COMMENT LETTER # LA10

Napa County Airport Land Use Commission

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February 3, 2010

Sean Trippi, Principal Planner
County of Napa
Conservation, Development and Planning Department
1195 Third Street, Suite 210
Napa, CA 94559

RE: Napa Pipe Project, SCH # 2008122111
Draft Environmental Impact Report – Comment Letter

Dear Mr. Trippi,

The Napa County Airport Land Use Commission (ALUC) thanks County Staff for providing our agency with an opportunity to comment on the proposed Napa Pipe Draft Environmental Impact Report (DEIR). The project is located within the Airport Influence Area of the Napa County Airport, and pursuant to the *State Aeronautics Act* (Public Utilities Code Section 21676), the project is subject to ALUC Consistency Determination with the *Napa County Airport Land Use Compatibility Plan*. As such, the ALUC requests that the County address the following comments concerning the adequacy of the Draft Environmental Impact Report prior to submitting the project for a formal determination: LA10-1

1. Consultation – On prior occasions the County has voluntarily brought the project forward for informal ALUC review. The ALUC has appreciated this early involvement in project processing and looks forward to continuing to work together. It is recommended that in advance of the required formal Consistency Determination hearing, the project again be voluntarily brought to the ALUC, the Napa County Airport Staff, and/or Airport Advisory Commission to discuss the points raised below. This is suggested as a means to facilitate potential issue resolution prior to formal action on the project. LA10-2

2. Table 3-7 Revision – The ALUC has not been included in the list of agencies with jurisdiction by law over the project. The DEIR suggests in numerous areas that ALUC review is merely a component of County Code requirements. The DEIR should reflect that the ALUC is an independent entity, with powers and duties enabled and mandated by the State (not the County) and functions autonomously in much the same fashion as the Napa County Local Agency Formation Commission (LAFCO). The project involves a General Plan Amendment and Rezoning within an Airport Influence Area. As such, pursuant to Public Resource Code 21676(b), ALUC Consistency Review is required prior to the Napa County's final action on the project. Please revise the DEIR to reflect this requirement. LA10-3

3. Residential Uses – The *Napa County Airport Land Use Compatibility Plan* (ALUCP) prohibits residential uses within Land Use Compatibility Zone D and requires evaluation of the proximity and frequency of overflights before allowing residential uses within Zone E. In several places, the DEIR states that residential use is considered incompatible and discouraged in Zone D. Please revise the DEIR to indicate that all residential uses are simply prohibited. Please also revise the DEIR to address that residential uses are permitted in Zone E only after the proximity to flight patterns have been considered (see Table 3-2 of the ALUCP). The DEIR provides minimal information on overflight characteristics of the site. It is recommended that a qualified aviation expert prepare a site-specific airport land use compatibility evaluation that provides detailed information on overflight characteristics of the project site. This information is needed in order for the ALUC to make the required Consistency Determination. Please be aware that much of the Zone E portion of this property is regularly overflown as frequently as the Zone D portion of the property. County decision makers should be made aware of the flight patterns, in particular, the approach paths of the various types of aircraft that use the airport. An exhibit showing various flight patterns of the aircraft that frequent the airport should be included in the analysis. The consistency conclusion for *Napa County General Plan* Policy CIR-38 is not supported by evidence in the DEIR.

LA10-4

LA10-5

4. Condominium Hotel – Additional information is needed about the design of the proposed condominium hotel located in Zone D, where all residential uses are prohibited. There is no exception in the ALUCP for fractionally-owned or vacation properties. To find the project consistent, the ALUC will need to determine that the condominium/hotel use does not constitute a residential use. That determination may be very difficult if units are sold as vacation properties to individual owners.

LA10-6

5. Airport Compatibility Combining District / Design Criteria – The project plans and design guidelines go into great depth on zoning requirements and design criteria, but appear not to include airport compatibility measures, including those that are currently within County Code. Given the site's proximity to approach patterns, the project must be designed to include compatibility measures. As an example, there are design criteria provisions that require skylights to be placed in a manner that will not be visible to pedestrians. Although this is a desirable standard, skylight placement also needs to account for its effect on pilots overflying the site at night and for the potential safety hazard due to glare.

LA10-7

6. Hazard Analysis – Potential impacts from aviation-related hazards lack sufficient factual background to support conclusions that the project results in less than significant impacts. To arrive at this conclusion, the DEIR must analyze the specific characteristics of overflight, the potential for off-airport landings on the site (e.g., crashes), the risk to people on the ground, the likelihood and consequence of such events, etc. The DEIR appears to draw its conclusions based solely on the zone boundaries set in the ALUCP. As noted before, the ALUC recommends that an aviation compatibility expert prepare a project-specific study.

LA10-8

7. Schools – Schools are prohibited within a two-mile radius of the airport. This project will result in over 1,000 new students living within an Airport Influence Area. The DEIR states that new school construction is the responsibility of the school district. The ALUC is concerned that once

LA10-9

this project is approved and underway, the school district may be compelled to construct a school in close proximity to these new students. The ALUC will need assurances that this project has no potential to result in new school construction, either public or private, located within two miles of the airport or in close proximity to flight patterns. LA10-9 cont.

8. Objectives – Given that the proposed project is located directly under the main approach pattern to the airport's main runway, it is recommended that project objectives be augmented to define the project's long-term intentions on how it will address airport compatibility issues throughout the project's phased development process. LA10-10

9. Child Care Center – The DEIR needs specific analysis on how the proposed child care center relates to overflight and the risk and consequences associated with locating a child care center in proximity to flight paths. Also, a child care center could be considered a noise sensitive use pursuant to ALUCP Policy 3.1.6. The best location for a child care center, as it relates to aviation compatibility, may be in the far northeastern corner of the project site. LA10-11

10. Wetlands – The project includes the preservation and enhancement of existing on-site wetlands. Wetlands can attract significant numbers of birds which are a major threat to aircraft and flight safety. Ponds and other large water features are listed in the ALUCP as unacceptable uses due to their potential to attract birds. Many wetlands have similar characteristics that can prove to be a hazard to aviation. The DEIR does not appear to analyze potential impacts associated with birds within an Airport Influence Area. LA10-12

11. Outdoor Events/Activities – The DEIR notes Zone E discourages highly noise sensitive uses such as meditation retreats. The ALUCP prohibits "noise-sensitive outdoor uses." This prohibition applies to much more common uses than meditation retreats. For the ALUC to find this project consistent, additional information is required as to the frequency, type, duration and location of all outdoor events, and how they may or may not be impacted by single-event aircraft noise intrusion. LA10-13

12. Overflight Annoyance / Noise – The DEIR makes a good start of providing facts related to Japan Airlines overflights and the resultant, single-event annoyance. However, the report should be augmented to disclose where on the property these overflights occurred. The analysis also only reports on the characteristics of the training flights and not the characteristics of the other half or more of the airport's flight operations. The biggest threat to airport viability is forced changes in operations due to upset neighbors demanding change from the inconveniences and annoyances associated with regular, single-event overflights. LA10-14

13. Concentrations of People – The methodology used to describe concentrations of people associated with the project does not appear to follow the described methods listed in the CalTrans, Division of Aeronautics *California Airport Land Use Handbook*. It is recommended that an aviation expert prepare this analysis based on CalTrans, Division of Aeronautics guidelines. LA10-15

14. Building Heights – The ALUCP sets a maximum building height of 35 feet or as otherwise similarly provided in local agency regulations. For the ALUC to find this project consistent with the ALUCP, a rationale is needed why a change of County zoning from a 35 feet height LA10-16

limit to 85 feet height limit is consistent with this policy. In addition, as a result of these proposed building heights and their proximity to the runway threshold, the Federal Aviation Administration may be a responsible agency since the project may require filing of a *Notice of Construction or Alteration*.

LA10-16 cont.

15. CalTrans, Division of Aeronautics Referral – Was the project DEIR referred to the CalTrans, Division of Aeronautics for comment? If not, the ALUC recommends that the County solicit comments from this agency prior to presenting the project to the ALUC for formal Consistency Determination.

LA10-17

Thank you again for the opportunity to comment. If you have any questions or comments please contact either John McDowell, ALUC Deputy Executive Officer, at (707) 299-1354, john.mcdowell@countyofnapa.org or Ronald Gee, ALUC Staff Liaison, at (707) 299-1351, ronald.gee@countyofnapa.org.

LA10-18

Sincerely,

Ronald Gee for

Heather Phillips
Chairman,
Napa County Airport Land Use Commission

cc: Martin Pehl, Napa County Airport Manager
State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044
Gary Cathey and Terry Farris, CalTrans, Division of Aeronautics,
MS # 40, P. O. Box 942874, Sacramento, CA 94274-0001

Letter #LA10: Heather Phillips, Chairman, Napa County Airport Land Use Commission. February 3, 2010.

Following the submittal of this letter during the public review period of the 2009 DEIR, the EIR consultants obtained the assistance of Mead & Hunt, a consulting firm with extensive experience in airport land use compatibility matters. Mead & Hunt served as the consultant for Napa County in preparation of the Napa County Airport Master Plan completed in 2007. Predecessor companies of Mead & Hunt also were the consultants to the Napa County Airport Land Use Commission on the preparation of the Airport Land Use Compatibility Plan (ALUCP) originally adopted by the Napa County Airport Land Use Commission in 1991 and to the California Department of Transportation Division of Aeronautics in preparation of the California Airport Land Use Planning Handbook in 2002.

The responses below provide information regarding Napa County Airport aircraft activity as it pertains to the project site. Some of this information has been extracted from the Airport Master Plan, including supporting documentation obtained by Mead & Hunt during the Master Plan study. To supplement this information, Mead & Hunt staff visited the airport on April 29, 2010, and met with the following individuals to discuss aircraft operations and flight track locations and to update the Master Plan data:

- Martin Pehl, Napa County Airport Manager
- Carol Dryden, Federal Aviation Administration, Napa Air Traffic Control Tower Supervisor
- Michael N. Soto, Federal Aviation Administration, Napa Air Traffic Control Tower Front Line Manager and Operations Supervisor
- June 2011 phone interview with Mark Thonen, IASCO Flight School, Napa County Airport

The following provides an overview of airport activity and other airport-related issues at Napa County Airport as they relate to the Napa Pipe project.

Project Site Location Relative to Airport

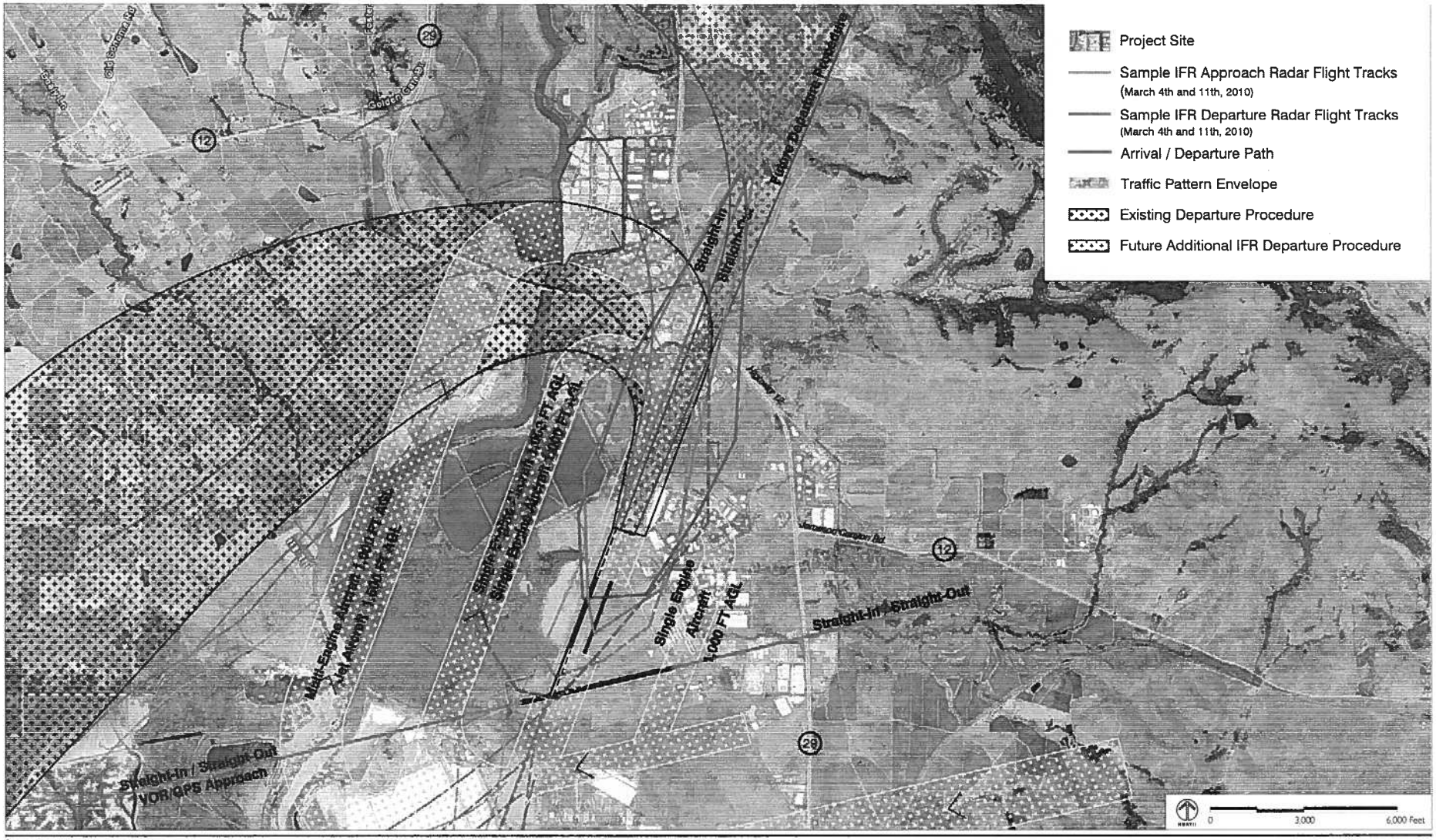
Napa County Airport has three runways. Two parallel runways (18R-36L and 18L-36R) are oriented roughly north/south and a third (6-24) runs approximately east/west. Runway 18R-36L is the primary runway for the airport, and is also the longest at 5,931 feet. The parallel runway 18L-36R is much shorter, but serves an important role in separating large and small aircraft. The crosswind Runway 6-24 serves pilots when wind conditions prohibit landing on the two north/south runways.

The project site is located along the east bank of the Napa River, approximately1.7 miles (9,000± feet) north of the end of Runway 18R-36L at its closest point. The extended centerline of this runway passes 0.5 miles east of the site's eastern edge.

Aircraft Flight Routes

The attached map (Figure LA10-1) depicts the typical aircraft traffic patterns and flight routes that affect the Napa Pipe site. Most of the aircraft overflights of the site are by aircraft using the north/south runways, particularly those landing from the north on Runway 18R or departing toward the north using Runway 36L. Aircraft operating on the shorter north/south runway, Runway 18R-36L, seldom fly near the site and flights on the east/west runway have no effect. Shown on the map is the following information.

- The project site is outlined in red.
- The locations of the airport's three runways are highlighted in black.
- The yellow pattern represents the typical aircraft traffic patterns—areas where aircraft fly when they are arriving or departing on the two north/south runways under visual flight conditions.
- During periods of poor visibility conditions, aircraft operate using defined instrument procedures. No procedures enable aircraft to approach the Runway 18R directly from the north. When wind conditions dictate landing on these runways, aircraft must approach from the south and then circle under visual conditions to land from the north. For takeoffs toward the north, aircraft have one defined procedure available (shown in



Source: Mead & Hunt

FIGURE LA10-1

AIRCRAFT FLIGHT ROUTES NORTH OF NAPA COUNTY AIRPORT

black hatch) and another expected to soon be operational (shown in red hatch).

- The individual blue and gold lines represent a sampling of actual flight tracks as obtained from radar data. Only the tracks of aircraft that were operating under instrument flight conditions are shown and the sampling is limited to two days in March 2010. The gold lines are approach tracks and the blue lines are departure tracks.

Aircraft at Napa County Airport

A full range of general aviation aircraft operate at Napa County Airport. The smallest of these are single-engine piston powered aircraft. These aircraft comprise the preponderance of the airport's fleet mix—an estimated two-thirds of the total operations. Multi-engine piston and turboprop aircraft make up the mid range of the fleet size, while business jets account for the largest aircraft to regularly use the airport.

The airport has no scheduled commercial service. However, the airport is home to an airline flight school which operates single and multi-engine aircraft to train pilots on airline procedures. The majority of the flight school operations are conducted with single and multi-engine piston aircraft. Only a small percentage of the operations are in multi-engine turbo-prop aircraft.

Flight Frequency

The 2007 *Airport Master Plan* contains "current" and "projected" aircraft operations for the airport. The "current" number of operations was based on 2001 activity levels and was approximately 126,000 annual operations (take-offs and landings). According to FAA data, the number of aircraft operations had dropped to approximately 105,000 in calendar year 2009. In the early months of 2010, the airline flight school operations were further cut back, again reducing the total airport activity. Recently, however, the flight school has been successful in obtaining a contract to train students from a different airline than previously. Subsequently operations associated with the flight school have been on the rise and are forecasted to continue increasing. The ALUC's 1991 *Airport Land Use Compatibility Plan* assumes a long-range fu-

ture activity level of 210,000 annual operations as the basis for compatibility planning around the airport. The *Airport Master Plan* uses this same number as its low 20-year projection and 260,000 annual operations as a high projection. Even with aggressive expansion, it would be highly unlikely for the flight school operations to push annual operations beyond this number. Therefore, the range of 210,000 to 260,000 operations remains appropriate to use as a 20 year forecast.

Runway Usage

The choice of which runway aircraft use at an airport is largely based upon wind conditions and convenience. At Napa County Airport, the prevailing winds are from the south, dictating that aircraft approach from the north to land on Runways 18R/L and takeoff toward the south on these same runways. The *Master Plan* indicates that approximately 80% of operations are in this direction. The opposite direction is used less than 5% of the time and the remainder of activity is on the east/west runway.

This data indicates that the project site is much more likely to be affected by overflights of landing aircraft than ones taking off. Because the project site is 1.7 to 2.5 miles from the nearest runway end, the number of overflights is dependent upon the specific flight routes followed by individual aircraft.

Where Aircraft Fly

Although some aircraft will make a straight-in approach to Runway 18R from beyond 2.5 miles, the great majority—80% to 90% according to the *Master Plan*—fly downwind parallel to and west of the runway, then make a right turn to base leg and another right turn to final approach and landing. Aircraft flying the closed circuit, "touch-and-go" training pattern also use this traffic pattern. Aircraft that approach "straight-in" from up the Napa Valley directly north may fly close to or over the site. This number is small, however, compared to overflights by aircraft in the base leg of the landing traffic pattern.

Most single-engine airplanes fly relatively tight traffic patterns as shown on Figure LA10-1. Except when multiple aircraft are in the pattern simultaneously, the base leg of this landing pattern remains south of the Napa River bridge and thus south of the project site. Multi-engine and jet aircraft fly wider and longer patterns taking them over the site as the map shows. In the past the flight school at the airport focused on preparing pilots for flying large passenger aircraft and the students would fly large exaggerated traffic patterns similar to large airline passenger aircraft. The traffic patterns shown in Figure LA10-1, to some extent reflect these exaggerated traffic patterns. With the recent new contract for the flight school, the trainee pilots are associated with a different airline and the focus is not so significantly weighted towards large aircraft and exaggerated patterns. Currently the student pilots are flying traffic patterns which are much more typical of a general aviation airport. Although the new flight school operations are less impacting to the proposed project site, it is still appropriate to consider these areas subject to impacts by aircraft. The traffic pattern areas as shown in Figure LA10-1 will still experience aircraft overflight from time to time, regardless of whether or not they are conducted by flight school aircraft. The comparatively small number of aircraft, that takeoff toward the north, mostly makes a left turn prior to the bridge and avoids the project site. Exceptions are aircraft that are headed to points north which often fly close to or over the site.

Altitude

When in the traffic pattern for landing, multi-engine turboprop and jet aircraft typically operate at 2,000 feet above airport elevation until established on an approach slope to the runway. When these aircraft are in a pattern flying over the project site to land towards the south they are typically between 1,500 and 2,000 feet above ground. Multi-engine piston engine aircraft typically operate lower than turboprop and jet aircraft. When turning towards the runway, near the project site, these aircraft are normally between 1,000 and 1,500 feet above ground level. Single-engine piston aircraft, while in the traffic pattern typically operate at 1,000 feet above airport elevation. However, the traffic pattern for these aircraft does not normally overfly the project site.

When aircraft depart the airport, they climb at approximately twice the rate at which they descend to the airport. That is to say, when an aircraft is on a straight-in 3-degree glide slope and approximately 1.7 miles from the runway end and lateral to the project site, the aircraft would be approximately 500 feet above ground level. A typical single-engine piston aircraft departing on this same track would be approximately 1,000 feet above ground level as it passes lateral to the project site. Multi-engine and other high performance aircraft have better climb rates and thus will be even higher than 1,000 feet at a point lateral to the project site.

Time of Day

The *Master Plan* data indicates that more than 95% of the aircraft operations at Napa County Airport take place during daytime, defined as 7:00 a.m. to 7:00 p.m. For turboprop and business jet aircraft, this number is closer to 99%. Approximately 3% to 4% of the activity occurs in the evening hours and only 1% is at night, 10:00 p.m. to 7:00 a.m.

Noise Levels

The amount of noise heard on the ground from individual aircraft overflights depends on multiple factors including the type and weight of the aircraft, whether it is taking off, landing, or cruising in level flight, and its altitude. Historically, jet airplanes were much louder than propeller planes, but this difference is much less with new model jets. Heavier aircraft tend to be comparatively noisier than lighter ones regardless of the aircraft type.

A point to recognize with regard to the preceding discussion of where and how high aircraft fly near the project site is that audibility extends beyond directly below the line on a map depicting the flight path. All else being equal, the higher an aircraft is, the less it will be heard on the ground. On the other hand, at higher altitudes, the audibility extends over a wider swath. Aircraft at low altitude are louder in a narrow band below, but then the noise level diminishes significantly away from the flight path. In the case of the Napa Pipe project site, aircraft flying over the bridge on base leg to landing

on Runway 36R are probably audible at the southern part of the site a quarter mile north, but not much beyond.

Response LA10-1
This is an introductory comment and does not require a response.

Response LA10-2
The comment states that the County has in the past brought the project forward for informal Airport Land Use Commission (ALUC) review. The comment states that this involvement in the project was appreciated, and recommends that the project be brought to the ALUC voluntarily in advance of formal review. The comment is noted.

Response LA10-3
The comment concerns the functions and legal status of the ALUC and requests that the requirement for consultation be incorporated in the list shown in Table 3-7 of the 2009 DEIR. Table 3-7 has been revised accordingly, as shown in this FEIR. This information has also been incorporated into Chapter 4.1, Land Use and Public Policy, as shown in Chapter 3 of this FEIR.

Response LA10-4
The comment states that the 2009 DEIR states that residential use is considered incompatible and discouraged in Zone D of the Airport Land Use Compatibility Plan (ALUCP) but that it should read simply that that residential uses are prohibited. The text on pages 3-14, 4.1-15, and 4.8-36, of the 2009 DEIR has been revised to reflect this information, as shown in Chapter 3 of this FEIR. See introductory text of this response for the overflight characteristics of the site.

Response LA10-5
This comment states that a qualified aviation expert prepare a site-specific airport land use compatibility evaluation that provides detailed information on overflight characteristics of the project site and states that a consistency finding pursuant to Napa County General Plan Policy CIR-38 is not ade-

quately supported by evidence in the 2009 DEIR. Napa County General Plan Policy CIR-38 reads: "Maintain Napa County Airport as a general aviation facility and avoid land use conflicts via land use compatibility planning and by ensuring appropriate reviews of land use decisions by the Airport Land Use Commission." As noted in the above, nothing in the 2009 DEIR or in the subsequent analyses done in providing responses to the ALUCs comments suggests that the project would conflict with this policy.

Response LA10-6

This comment states that additional detail regarding the proposed condominium hotel is required. Please note that the project no longer proposes a condominium hotel, and now proposes a traditional hotel instead. Details of the hotel proposed within Zone D are not fully determined at this time.

Policies in the ALUCP are undefined with respect to this type of use. Nothing in the plan would indicate that it should be treated as a residential use regardless of the form of ownership. The practice of ALUCs elsewhere in the State when evaluating lodging uses is to focus on the length of the stay. For example, hotels and other lodging normally occupied by any particular individual for less than a month per year would be treated as a transient use and measured in the same manner as other nonresidential uses. Only if the stays are for periods longer than one month would the use considered to be a residential use.

To ensure consistency with this philosophy, the Project Description of the 2009 DEIR has been amended, as shown in Chapter 3 of this FEIR, to indicate that the hotel would not serve as residential units and would not promote or cater to use by individuals who would stay there for more than 30 consecutive days per year.

Response LA10-7

This comment states that the project plans and design guidelines do not appear to include airport compatibility measures, including those that are currently in the County Code. The overall site planning for the project carefully

took into account ALUCP criteria and, as discussed in the introduction text to the responses to this comment letter and in further responses, the project is consistent with ALUCP criteria.

Building design features such as skylight placement that do not affect the environmental analysis of the EIR are yet to be determined. As discussed in the 2009 DEIR Chapter 4.14, however, the glare from sunlight reflecting from structures would be minimal because none of the proposed buildings would have large, monolithic reflective surfaces such as glass-curtains. Rather, the primary materials used in surfaces would be wood and stucco, punctuated by smaller areas of metal and glass. Furthermore, all proposed residential and commercial development would have to conform to Building Code standards as well as Napa County zoning regulations pertaining to the abatement of unreasonable glare. The project would also comply with Chapter 18.80 of the Napa County Code, requiring exterior lighting in Airport Land Use Compatibility Zones (including Zones D and E, within which the project site is located) to be directed or shielded to prevent glare to aircraft. Exterior lighting for the project would also be designed to meet approved ALUC lighting guidelines. (See 2009 DEIR, pages 4.14-36 through 4.14-37.) The design guidelines for the project will be revised to incorporate and/or address such standards.

Response LA10-8

This comment states that potential impacts from aviation-related hazards lack sufficient factual background. Since publication of the 2009 DEIR, the County required the applicant to retain services of Mead & Hunt, aviation experts, to conduct a detailed analysis which was included in Appendix E of the Supplement to the 2009 DEIR and as an introduction to the responses to this comment letter. The best available data regarding the proximity of general aviation aircraft accidents to airport runways is contained in the 2002 edition of the *California Airport Land Use Planning Handbook* (Handbook) published by the California Department of Transportation Division of Aeronautics. The *Handbook* contains a database in which the location of nearly 900 aircraft accidents nationwide was measured relative to the end of the

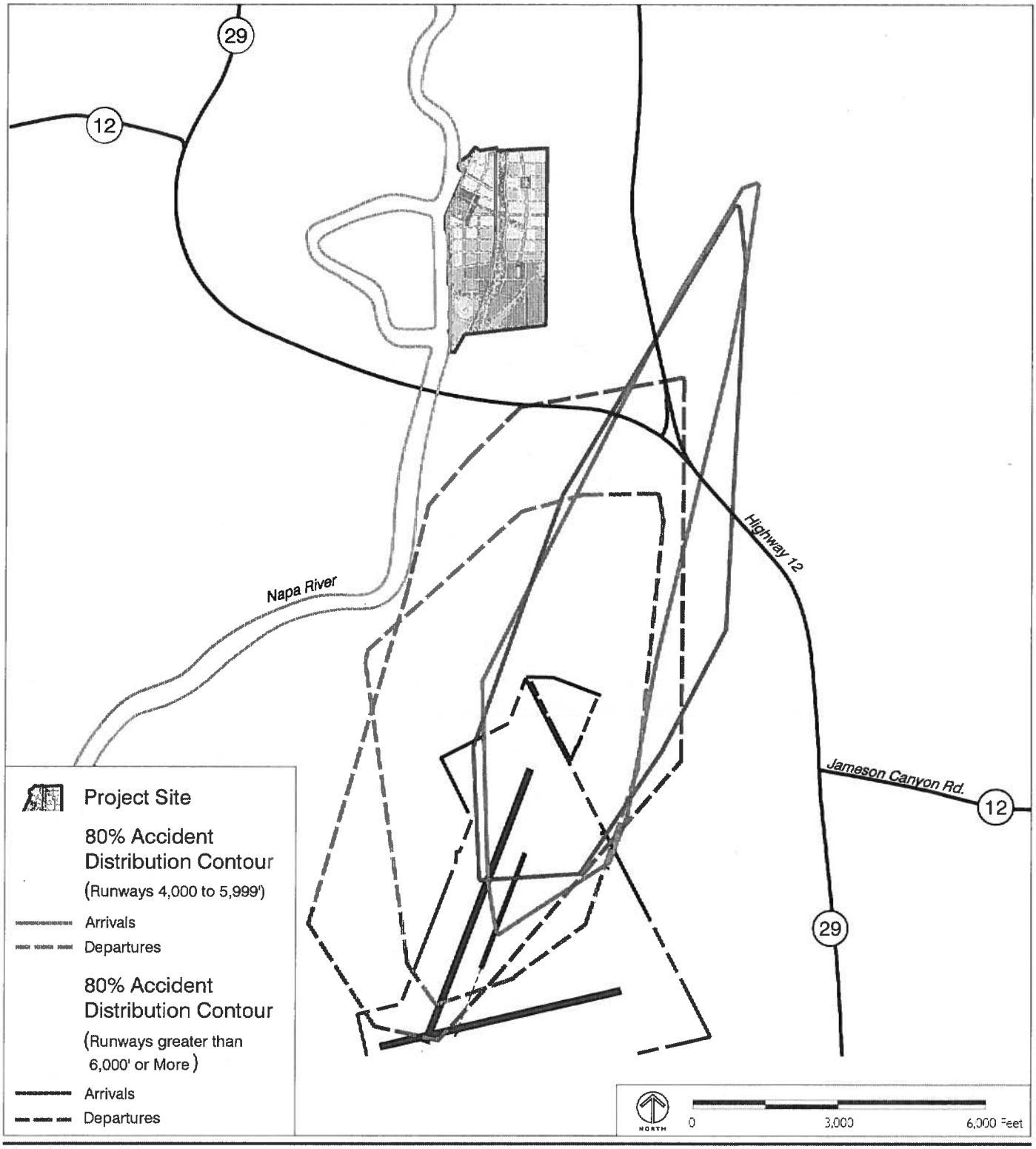
runway that the aircraft used or was intending to use. Only accident sites off the runway but within 5 miles are included in the database. To help make this data usable for compatibility planning purposes, the *Handbook* drew a "risk contour" around the 20 percent of the accidents that were most closely clustered together, then additional contours encompassing 40 percent, 60 percent, and 80 percent of the accidents. The final 20 percent is scattered over a distance out to 5 miles from the runway. These contours were calculated for runways of different lengths and for arrival versus departure accidents. The innermost contours all remain close to the runway end. The size and shape of the 80 percent contour varies, but extends as much as 12,000 feet out along the extended runway centerline in the case of arrivals to long runways.

Figure LA10-2 shows the relationship between the project site and these contours drawn with respect to arrivals on Runway 36R and departures on Runway 18L. The site lies outside of this concentrated-risk area. Based on this data, the greater risks lie to the east and south of the site. Of course, the actual risks at Napa County Airport or any other individual airport will differ from these norms. For example, because relatively few aircraft make straight-in approaches to Runway 36R at Napa (see the introduction text of this response), the likelihood of accidents would tend to be greater along the base leg of the flight pattern than along the extended runway centerline.

Although the Handbook database was not yet available at the time the ALUCP was originally adopted in 1991, the delineation of the boundary between Zones D and E appears to be quite consistent with this risk analysis. Zone D is noted as having moderate risk and Zone E as being a low-risk area.

Response LA10-9

The comment expresses concern regarding the potential need for a new school to serve the project. The comment states that schools are prohibited within a 2-mile radius of the airport, and that the project may result in the need for a new school in proximity to the airport.



Source: California Airport Land Use Planning Handbook (2002); Mead & Hurt

FIGURE LA 0-2

ACCIDENT RISK NORTH OF NAPA COUNTY AIRPORT

The Supplement to the 2009 DEIR includes the inclusion of Mitigation Measure PS-3 that states that the project applicant has voluntarily reserved a school to be located on the Harrison property, immediately north of the project site.

California law (Government Code Section 66455.9 and Education Code Section 17215) requires special evaluation by the Division of Aeronautics before any school site located within 2 miles of an airport can be acquired. This boundary is just outside the 10,000-foot arc that defines the boundary between Zones D and E at Napa County Airport. A site in Zone E thus would not require special evaluation by the state. Nevertheless, any siting of a school should take into account the relative differences in accident risks over different portions of the overall property. Given the analysis noted in response to Comment LA10-8, a location toward the north, especially the northwestern part of the site, would appear to have the least risk of being exposed to an aircraft accident. The Harrison property is located 2 miles from the northern tip of the airport runway. For additional discussion pertaining to the Harrison property, refer to Chapter 4.3, School Site, of the Supplement to the 2009 DEIR.

Response LA10-10

This comment suggests that the project objectives be augmented to define the project's long-term intentions and how it will address airport compatibility issues throughout the project's phased development process. The comment is misleading when it suggests that the project site is directly under the main approach pattern to the airport's main runway. Although clearly it will be subject to regular overflights, it lies west of the straight-in approach and north of most of the traffic pattern flights (refer to the introductory text of the responses to this comment letter).

Beyond this, the comment appears to be concerned with how compatibility can be ensured over the long term as the development of the site is phased in over a span of years, as well as used over time. The ALUCP indicates that an overflight easement or deed notice should be dedicated to the county as a condition for approval of development within Zone E. Such mechanisms

would help ensure that future residents of the development are aware of its proximity to the airport and the impacts that result. With respect to ensuring compliance with density/intensity and height limit compatibility criteria, the specific limitations should be attached to the conditions of approval of the project. Finally, rezoning of the project site will be subject to ALUC review and action in a process separate from the CEQA process. Also, any major future changes to the development plans not in conformance with the master site plan described in the EIR would be subject to ALUC review at that time.

Response LA10-11

This comment expresses concern regarding the placement of a child care facility within the project site. For the purposes of airport land use compatibility, a children's daycare center should be treated the same as children's schools (this type of facility differs from a family daycare home which, by State law, is defined as accommodating 14 or fewer children). As indicated in response to Comment LA10-9, the most compatible location for a daycare center is in the northern, preferably northwestern, part of the site. The site plan included in the Supplement to the 2009 DEIR (Figure 3-4), and the discussion of site plan changes in Chapter 4.5, Revisions to the Site Plan, indicates that the daycare center has been relocated to a new location that has less traffic, improves visibility, improves pick-up/drop-off facilities, and has direct access to an adjacent park. The daycare facility would still be located within Airport Compatibility Zone E and will be subject to the same overflight patterns as the previous site plan.

Response LA10-12

This comment expresses concern over the preservation and enhancement of wetlands within the project site. Much of the area around the Napa County Airport consists of water and wetlands that are attractive to birds. Only 0.24 acres of new wetlands are proposed as part of the project. Given that the project site lies immediately along the Napa River with its associated wetlands, it is unlikely that the proposed addition will change the nature of the airport environment with respect to its attraction of birds. Even so, the addition of wetlands in relative proximity to an airport is not desirable. If the wetland

creation could reasonably be avoided, a more distant site for these wetlands would be preferable. As noted in the Supplement to the 2009 DEIR, on-site wastewater discharge to constructed wetlands is no longer proposed as part of the project.

Response LA10-13

The comment requests more information regarding outdoor events in Zone E of the project site in order to find the project consistent with the ALUCP. No specific outdoor events are proposes as part of the project in Zone E and planned outdoor uses in Zone E are not expected to be incompatible with airport activities. The project does not lie within the 55 A-weight Community Noise Equivalent Level contour that defines noise compatibility for the airport. As noted in the noise analysis of the 2009 DEIR, Section 4.5, aircraft noise is occasionally audible but is not excessive throughout the site.

Non-residential zoning districts will require a development plan or use permit for nearly all land uses (with the exception of antennas, telecommunication facilities, and emergency or homeless shelters). In addition, all zoning districts on the project site will be zoned with the Airport Compatibility (:AC) overlay designation. These zoning requirements will ensure a level of review that allows for the opportunity to condition proposed uses and limit outdoor activities, if necessary to maintain compatibility with the airport.

Response LA10-14

This comment expresses concern about overflight annoyance and noise. Refer to the introductory text of the responses to this comment letter for a discussion of noise generated by overflight. In general, while the project site has overflights occurring across the entire project area, the type and volume of operations varies. According to the Mead & Hunt analysis, the southern portion of the site is subject to overflights more often from larger multi-engine and jet aircraft because of the larger traffic pattern required by those aircraft types. The straight in/straight out approaches and departures to Runways 18R and 18L occur slightly to the east of the project site. Aircraft operating

on these straight in/straight out tracks are not likely to be flying directly over the project site, although the operations will be audible.

The project site is exposed to aircraft noise levels less than 55 dBA CNEL. The noise exposure is more than 10 dBA below the Federal Aviation Administration definition of a noise impact zone and below the level that the US Environmental Protection Agency (US EPA) identified zero impact from community noise on residents in the United States. By these objective measures, aircraft noise is less than significant at the project site. It is widely recognized that the noise of individual aircraft overflights, as opposed to the CNEL average noise level, can result in annoyance and should also be considered in evaluating aircraft noise effects. However, where the noise level is less than 55 dBA CNEL, the maximum noise levels of individual aircraft overflights, or the infrequency of the flights or both, minimize any concerns related to single-event noise as well. Nonetheless, a measurement survey was conducted on a day when aircraft noise would be expected to be typical at the project site. Aircraft overflights were distributed over the southern half of the project site with infrequent overflights also occurring further to the north.

Response LA10-15

This comment expresses concern regarding the methodology used when describing the concentration of people within the project site. There are various ways that concentrations or intensities of people (people per acre) can be calculated for nonresidential uses. These include reliance upon building code occupancy assumptions, floor area ratios, parking space requirements, and surveys of other similar uses. Mead & Hunt's review of the results in the 2009 DEIR indicates that the numbers are reasonable, as described below.

While safety zones A, B, and C have both site wide average intensity limits and maximum single acre intensity limits, none of the site falls within these zones. For Zone D, which encompasses part of the site, the ALUCP only specifies site wide average intensity limits and presents no maximum single acre limits. Excluding the study area, Zone D encompasses approximately

39.5 acres of the project site. The two types of uses proposed for this area are a hotel and a combination of office, R&D, light industrial, and warehouse uses. The assumption used in the 2009 DEIR that the 150-room hotel could have two occupants per room, 150 additional conference attendees, and 150 staff, for a total of 600 people, all in the building at the same time is probably quite conservative.

On the other hand, the estimates of 150 office and 280 R&D jobs for the other uses might be a bit low. Among these latter uses, the 2009 DEIR indicates approximately 50,000 square feet of office and 140,000 square feet of R&D/light industrial/warehouse uses. Based upon a combination of the above methodologies, several ALUCs make the assumption that the occupancy level of office space is 200 square feet per person, R&D and light industrial uses require 300 square feet per person, and warehouses have 1,000 square feet per person. These numbers all represent relatively high intensities for their respective uses.

Assuming that the 140,000 square feet is split about evenly among the three types of uses and adding the hotel usage, doing the math yields the numbers shown in Table LA10-1.

Even with these conservative occupancy assumptions, a total of 1,223 people in 39.5 acres would result in only 31 people per acre on average over the site. This number would be less than a third of the 100 people per average acre limit set by the ALUCP for uses in structures in Zone D. The usage intensity would be so low because of the large amount of land planned for open space, railroad and road rights-of-way, and other little-occupied uses.

The preceding analysis all is based on sitewide averages. Many ALUCs, including the Napa County ALUC, also limit the maximum number of people in any single 1-acre area. The Napa County ALUCP policy in this regard, however, only applies a maximum number of people per single acre within Zones A, B, and C, not Zone D.

TABLE LA10-1 **CONCENTRATION OF PEOPLE WITHIN PROJECT SITE**

Land Use	Area (Sq. Ft.)	Occupancy Level (Sq. Ft./Person)	Number of People
Office Space	50,000	200	250
R&D & Light Industrial	100,000	300	333
Warehouse space	40,000	1,000	40
Hotel			600
Total			**1,223**

Source: Mead & Hunt, 2010

Although the ALUCP does not limit maximum number of people per single acre, the following analysis provides an example of what the maximum number of people per single acre would be using the criteria contained in the 2002 *Handbook*. Assuming that the 200,000 square feet of proposed hotel space is on two floors, the footprint of the building would be approximately 2.0 acres. The 600 people estimated as the maximum occupancy of the hotel would equal approximately 300 people in one acre. Safety zones in the *Handbook* would place the project site in Zone 6. For this zone, The *Handbook* criteria allows for 150 people per gross acre with a multiplier of 3.0 for maximum number of people per single acre. Thus, if the single-acre criterion used in the *Handbook* were to be applied to the project, the hotel would be well below the single acre limit of 450 people.

Development of the Napa Pipe site should be conditioned to require further ALUC review if the development plans should change so as to result in greater intensities than assumed in the 2009 DEIR and analyzed above.

Response LA10-16

This comment states that in order for the ALUC to find this project consistent with the ALUCP, a rationale is needed to explain why a change of

County zoning from a 35-foot height limit to 85-foot height limit is consistent with the ALUCP's limit of 35 feet. According to Mead & Hunt, Part 77 of Federal Aviation Regulations (FAR), as implemented by State law, limits the height of structures near airports in order to protect airport airspace from hazards to flight. The Napa Pipe project site lies under the horizontal and conical surfaces defined by these regulations. The horizontal surface is 150 feet above airport elevation and the conical surface rises up and away from the edge of the horizontal surface at a slope of 1 foot upward per 20 feet horizontally. From the standpoint of FAR Part 77, the proposed maximum structure height of 85 feet would not be an airspace obstruction. The proposed development is not under the approach surfaces for Runway 18L or 18R.

The comment notes that the ALUCP sets a maximum building height of 35 feet. The reference is presumably to Policy 3.3.3. If so, the comment appears to misinterpret the language and certainly the intent of the policy. Policy 3.3.1 clearly states that "The criteria for limiting the height of structures, trees, and other object in the vicinity of the airport shall be set in accordance with Part 77 ..." The purpose of Policy 3.3.3 is to acknowledge that, in certain parts of the airport environs, the ground penetrates the FAR Part 77 surfaces. In these instances, the policy "may allow [objects] up to 35 feet above the ground level on which they are located ..." despite the fact that such objects would further penetrate the FAR Part 77 surfaces. There is neither intent nor necessity for this policy to provide a blanket height restriction of 35 feet throughout the airport environs.

The comment also notes that the project may require filing of a *Notice of Construction or Alteration* with the FAA. This notice, known as FAA Form 7460, is required for any proposed construction within 20,000 feet of a public use or military airport if that construction would exceed a 100:1 surface from any point on the runway. However, if the proposed construction is of similar or lower height to that of the surrounding area, or if intervening higher objects or terrain shields the construction from the airport, then a notice to the FAA is not required.

In the case of the Napa Pipe project, the bridge over the Napa River and its approaches produce this shielding effect. Furthermore, even without this exception provision of FAR Part 77, objects would have to be taller than 90 feet at the southern edge of the site 9,000 feet from the runway in order to be above the 100:1 slope and thus subject to FAA review. Proposed heights within the project are less than this.

Response LA10-17

The comment asks whether the 2009 DEIR was submitted to the CalTrans Division of Aeronautics for comment. The comment recommends that the County solicit such comments prior to submitting the project to the ALUC for review. CalTrans Division of Aeronautics submitted comments on this project, which are included in this FEIR as Letter #SA4.

Response LA10-18

The comment serves as a closing remark and no response is required.