land to rural residential uses as proposed for the Project. As such, Alternative 3 is considered equal to the Proposed Project with regard to impacts to forestry and timber resources.

Air Quality

The Proposed Project's air emissions would not exceed applicable air quality thresholds, not result in TAC impacts, and not conflict with regional air quality management planning. However, due to portions of the site being classified as high for erosion, there is the potential for fugitive dust during land disturbance activities. As such, implementation of mitigation measure **MM 3.1** was required to reduce this impact to a less than significant level.

The total square footage for Alternative 3 would be 12,902 square feet less and 12 RV parking spaces fewer than the Proposed Project. This reduction would result in less area being graded for building pads and parking spaces. This in turn would result in less soil being exposed to erosion and thereby reduce the potential for fugitive dust. In any case, mitigation measure **MM 3.1** would still be required for Alternative 3 to reduce the fugitive dust from Alternative 3's other construction. However, with implementation of this mitigation measure the Proposed Project would not exceed air quality emissions exceeded federal or state air quality thresholds and result in a less than significant impact in this area. While Alternative 3 would also result in a less than significant impact, Alternative 3 would be superior to the Proposed Project in this area because would have less fugitive dust it.

Biological Resources

The Proposed Project would result in potential impacts to special status species, riparian habitats, wetlands, and migratory species. However, as defined in the Initial Study, mitigation measures **MM 4.1 through MM 4.6** would reduce these potential impacts to a less than significant level.

Alternative 3 would be an approximately 26 percent smaller project than the Proposed Project in occupancy, 14 percent smaller in building square footage, one less RV Area and one less base camp. The Initial Study provides mitigation to protect special status species, migratory birds, water quality, and wetlands. While Alternative 3 would reduce the size of the Proposed Project, Alternative 3, would be required to provide mitigation to protect these biological resources, similar to if not the same, as the Proposed Project. As with the Proposed Project, these mitigation measures for Alternative 3 would reduce any impacts to biological resources to a less than significant level. Biological resources impacts are generally based on the location of the project and the locations of ground disturbance activities. Generally, a reduced development would impact less ground and, in turn, have less potential for impacts to biological resources. As such, Alterative 3 would be superior to the Proposed Project in this area.

Cultural Resources

The Initial Study identified that the project site was surveyed for cultural and historical resources in 2010 and 2013 by Resource Management (2014) archaeologists. No prehistoric or historic archaeological sites

were identified during the surveys. The Initial Study determined that the Project would result in potential impacts to unknown/undiscovered historical, archaeological, paleontological and tribal resources. However, as defined in the Initial Study, mitigation measures **MM 5.1 through MM 5.3** would reduce these potential impacts to a less than significant level.

Alternative 3 would have similar development in the areas identified for development in the Proposed Project's site plan. As no cultural resources were found during the cultural resources survey, it can be assumed that this would be the same for Alternative 3. Alternative 3 would also require mitigation for potential impacts to unknown/undiscovered historical, archaeological, paleontological and tribal resources. As with the Proposed Project, these mitigation measures would reduce Alternative 3's potential impacts to a less than significant level. As such, Alternative 3 would be equal to the Proposed Project in the potential for impacting cultural resources.

Geology and Soils

The Initial Study prepared for the Proposed Project determined that the Project would result in potential impacts due to a substantial amount of soil erosion. However, as defined in the Initial Study, mitigation measure **MM 6.1** would reduce this potential impact to a less than significant level.

Alternative 3 would also have the potential for erosion impacts which will require mitigation. However, due to the reduced amount of structures to be built in Alternative 3, the land disturbance will be less than the Proposed Project. All other geology and soils impacts would be similar to the Proposed Project as Alternative 3 is located on the same site as the Proposed Project and geology and soils impacts are generally based on location.

Greenhouse Gases and Climate Change

The Proposed Project's GHG emissions were determined to be less than significant as no GHG thresholds have been established for the SCAPCD and the Project would not produce large amounts of GHG emissions.

Alternative 3 would have fewer visitors and less construction to the site than the Proposed Project, which would mean fewer vehicles, campfires, and less energy and other GHG-generating uses. As such, Alternative 3 is considered superior to the Proposed Project with regard to impacts from GHG and climate change.

Hazards and Hazardous Materials

The Initial Study prepared for the Proposed Project determined that the Project would not result in any impact from hazardous materials. However, there is a potential for wildland fire hazards. This impact analysis area is discussed in this EIR and the Project site is within a Very High Fire Severity Zone according to CAL FIRE. As discussed in **Section 3.2**, existing regulation reduces the potential for wildland fire impacts on the Project site. Additionally, it has been determined that the site has roadway easements to provide emergency access to and from the site. Mitigation measure **MM 8.1** requires that the roadway be

maintained by the Project and approved by the County and CAL FIRE on an annual basis. This mitigation would reduce wildland fire emergency access to a less than significant level.

Alternative 3 is in the same location and has the same uses, although to a lesser degree, as the Proposed Project. As such, this alternative would have the same result regarding hazardous materials sites and hazards from the site. Additionally, the potential to expose people or structures to a significant risk of loss, injury, or death involving wildland fires would be similar. However, the Proposed Project would potentially expose more people to this hazard due the greater number of people allowed at the site at any one time. As such, Alternative 3 is considered superior to the Proposed Project with regard to impacts from wildland fires.

Hydrology and Water Quality

The Proposed Project would have a less than significant impact to water quality with the implementation of mitigation measure **MM 4.5.** The Project site is not within a 100-year flood zone. Additionally, the there is adequate groundwater within the Scott River Valley Groundwater Basin to serve the Project's additional water demand and not affect other groundwater users. 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. The Proposed Project would have a less than significant impact in these areas. Development of the pond would require a dam to contain the pond water. Mitigation measure **MM 9.1** would ensure that this dam is constructed properly and the potential for impact would be less than significant.

Alternative 3 would result in a smaller number of new buildings and RV parking areas and visitors to the Proposed Project. However, the development of the seven-acre pond would still be a part of this alternative. As shown in **Table 3.3-3**, the Alternative 3 would require an estimated 19.2 AF of groundwater annually or 5.9 AF less than the Proposed Project. Alternative 3 would also be required to implement mitigation measure **MM 4.5** for the protection of water quality. Additionally, Alternative 3 would require mitigation measure **MM 9.1**. Both of these mitigations would reduce Alternative 3's impacts to hydrology and water quality to a less than significant level, as would be the case for the Proposed Project. However, because the potential for water quality impacts and groundwater demand is less with Alternative 3, Alternative 3 is the superior project.

Table 4-3. Alternative 3 Water Demand

Time Period	Proposed Project at Buildout			Alternative 3 at Buildout			Difference		
	Occupancy	Daily Demand (gal)	Annual Demand (gal)	Occupancy	Daily Demand (gal)	Annual Demand (gal)	Occupancy	Daily Demand (gal)	Annual Demand (gal)
Spring/Fall 180 days	588	26,460	4,762,800	462	20,790	3,742,200	-126	- 5,670	- 1,020,600
Summer 90 days	844	37,980	3,418,200	622	27,990	2,519,100	-222	-9,990	-899,100

Total			8,181,000			6,261,300			-1,919,700
Acre Feet[1]			25.1			19.2			-5.9

Note: One acre foot = 325,851 gallons.

Land Use

As with the Proposed Project, development of Alternative 3 would not result in the physical division of an established community or conflict with a habitat conservation plan or natural community conservation plan. The Proposed Project requires a zone change of 170-acres from TPZ to R-R-B-40. As such, impacts to land use would be the same for Alternative 3 as the Proposed Project.

Mineral Resources

The Initial Study determined that there were no impacts to mineral resources from development of the Proposed Project. Alternative 3 would have a similar impact.

Noise

The Proposed Project will create noise during construction and operation of the new facilities. Through mitigation measures **MM 12.1 and MM 12.2,** the Proposed Project's noise impacts would be mitigated to a less than significant level. However, traffic noise from 844 occupants would result in significant and unavoidable impact and a cumulatively considerable and significant and unavoidable impact.

Alternative 3 would also create noise during construction although because of less construction, the duration of this noise would be shorter. Alternative 3 would also be subject to mitigation measure **MM 12.2** which limits the construction period and days of the week for construction. As with the Proposed Project, implementation of this mitigation would reduce Alternative 3's construction noise impact to less than significant. Operational noise for Alternative 3 would be the same as the Proposed Project. The main sources of stationary noise from the Project would be from the seven-acre pond and the amphitheaters. Alternative 3 includes both of these features in the same size, location and configuration as the Project. As such, Alternative 3 would be subject to the same mitigation measure (**MM12.1**) as the Project and would have the same result.

In addition, because Alternative 3 would have a smaller occupancy of 622 persons compared to the 844 persons of the Proposed Project the amount of traffic to the site would be less. The *Environmental Noise Assessment* completed in 2017 and updated in 2021 used an occupancy of 622 persons for the traffic noise analysis. This analysis determined that the traffic noise related to the 622 person occupancy did not result in a significant impact.

Because Alternative 3 would have a shorter construction period resulting less potential for noise impacts, and less than significant stationary or traffic noise impacts, whereas the proposed Project would have a significant and unavoidable impact from traffic noise, Alternative 3 would be superior to the Proposed Project in regard to noise.

Population and Housing

As discussed in the Initial Study, the Proposed Project is not expected to result in a substantial increase in permanent population or new housing to the area and the impact is considered less than significant. Alternative 3 would have the same impact to population and housing.

Public Services

The Initial Study determined that implementation of the Proposed Project would result in less than significant impacts to law enforcement, fire protection, schools, and parks and recreation. While none of the Proposed Project's impacts would require new or expanded facilities, the Proposed Project would increase the use of nearby recreation areas. However, this increase in use would not result in new or expanded facilities. Alternative 3 would have the same impact to law enforcement, fire protection, schools, and parks and recreation as the Proposed Project.

Recreation

The Initial Study determined that the Proposed Project would have a negligible impact on local recreation facilities and would not cause deterioration or the need for expanded or new facilities. Alternative 3 would have a similar negligible impact although with slightly less use of the facilities due to the smaller occupancy limit.

Transportation and Circulation

The Traffic Impact Study prepared for the Proposed Project determined that the Project would increase daily traffic volume by 1,110 trips over existing conditions as shown in **Table 3.5-6**. However, based on the County's and Caltrans' LOS for the area roadways, this increase would not exceed the roadway LOS thresholds. As such, the Project would not result in a significant impact. Additionally, the Proposed Project would not result in significant impacts to public transit or bicycle/pedestrian facilities.

Table 4-4 shows Alternative 3's vehicle trip generation and a comparison to the existing conditions as well as the Proposed Project during the highest travel time. As shown, Alternative 3 would result in a total of 1,067 vehicle trips at full occupancy of 622 persons if all vehicles were to arrive on a particular Saturday. This would result in 729 new trips over existing conditions or 381 trips less than the Proposed Project's new trips of 1,110.

Table 4-4. Alternative 3 Vehicle Trip Generation

	Time – Saturday Peak Time			New Trips Over Existing		Alternative 3 vs Project
	Existing	Proposed Project	Alternative 3	Proposed Project	Alternative 3	
Total Persons	197	844	622	647	425	-222
Daily Trips (west end of S. Kidder)	338	1,448	1,067	1,110	729	-381
Daily Trips/Person (rate)	1.715	1.715	1.715			

Peak Hour Trips (west end of S. Kidder)	65	278	205	213	140	-73
Peak Hour Trips/Person	0.33	0.33	0.33			

While the Proposed Project would result in a less than significant impact to transportation and circulation, Alternative 3 would have less traffic because of a smaller number of visitors to the site. As such, Alternative 3 would be superior to the Proposed Project regarding transportation and circulation.

Utilities

As determined in the Initial Study, the Proposed Project would result in less than significant impacts to water, wastewater, stormwater drainage, and solid waste capacity and facilities. Alternative 3 would have a reduced development potential compared to the Proposed Project. Therefore, Alternative 3 would also have a less than significant impact to water, wastewater, stormwater drainage, and solid waste capacity and facilities Because all utilities, with the exception of solid waste disposal, would be provided for or collected by on-site facilities, the only impact area to affect offsite facilities would be solid waste. Alternative 3, with its reduced occupancy level, would produce less solid waste than the Proposed Project and therefore have less impact to the solid waste collection and disposal system. As a result, Alternative 3 would be slightly superior to the Proposed Project with regard to solid waste impacts.

4.3 Environmentally Superior Alternative

Table 4.0-5 summarizes the potential impacts of the alternatives evaluated in this section, as compared with the potential impacts of the Proposed Project. **Table 4-6** identifies how well an alternative meets the Project objectives. Based on the evaluation contained in **Subsection 4.2**, Alternative 1 would have fewer adverse environmental impacts than the Proposed Project and was determined to have the fewest adverse impacts on the physical environment. However, CEQA requires that when the environmentally superior is the no project alternative, another alternative be identified as the environmentally superior alternative [CEQA Guidelines section 15126.6(e)(2)].

Table 4-5. Alternatives Impacts Comparison

Environmental Issue	Proposed Project Impact Finding (Mitigated)	Alternatives		
		1	2	3
Aesthetics and Visual Resources	Less Than Significant	-	=	=
Agriculture and Forestry Resources	Less Than Significant	-	=	=
Air Quality	Less Than Significant	-	-	-
Biological Resources	Less Than Significant	-	-	-
Cultural Resources	Less Than Significant	-	-	=
Geology and Soils	Less Than Significant	-	-	=
Greenhouse Gases and Climate Change	Less Than Significant	-	-	-
Hazards and Hazardous Materials	Less Than Significant	-	=	-
Hydrology and Water Quality	Less Than Significant	-	-	-
Land Use	Less Than Significant	-	=	=

Environmental Issue	Proposed Project Impact Finding (Mitigated)	Alternatives		
		1	2	3
Mineral Resources	Less Than Significant	=	=	=
Noise	~~Less Than Significant~~ Significant and Unavoidable	-	-	-
Population and Housing	Less Than Significant	-	=	=
Public Services	Less Than Significant	-	=	=
Recreation	Less Than Significant	-	=	-
Transportation and Circulation	Less Than Significant	-	=	-
Utilities	Less Than Significant	-	=	-
Overall Determination		-	-	-

- Impacts less than those of the proposed project
+Impacts greater than those of the proposed project
= Impacts similar to those of the proposed project, or no better or worse

An EIR must describe a reasonable range of alternatives to a project that would feasibly attain the basic project objectives while avoiding or reducing one or more of the project's significant effects (CEQA Guidelines Section 15126.6(a)). The Proposed Project has five objectives. **Table 4-6** illustrates a comparison of the alternatives to the basic project objectives. As shown in this table, Alternative 1 does not meet any of the Project objectives and Alternative 2 does not meet two of the five Project objectives. Alternative 3 does meet all of the Project objectives. As such, Alternative 3, Reduced Project Development, would be the environmentally superior alternative, as it would result in fewer impacts to 10 resource categories when compared to the Proposed Project and still meet the majority of Project objectives.

Table 4-6. Comparison of Alternatives by Project Objectives

	Proposed Project	Alternatives		
		1	2	3
Provide improved facilities and accommodations to support and expand ministry.	=	-	=	=
Enhance the visual perception of the camp property.	=	-	-	=
Maximize the use and experience of water across the property.	=	-	-	=
Separate vehicle and pedestrian traffic.	=	-	=	=
Create a flexible layout that accommodates phased construction.	=	-	=	=

= Meets project objective
- Does not meet project objective

4.4 References

Siskiyou County

2016 Kidder Creek Orchard Camp Zone Change (Z-1 4-01) And Use Permit (Up-11-15) Draft Initial Study/Mitigated Negative Declaration. September 2016.

Resource Management

2013 Botanical Resource Survey Addendum for Kidder Creek Orchard Camp Land Use Permit Application. May 23, 2014.

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LIST OF APPENDICES

APPENDIX E

Environmental Noise Assessment Update, Bollard Acoustical Consultants, Inc., Updated Jule 10 2022

Environmental Noise Assessment Update

Kidder Creek Orchard Camp Use Permit Application – UP 11-15

Etna (Siskiyou County), California

BAC Job # 2022-098

Prepared For:

Kidder Creek Orchard Camps, Inc.

Attn: Mr. Tim Lloyd
P.O. Box 208
Greenview, CA 96037

Prepared By:

Bollard Acoustical Consultants, Inc.

Paul Bollard, President

Updated June 10, 2022

BOLLARD
Acoustical Consultants

CEQA Checklist

NOISE AND VIBRATION – **Would the Project Result in:**	**NA – Not Applicable**	**Potentially Significant Impact**	**Less than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Generation of substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		**X**			
b) Generation of excessive groundborne vibration or groundborne noise levels?				**X**	
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?					**X**

Introduction

Kidder Creek Orchard Camp (KCOC) is located at 2700 South Kidder Creek Road in Siskiyou County, CA. Figure 1 shows the KCOC boundaries. Currently KCOC is operating under permit number UP-95-12, which limits activities to a total occupancy of 165, an on-site parking limit of 215, and an average daily traffic volume of 131 vehicles.

Activities and programs currently occurring at KCOC include camping, equestrian riding, archery, crafts, a ropes course, rifle shooting, an adventure course, paintball, and swimming activities at the pond area. The existing camp configuration, which indicates the locations of these activities, is shown on Figure 2.

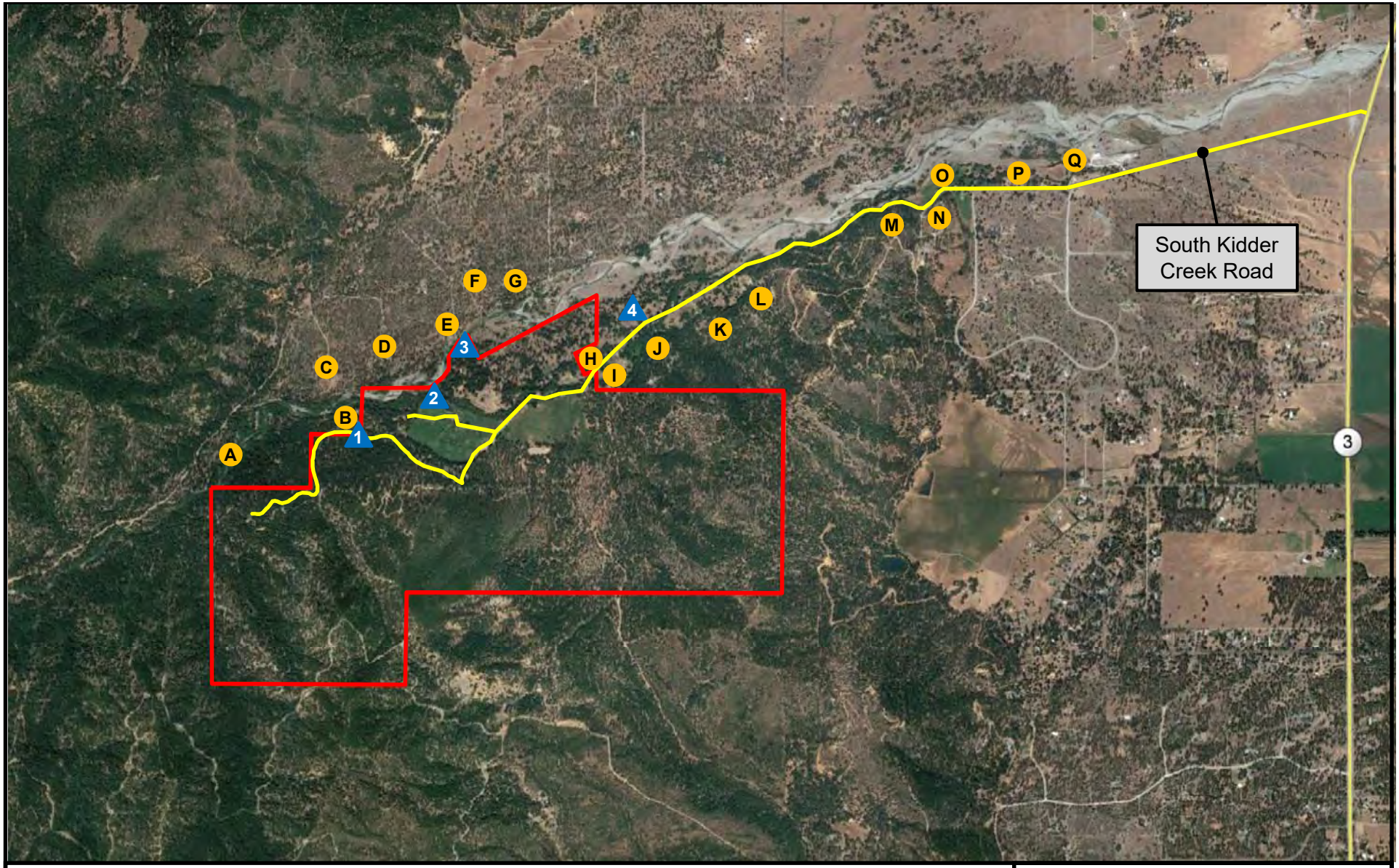
The strategic plan for the KCOC includes enhancing the activities and programs offered by providing improved facilities and accommodations, enhancing the visual appearance of the camp property, improving safety by separating vehicle and pedestrian traffic, and creating a flexible layout that accommodates phased construction. The proposed site plan is shown on Figure 3.

Comparison of the existing camp configuration on Figure 2 against the proposed configuration (project) shown on Figure 3 indicates the changes would primarily consist of the following:

- The creation of a new 7-acre pond for water recreation activities (no motorized watercraft)
- Moving and expanding the equestrian area, and construction of a covered riding arena
- Construction of new cabins
- Construction of two new RV parking areas
- Construction of a new welcome center/dining facility
- Creation of new base camp areas
- Creation of amphitheater areas
- Relocation of the existing sawmill area (to accommodate new pond)
- Installation of a Zip Line

Many of the activities occurring with the KCOC boundaries are not substantive noise sources. Examples of relatively quiet activities include equestrian activities, base camp area activities (with most campers using these areas for eating and sleeping while not engaged in off-site activities such as rafting, hiking, backpacking, etc.), archery, RV parking (generators are not used), ropes course, crafts, etc.

Noise sources associated with existing and proposed KCOC operations include kids playing/shouting while engaged in water activities in the existing pond area and anticipated increased activity in the proposed new pond area, playing field activities (soccer), future amphitheater usage for camp assemblies and/or activities (i.e. movie night), zip-line usage and project-generated traffic.



Legend

- # — Ambient Noise Measurement Sites
- X — Nearest Noise-Sensitive Receivers (Residences)
- Project Site Boundary (approximate)

N

Scale (miles)

0 0.25 0.5

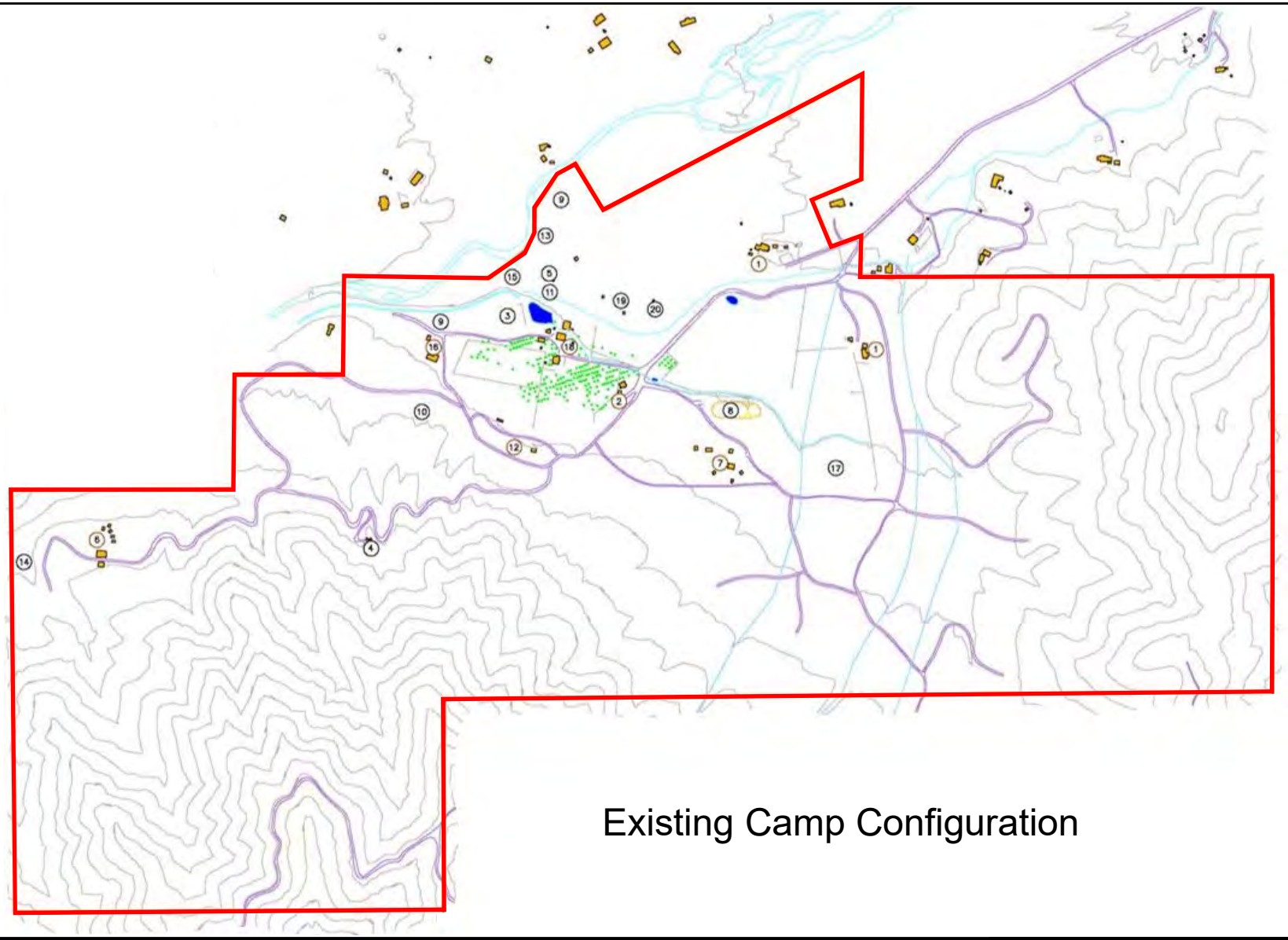
KIDDER CREEK ORCHARD CAMP EXPANSION PROJECT

Siskiyou County, California

Project Area, Noise Measurement Locations, and Noise-Sensitive Receivers

Figure 1

BOLLARD Acoustical Consultants



Existing Camp Configuration

Legend

1 – Staff Residence
2 – Welcome Center
3 – Small Pond & Rec Area
4 – Water Storage Tank
5 – Water Well
6 – Timber line Camp
7 – Ranch Camp
8 – Equestrian Area
9 – Base Camps (2)
10 – Archery Course
11 – Craft Area
12 – RV Area
13 – Ropes Course
14 – Rifle Range
15 – Adventure Course
16 – Staff House & Retreat
17 – Paintball Course
18 – Multi-Use Area
19 – Sawmill/Storage Area
20 – Fuel & Waste Disposal
Septics
Ponds, Ditches, Creeks
Existing Structures
Orchard
Roads
Project Boundary

Scale (Feet)
0 750 1,500

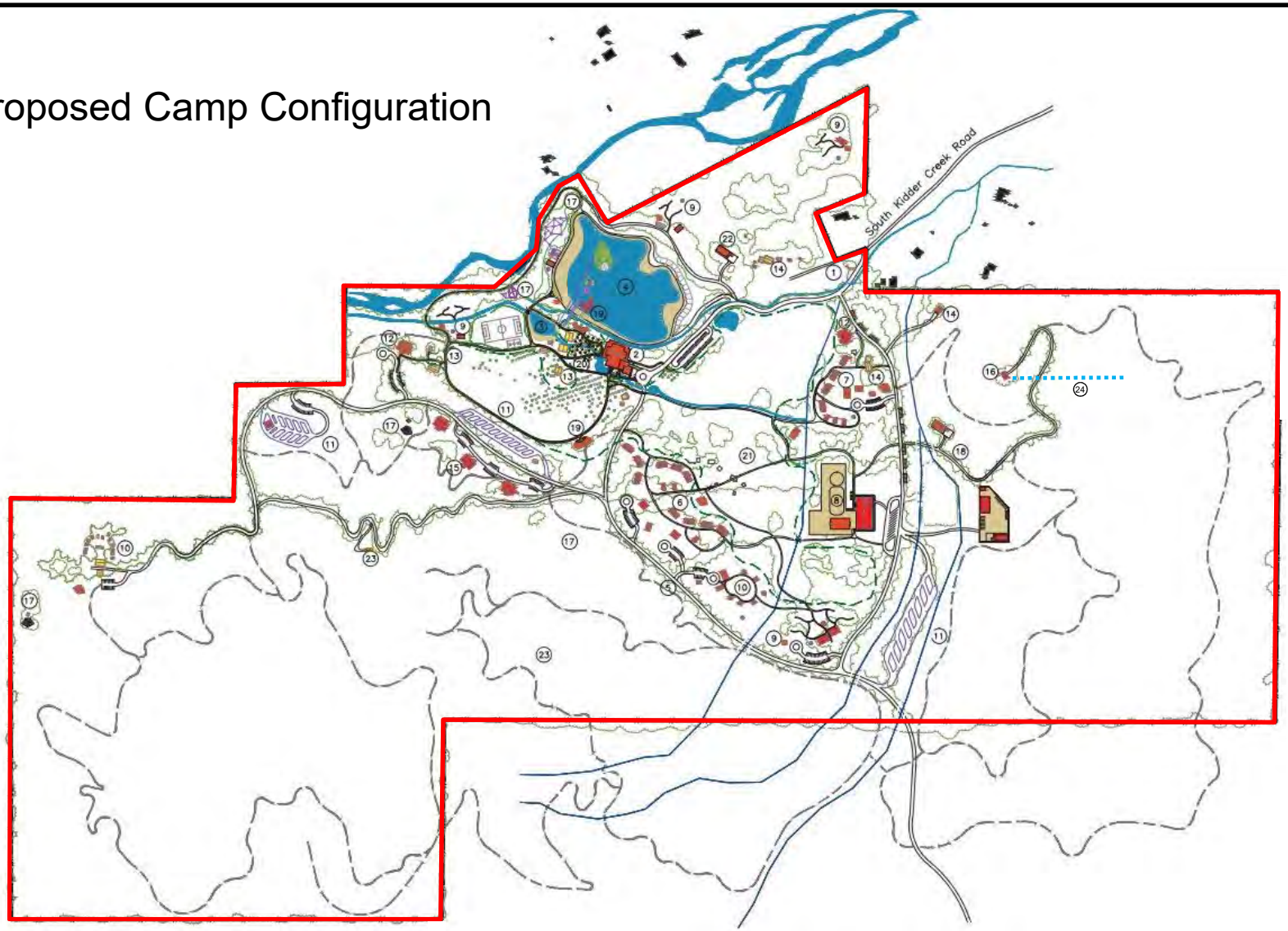
N

KIDDER CREEK ORCHARD CAMP EXPANSION
Siskiyou County, California
Project Site Plan - Existing

Figure 2

BOLLARD Acoustical Consultants

Proposed Camp Configuration



Legend

1 – Main Entrance
2 – Welcome Center
3 – Small Pond & Rec Area
4 – Large Pond & Rec Area
5 – Perimeter Road
6 – The Pines
7 – Ranch Camp
8 – Equestrian Area
9 – Base Camps (4)
10 – High Adventure Camps
11 – Craft Area
12 – RV Areas (3)
13 – Staff/Guest Houses (3)
14 – Staff Residences (3)
15 – Adult Retreat Centers (3)
16 – Worship Pavilion
17 – Rec Areas
18 – Maintenance Facility
19 – Amphitheatre (2)
20 – Picnic Area/Park
21 – Green Belt
22 – Sawmill/Storage Area
23 – Water Storage Tanks
24 – Zip Line
Project Boundaries

Scale (Feet)
0 750 1,500

N

KIDDER CREEK ORCHARD CAMP EXPANSION
Siskiyou County, California
Project Site Plan - Proposed

Figure 3

BOLLARD Acoustical Consultants

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 seventeen (17) nearest residences to the project site and South Kidder Creek Road are shown on Figure 1.

Due to the potential noise generation of project construction and operations, and the potential vibration generation during project construction (no appreciable vibration generating activities occur at the project site), KCOC has retained Bollard Acoustical Consultants, Inc. (BAC) to prepare this analysis of potential noise and vibration impacts resulting from the proposed project. Specifically, the purposes of this analysis are to quantify baseline ambient noise and vibration levels in the immediate project vicinity, to assess changes in noise and vibration levels which would result from the proposed project, to compare those changes against applicable CEQA and Siskiyou County criteria, and, if necessary, to recommend appropriate noise and/or vibration mitigation measures to reduce any identified impacts to a level of insignificance. The report contains the results of BAC's analysis.

It should be noted that this report represents a revision to the project noise and vibration analysis prepared for this project by BAC date July 19, 2021. The revisions were required because the prior analysis inadvertently utilized traffic volume data associated with the reduced intensity alternative rather than that projected for the proposed project. The July 19, 2021 analysis was a revision to the prior (2017) noise study to incorporate 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 were provided to address public comments on the 2017 noise study. The comments were contained within a September 20, 2019 letter from Dale La Forest & Associates. That comment letter is on file with Siskiyou County and is incorporated in this report by reference.

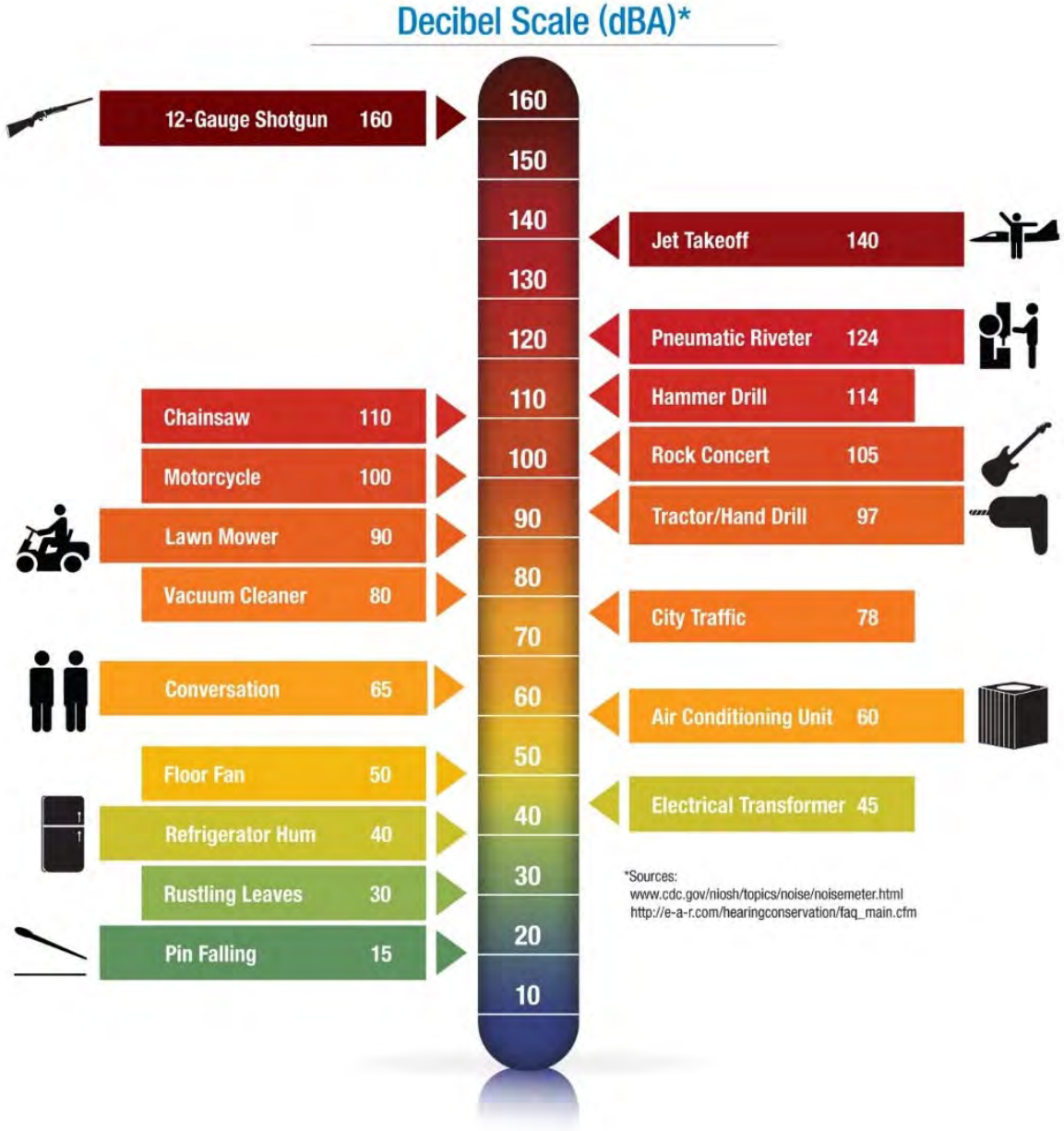
Noise & Vibration Fundamentals

Noise

Noise is often described as unwanted sound. Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and are called sound. Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. As a result, the decibel scale was devised. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB. Another useful aspect of the decibel scale is that changes in levels (dB) correspond closely to human perception of relative loudness. Appendix A contains definitions of Acoustical Terminology. Figure 4 shows common noise levels associated with various sources.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by weighing the frequency response of a sound level meter by means of the standardized A-weighing network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels in decibels.

Figure 4
Typical A-Weighted Sound Levels of Common Noise Sources



Community noise is commonly described in terms of the "ambient" noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}) over a given time period (usually one hour).The L_{eq} is the foundation of the Day-Night Average Level noise descriptor, DNL, and shows very good correlation with community response to noise generated by transportation noise sources.

The Day-Night Average Level (DNL) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because DNL represents a 24-hour average, it tends to disguise short-term variations in the noise environment. DNL-based noise standards are commonly used to assess noise impacts associated with traffic, railroad and aircraft noise sources.

Vibration

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that noise is generally considered to be pressure waves transmitted through air, while vibration is usually associated with transmission through the ground or structures. As with noise, vibration consists of an amplitude and frequency. A person's response to vibration will depend on their individual sensitivity as well as the amplitude and frequency of the source.

Vibration can be described in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of velocity in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration in terms of peak particle velocity as well as RMS velocities.

As vibrations travel outward from the source, they excite the particles of rock and soil through which they pass and cause them to oscillate. Differences in subsurface geologic conditions and distance from the source of vibration will result in different vibration levels characterized by different frequencies and intensities. In all cases, vibration amplitudes will decrease with increasing distance. The maximum rate, or velocity of particle movement, is the commonly accepted descriptor of the vibration "strength".

Human response to vibration is difficult to quantify. Vibration can be felt or heard well below the levels that produce any damage to structures. The duration of the event has an effect on human response, as does frequency. Generally, as the duration and vibration frequency increase, the potential for adverse human response increases.

According to the Transportation and Construction-Induced Vibration Guidance Manual (Caltrans, June 2004), operation of construction equipment and construction techniques generate ground vibration. Traffic traveling on roadways can be a source of vibration, but traffic rarely generates vibration amplitudes high enough to cause structural or cosmetic damage, or to reach thresholds of annoyance.

Regulatory Setting

State of California

California Environmental Quality Act (CEQA

The State of California has established regulatory criteria that are applicable to this assessment. Specifically, Appendix G of the State of California Environmental Quality Act (CEQA) Guidelines are used to assess the potential significance of impacts pursuant to local General Plan policies, Municipal Code standards, or the applicable standards of other agencies. According to Appendix G of the CEQA guidelines, the project would result in a significant noise or vibration impact if the following were to occur:

A. Generation of substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?

B. Generation of excessive groundborne vibration or groundborne noise levels?

C. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The noise standards of Siskiyou County are presented in the following section. If the project were to result in exceedance of applicable Siskiyou County criteria, a significant noise and/or vibration impact is identified.

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

The project is not located in the vicinity of either public or private use airports. As a result, CEQA criteria C would not apply to this project.

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. Nonetheless, 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 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 1, identifies acceptable noise environments of 60 dBA DNL for residential land uses. In addition, the Noise Element also identifies that interior noise levels attributable to exterior sources shall not exceed 45 dBA DNL in any habitable room with windows closed.

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 DNL. The corresponding interior noise standard within nearby residential receptors would be 40 dBA DNL. 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 DNL, respectively.

Table 1
Land Use Compatibility for Exterior Community Noise

Land Use Category	Noise Ranges (DNL)			
	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, multi-family, 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

Notes:

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.

Source: Siskiyou County General Plan Noise Element, Table 13

A comment received on the 2017 noise study stated that the appropriate noise level standard which should be applied to this project is 55 dBA DNL not 60 dBA DNL. The rationale for this comment was a table included in the appendix to the General Plan (Table A-6) which references noise standards utilized in a 1975 General Plan for a different city (City of Richmond, California). This table is not referenced in the Standards and Policy section of the Siskiyou County General Plan, and is inconsistent with the Table 13 noise standards which are contained within the Standards and Policy section of the Siskiyou County General Plan Noise Element. Similar comments have been made regarding the applicability of the 55 dBA DNL standard on other noise studies prepared in Siskiyou County in recent years and the County has rejected that interpretation. As a result, the 60 dBA DNL noise standard is correctly applied in this assessment to sources of noise not consisting primarily of speech or music. As noted previously, where the noise source does consist of speech or music, this analysis applies a 55 dBA DNL exterior noise standard.

Comments received on the 2017 noise study assert that offsets to the County's adopted 60 dBA DNL noise standard (Noise Element Table 13) should be applied based on information contained in Table A-10 in the Technical Appendix to the Siskiyou County Noise Element. Table A-10 is referenced within the Noise Element Standards and Policy section (Noise Element Chapter 3) in paragraph (1) on page 53 of the County Noise Element. That paragraph states the following with respect to Table A-10:

"1. Determine the location of the project with respect to existing noise parameters. Refer to noise contour maps developed in this document for various communities. These maps identify noise effects created by significant generators such as freeways, highways, streets, airports, railroads, and stationary sources. Also note the areas of equal noisiness shown on the maps as existing median ambient levels. In order to accurately determine the existing noise climate it will be helpful to identify current land use. Such maps should be maintained in the Planning Department or field investigation may be required to document the noise climate. Use the estimated median ambient noise generation of various land uses and densities. Require current sound readings if growth appears to have changed the designated ambient noise level for the particular area. Note that corrections may be added to the measured community noise level (CNEL or DNL) according to ***Table A-10, Appendix document****.*

As indicated in the citation above, Table A-10 of the Appendix to the Noise Element is to be used to update and normalize the noise contour maps contained within the County's General Plan Noise Element in cases where growth has occurred which appears to have changed the designated ambient noise level for a particular area. Because the County's General Plan noise contour maps have not been updated since the Noise Element was adopted in 1978, this condition would be applicable to essentially the entire county should the County decide to update their noise contour maps.

It is important to recognize that, in the citation above which references Table A-10 of the Appendix to the Noise Element, there is no mention of using the Table A-10 offsets in the evaluation of a project's noise impacts. As a result, application of the Table A-10 offsets to this noise impact analysis is not warranted. To properly establish ambient noise conditions for this project, BAC relied upon actual ambient noise monitoring rather than outdated and apparently normalized noise contour maps. Because application of the CEQA guidelines requires identification of a noise impact if a project would result in a substantial increase in ambient noise exposure, the approach taken in this analysis (conducting baseline ambient noise measurements) is appropriate.

Vibration Criteria

The Siskiyou County General Plan does not have adopted vibration standards. As a result, Caltrans-recommended criteria are applied for this project, as described below. Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. The Caltrans publication, *Transportation-and Construction-Induced Vibration Guidance Manual*, provides guidelines for acceptable vibration limits for transportation and construction projects in terms of the induced peak particle velocity (PPV). Those standards are reproduced below in Table 2.

Table 2
Vibration Criteria for Structures

	Maximum PPV (in/sec)	
Structure and Condition	**Transient Sources[1]**	**Continuous or Frequent Intermittent Sources[2]**
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.20	0.10
Historic and some old building	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial/commercial building	2.00	0.50

Notes:
1 Transient sources create a single isolated vibration event.
2 Continuous/frequent intermittent sources include repetitive single events.

Current Caltrans research illustrates that there are different thresholds of perception for different types of vibration sources. Section XI(b) of Appendix G of the CEQA guidelines requires that a project result in exposure of persons to, or generation of, *excessive* groundborne vibration levels or groundborne noise levels, for the finding of a significant impact. The CEQA guidelines specifically mention “excessive” vibration, rather than just perceptible vibration. Because the general range at which vibration becomes distinctly to strongly perceptible ranges from 0.1 – 0.50 in/sec ppv (Caltrans 2004), project-generated vibration levels exceeding 0.1 inches/second PPV at the nearest residences are considered significant for this study.

Existing Noise Sources and Ambient Noise Levels

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, BAC conducted long-term noise level measurements at four (4) locations indicated on Figure 1 at various times between June 15 and June 30, 2017. Photographs of the noise measurement sites and general camp area photos are included in Appendix D.

Noise measurement Site 1 was specifically selected to be representative of existing ambient conditions at Receptor B, which was located in close proximity. Noise measurement Site 1 was also intended to be representative of ambient conditions at Receptors C, D, F & G, which are located roughly comparable distances from water noise generated by the Kidder Creek flow. Because ambient 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 on-site aspects of KCOC 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. That assessment is included in a subsequent section of this report.

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.

A comment was received that the ambient noise survey conducted for the 2017 noise study was inadequate because measurements were not conducted at all 12 of the nearest homes to the Camp 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 BAC 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.

Larson Davis Laboratories (LDL) Model 820 and 831 precision integrating sound level meters were used for the noise level measurements. The meters were calibrated before use with an LDL Model CAL200 acoustical calibrator to ensure the accuracy of the measurements. The sound level meters were placed in the field on June 15th, 2017, and retrieved on July 3, 2017, for a total monitoring period of 18 days. During the noise monitoring period, KCOC staff reported that normal camp operations were in effect.

It should be noted that, although the four (4) sound level meters were in the field for 18 days, due to both battery life and sound level meter memory constraints, the actual duration of time monitoring at each location varied. Specifically, 11 complete days were logged at Site 1, 10 complete days were logged at Site 2, 15 complete days were logged at Site 3, and 18 complete days were logged at Site 4. The data collected represents a statistically significant sample of ambient data at each of the four locations, and provided sufficient data to establish baseline conditions for this study. The ambient noise measurement results are summarized in Table 3 with the detailed results provided in a graphical format in Appendix B.

Table 3
General Ambient Noise Measurement Results Summary[1]
Kidder Creek Orchard Camp Expansion – Siskiyou County, CA

Site[2]	Date	Average Noise Level (dBA L_{eq}) Daytime[3]	Average Noise Level (dBA L_{eq}) Nighttime[4]	Maximum Noise Level (dBA L_{max}) Daytime[3]	Maximum Noise Level (dBA L_{max}) Nighttime[4]	Day-Night Average (dBA DNL)
1	6/15/17	44	42	66	50	49
	6/16/17	44	42	63	54	49
	6/17/17	43	41	63	51	48
	6/18/17	45	42	64	56	50
	6/19/17	44	42	66	50	49
	6/20/17	43	41	60	50	48
	6/21/17	43	41	63	50	48
	6/22/17	43	42	63	56	49
	6/23/17	44	43	65	54	50
	6/24/17	43	41	63	53	48
	6/25/17	46	40	66	51	49
	Average	**44**	**42**	**64**	**52**	**49**
2	6/23/17	55	52	72	58	60
	6/24/17	53	53	68	60	60
	6/25/17	53	52	61	56	59
	6/26/17	59	51	77	53	62
	6/27/17	57	51	75	55	61
	6/28/17	53	52	67	57	60
	6/29/17	54	52	69	55	60
	6/30/17	56	51	73	54	59
	7/1/17	52	51	66	55	57
	7/2/17	52	50	63	57	58
	Average	**54**	**52**	**69**	**56**	**60**
3	6/15/17	50	50	51	51	56
	6/16/17	50	51	53	50	57
	6/17/17	50	51	56	50	57
	6/18/17	50	51	54	50	57
	6/19/17	51	51	52	50	58
	6/20/17	50	51	51	50	57
	6/21/17	49	50	51	50	57
	6/22/17	49	50	52	49	56
	6/23/17	48	50	51	51	56
	6/24/17	49	49	53	50	56
	6/25/17	50	50	56	50	56
	6/26/17	49	50	54	50	56
	6/27/17	48	48	52	50	55
	6/28/17	47	48	51	50	54
	6/29/17	47	48	51	50	54
	Average	**49**	**50**	**53**	**50**	**56**
4	6/15/17	45	42	61	51	49
	6/16/17	44	43	61	53	50
	6/17/17	43	44	60	53	50
	6/18/17	44	45	61	53	51
	6/19/17	43	45	61	53	51
	6/20/17	44	45	61	53	52
	6/21/17	43	44	60	53	51
	6/22/17	43	45	61	52	51
	6/23/17	43	45	61	53	51
	6/24/17	44	44	61	53	50
	6/25/17	46	43	61	56	51
	6/26/17	45	43	63	53	50
	6/27/17	43	43	63	51	50

Table 3
General Ambient Noise Measurement Results Summary[1]
Kidder Creek Orchard Camp Expansion – Siskiyou County, CA

Site[2]	Date	Average Noise Level (dBA L_{eq}) Daytime[3]	Average Noise Level (dBA L_{eq}) Nighttime[4]	Maximum Noise Level (dBA L_{max}) Daytime[3]	Maximum Noise Level (dBA L_{max}) Nighttime[4]	Day-Night Average (dBA DNL)
	6/28/17	43	43	62	52	50
	6/29/17	42	42	63	51	49
	6/30/17	43	42	62	55	50
	7/1/17	43	43	62	59	50
	7/2/17	42	41	61	54	49
	Average	**44**	**43**	**61**	**53**	**50**

Notes:

[1] Detailed noise measurement results, are provided in Appendix B
[2] Measurement site locations are shown on Figure 1.
[3] Daytime hours are 7 AM – 10 PM.
[4] Nighttime hours are 10 PM – 7 AM.

Source: Bollard Acoustical Consultants, Inc. (2017)

The Table 3 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.

The ambient noise survey results are important because the California Environmental Quality Act (CEQA) criteria require evaluation of project noise generation relative to ambient noise conditions as well as relative to General Plan Noise Element standards. Therefore, ambient noise conditions must be quantified in order to allow the required analysis of relative changes in noise levels due to a project.

The ambient noise level data are also important in that they 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 dBA DNL during every day of the survey. Because the measurement results included noise generated by existing KCOC activities, it can be concluded that existing KCOC activities were within compliance with the applicable County noise standards during the duration of the ambient noise survey period.

Evaluation of Noise Impacts Resulting from On-Site Activities at the Nearest Residences to the West and North

As mentioned previously, Figures 2 and 3 show the locations of existing and proposed project facilities and activities, respectively. Of the proposed improvements and creation of new facilities, the development of the large pond area at the northern end of the property, the construction of amphitheaters, and the installation of a zip-line have been identified as the primary on-site noise sources associated with the proposed project. As a result, the following analysis focuses on noise exposure from these sources. The noise measurement results and BAC staff observations indicate that the other camp activities and facilities are either not appreciably noise-generating or that they are located in areas well removed or substantially shielded from view of the nearby residences by intervening topography.

An evaluation of off-site traffic noise level increases on South Kidder Creek Road resulting from the project and construction-related noise and vibration levels at the nearest noise-sensitive uses are provided in a later section of this report.

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, as identified on Figure 3. The nearest noise-sensitive uses to the proposed pond are identified on Figure 1 as being Receptors D-H.

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, BAC utilized the long-term ambient data from measurement site 2, reported in Table 3. As mentioned previously, noise level measurements at Site 2 were considered to be representative of noise generated from camp activities at the existing small pond area at the north end of the project area.

According to Table 3, ambient noise levels measured at Site 2 ranged from 55 to 66 dBA DNL (average of 59 dBA DNL) at a distance of approximately 130 feet from the center of the existing small pond area. 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 client, 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). The results of those projections are presented in Table 4.

Impact Assessment Relative to the Siskiyou County General Plan Noise Criteria

Table 4
Predicted Large Pond Area Noise Generation at Nearest Residences
Kidder Creek Orchard Camp Expansion – Siskiyou County, California

Receptor[1]	Distance to Center of Large Pond & Recreation Area (feet)[2]	Predicted Exterior Noise Level, DNL (dBA)[3]	Exceedance of County 55 dBA DNL Noise Standard?
D	1,500	42	No
E	900	46	No
F	1,500	42	No
G	1,400	42	No
H	1,400	44	No
Siskiyou County Exterior Noise Standard (Residential):	**60**		

Notes:
[1] Nearest potentially affected receptors are shown on Figure 1.
[2] Distances measured from center of proposed large pond area to nearest receivers.
[3] Predicted levels are based on a sound attenuation rate of 6 dBA per doubling of distance and a reference noise level of 63 dBA DNL at a distance of 130 feet.
Source: Bollard Acoustical Consultants, Inc. (2017)

The Table 4 data indicate that predicted Day/Night Average Noise Level (DNL) noise exposure from the proposed large pond area would range from 42 to 46 dBA DNL at the nearest sensitive receptors. This range of predicted noise levels would be well below the adjusted Siskiyou County 55 dBA DNL exterior noise level standard applied to noise sources consisting primarily of speech or 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 DNL.

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, 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.

Assessment Relative to State of California (CEQA) Noise Criteria

For the assessment of large pond area noise generation relative to the CEQA noise criteria, BAC utilized the same methodology described in the previous section except that maximum noise levels were projected from the beach areas of the large pond which are closest to the nearest sensitive receptors. Average hourly noise levels were computed from the effective noise center of the pond area.

Assuming standard spherical spreading loss (-6 dBA per doubling of distance), future average (Leq) 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. Maximum noise levels (Lmax) were projected from the nearest beach area adjacent to the large pond area. The results of those projections are presented in Table 5.

Table 5 shows the predicted noise levels from large pond area activities at the nearest existing noise-sensitive receivers to the project site. Table 5 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 5
Predicted Noise Generation at Nearest Residences & Project-Related Increases
Kidder Creek Orchard Camp Large Pond Area

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

Source: Bollard Acoustical Consultants, Inc. (2017)

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 5, increases in average hourly (Leq), average daily (DNL), and single-event maximum noise levels at the nearest residences are below the 3 dBA threshold. 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. As a result, this impact is considered less than significant.

Amphitheater Activities

As noted on Figure 3, 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.

Based on the site plans shown in the project description, the seating area of the amphitheaters would be approximately 50 feet deep. 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 Lmax 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 DNL of well below 40 dBA, which would be well within compliance with County noise standards. Furthermore, 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. As a result, no adverse noise impacts associated with either amphitheater location are identified relative to either CEQA or Siskiyou County noise criteria provided the following operational parameters of the amphitheaters are adhered to:

1. Amphitheater usage should be limited to daytime hours.

2. Maximum sound output from the amphitheater P/A speakers should be set not to exceed approximately 80 dBA at a distance of 50 feet from the front of the speakers.

Zip Line Activities

Since the preparation of the 2017 noise study for this project, a zip line has been added to the camp grounds at the location shown on Figure 3. The distance from the zip line to the nearest residences (Receptors I, J, K on Figure 1) 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 6.

Table 6
Predicted Noise Generation at Nearest Residences & Project-Related Increases
Kidder Creek Orchard Camp Large Pond Area

	Existing Ambient, dBA			Existing Plus Project, dBA			Project-Related Increase		
	L_{eq}	L_{max}	DNL	L_{eq}	L_{max}	DNL	L_{eq}	L_{max}	DNL
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. (2017)

As indicated in Table 6, 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.

Evaluation of Off-Site Traffic Noise Level Increases Resulting from the Project

Construction of this project would result in increased traffic on South Kidder Creek Road. To establish baseline ambient noise levels at the residences located along South Kidder Creek Road, BAC utilized the long-term ambient data from measurement Site 4. That data is reported in Table 3. The Site 4 data was projected to the distances of the nearest residences to South Kidder Creek Road (Receptors H-L shown on Figure 1).

The project Traffic Impact Analysis (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. In previous versions of this noise analysis, project trip generation associated with the reduced density alternative were inadvertently utilized to assess off-site traffic noise impacts of the project rather than the trip generation of the proposed project. Specifically, the previous versions of the noise study utilized traffic generation associated with 622 persons rather than the proposed 844. This resulted in a peak Saturday project trip generation of approximately 1067 trips rather than the 1,448 daily trips which would result from the project.

Based on 1067 peak Saturday trips, the prior analyses concluded that off-site traffic noise level increases at existing residences located along South Kidder Creek Road would be less than significant. To correct the inadvertent usage of the reduced project trip generation in the prior versions of the noise analysis, the project's off-site traffic noise impacts were re-evaluated utilizing 1,448 peak Saturday trips which would be generated by the proposed project.

BAC utilized the Federal Highway Administration Highway Traffic Noise Prediction Model to predict the traffic noise levels at the nearest residences to both the project site (Receptors H through L, 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 C of this report. Table 7 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 7
Predicted Off-Site Traffic Noise Levels at Nearest Residences to Kidder Creek Road
Kidder Creek Orchard Camp Large Pond Area

Receptor	Distance to Centerline	Existing Traffic DNL, dBA	Existing + Project DNL, dBA	Change in Traffic DNL, dBA
H	220	36	43	7
I	270	35	41	6
J	300	36	42	6
K	500	34	40	6
L	380	37	44	7
M	200	40	45	5
N	150	41	47	6
O	70	46	52	6
P	70	50	56	6
Q	300	42	47	5

Source: Bollard Acoustical Consultants, Inc. (2021)

The Table 7 data indicate that the increase in traffic noise levels along Kidder Creek Road resulting from the project expansion would range from 5-7 dBA DNL. 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 indicates that the baseline DNL at ambient noise measurement Site 4 averaged 50 dBA whereas Table 7 predicts an existing traffic noise level of 36 dBA DNL at 220 feet (41 dBA DNL at 100 feet). So, although the increase in traffic noise levels resulting from the project computes to 5-7 dBA DNL, the increase in overall baseline ambient noise levels would likely be considerably lower (i.e., less than 3 dB). In addition, Table 7 indicates that the predicted worst-case Saturday traffic noise levels would be below the Siskiyou County 60 dBA DNL exterior noise standard applicable to residential uses. Nonetheless, because the predicted increases in traffic noise levels at the nearest residences to South Kidder Creek Road could exceed the 5 dBA significance threshold during worst-case Saturday project trip generation conditions, although only be 1-2 dBA, this impact is identified as being significant.

Because off-site mitigation of traffic noise impacts would be infeasible (i.e. construction of off-site noise barriers, reductions in posted speed limits, relocation of the roadway or residences to create larger setbacks, etc.), the noise impact identified for increases in off-site traffic noise levels at existing residences located along South Kidder Creek Road is considered significant and unavoidable.

Evaluation of Potential Sleep Disturbance Impacts Resulting from the Project

A comment was received that the noise study should include an evaluation of potential sleep disturbance impacts. Such impacts were not thoroughly investigated in the 2017 noise study because the project does not propose any nighttime activities and the overwhelming majority of project traffic is predicted to occur during daytime hours (conservatively assumed to be 95% of project traffic). In addition, traffic generated by residents residing on or near Kidder Creek Road is not precluded from occurring during nighttime hours. Therefore, it is unrealistic to assume that nighttime traffic on Kidder Creek Road does not currently occur. However, because the majority of the Camp traffic occurs during daytime hours, it is unrealistic to assume that a substantial increase in nighttime traffic would result from the project. Although sleep disturbance impacts are predicted to result from this expansion project, BAC recommends that the following measures be included as project conditions of approval to minimize the potential for nighttime noise generation.

3. Camper pick up and drop off hours should be set to avoid the need for traffic on Kidder Creek Road between the hours of 10 pm and 7 am. All other camp traffic should be limited to daytime hours to the maximum extent practical.

4. Quiet periods between the hours of 10 pm and 7 am should be established and strictly enforced by camp personnel.

Evaluation of Construction Noise at Nearest Existing Residences

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 8. 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 8
Construction Equipment Noise Emission Levels

Equipment	Typical Sound Level (dBA) 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: Transit Noise and Vibration Impact Assessment, Federal Transit Administration, Table 12-1. (May 2006)

The existing noise-sensitive uses within the project vicinity are identified on Figure 1. The closest receivers are located approximately 400+ feet from proposed construction activities on the project site. As shown in Table 8, construction activities typically generate noise levels of approximately 80 dBA at a reference distance of 50 feet from the construction activities. 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 60 dBA Lmax. 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.

Given the distance between the nearest residences and project construction activities, the relatively short duration of construction, and the fact that construction activities would be limited to daytime hours, project construction activities are not expected to result in significant adverse noise impacts at the nearest sensitive receptors. Nonetheless, to reduce the potential for annoyance at those nearby residences during construction activities, the following measures are recommended:

- Project construction activities should be limited to daytime hours unless conditions warrant that certain construction activities occur during evening or early morning hours.
- All noise-producing project equipment and vehicles using internal-combustion engines shall be equipped with manufacturers-recommended mufflers and be maintained in good working condition.
- All mobile or fixed noise-producing equipment used on the project site that are regulated for noise output by a federal, state, or local agency shall comply with such regulations while in the course of project activity.
- Electrically powered equipment shall be used instead of pneumatic or internal-combustion-powered equipment, where feasible.
- Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors.
- Construction site and access road speed limits shall be established and enforced during the construction period.

Evaluation of Construction Vibration at Nearest Existing Residences

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 on-site 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, September 2013), was utilized. Table 18 of that publication, which is reproduced below as Table 9, contains reference peak particle velocity data for such equipment.

Table 9
Vibration Amplitudes for Construction Equipment

Vibration Source	Measurement Distance, ft.	Peak Particle Velocity (in/sec)
Vibratory Roller	25	0.210
Large Bulldozers	25	0.089
Loaded Trucks	25	0.076
Jackhammer	25	0.035

Source: Bollard Acoustical Consultants, Inc. (BAC)

The vibration data shown in Table 9 indicate that, with the exception of the vibratory roller, heavy equipment-generated vibration levels are below the thresholds for annoyance and damage to structures even at the very close measurement locations of 25 feet from the operating equipment. As a result, at the nearest residences located hundreds of feet from proposed construction operations, project construction-related vibration levels are expected to be well below the threshold of perception. As a result, no construction-generated vibration mitigation measures would be warranted for this project.

Conclusions & Recommendations

This analysis concludes that, with practical and feasible noise mitigation measures, noise generated by on-site activities associated with the proposed project would not result in adverse noise impacts relative to CEQA and Siskiyou County noise criteria at the nearest residences. However, this analysis concludes that increases in off-site traffic noise exposure resulting from the project could be significant and unavoidable at existing noise-sensitive uses located in the vicinity of Kidder Creek Road.

Project construction noise and vibration as a result of the improvements and expansion of the camp are predicted to be less than significant at the nearest noise-sensitive uses to the project area provided the mitigation measures cited under the construction noise section previously in this report are implemented.

Similarly, noise generated at the proposed amphitheater locations is expected to be less than significant at the nearest noise-sensitive uses to the project area provided the mitigation measures cited under the amphitheater noise section previously in this report are implemented.

These conclusions are based on the collected noise level data in the project vicinity, the project site plans shown on Figures 2 and 3, on information contained in the project TIA and noise modeling conducted using the FHWA model. Deviations from the project site plans shown in Figure 3 or the permitting of unusually loud activities could cause future noise levels to differ from those predicted in this analysis. Bollard Acoustical Consultants, Inc. (BAC) is not responsible for exceedances of County or CEQA noise criteria caused by such deviations.

This concludes BAC's noise assessment for the proposed Kidder Creek Orchard Camp Expansion in Siskiyou County, California. Please contact BAC at (916) 663-0500 or paulb@bacnoise.com with any questions regarding this assessment.

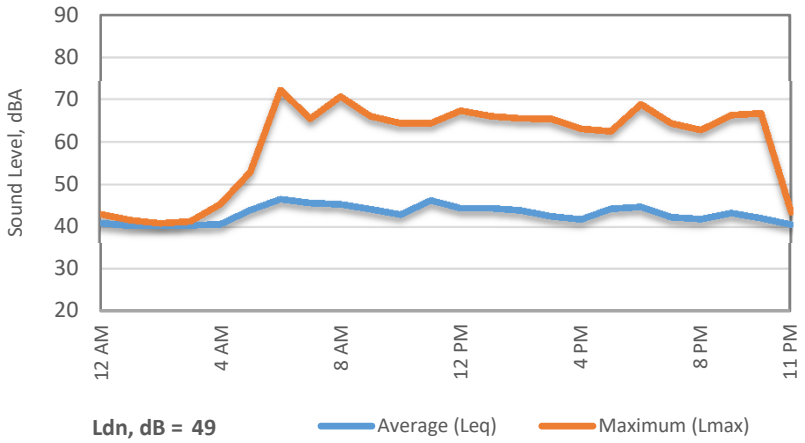
Appendix A

Acoustical Terminology

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
Attenuation	The reduction of an acoustic signal.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz.
Ldn	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
Leq	Equivalent or energy-averaged sound level.
Lmax	The highest root-mean-square (RMS) sound level measured over a given period of time.
Loudness	A subjective term for the sensation of the magnitude of sound.
Masking	The amount (or the process) by which the threshold of audibility is for one sound is raised by the presence of another (masking) sound.
Noise	Unwanted sound.
Peak Noise	The level corresponding to the highest (not RMS) sound pressure measured over a given period of time. This term is often confused with the Maximum level, which is the highest RMS level.
RT_{60}	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
Sabin	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 sabin.
SEL	A rating, in decibels, of a discrete event, such as an aircraft flyover or train passby, that compresses the total sound energy of the event into a 1-s time period.
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
Threshold of Pain	Approximately 120 dB above the threshold of hearing.

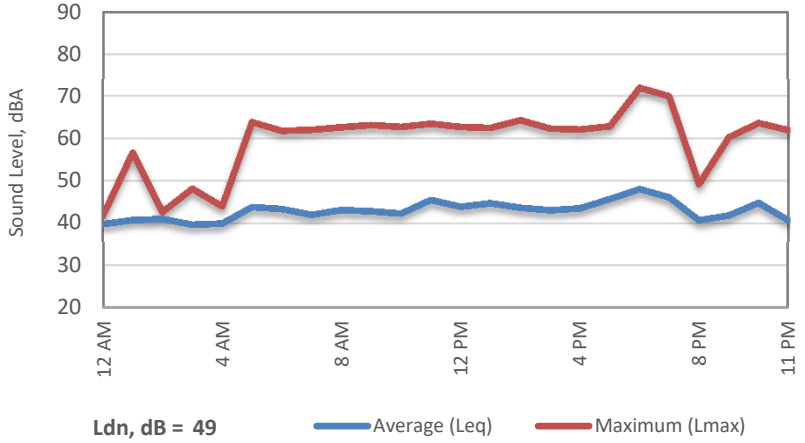
Appendix B-1
Kidder Creek Ambient Noise Monitoring
Thursday, June 15, 2017 - Sunday, June 18, 2017
Site 1

Thursday, June 15, 2017



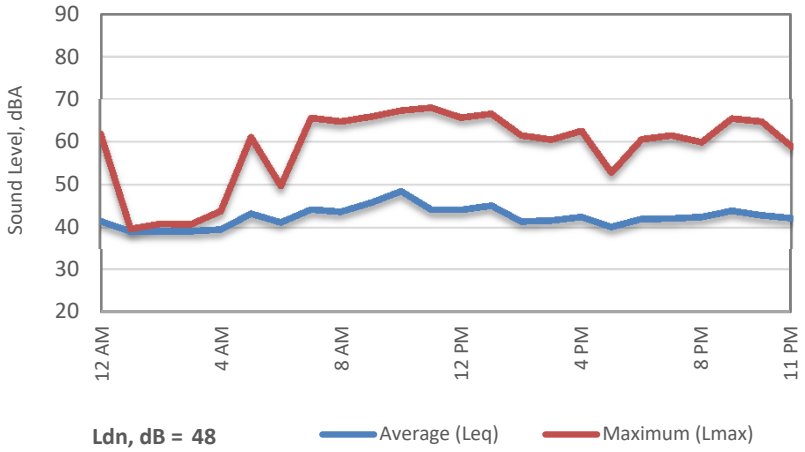
Ldn, dB = 49

Friday, June 16, 2017



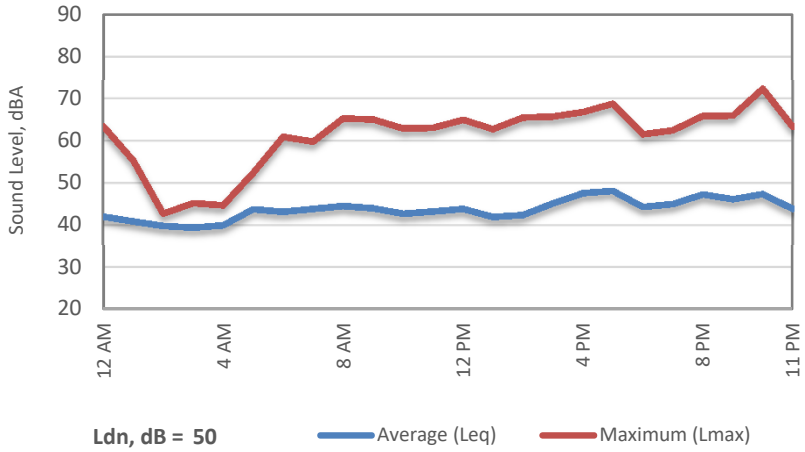
Ldn, dB = 49

Saturday, June 17, 2017



Ldn, dB = 48

Sunday, June 18, 2017



Ldn, dB = 50

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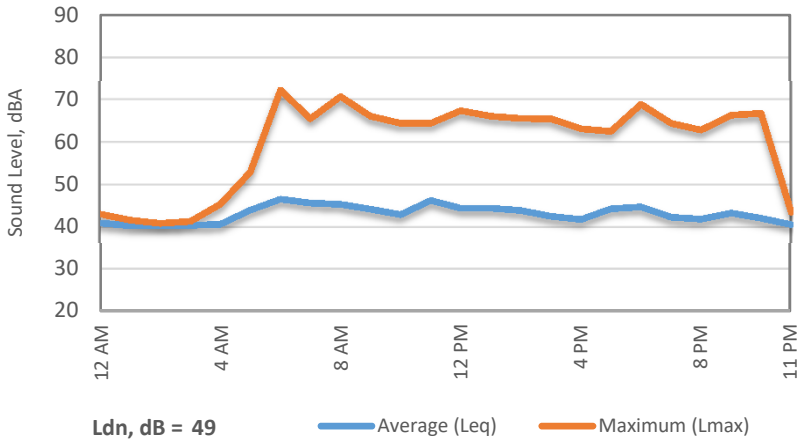
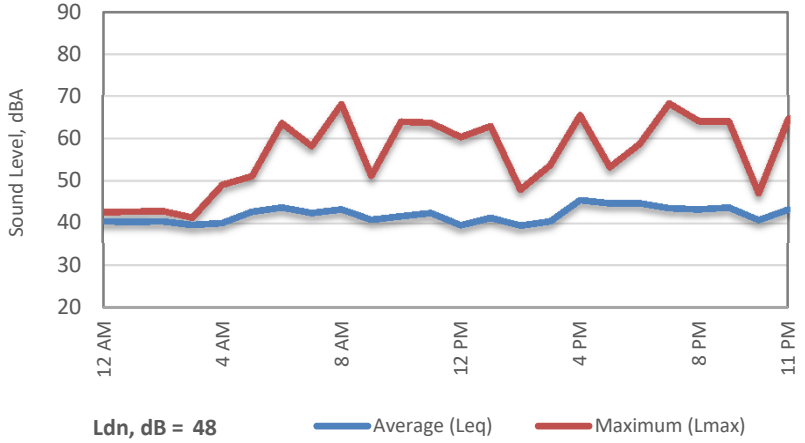
Appendix B-2
Kidder Creek Ambient Noise Monitoring
Monday, June 19, 2017 - Thursday, June 22, 2017
Site 1

Monday, June 19, 2017



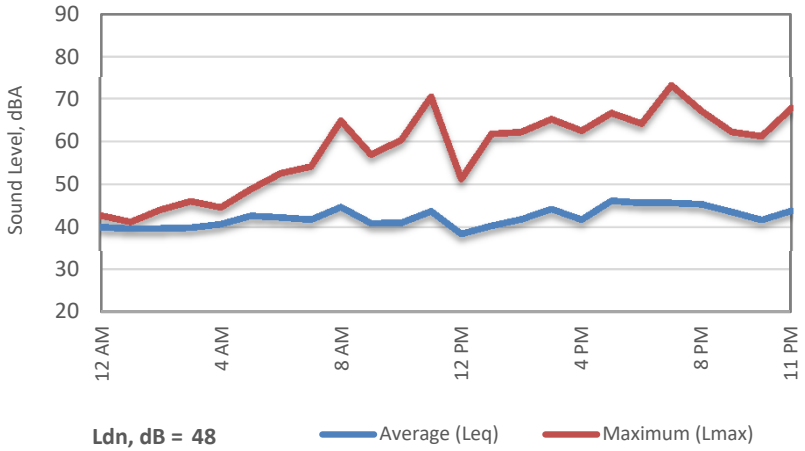
Ldn, dB = 49

Tuesday, June 20, 2017



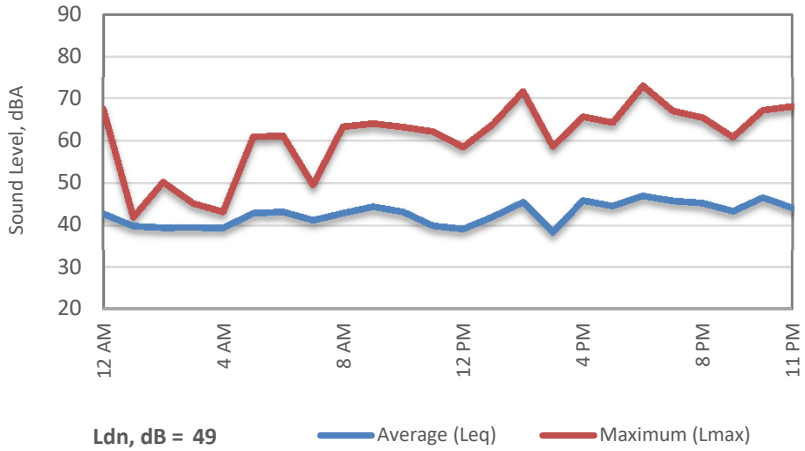
Ldn, dB = 48

Wednesday, June 21, 2017



Ldn, dB = 48

Thursday, June 22, 2017



Ldn, dB = 49

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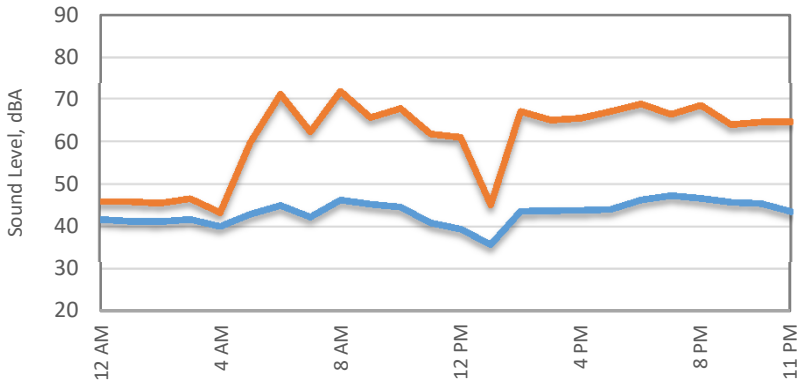
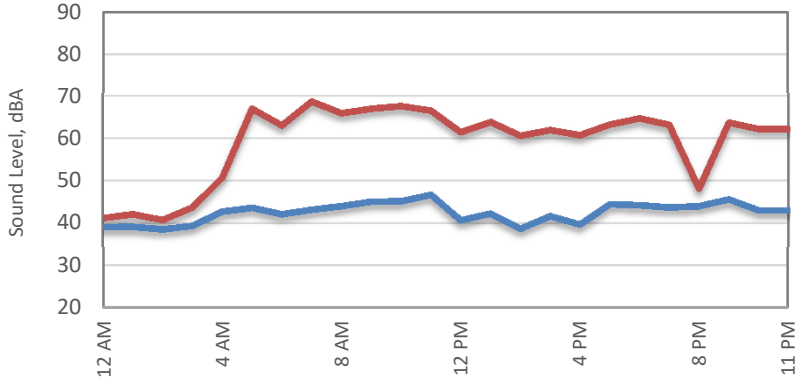
Appendix B-3
Kidder Creek Ambient Noise Monitoring
Friday, June 23, 2017 - Sunday, June 25, 2017
Site 1

Friday, June 23, 2017



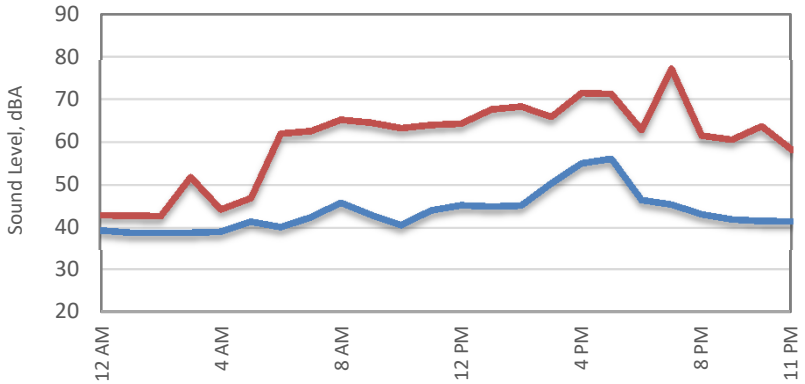
Ldn, dB = 50

Saturday, June 24, 2017



Ldn, dB = 48

Sunday, June 25, 2017



Ldn, dB = 49

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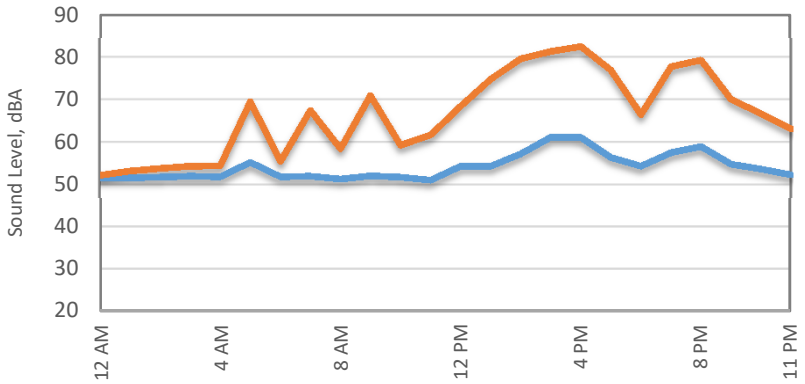
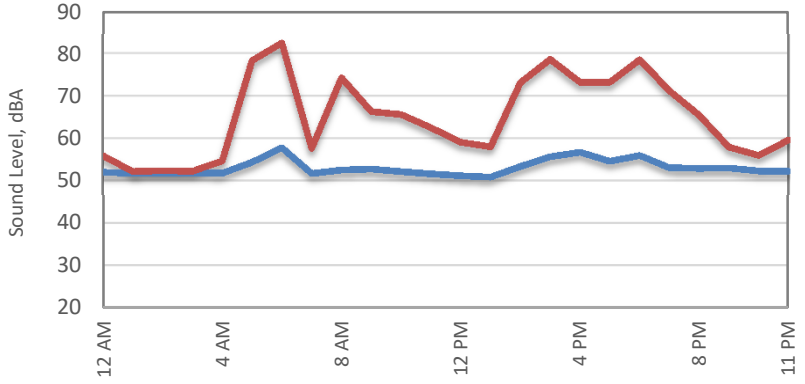
Appendix B-4
Kidder Creek Ambient Noise Monitoring
Friday, June 23, 2017 - Monday, June 26, 2017
Site 2

Friday, June 23, 2017



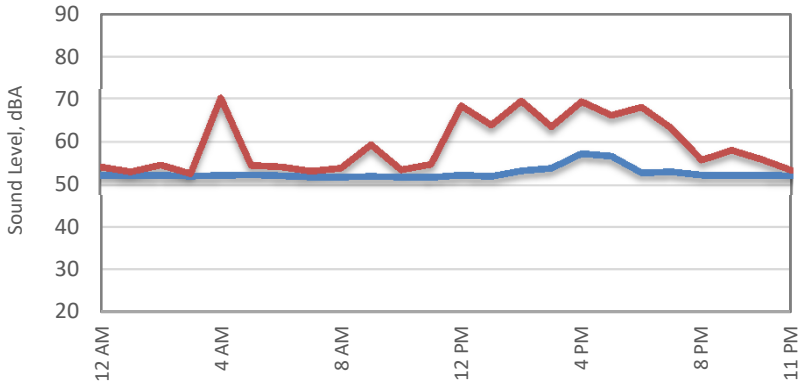
Ldn, dB = 60

Saturday, June 24, 2017



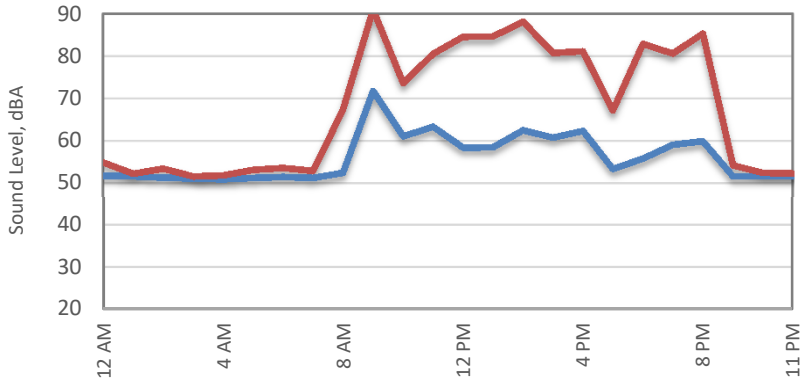
Ldn, dB = 60

Sunday, June 25, 2017



Ldn, dB = 59

Monday, June 26, 2017



Ldn, dB = 62

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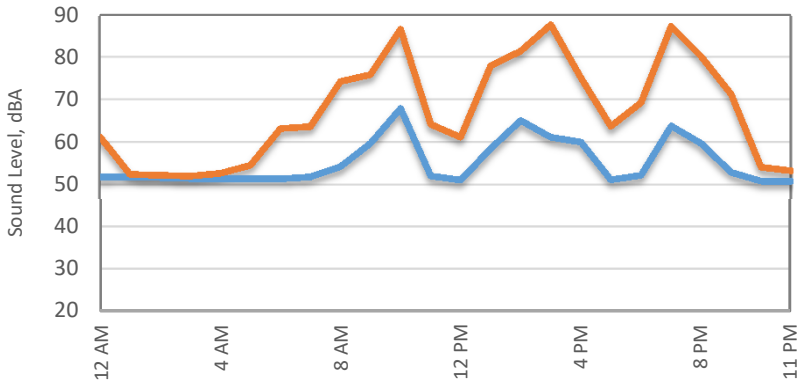
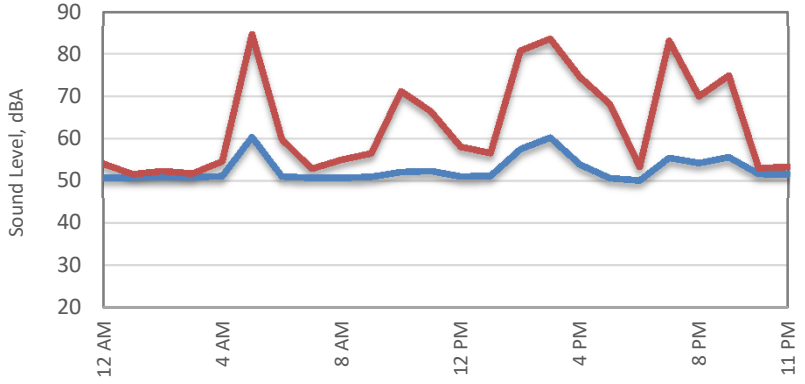
Appendix B-5
Kidder Creek Ambient Noise Monitoring
Tuesday, June 27, 2017 - Friday, June 30, 2017
Site 2

Tuesday, June 27, 2017



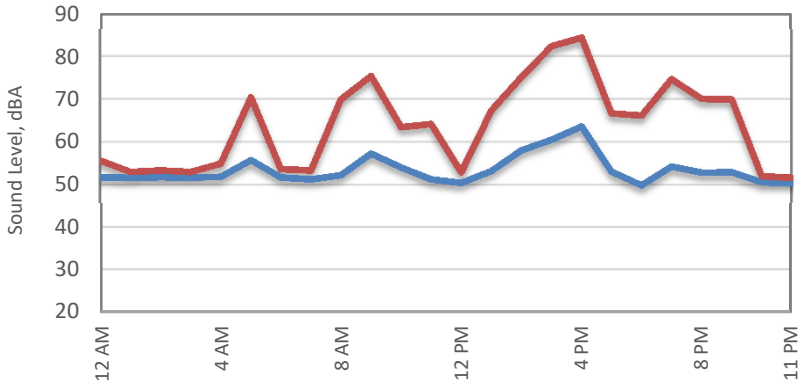
Ldn, dB = 61

Wednesday, June 28, 2017



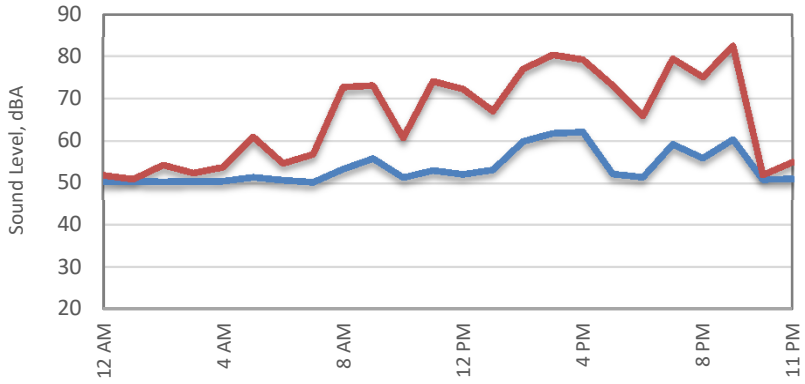
Ldn, dB = 60

Thursday, June 29, 2017



Ldn, dB = 60

Friday, June 30, 2017



Ldn, dB = 59

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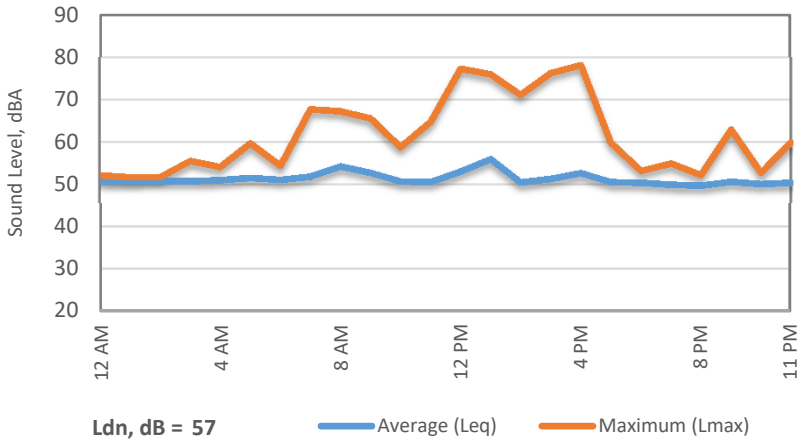
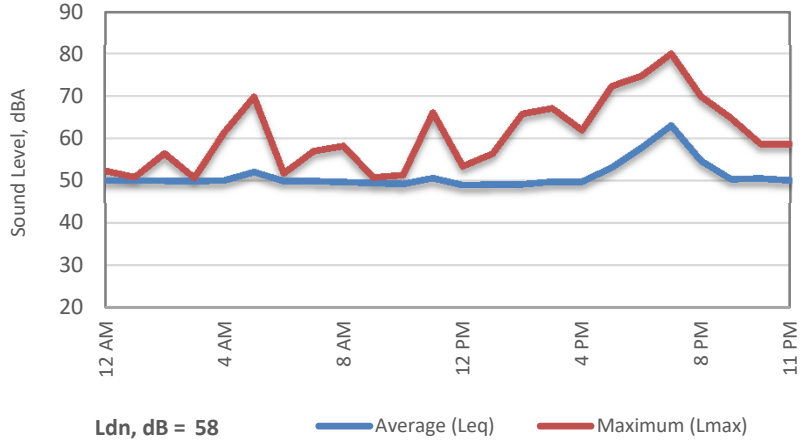
Appendix B-6
Kidder Creek Ambient Noise Monitoring
Saturday, July 1, 2017 - Sunday, July 2, 2017
Site 2

Saturday, July 1, 2017



Ldn, dB = 57

Sunday, July 2, 2017



Ldn, dB = 58

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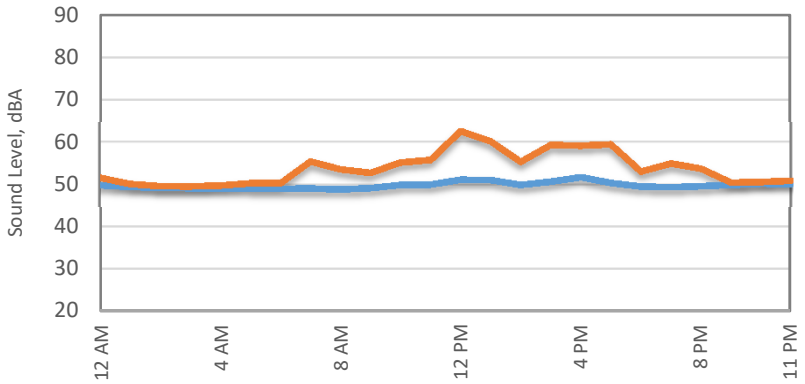
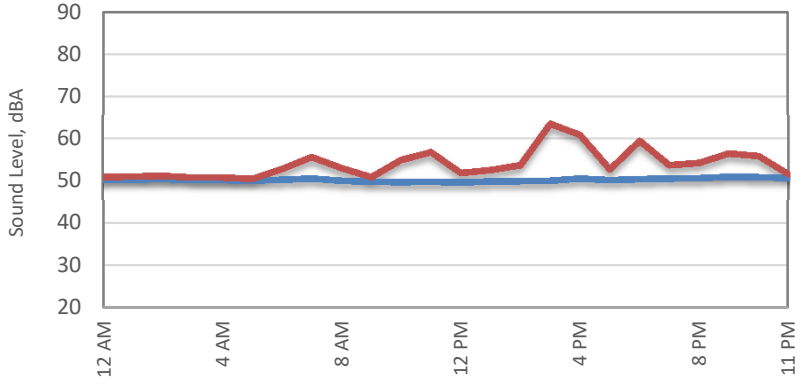
Appendix B-7
Kidder Creek Ambient Noise Monitoring
Thursday, June 15, 2017 - Sunday, June 18, 2017
Site 3

Thursday, June 15, 2017



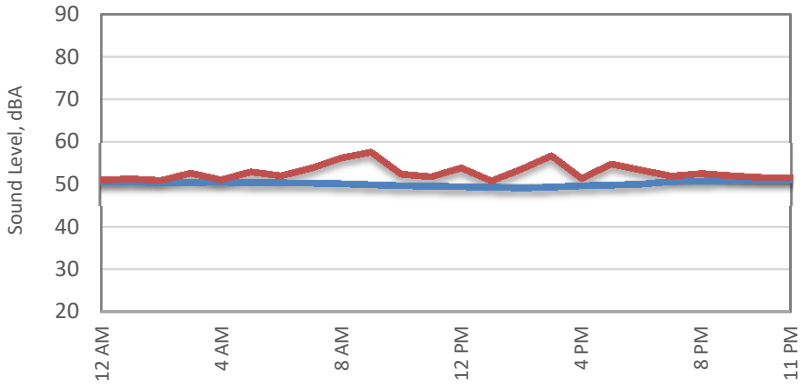
Ldn, dB = 56

Friday, June 16, 2017



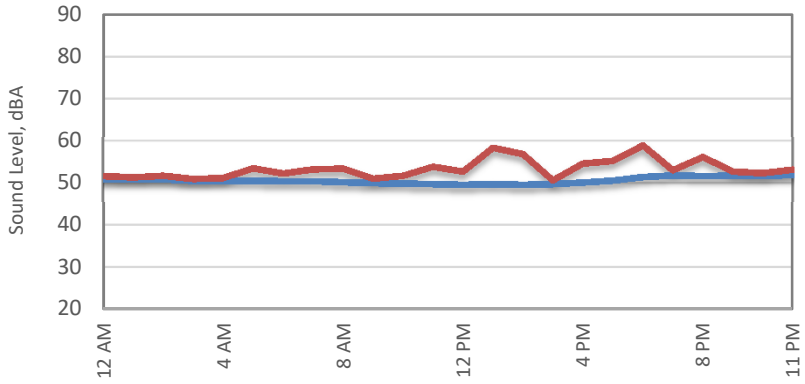
Ldn, dB = 57

Saturday, June 17, 2017



Ldn, dB = 57

Sunday, June 18, 2017



Ldn, dB = 57

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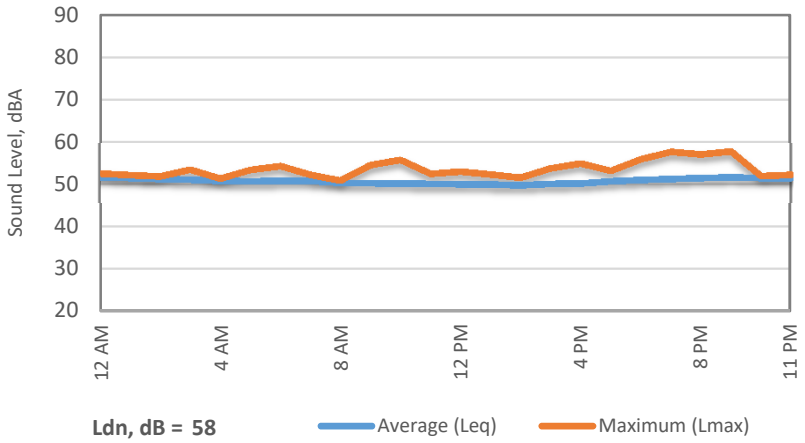
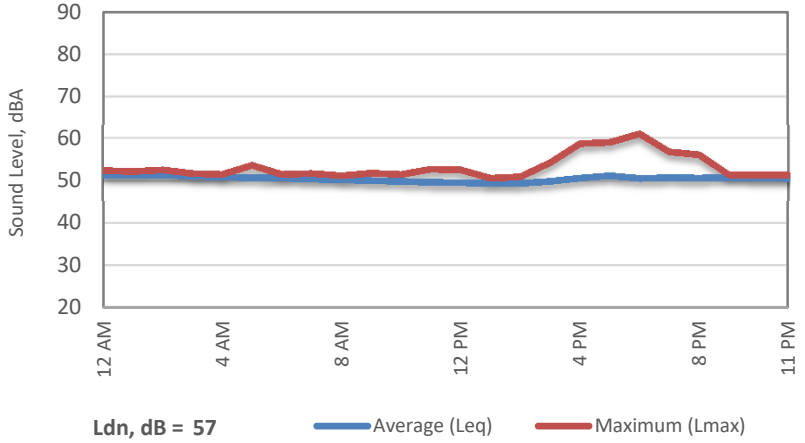
Appendix B-8
Kidder Creek Ambient Noise Monitoring
Monday, June 19, 2017 - Thursday, June 22, 2017
Site 3

Monday, June 19, 2017



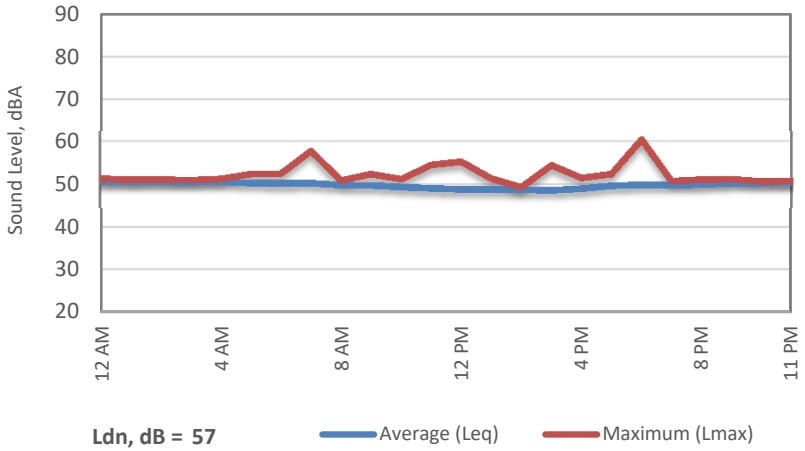
Ldn, dB = 58

Tuesday, June 20, 2017



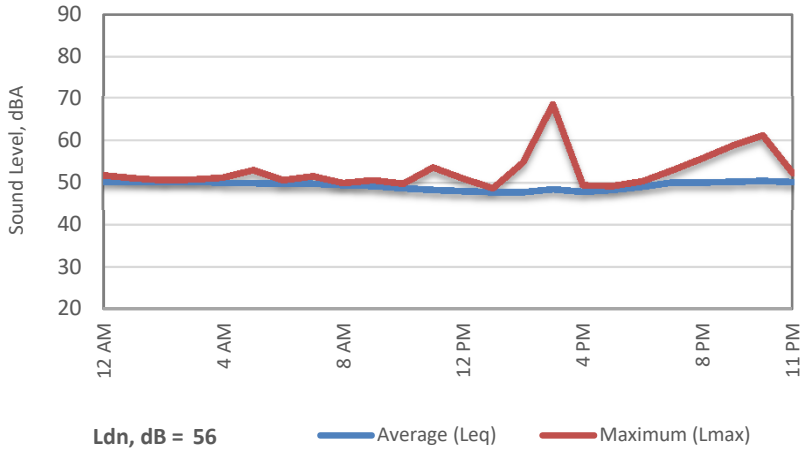
Ldn, dB = 57

Wednesday, June 21, 2017



Ldn, dB = 57

Thursday, June 22, 2017



Ldn, dB = 56

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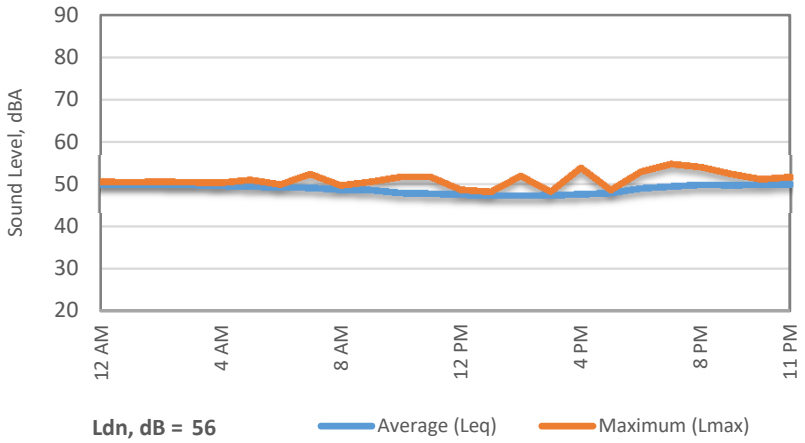
Appendix B-9
Kidder Creek Ambient Noise Monitoring
Friday, June 23, 2017 - Monday, June 26, 2017
Site 3

Friday, June 23, 2017



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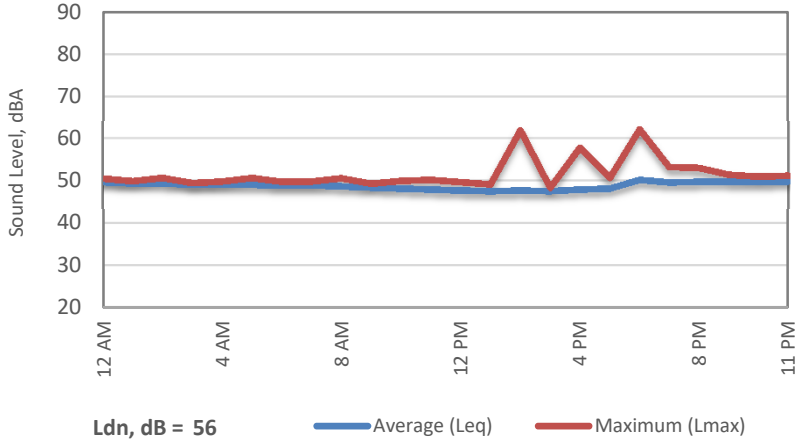
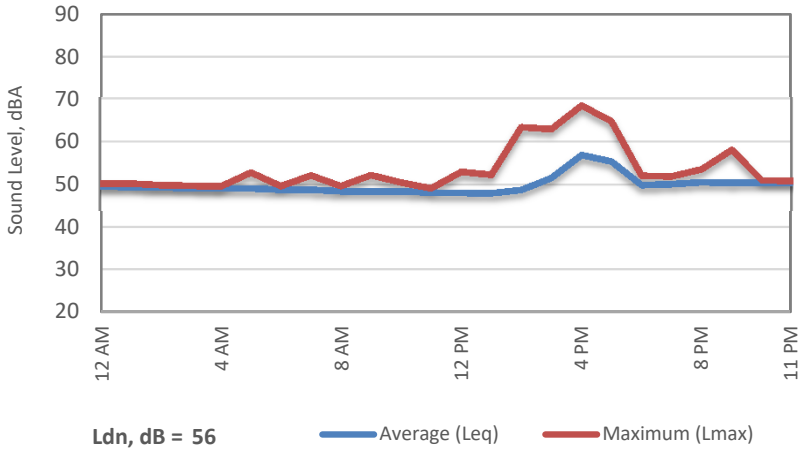
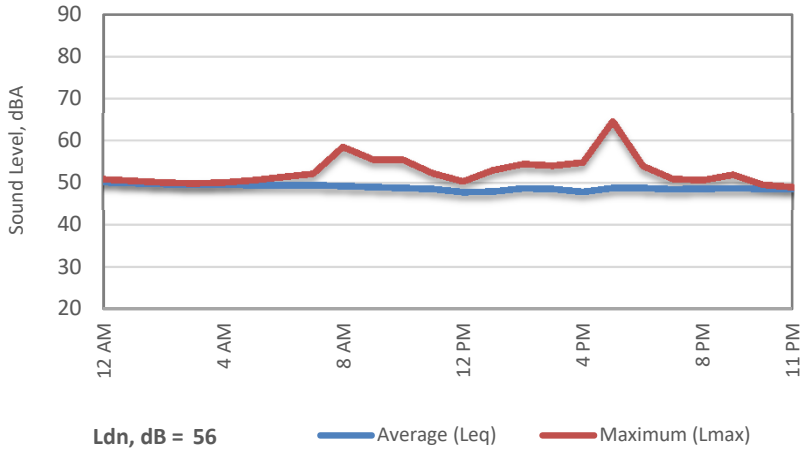


Sunday, June 25, 2017



Monday, June 26, 2017



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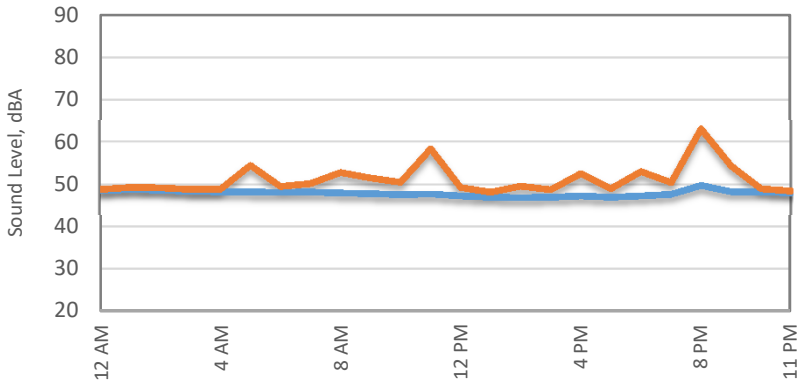
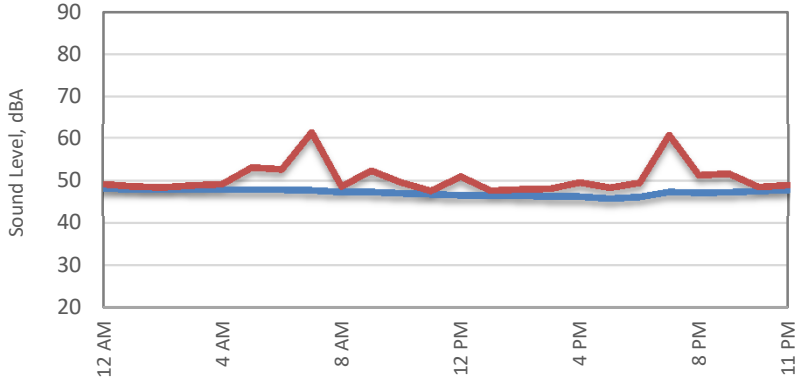
Appendix B-10
Kidder Creek Ambient Noise Monitoring
Tuesday, June 27, 2017 - Thursday, June 29, 2017
Site 3

Tuesday, June 27, 2017



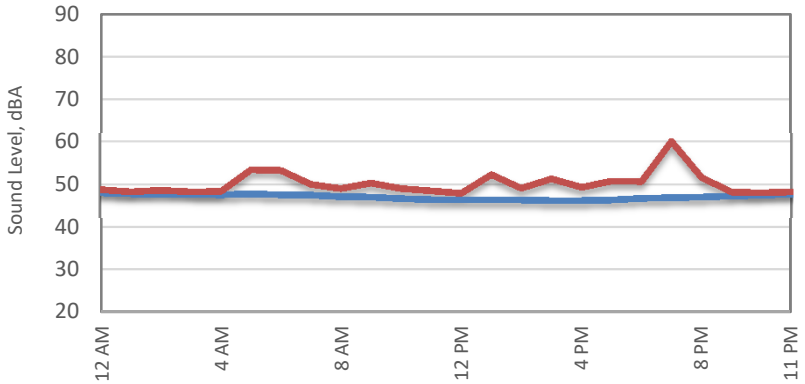
Ldn, dB = 55 Average (Leq) Maximum (Lmax)

Wednesday, June 28, 2017



Ldn, dB = 54 Average (Leq) Maximum (Lmax)

Thursday, June 29, 2017



Ldn, dB = 54 Average (Leq) Maximum (Lmax)

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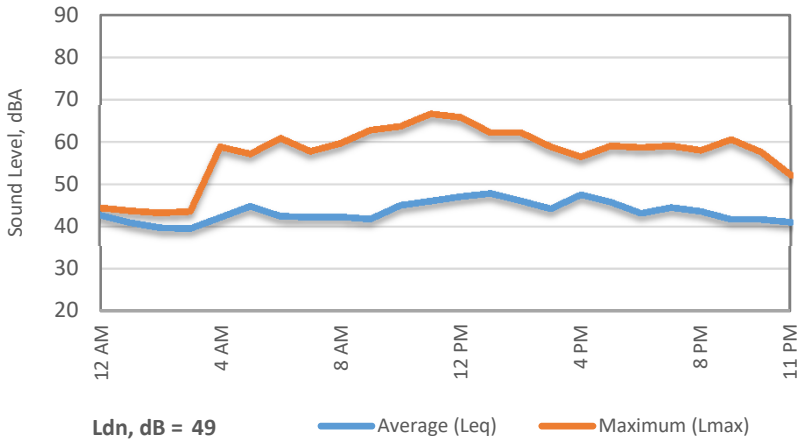
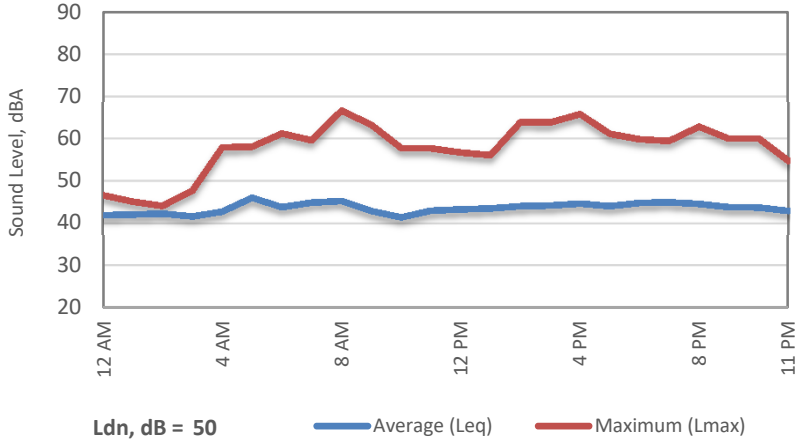
Appendix B-11
Kidder Creek Ambient Noise Monitoring
Thursday, June 15, 2017 - Sunday, June 18, 2017
Site 4

Thursday, June 15, 2017



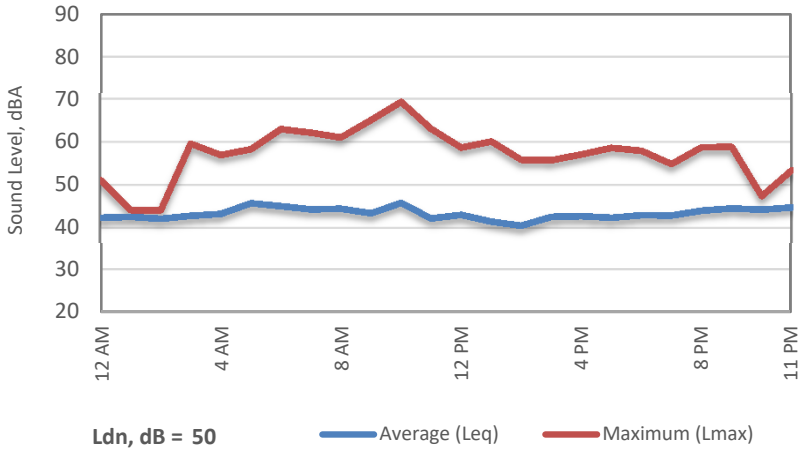
Ldn, dB = 49

Friday, June 16, 2017



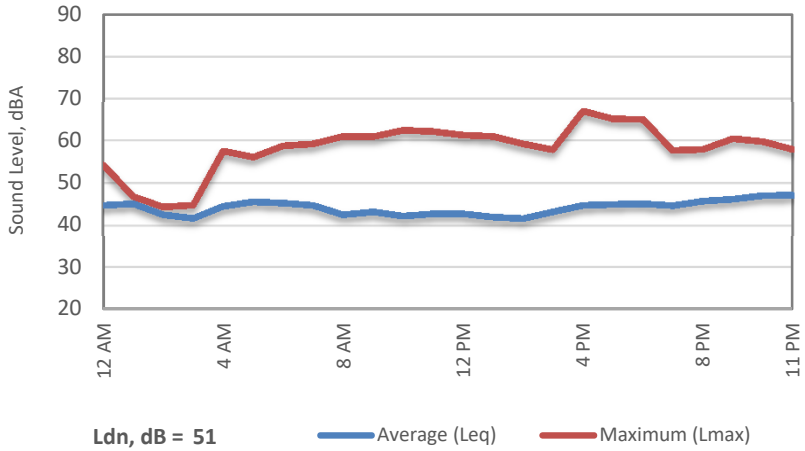
Ldn, dB = 50

Saturday, June 17, 2017



Ldn, dB = 50

Sunday, June 18, 2017



Ldn, dB = 51

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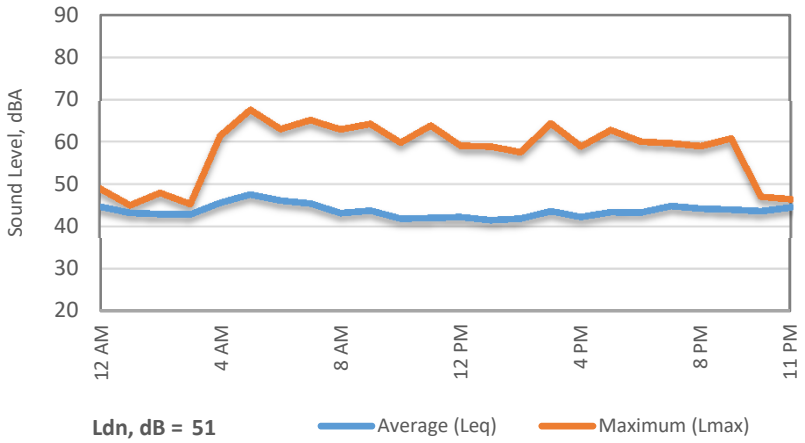
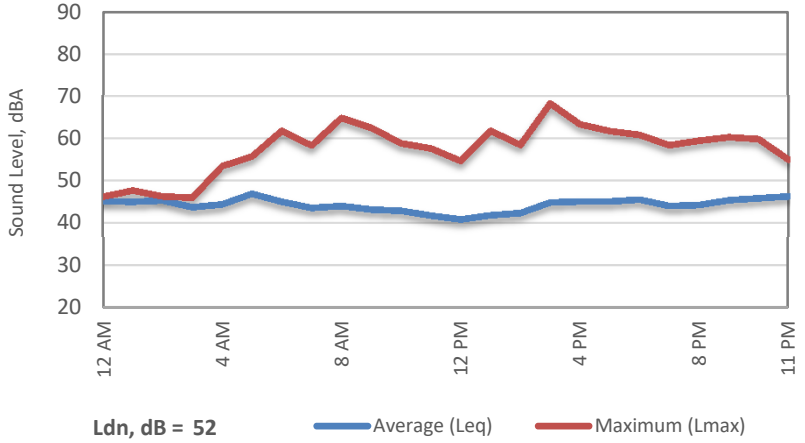
Appendix B-12
Kidder Creek Ambient Noise Monitoring
Monday, June 19, 2017 - Thursday, June 22, 2017
Site 4

Monday, June 19, 2017



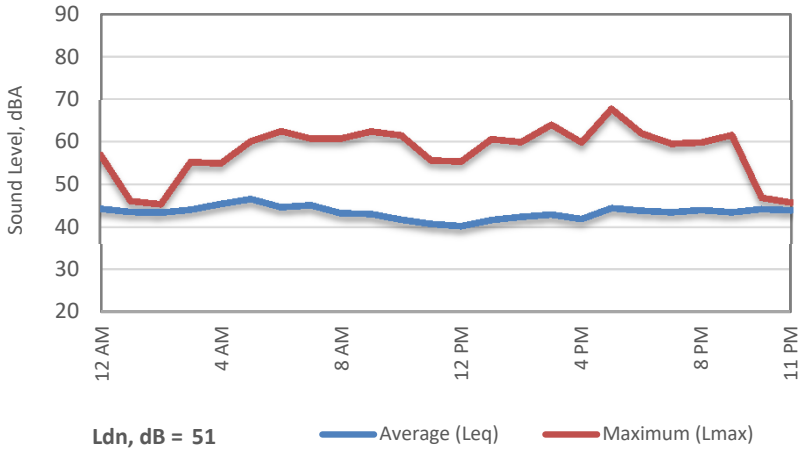
Ldn, dB = 51

Tuesday, June 20, 2017



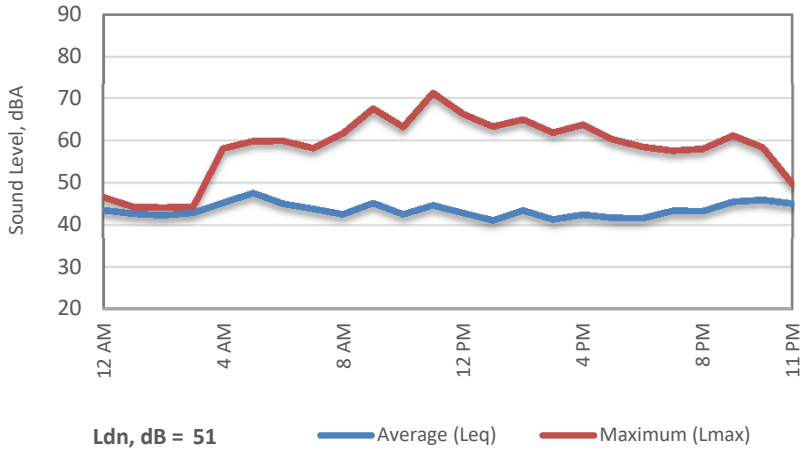
Ldn, dB = 52

Wednesday, June 21, 2017



Ldn, dB = 51

Thursday, June 22, 2017



Ldn, dB = 51

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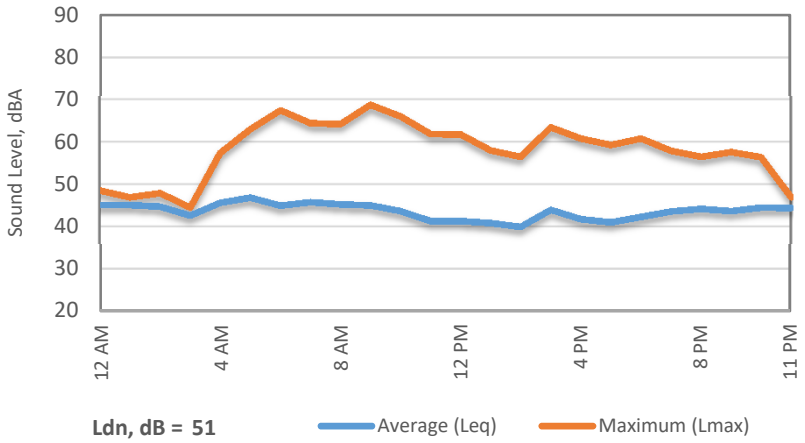
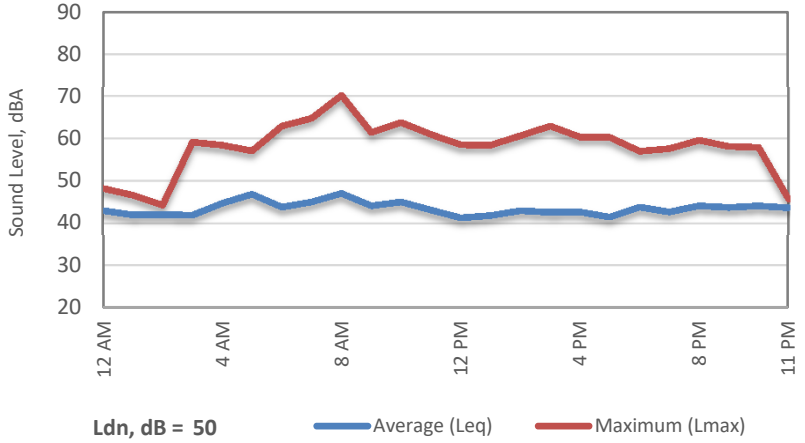
Appendix B-13
Kidder Creek Ambient Noise Monitoring
Friday, June 23, 2017 - Monday, June 26, 2017
Site 4

Friday, June 23, 2017



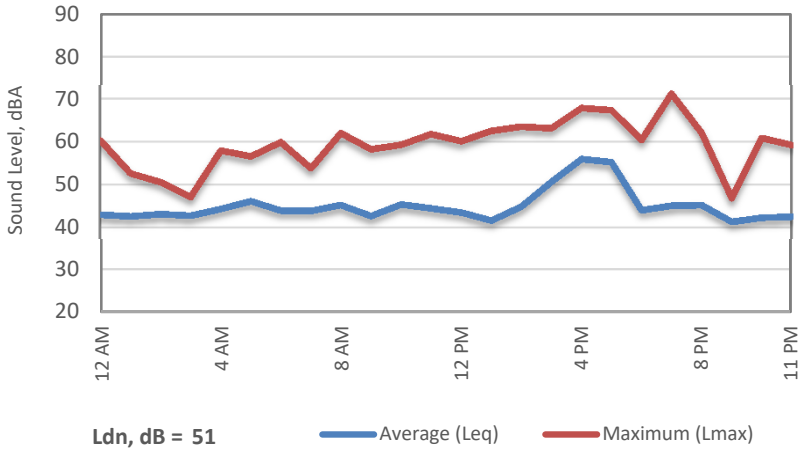
Ldn, dB = 51

Saturday, June 24, 2017



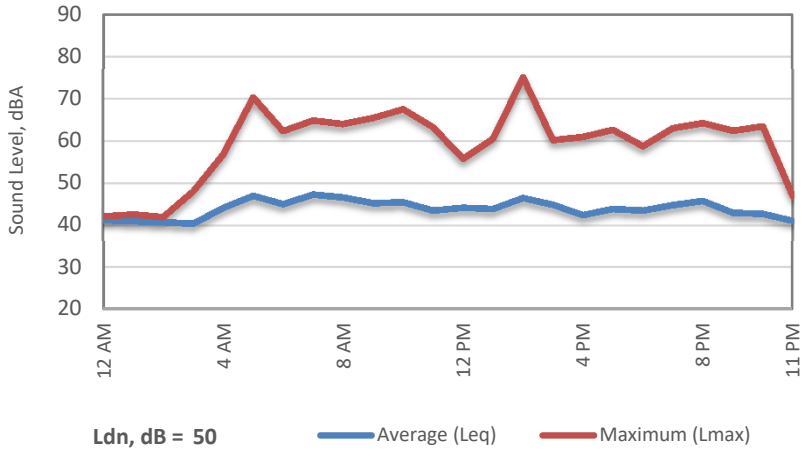
Ldn, dB = 50

Sunday, June 25, 2017



Ldn, dB = 51

Monday, June 26, 2017



Ldn, dB = 50

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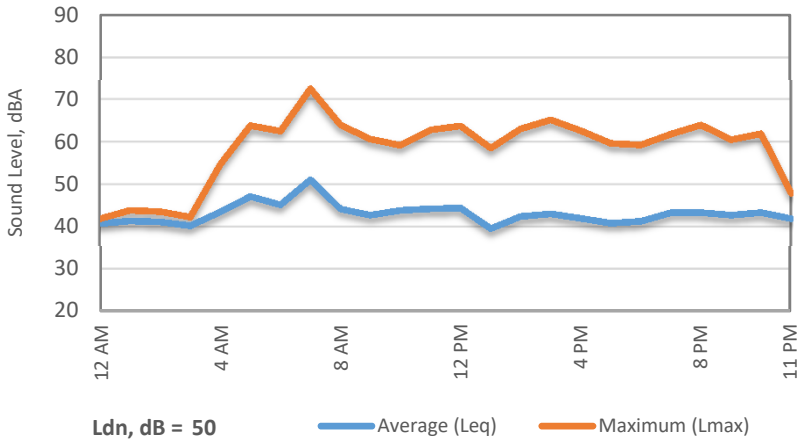
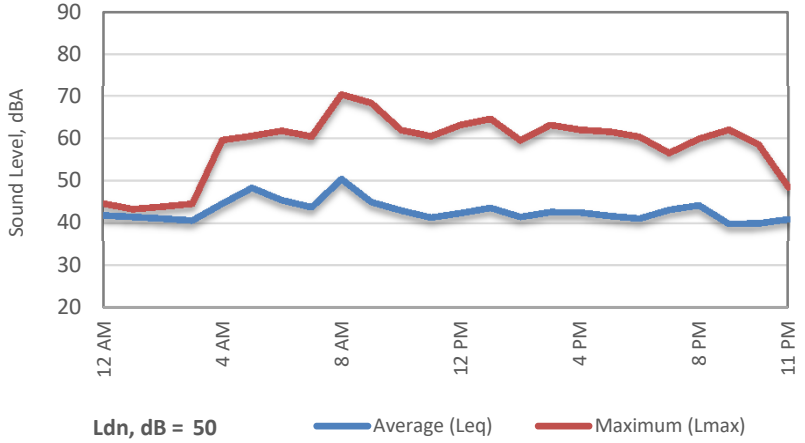
Appendix B-14
Kidder Creek Ambient Noise Monitoring
Tuesday, June 27, 2017 - Friday, June 30, 2017
Site 4

Tuesday, June 27, 2017



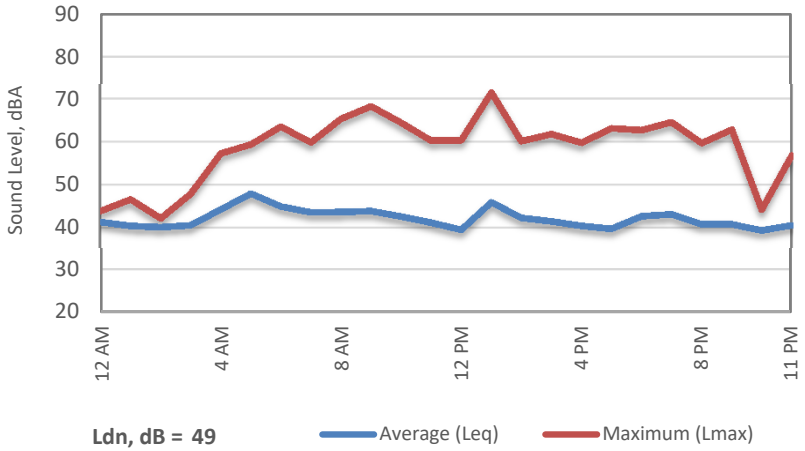
Ldn, dB = 50

Wednesday, June 28, 2017



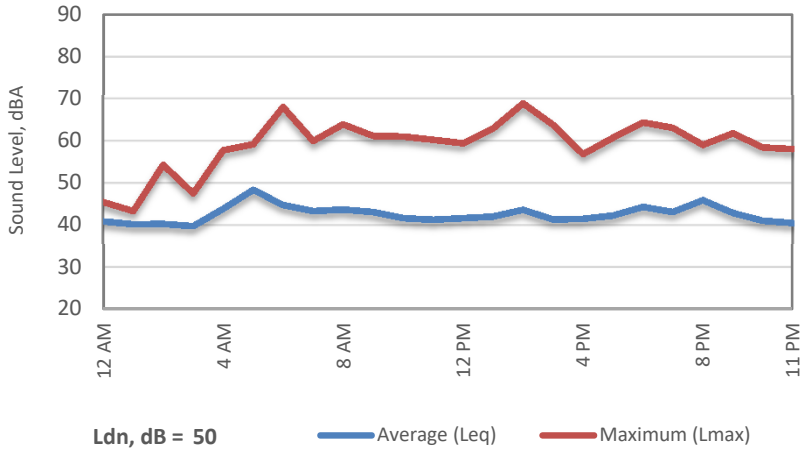
Ldn, dB = 50

Thursday, June 29, 2017



Ldn, dB = 49

Friday, June 30, 2017



Ldn, dB = 50

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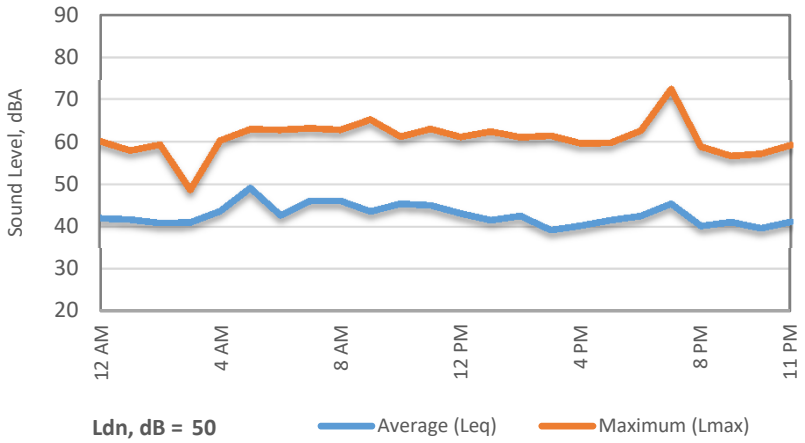
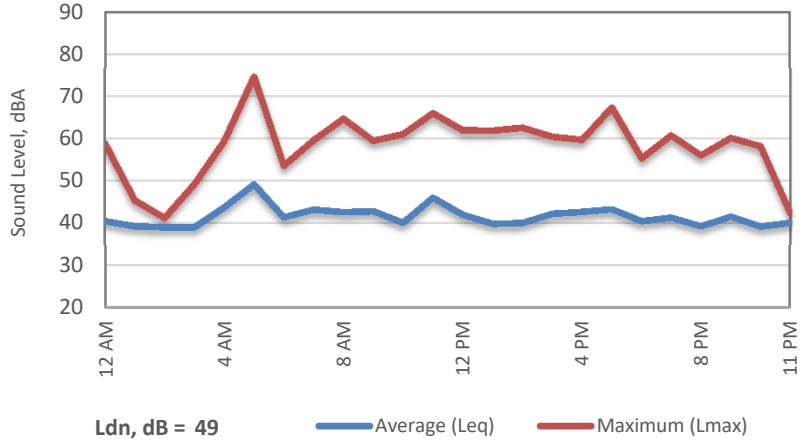
Appendix B-15
Kidder Creek Ambient Noise Monitoring
Saturday, July 1, 2017 - Sunday, July 2, 2017
Site 4

Saturday, July 1, 2017



Ldn, dB = 50

Sunday, July 2, 2017



Ldn, dB = 49

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Appendix C-1

FHWA-RD-77-108 Highway Traffic Noise Prediction Model
Data Input Sheet

Project #: 2017-047 Kidder Creek Orchard Camp Expansion
Description: Existing/Baseline Saturday Traffic Conditions (Weekday volumes would be lower)
Ldn/CNEL: Ldn
Hard/Soft: Soft

Receptor	Roadway Name	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
H	South Kidder Creek Rd.	338	95		5	5	0	30	220	0
I	South Kidder Creek Rd.	338	95		5	5	0	30	270	0
J	South Kidder Creek Rd.	338	95		5	5	0	35	300	0
K	South Kidder Creek Rd.	338	95		5	5	0	40	500	0
L	South Kidder Creek Rd.	338	95		5	5	0	45	380	0
M	South Kidder Creek Rd.	414	95		5	5	0	35	200	0
N	South Kidder Creek Rd.	414	95		5	5	0	35	150	0
O	South Kidder Creek Rd.	414	95		5	5	0	35	70	0
P	South Kidder Creek Rd.	414	95		5	5	0	50	70	0
Q	South Kidder Creek Rd.	414	95		5	5	0	55	300	0

Appendix C-2

FHWA-RD-77-108 Highway Traffic Noise Prediction Model
Data Input Sheet

Project #: 2017-047 Kidder Creek Orchard Camp Expansion
Description: Projected Worst-Case Existing Plus Project Saturday Traffic Conditions (Weekday volumes would
Ldn/CNEL: Ldn
Hard/Soft: Soft

Receptor	Roadway Name	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
H	South Kidder Creek Rd.	1,448	95		5	5	0	30	220	0
I	South Kidder Creek Rd.	1,448	95		5	5	0	30	270	0
J	South Kidder Creek Rd.	1,448	95		5	5	0	35	300	0
K	South Kidder Creek Rd.	1,448	95		5	5	0	40	500	0
L	South Kidder Creek Rd.	1,448	95		5	5	0	45	380	0
M	South Kidder Creek Rd.	1,448	95		5	5	0	35	200	0
N	South Kidder Creek Rd.	1,448	95		5	5	0	35	150	0
O	South Kidder Creek Rd.	1,448	95		5	5	0	35	70	0
P	South Kidder Creek Rd.	1,448	95		5	5	0	50	70	0
Q	South Kidder Creek Rd.	1,448	95		5	5	0	55	300	0

Appendix C-3

FHWA-RD-77-108 Highway Traffic Noise Prediction Model
Predicted Levels

Project #: 2017-047 Kidder Creek Orchard Camp Expansion
Description: Existing/Baseline Saturday Traffic Conditions (Weekday volumes would
Ldn/CNEL: Ldn
Hard/Soft: Soft

Receptor	Roadway Name	Autos	Medium Trucks	Heavy Trucks	Total
H	South Kidder Creek Rd.	34	32	2	36
I	South Kidder Creek Rd.	33	31	1	35
J	South Kidder Creek Rd.	34	31	-1	36
K	South Kidder Creek Rd.	33	29	-3	34
L	South Kidder Creek Rd.	36	31	-1	37
M	South Kidder Creek Rd.	38	35	3	40
N	South Kidder Creek Rd.	40	37	5	41
O	South Kidder Creek Rd.	45	42	10	46
P	South Kidder Creek Rd.	49	44	11	50
Q	South Kidder Creek Rd.	41	35	2	42

Appendix C-4

FHWA-RD-77-108 Highway Traffic Noise Prediction Model
Predicted Levels

Project #: 2017-047 Kidder Creek Orchard Camp Expansion
Description: Projected Worst-Case Existing Plus Project Saturday Traffic Conditions
Ldn/CNEL: Ldn
Hard/Soft: Soft

Receptor	Roadway Name	Autos	Medium Trucks	Heavy Trucks	Total
H	South Kidder Creek Rd.	41	38	9	43
I	South Kidder Creek Rd.	39	37	7	41
J	South Kidder Creek Rd.	41	38	6	42
K	South Kidder Creek Rd.	39	35	3	40
L	South Kidder Creek Rd.	42	38	5	44
M	South Kidder Creek Rd.	43	40	8	45
N	South Kidder Creek Rd.	45	42	10	47
O	South Kidder Creek Rd.	50	47	15	52
P	South Kidder Creek Rd.	55	49	17	56
Q	South Kidder Creek Rd.	46	41	8	47

Appendix D-1
Noise Measurement Site Photos

Noise Measurement Site 1

Noise Measurement Site 2

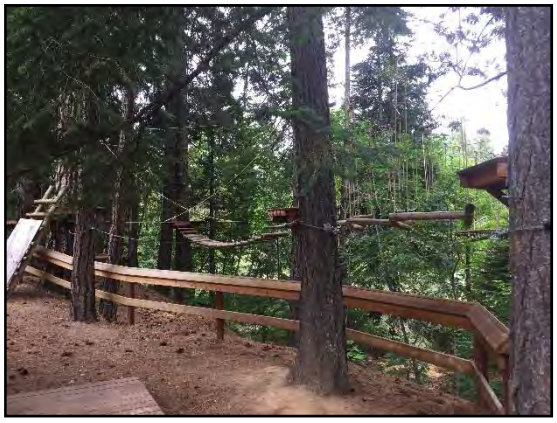
Noise Measurement Site 3

Noise Measurement Site 4

Appendix D-2
General Site Photos

Ropes Course

Adventure Course



Soccer Field

Existing Pond Area

Shooting Range

Appendix D-3
General Site Photos

Camp Area

Kidder Creek

Base Camp Area

Base Camp Area

Screened View of Receptor “E”

Screened View of Receptor “B”

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