- The project applicant shall compensate for net permanent riparian habitat impacts at a minimum of a 1:1 ratio through contributions to a CDFW approved wetland mitigation bank in the Sierra Nevada and the Tahoe-Truckee regions or through the development and implementation of a Compensatory Stream and Riparian Mitigation and Monitoring Plan (CSRMMP) and a County approved MMIP aimed at creating or restoring in-kind habitat within the plan area and/or in the surrounding area. Stream and riparian habitat compensation, which could be provided entirely or in part by the planned Squaw Creek restoration, shall include establishment of riparian vegetation on currently unvegetated bank portions of streams affected by the project and enhancement of existing riparian habitat through removal of nonnative species, where appropriate, and planting additional native riparian plants to increase cover, continuity, and width of the existing riparian corridor along streams in the project site initially and then in surrounding areas. Construction activities and compensatory mitigation shall be conducted in accordance with the terms of a streambed alteration agreement as required under Section 1602 of the Fish and Game Code.

This information added to Mitigation Measure 6-1b does not change the conclusion in the EIR. There is still a conclusion of a less-than-significant impact following mitigation.

Additionally, text is added to the second paragraph in Mitigation Measure 6-1c relative to ensuring that all mitigation occurs in the Sierra Nevada bioregion and Tahoe-Truckee area. See response to comment 08b-15.

08b-37 Mitigation Measure 6-1b requires ecological performance standards for onsite mitigation to ensure success of the riparian restoration along the streambank. These standards require specific native riparian plant densities and survivorship. Planted riparian trees and shrubs require an 80 percent survival proportion during the maintenance and monitoring period. Therefore, density of riparian tree species would be a monitored factor already. Tree stress leads to tree mortality and mortality monitoring is specified in the measure. Additionally, those standards specified in Mitigation Measure 6-1b are not the limit to the standards that can be named within the CSRMMP; they are only required. Other standards will be part of the CSRMMP based on the "best available science." Indicators of tree stress that might result in mortality would be monitored as a standard if the "best available science" shows it will indicate success of the restoration. However, because one of the factors associated with impacts to the riparian area is groundwater drawdown, and the associated problems mentioned in the DEIR with respect to the groundwater modeling and data for creek bed areas only, a further specific standard to ensure riparian mitigation success is warranted; the fourth full second-level bullet point on page 6-49 is revised as follows:

- ecological performance standards, based on the best available science and including specification for native riparian plant densities, species composition, amount of dead woody vegetation gaps and bare ground, indicators of tree stress that might result in mortality, and survivorship; at a minimum, compensatory mitigation planting sites must achieve 80 percent survival of planted riparian trees and shrubs by the end of the five-year maintenance and monitoring period or dead and dying trees shall be replaced and monitoring continued until 80 percent survivorship is achieved;

This information added to Mitigation Measure 6-1b does not change the conclusion in the EIR. There is still a conclusion of a less-than-significant impact following mitigation.

Under Mitigation Measure 6-1a, any riparian habitat protected under the CWA is required to be mitigated to the pre-existing acreage and function. Mitigated riparian habitat would have to meet the functional requirements of all "wetlands and other water that would be removed,

lost, or degraded." Requiring similar functionality of riparian habitat ensures that the newly planted riparian areas have adequate tree density, survivorship, and adequate canopy cover (to protect water temperatures within waterways for fish and wildlife species). Therefore, any MMIP would include requirements to support the system as it is functioning now. The functionality of the riparian area of Squaw Creek in the Village area is currently low because of the quality of the creek. Squaw Creek restoration as proposed in the Specific Plan should allow for higher level of riparian functionality through a greater water holding capacity as the creek bed is widened and can meander.

Finally, Mitigation Measure 6-1c requires that monitoring occur along the western channel and upper eastern channel of Squaw Creek and that the extent and composition of riparian and wetland vegetation will be monitored annually until five years after the final project buildout (see response to comment 08b-15). Therefore, this entire area of riparian restoration would be monitored annually until after full buildout and any loss of riparian restoration habitat would be corrected.

08b-38 The length of monitoring stated in Mitigation Measure 6-1c is consistent with most CEQA mitigation requirements for riparian and wetland vegetation. The commenter does not provide enough evidence to show that a 5-year monitoring period after full build out would not be adequate to capture indirect effects from the groundwater levels at maximum occupancy. While the commenter cites five different references, all of the references show sub-lethal impact occurring immediately or annually after groundwater drawdown passes threshold levels. Scott et al. 1999 showed that sub-lethal affects occur with 3 weeks of drawdown and morality within 3 years. DiSalvo and Hart 2002 showed that annual black cottonwood branch growth was related to annual stream flow data; again this citation shows immediate sub-lethal impacts. Stromberg and Patton 1990, 1992, and 1996 looked at correlations between riparian stand characteristics (growth rates, basal area, density. leaf area, riparian width) and current/historic flow regimes (including historic water diversions) on streams and creeks in the eastern Sierra Nevada. Their data indicated direct and indirect effects of different annual flows, but there were no data indicating that direct or indirect effects (i.e., mortality, crown die-back, and altered population dynamics) could not be observed within a 5-year period. Mitigation Measures 6-1c already includes monitoring of parts of the western channel and the upper meadow reach of Squaw Creek (see response to comment 08b-15), because these areas are most susceptible to groundwater decline. These areas will be monitored for mortality, indirect sub-lethal effects, or if lack of functionality occurs for five years after full project build out. If loss or degradation of the baseline community occurs, mitigation will happen on or off-site as per the required performance standards.

See additional revisions to Mitigation Measure 6-1c in response to comment 08b-15 that require a MMIP for groundwater impacts to vegetation and adjust the time frame to five years after the last project element is occupied, rather than after full build out. This MMIP will include performance standards and specific criteria to determine groundwater effects to vegetation and compensatory mitigation if sensitive habitats are lost or degraded within the five-year period. The time adjustment following occupancy will ensure that the monitoring takes into account the water demand at full occupancy. Also see response to comment 08a-21 which adds conditions to Mitigation Measure 6-1c that could extend the post buildout monitoring period if certain drought conditions were to occur.

08b-39 The comment provides a summary of previous comments. With reference to addressing and quantifying all potential impacts to sensitive habitats onsite, see responses to comments 08b-34 and 09-59. With respect to not having evidence that the restored wetlands and riparian habitats will be supported by groundwater levels, see responses to comments 08b-

33, 08b-35, and 08b-38. With reference to identifying offsite mitigation banks or restoration sites, see responses to comments 08b-34 and 08b-36.

08b-40 See the portion of the water supply Master Response addressing the potential effects of climate change and groundwater modeling. Regarding potential climate change-related biological impacts, see responses to comments 08b-41, 08b-42, and 08b-46. See response to comment 08b-33 with respect to the restoration plan design and the success for restored wetlands and riparian habitat.

08b-41 The comment states that the analysis of project-related greenhouse gas (GHG) emissions and their contribution to climate change does not account for the loss of sequestered carbon stored in the wet meadows at or above the streambed level of Squaw Creek. Please refer to the analysis under Impact 16-1 where the DEIR determines that additional groundwater pumping from Specific Plan Operations, if not managed appropriately, may reduce the quality or extent of sensitive habitats, including riparian and meadow habitat within and around Squaw Creek and potentially decrease water quality along the meadow reaches of Squaw Creek. In turn, this could reduce the mass of vegetation growing along the creek and, therefore, the level of carbon sequestered by this vegetation. This effect is mitigated by implementation of Mitigation Measure 16-1c (which requires implementation of Mitigation Measure 13-4). This mitigation would ensure that groundwater pumping does not result in losses of carbon-sequestering riparian vegetation along Squaw Creek or meadow vegetation. Also see response to comment 08b-15 which provides clarification and enhancement regarding Mitigation Measure 16-1c.

08b-42 See the portion of the water supply Master Response addressing climate change. Effects to biological resources would be tied to groundwater conditions; therefore, information in the water supply Master Response also indirectly addresses this issue. The WSA itself cites various local climate change studies applicable to the project area, including Coats, 2010, *The Effects of Climate Change on Lake Tahoe in the 21st Century.* See response to comment 08b-46 with added text to the cumulative effects section regarding climate change impacts and its contribution to project impacts

See response to comment 08b-33 with respect to the restoration plan design and its analysis on success for restored wetlands and riparian habitat.

08b-43 See response to comment 08b-42. See response to comment 08b-46 with added text to the cumulative effects section regarding climate change impacts and its contribution to project impacts.

08b-44 Meadow habitat may be lost or degraded through construction and operations as a result of the Specific Plan, but would not experience a net loss from the project in the Sierra Nevada because Mitigation Measure 6-1c (see clarifications in responses to comments 08b-36 and 08b-15) would ensure that off-site compensation would be in the Truckee-Tahoe region and that monitoring and mitigation occurs for any indirect impacts from operation groundwater drawdowns (see response to comment 08b-38). Therefore, there would be a no net loss of meadow habitat in the region and bioregion from the VSVSP that could contribute to a significant cumulative impact.

08b-45 Part of this comment provides a summary of previous detailed comments. With respect to quantifying or addressing all potential impacts to sensitive habitat and effectiveness of mitigation measures, please see detailed responses to all previous comments above.

With respect to the projects contributing considerably to overall significant cumulative effects on sensitive habitats, see response to comment 08b-46 for additional text to the Cumulative

Effects analysis that includes the combined impacts from all project components and other projects in the analysis area.

08b-46 The discussion under Impact 18-6 on page 18-10 of the DEIR is revised as follows to clarify the combined effects of the contribution of other projects and the Specific Plan:

Impact 18-6: Cumulative effects on sensitive habitats.

Implementing the proposed project would result in removal and disturbance of the following sensitive habitat types: riparian, meadow, seasonal wetland, and stream corridors. Decades of growth and development, Comstock-era logging, hydrologic modification, livestock grazing, and fire suppression activities in the Tahoe-Truckee region have resulted in an overall significant cumulative effect on these sensitive habitat types. It is estimated that 75 percent of marsh habitat and 50 percent of meadow habitats in the Tahoe Basin have suffered some level of functional degradation since 1900 (USDA 2001). Current development projects outlined in Table 18-2 could further contribute to losses of these sensitive habitats in the Sierra Nevada and the Tahoe-Truckee region. Developments such as those in Truckee, Alpine Meadows, and Northstar could permanently degrade or remove existing riparian and meadow areas. Development projects could either remove habitat or degrade it through long-term impacts from changes in hydrology or invasive species brought in by human traffic; such a changes species composition. Considering only past and present projects, a significant cumulative impact has occurred in the region.

Specific Plan impacts on sensitive habitats would be permanent (resulting from direct removal and disturbance of sensitive habitats) and temporary (resulting from Squaw Creek restoration). Construction related impacts would remove and/or disturb sensitive habitat vegetation for development, while Squaw Creek restoration impacts would temporarily remove vegetation, and then, over the long term and with Mitigation Measures 6-1a through 6-1d, increase meadow, stream, and riparian habitat within the Squaw Creek watershed and the surrounding area. Construction activities would be required to comply with existing federal, state, and local regulations and permitting requirements that protect wetland, riparian, and other sensitive habitats. Conservation of creek, riparian, wetland, and wet meadow habitats within the plan area would occur within identified Conservation Preserves as outlined in the Specific Plan. Mitigation Measures 6-1a through 6-1d would ensure that project impacts on sensitive habitats are reduced to a less-than-significant level because these measures would ensure that the Specific Plan results in no net loss of sensitive habitats in the Sierra Nevada and the Tahoe-Truckee region (defined as jurisdictional wetlands, wet meadows, and riparian vegetation, and waters of the United States and waters of the state, as well as non-jurisdictional features considered sensitive by the County).

Future projects as detailed in Table 18-2 would be subject to similar regulatory requirements which would avoid, minimize, and mitigate for sensitive habitats in the Sierra Nevada bioregion. Climate change effects throughout the Tahoe-Truckee region could result in increased average temperatures, altered growing season timing and length, and altered timing and form of precipitation. This could in turn increase water stress on plants, shift plant species composition, increase invasive plant populations, increase fire probability and intensity, and increase flooding and erosive event (Stillwater Sciences 2012, Sierra Nevada Alliance 2010). Many Sierran meadows are dependent on snowmelt. A reduction in available spring snowpack, along with increased evaporative demand due to higher temperatures, could result in moist meadows converting to drier systems (drier meadow or upland). The loss or degradation of sensitive habitats from project-related groundwater reduction could

be intensified by climate change effects in the future. However, given the uncertainties regarding the timing, form, and intensity of climate change effects, particularly at a localized or regional level, it would require significant speculation to make any detailed predictions regarding responses of biological systems to climate change effects. However, mitigation measures to ensure project specific impacts are addressed, including long-term monitoring of wetland and riparian areas potentially affected by operational groundwater reductions along Squaw Creek (the monitoring period extends at least five years after full project buildout, or at least an estimated 30-years into the future) and corrective actions if adverse effects are observed, would capture and address potential future climate change effects.

Based on the no net loss standard required by state and federal laws as well as County policies, and mitigation measures included in this DEIR, the Specific Plan would not contribute considerably to the overall significant cumulative effect on sensitive habitats in the Tahoe-Truckee Region. This cumulative impact would be **less than significant**.

Although this information is added to the discussion of Impact 18-6, this does not change the conclusions in the EIR. There is still a significant cumulative impact without the proposed project, and the proposed project does not contribute considerably to the overall significant cumulative effect.

O8c

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July 16, 2015

Ms. Laurel L. Impett
Shute, Mihaly & Weinberger LLP
396 Hayes Street
San Francisco, CA 94102-4421

RE: Village at Squaw Valley Specific Plan DEIR—review of impacts to Sierra Nevada yellow-legged frog (SNYLF)

Dear Laurel:

The Conservation Biology Institute (CBI) is a 501(c)3 organization that works collaboratively to conserve biological diversity in its natural state through applied research, education, planning, and community service. CBI's extensive partner network includes academic institutions, state and federal agencies, and other non-profit environmental organizations. CBI combines strengths across multiple disciplines ranging from conservation planning to habitat management and monitoring to ecological modeling of species populations, landscape connectivity, climate change, and fire.

I have reviewed the referenced document and submit these comments specifically on impacts to and mitigation for the Sierra Nevada yellow legged frog (SNYLF, *Rana sierrae*) and its habitat. My analyses have been informed through discussion with Dr. Tom Myers, hydrological consultant, and review of his Technical Memorandum on impacts to the Olympic Valley aquifer, as well as through discussion with Dr. Roland Knapp of the University of California Sierra Nevada Aquatic Research Laboratory, who is a leading expert on SNYLF. My comments are presented within the regional context of the Conservation Assessment for the mountain yellow-legged frog (Brown et al. 2014) and the forthcoming Conservation Strategy for the mountain yellow-legged frog. O8c-1

Sincerely,

Jerre Ann Stallcup, M.A.
Conservation Ecologist

Review of impacts to SNYLF

Impact Assessment

The DEIR incorrectly states that disturbances to SNYLF and its habitat—development, increased groundwater pumping, and creek restoration—will be less than significant. However, Myers' hydrology analysis concludes that there *will* be significant impacts to wetland and aquatic habitat as a result of groundwater drawdown. These habitats are proposed Critical Habitat for SNYLF, which requires a mosaic of aquatic habitats and an intact aquatic food web for the species' various life history stages (eggs, larvae, metamorphs, and adults) as well as for potential dispersal. Thus, the development would adversely impact proposed SNYLF Critical Habitat—the area considered essential for the conservation of a threatened or endangered species. The DEIR does not require precautionary monitoring measures for all stages of the species' life cycle, only for adults, or for potential impacts to aquatic habitat and the aquatic food web. The proposed removal of fish barriers will decrease the potential habitat available for SNYLF, by allowing nonnative predatory fish to access new habitat, and should be considered a significant impact that is not mitigated. O8c-2

The DEIR considers only the direct impacts of the proposed project on SNYLF. It does not consider the synergistic indirect effects of habitat loss, fragmentation, groundwater drawdown, changes in water quality and sedimentation as a result of development and operation, disease, increased recreation, and climate change. It does not acknowledge the potential regional impacts to connectivity between subpopulations of SNYLF in the vicinity of, but outside of, the project site. For example, SNYLF has been found upstream of and south of the project site as recently as 1999 and 2004. Therefore, the project has the potential to reduce connectivity between these subpopulations, and SNYLF populations are thought to function as metapopulations, where connectivity between subpopulations is essential to species persistence. The DEIR does not consider the significance of the metapopulation in this location to the long-term persistence, genetic diversity, connectivity, and recovery of the species on a regional level, or the cumulative impacts to *Rana sierrae* from this project in the context of impacts across its range. This is unacceptable for a species that is vulnerable to extinction. O8c-3

Mitigation

The proposed project and mitigation, while potentially avoiding take of individuals, does not include measures outlined in the Conservation Assessment (Brown et al. 2014), the best available science for the species. The Conservation Assessment identifies the genetic variability throughout the species' range and the need to protect connecting habitat among genetic subunits. The mitigation plan does not consider contribution to conservation of the metapopulation or the species as a whole. The region west of Lake Tahoe is in the middle of the species' distribution, and there are very few, if any, individuals formally conserved in this region of Critical Habitat. Losing any populations in this area could result in disjunct populations to the north and south, with no potential for genetic connectivity. O8c-4

The mitigation plan for impacts to Squaw Creek wetlands proposes to create brown trout refuge habitat as a target for restoration; the brown trout is a predator of SNYLF. Therefore, if successful, this restoration would actually cause greater impacts to *Rana sierrae*. The proposed mitigation does not account for the exacerbating impacts of climate change and other anthropogenic impacts on the SNYLF, O8c-5 O8c-6

and the mitigation will not restore the structure and function necessary to support the native ecosystem characteristics of the Squaw Creek watershed. To mitigate significant impacts to SNYLF and its habitat, the project should implement measures described in the Conservation Assessment, which identifies recovery options to be presented in the forthcoming Conservation Strategy (Forest Service, in preparation). O8c-6 cont. O8c-7

Conservation Strategy

Final decisions on impacts and mitigation for this project should be deferred until release of the Conservation Strategy for this species. Conservation options to be presented in the forthcoming Conservation Strategy include management at multiple scales for multiple life history stages, requiring a mosaic of habitat types. Management strategies include removal of fish in priority basins, restoration and enhancement of habitat requirements, and (potentially) translocation of frogs. The Conservation Strategy considers the existing genetic variability throughout the species' range and the need to protect connecting habitat among genetic subunits. It will identify specific research needs relative to dispersal, the amphibian chytrid fungus, effects of airborne contaminants, and potential impacts of recreational activities and vegetation management, e.g., for fire. O8c-8

Literature Cited

Brown, C., M.P. Hayes, G.A.Green, and D.C. Macfarlane. 2014. Mountain yellow-legged frog conservation assessment for the Sierra Nevada mountains of California, USA. A collaborative inter-agency project by USDA Forest Service, California Department of Fish and Wildlife, National Park Service and US Fish and Wildlife Service. RS-TP-038. July.

Myers, T. 2015. Technical Memorandum—review of draft environmental impact report, Village at Squaw Valley. Prepared for Sierra Watch.

O8c

Sierra Watch, Attachment 3
Patricia Gordon-Reedy, Vegetation Ecologist/Botanist with Conservation Biology Institute
July 16, 2015

O8c-1 The comment is an introductory statement and does not address the content, analysis, or conclusions in the DEIR. Responses to the detailed comments are provided below.

O8c-2 The comment states that the DEIR incorrectly states that disturbances to Sierra Nevada yellow-legged frog (SNYLF) and its habitat will be less than significant with respect to its proposed critical habitat. The comment references Myers' hydrology analysis provided as comment letter O8a, which concludes that there will be significant impacts to wetland and aquatic habitat as a result of groundwater drawdown. For responses to the Myers' hydrology analysis, see responses to comment letter O8a as well as the Master Response regarding water supply. Significant adverse effects to wetland and aquatic habitats from groundwater use would not occur.

The following supplements information already provided in the discussion of Impact 6-2 (Disturbance or loss of Sierra Nevada yellow-legged frog habitat) beginning on page 6-51 of the DEIR.

Only a small portion of the Five Lakes subunit of the U.S. Fish and Wildlife Service (USFWS) designated critical habitat for SNYLF is located with the Specific Plan area; specifically, it extends to the edge of the main Village area boundary and the eastern edge of the proposed Squaw Creek restoration area. In the proposal to designate critical habitat, the USFWS described the characteristics essential to the conservation of SNYLF (USFWS 2013). These characteristics define primary constituent elements (PCEs) of critical habitat. The PCEs specific to SNYLF are:

1. Aquatic habitat for breeding and rearing;

    a) Permanent water bodies, that are either hydrologically connected to, or close to, permanent water bodies including lakes, streams, rivers, tarns, creeks, pool, and other aquatic habitats. This habitat must:

        i. Be of sufficient depth.

        ii. Maintain a natural flow pattern, including periodic flooding, and have functional community dynamics.

        iii. Be free of fish and other predators.

        iv. Maintain water for 2 years during the entire tadpole phase.

        v. Contain bank and pool substrates, shallower lake microhabitat with solar exposure, open gravel banks, aquatic refugia, and sufficient food resources for tadpole growth and development.

2. Aquatic non-breeding habitat (including overwintering habitat);

    a) Same characteristics as aquatic breeding and rearing habitat, but may lack adequate water depth to allow for completion of life cycle but provides for shelter, foraging,

predator avoidance, and aquatic dispersal of juvenile and adult Sierra Nevada yellow-legged frog. These habitats also contain:

i. Overwintering refugee, with microhabitat properties that protect hibernating life stages from winter freezing

ii. Streams, stream reaches, or wet meadow habitats that can function as corridors for movement between aquatic habitats used as breeding or foraging sites.

3. Upland Areas;

a) Areas adjacent to or surrounding breeding and nonbreeding aquatic habitat that provide area for feeding and movement of the Sierra Nevada yellow-legged frog.

i. This extends 25 m (82 ft.) from the bank or shoreline

ii. The canopy overstory should be sufficiently thin and generally not exceed 85% to allow sunlight to reach the aquatic habitat and thereby provide basking areas for the Sierra Nevada yellow-legged frog.

iii. For areas between proximate (300 m (984 ft.)) water bodies, the upland area extends from the bank or shoreline between such water bodies

iv. Within mesic habitats such as lake and meadow systems, the entire area of continuous or proximate habitat is suitable for dispersal and foraging.

Because of the presence of fish in Squaw Creek, this stream does not provide the PCEs for breeding or non-breeding habitat for SNYLF. Current and past surveys have shown that predatory fish are located throughout Squaw Creek. A 2012 Technical Memorandum prepared by Garcia and Associates states that fish (trout) have been found in the past (1985 and 2002/2003) and are currently located in the meadow, channelized, and headwater reaches of Squaw Creek (GANDA 2012). Brown trout are already located in the headwaters of Squaw Creek according to a survey done in 2002-2003 by USFWS. Surveys completed in 2011 by Garcia and Associates biologists found four species of fish within their sampling sites: brook trout, brown trout, rainbow trout, and Lahontan speckled dace. The headwaters showed a “low” number of brook trout, the channelized reach showed “moderate” numbers of brown and brook trout, and the meadow reach showed relatively high numbers of fish (mostly brown trout with some rainbow trout and Lahontan speckled dace).

Fish prey on eggs and larval forms of yellow-legged frog and are considered a major threat to the species (USFWS 2013). The persistence of fish in the creek does indicate that either portions of the creek, or possibly isolated pools, do not freeze in the winter or that fish reestablish in locations frozen during the winter once connection to source fish populations are made every year (GANDA 2012). If these pools do not freeze during the winter, they could provide some of the physical habitat characteristics of potential habitat for adult, juvenile, and larval stages of frogs; however, because they would also contain fish, the pools are not expected to support SNYLF. Thus, Squaw Creek and its upland habitat are not considered suitable breeding or non-breeding habitat (dispersal) for SNYLF.

Within the broadly-mapped boundaries of designated critical habitat, only areas that contain the PCEs required by the species are considered critical habitat and regulated as such by USFWS. Although a portion of the Specific Plan area overlaps the proposed critical habitat boundary for SNYLF, the portion of Squaw Creek and a small part of the meadow around the Olympic channel in both the Specific Plan area and the proposed critical habitat boundary do not support the PCEs of critical habitat for adult breeding or non-breeding habitat. The PCEs

for breeding and non-breeding habitat include suitable aquatic habitats that are "free of fish and other introduced predators." Because predatory fish are currently present in Squaw creek and, likely, its tributaries, these areas (including the meadow area around the Olympic Channel) do not contain the PCEs that define the breeding and non-breeding components of critical habitat for SNYLF. Therefore, implementing the Specific Plan, including the removal of fish barriers, would not substantially affect critical habitat for SNYLF.

While there is no potential suitable breeding habitat within the creek and its tributaries due to the presence of fish, there is a low probability that SNYLF could still occur as individuals dispersing from the two breeding populations farther up the watershed. Squaw creek tributaries and the meadow reach could provide aquatic nonbreeding habitat that may be used for shelter, foraging, or aquatic dispersal of juvenile or adults during parts of the late spring and early summer. However, if used for dispersal or other functions, the project area could be considered a sink for dispersing adults because of predation by fish present in the perennial creeks and streams in the project area (i.e., Squaw Creek or Truckee River). While the physical characteristics may be present, the meadow reach would not likely function as suitable dispersal habitat, because of the lack of suitable breeding habitat nearby and the distance from current breeding locations.

Supporting the expectation that Squaw Creek would not provide suitable habitat for SNYLF, no frogs were observed during aquatic or terrestrial reconnaissance or technical report surveys conducted in support of the VSVSP EIR (Ascent Environmental 2013, GANDA 2012). Although multiple California Natural Diversity Data Base (CNDDB) records of SNYLF occur within the study area, there is only one record in the project site from 1960 (CDFW 2014, 2015). Other records within the study area include three observations 1.6 miles southwest of the project area in the Granite Chief Wilderness at Five Lakes Basin (1939, 1960, 1999) and three observations four miles west of the project area at Lyon Peak (1997, 1998, and 2008). Observations near Lyon Peak indicated breeding. Surveys were completed in these areas in 2004 and 2011 and no frogs were observed at Five Lakes Basin during that time. In 2002, the USDA Forest Service implemented a long-term bioregional monitoring program designed to assess the status and trend of mountain yellow-legged frog breeding populations on national forest lands across the taxa's range in the Sierra Nevada, called the Sierra Nevada Amphibian Monitoring Program (Brown et al. 2014). Surveys throughout the Sierran range of the mountain yellow-legged frog occur over a proposed 5-year cycle, with 20 percent revisited annually. National Forest System lands surrounding the project site are surveyed regularly for frogs.

Movement by SNYLF along streams has been found at a maximum of 3.3 kilometers (about 2 miles) during the active season (summer), while movement away from streams or lakes is limited to about 400 meters (0.25 mile) (Brown et al. 2014). There are no known breeding populations within these distances from the project area. The Five Lakes population is the closest population (1.6 miles south of the project area) and is located within a basin over a ridge from Olympic Valley, closer to Alpine Meadows. There are no apparent hydrological features that connect the lakes directly with Squaw Creek and Meadows. The closest ephemeral stream to the Five Lakes population is about 0.37 mile to the east of the Lakes over a ridgetop; it connects to Bear Creek. Bear Creek is a perennial stream that is hydrologically connected to the Olympic Valley through the Truckee River; it is about 0.7 mile overland to the southeast from the Lakes. The population near Lyon Peak is also not connected hydrologically to Squaw Creek or Squaw Meadows; it is located in a basin and separated by two ridgetops and two drainages from Olympic Valley; it is four miles away from the project area. There is conceivably some potential for dispersing individuals from these populations to be found in the project area, but it is extremely low. Additionally, the current presence of trout in Squaw Creek and its headwaters lowers the possibility of successful dispersal between breeding sites. Based on the fact that these populations (Lyons Peak, Five Lakes and Squaw Creek) are not hydrologically connected, are separated by ridges, and their

overland distance is greater than 0.25 mile, it is highly unlikely that the project area supports a dispersal corridor and habitat that supports a healthy metapopulation between these two known occupied sites.

Considering how few individuals have been found in the study area, how far up the watershed the known breeding sites are located, and existing habitat conditions in the project area, any individuals that may disperse through the project area would be in very low numbers, if they are present at all. Mitigation Measure 6-2 in the DEIR adequately addresses dispersing individuals that could potentially be present in the project area.

Regarding the comment that the DEIR does not require precautionary monitoring measures for all life stages, mitigation measures to protect non-adult stages in the species life cycle (eggs, larvae, metamorphs) are not considered necessary. As stated above, there is no suitable breeding or non-breeding habitat within the project area, so no eggs or tadpoles would be present.

Regarding the comment that the proposed removal of fish barriers would result in a significant impact and should be mitigated, the DEIR does identify benefits of restoration to trout and the subsequent effect to SNYLF on page 6-52. However, for increased fish presence in Squaw Creek to adversely affect SNYLF, the frog would need to be present. As discussed above, the likelihood of frogs in the project area outside the known populations is extremely low. Therefore, a reasonably foreseeable significant adverse effect on SNYLF warranting mitigation would not occur; the impact would be less than significant.

08c-3 The comment states that the DEIR does not consider indirect impacts to SNYLF; does not acknowledge the potential regional impacts to connectivity between subpopulations of SNYLF; and does not consider the significance of the metapopulation in this location to the long-term persistence, genetic diversity, connectivity, and recovery of the species on a regional level.

See response to comment 08c-2 regarding locations where SNYLF have been present in the project region, the absence of the SNYLF from the project area, and the very low likelihood that SNYLF use the project area for dispersal. Response to comment 08c-2 identifies all the CNDDB records of SNYLF in the study area. Based on the information provided in comment 08c-3; “For example, SNYLF has been found upstream of and south of the project site as recently as 1999-2004,”it cannot be determined whether the commenter was referring to sightings from the CNDDB records, or has access to another, undisclosed, source of information.

The DEIR only needs to determine the significance of project impacts to the species from baseline existing conditions (State CEQA Guidelines Section 15125[a]). As stated in response to comment 08c-2, the project area does not support suitable breeding and non-breeding habitat important for the species. Additionally, while the project would be positioned between two subpopulations, the buildable footprint of the proposed project being within an existing parking lot, combined with the geographic distance and lack of hydrologic connectivity between the referenced SNYLF populations makes it highly unlikely the project site would support either population through dispersal habitat. Therefore, addressing the indirect effects of habitat loss, fragmentation, groundwater drawdown, changes in water quality and sedimentation as a result of development and operation, potential for disease, increased recreation, and climate change is not necessary because such effects are not reasonably foreseeable under the circumstances and because the project area currently would not support SNYLF. However, indirect impacts from implementation of the project to SNYLF habitat from losses or gains in groundwater levels from groundwater withdrawals are addressed in the DEIR in Impact 6-2 (see pages 6-52 and 6-53). Indirect impacts from sedimentation and water quality issues as a result of development are also addressed on

page 6-52 of the DEIR.To provide further clarification, the second full paragraph on page 6-52 is revised as follows to provide additional information on water quality impacts and sedimentation impacts due to project construction:

> If Sierra Nevada yellow-legged frogs are present within the Squaw Creek drainage and meadows, construction near the creek, and associated meadows and wetlands, could injure or kill adults within these and adjacent upland habitats (i.e., upland habitat within approximately 80 feet of aquatic habitat [USFWS 2013]). Grading, excavation, or other construction related activities could kill or injure individuals in this area. Construction activities could degrade aquatic habitat through increased sedimentation, contaminant releases, habitat removal, or erosion. Construction related issues that could degrade water quality have been analyzed in the document and mitigated to reduce risk in Chapter 13 and Impact 6-1. As a result, the construction activities are not anticipated to result in any violations of water quality standards or waste discharge requirements that should maintain water quality and aquatic habitat for Sierra Nevada yellow-legged frog. Creek restoration would involve the temporary disturbance of the creek channel as well as removal of riparian and meadow habitat through grading and excavating. Injury or mortality caused by construction or creek restoration would be considered take of a federally endangered species. The degradation and removal of creek and meadow habitat as a result of construction and creek restoration activities (as described and mitigated for in Impact 6-1) would ~~also~~ not be considered take, ~~if~~ because Sierra Nevada yellow-legged frogs are highly unlikely to use~~s~~ these areas due to the presence of fish and lack of suitable habitat in the project area. However, because of the potential, although remote, that dispersing frogs could occur in the project area, potential ~~T~~take of ~~individuals or loss of habitat of the~~ Sierra Nevada yellow-legged frogs from construction activities is considered ~~would be~~ a **significant** impact.

This information added to Impact 6-2 does not change the conclusion of significance in the EIR. There is still a conclusion of a **less-than-significant** operational impact and a **significant** construction impact due to potential take of individuals during construction.

08c-4 The comment states that the DEIR does not include mitigation measures outlined in the Conservation Assessment (Brown et al. 2014). The comment further states that the mitigation plan does not consider contribution to conservation of the metapopulation or the species as a whole.

As stated in response to comment 08c-2, the project area does not support suitable breeding and non-breeding habitat important for the species and no impacts to suitable species habitat would occur. Potential for connectivity and a healthy metapopulation within the area for SNYLF has not been detected from the surveys conducted and is extremely low as discussed in responses to comments 08c-2 and 08c-3. As a result, the DEIR mitigation measures only address direct impacts to individuals (as identified above, although highly unlikely, dispersing individuals could potentially occur on the project site) that may be injured or killed through construction activities, including Squaw Creek improvements, and the mitigation measures are targeted to avoid take of these individuals. The Conservation Assessment does not address this type of mitigation because it provides information on the life history, research, and risk factors of SNYLF.

There is not enough information provided by the comment to understand what mitigation plan is being referenced. It is unclear, for example, whether the commenter is referring to the restoration of Squaw Creek as part of the proposed project, Mitigation Measures 6-1a and 6-1b that require a Mitigation and Monitoring Plan for onsite mitigation of degraded or lost sensitive habitats, including wetlands, or some other mitigation plan. Therefore, no additional response can be provided.

08c-5 The comment states that the mitigation plan for impacts to Squaw Creek wetlands proposes to create brown trout refuge habitat and such restoration would increase impacts to SNYLF because brown trout are a predator to SNYLF.

The impact to SNYLF from increased fish presence in the creek is discussed in the DEIR on page 6-52. Please see response to comment 08c-2 for the discussion on impacts to SNYLF from predatory fish. In addition, the removal of fish barriers is part of the proposed project and not part of any mitigation measure mentioned in the DEIR.

08c-6 The comment states that proposed mitigation (creek restoration) does not account for exacerbating impacts to SNYLF, including from climate change, and that mitigation will not restore the ecosystem. See responses to comments 08c-2, 08c-3, and 08c-4 in relation to current conditions of SNYLF habitat and the very low likelihood of presence within the project area. See response to comment 08c-4 in relation to mitigation for loss of SNYLF habitat. The proposed creek restoration is not designed nor intended to provide conditions to support resident populations of SNYLF. Because providing benefits to SNYLF is not a success criteria for the creek restoration, potential impacts on SNYLF from climate change and other factors would not affect the success of the restoration effort. The comment provides no evidence to support the assertion that the creek restoration will not support native ecosystem characteristics. Therefore, no further response on this issue is provided.

08c-7 The comment states that the project should implement measures in the Conservation Assessment to mitigate significant impacts to SNYLF and its habitat. See responses to comments 08c-3, 08c-4, and 08c-5 in relation to using the Conservation Assessment and evaluation of and mitigation for impacts relative to changes from current conditions.

08c-8 The comment states that final decisions on impacts and mitigation should be deferred until the release of the Conservation Strategy for this species. The DEIR has included the best available information relative to SNYLF and its potential for occurrence within the project area. See responses to comments 08c-3, 08c-4, and 08c-5 in relation to using to the Conservation Assessment and evaluation of and mitigation for impacts relative to changes from current conditions.

08d

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June 18, 2015

Ms. Laurel L. Impett, AICP
Shute, Mihaly & Weinberger LLP
396 Hayes Street
San Francisco, California 94102

Subject: ***Review of Transportation and Circulation Analysis***
Village at Squaw Valley Specific Plan Draft Environmental Impact Report

Dear Ms. Impett:

As requested, MRO Engineers, Inc., has completed a review of the "Transportation and Circulation" analysis completed with respect to the proposed Village at Squaw Valley Specific Plan in Placer County, California. The proposed project is the subject of a Draft Environmental Impact Report (DEIR), which was prepared by Ascent Environmental, Inc., for the Placer County Planning Services Division in May 2015. The DEIR incorporates a traffic impact analysis completed by Fehr & Peers.

This letter report documents the results of our detailed review of the Transportation and Circulation analysis presented in the DEIR.

PROJECT DESCRIPTION

The proposed Village at Squaw Valley Specific Plan project would be located on a 94-acre site within the larger Squaw Valley area. A mixed-use development is proposed, which would include the following components (Ref.: DEIR, p. 2-3):

- Main Village Area
  - Resort Residential: Up to 1,493 bedrooms within 850 residential units.
  - Commercial: 297,733 square feet (SF) of tourist-serving space, including hotel common areas, conference rooms, retail, restaurants, etc.; about 91,522 SF would be removed.
  - Mountain Adventure Camp (MAC): 90,000 SF recreation facility with indoor/outdoor pool system, water slides, indoor rock climbing, 300-seat movie theater, 30-lane bowling alley, and multi-generational arcade.
  - Parking: 3,297 parking spaces, with up to 1,800 additional spaces in podium parking under new buildings.
- East Parcel
  - Employee Housing and Recreational Facilities: 50 employee housing units accommodating 300 employees.
  - Commercial Space: 20,000 SF, including a 15,000 SF shipping and receiving facility and a 5,000 SF market.

08d-1

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REVIEW OF TRANSPORTATION AND CIRCULATION ANALYSIS

The traffic and transportation system impacts associated with the Village at Squaw Valley Specific Plan project are addressed in Chapter 9 – Transportation and Circulation of the DEIR. Our review of that analysis revealed several issues that must be addressed prior to approval by Placer County of the proposed project and its environmental documentation. These issues are presented below.

1. ***Incomplete Set of Daily Traffic Analysis Scenarios*** – DEIR Table 9-18 (p. 9-38) presents an estimate of the volume of project-generated traffic on a daily basis for a Saturday in the winter season. That estimate is 2,821 vehicles per day (VPD). Although the DEIR Transportation and Circulation section presents no comparable daily traffic estimate for summer conditions, examination of the DEIR Air Quality section reveals this information.

   Specifically, DEIR p. 10-15 says:

   > *Upon full buildout of the Specific Plan . . . the project would generate up to 2,821 trips per day . . . during the peak day of the winter season and up to 8,410 trips per day . . . during the peak summer season day.*

   In other words, the proposed project would generate three times more daily traffic in the summer than in the winter.

   However, DEIR p. 9-3 says:

   > *. . . summer daily conditions are not analyzed because the winter daily volume is much higher.*

   Obviously, this statement is erroneous, given the daily traffic volume estimates presented above. As such, the DEIR traffic analysis must be revised to incorporate an analysis of traffic operations in the study area under summer daily conditions. **08d-2**

   Even in the unlikely event that the combined total of background/ambient traffic and project-generated traffic is lower in the summer than in the winter, the addition of over 8,400 daily vehicles to the local road system (with all of them on Squaw Valley Road) will adversely impact traffic operations and the quality of life of nearby residents, as illustrated below.

   - Referring to DEIR Table 9-7 (p. 9-13), the capacity of Squaw Valley Road west of Squaw Creek Road is shown to be 15,000 VPD. The project's summer trip generation represents 56 percent of this total. In other words, over half of the total capacity of Squaw Valley Road will be consumed by project-related traffic. Assuming for illustrative purposes that the existing summer traffic volume on this road segment is equal to the winter volume (as shown on DEIR Table 9-11, p. 9-17), addition of the project traffic would increase the daily traffic volume from 12,900 VPD to 21,310 VPD. The volume/capacity (V/C) ratio would increase from 0.86 (LOS D) to 1.42 (LOS F). This would represent a significant impact, as the DEIR significance criteria require operation of this road segment at LOS C or better.

   - On Squaw Valley Road west of State Route 89, the daily traffic volume would increase from 12,600 VPD to 21,010 VPD, with a corresponding increase in V/C ratio from 0.56 (LOS A) to 0.93 (LOS E). This would also represent a significant impact, as the DEIR significance criteria require operation of this road segment, which is within ½-mile of SR 89, at LOS D or better.

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The failure to consider summer traffic operations on a daily basis is a significant deficiency in the DEIR, which can only be remedied by modifying the traffic analysis and recirculating the DEIR for further public review. O8d-2 cont.

2. ***Incomplete Set of Peak-Hour Traffic Analysis Scenarios*** – The traffic impact analysis addressed conditions in the following three peak-hour scenarios:

- Winter Saturday AM Peak Hour,
- Winter Sunday PM Peak Hour, and
- Summer Friday PM Peak Hour.

With regard to the first of those scenarios, the DEIR states (p. 9-4):

> *The winter a.m. peak hour analysis represents conditions on a Saturday morning when the most skiers use the mountain.*

This statement illuminates a deficiency in the traffic analysis, as the fact that the most skiers are using the mountain means that they are already at Squaw Valley; they are not travelling to Squaw Valley. Consequently, rather than evaluating conditions representing travel by patrons of the proposed project, this scenario primarily reflects traffic flow associated with day-use skiers. In that regard, we note that the DEIR says (p. 9-37):

> *The proposed project would not be expected to affect the number of day-use skiers . . .*

Consequently, the analysis of the winter Saturday AM peak hour is of little value in determining the environmental impacts of the proposed project.

O8d-3

The DEIR Transportation and Circulation section presents a fairly detailed description regarding the selection of the specific hours to be analyzed. However, there is no indication that the process employed in establishing the specific study periods considered the appropriate day of the week to be analyzed.

In this regard, the traffic analysis is somewhat contradictory, in that the winter analyses addressed Saturday and Sunday conditions, while the summer analysis treated the Friday PM peak hour as the critical analysis time period. The DEIR supports consideration of the summer Friday PM peak hour, as follows (DEIR, p. 9-3):

> *For this DEIR, the summer condition represents a Friday afternoon peak hour in August . . . Friday afternoon conditions typically represent peak conditions resulting from various recreational activities and overnight visitor travel to seasonal residences, rentals, or other lodging accommodations.*

We can't help but wonder: If Friday afternoon is the peak time in the summer, why not in the winter, when all of the same conditions regarding recreational activities (e.g., skiing) and overnight visitor travel (such as the proposed project) apply?

The need for an analysis of the winter Friday PM peak hour is further supported by a cursory examination of the project trip generation estimates documented in the DEIR Transportation and Circulation section. Although the peak-hour trip generation estimates for winter and summer conditions are presented separately in the DEIR (Winter: Table 9-18, p. 9-38 and Summer: Table 9-19, p. 9-43), for convenience in comparing the numbers, we have combined them into Table 1.

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TABLE 1
Trip Generation Comparison

Land Use	Size	Winter[1]						Summer		
		Saturday AM Peak Hour			Sunday PM Peak Hour			Friday PM Peak Hour[2]		
		In	Out	Total	In	Out	Total	In	Out	Total
Hotel/Condo/Fractional Cabin Units (Guest/Deliveries/Retail/Restaurant)	1,286 units after lock-offs	58	50	108	38	98	136	240	236	476
Hotel/Condo/Fractional Cabin Units (Employees)		29	5	34	2	54	56	26	77	103
TOTAL TRIPS		87	55	142	40	152	192	266	313	579
TRIP GENERATION RATE (Trips/Unit)		0.068	0.043	0.111	0.031	0.118	0.149	0.207	0.243	0.456

Notes:
[1] Source: DEIR, Table 9-18, p. 9-38.
[2] Source: DEIR Table 9-19, p. 9-43.

For simplicity, we have used the format employed in DEIR Table 9-19, which combines the various lodging categories into a single class while distinguishing between guest and employee trips. Note also that, because the summer trip generation estimate for the lodging facilities also reflected the on-site retail and restaurant space, we have included those land uses in the values presented in Table 1, so as to provide comparable numbers. Table 1 excludes the Mountain Adventure Camp (which is shown to generate very few trips) and the East Parcel land uses.

As shown, in the summer Friday PM peak hour, the proposed project is estimated to generate over four times as much traffic as in the winter Saturday AM peak hour. Compared to the winter Sunday PM peak hour, the summer Friday PM peak hour represents over three times as much project-generated traffic.

Given the fact that Squaw Valley is known the world over as a ski resort, it is difficult to understand why the greatest volume of project traffic would occur in the summer, and by a sizable margin. Although we recognize that one of the project objectives relates to development of a "year-round, destination resort," another objective is to provide a resort that is, "on par with peer world class North American ski destinations." It seems that the traffic impact analysis has substantially underestimated the volume of winter peak-hour traffic. O8d-3 cont.

While the three peak-hour scenarios presented in the DEIR may contribute to a limited understanding of the traffic impacts associated with the proposed project, those impacts will not be fully revealed and understood until an analysis scenario addressing conditions during the winter Friday PM peak hour is completed and distributed for public review.

Furthermore, given the substantial volume of project traffic estimated to occur in the summer Friday PM peak hour (which reflects the time when weekend guests will arrive at Squaw Valley), it seems logical to address the key time period when those guests will depart the proposed project. Specifically, the DEIR should also evaluate traffic operations during the summer Sunday PM peak hour.

3. ***Incorrect Trip Generation Estimate*** – The trip generation estimate for the proposed project contains several questionable elements.

   - For the East Parcel retail land use (5,000 SF), the volume of traffic for summer Friday PM peak-hour conditions (DEIR Table 9-19, p. 9-43) was appropriately estimated using information presented in the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (Ninth Edition, 2012). However, the estimate is based on applying the average trip rate for a shopping center. This is wrong for several reasons.

     - First, because of the typical trip generation pattern for shopping centers (i.e., the bigger they get, the fewer trips they generate per 1,000 SF), the average trip generation rate provided in the ITE *Trip Generation Manual* is never used by knowledgeable professionals. Instead, the logarithmic formula is typically used. DEIR Table 9-19 (p. 9-43) shows that the East Parcel retail would generate 19 total trips in the Friday PM peak hour, based on the average ITE rate (as applied in the DEIR). Correctly applying the logarithmic formula indicates it would generate 80 trips, over four times more. O8d-4

     - Second, perhaps more importantly, the 5,000 SF retail store is not a shopping center; it's a convenience market. Specifically, DEIR p. 9-39 says, ". . . it would serve local, convenience shopping needs of project employees who reside in the East Parcel" and,

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further, ". . . would also attract 'pass-by' trips from Squaw Valley Road." In contrast, according to the ITE *Trip Generation Manual*:

> *A shopping center is* ***an integrated group of commercial establishments*** *that is planned, developed, owned and managed as a unit.* [Emphasis added]

Further, in the ITE *Trip Generation Manual*, the average size of the surveyed shopping centers is 376,000 SF (i.e., 75 times bigger than the East Parcel retail), while the average size of convenience markets is 3,000 SF, which is comparable to the East Parcel store.

- Third, because it's a convenience market and not a shopping center, the correct trip rate to apply is for convenience markets. The ITE *Trip Generation Manual* has two categories of these markets – one for stores open 24 hours and one for stores open 15 – 16 hours.
  - For a 24-hour convenience market, the PM peak-hour trip rate is 52.41 trips/1,000 SF, which would result in an estimated total of 262 PM peak-hour trips (instead of 19).
  - For a 15 – 16-hour store, the trip generation rate is 34.57 trips/1,000 SF. Applying that rate would indicate that the East Parcel retail would generate 173 PM peak-hour trips.
  - Based on information provided in the ITE *Trip Generation Handbook* (Third Edition, August 2014), about half of the convenience market trips would be pass-by trips (i.e., trips associated with vehicles that are already on the adjacent road), compared to 34 percent for a shopping center. Applying the pertinent percentages to the retail trip estimates reveals the following net trip generation values:
    - Shopping center average rate: 19 trips minus 34 percent pass-by = 13 net trips
    - Shopping center logarithmic formula: 80 trips minus 34 percent pass-by = 53 net trips
    - 24-hour convenience market: 262 trips minus 51 percent pass-by = 128 net trips
    - 15 – 16-hour convenience market: 173 trips minus 51 percent pass-by = 85 trips

    When the East Parcel retail is appropriately treated as a convenience market, it is found to generate at least 6.5 times as much traffic as the DEIR indicates. This difference is clearly substantial.

O8d-4 cont.

- There is no description of the basis for the number of trips estimated for the "Miscellaneous" land use category in DEIR Table 9-18 (p. 9-38). According to the applicable footnote in the table, this land use category includes "delivery trucks, emergency/utility service vehicles, transit, taxi, and other (e.g., pick-up/drop-offs) trips." On a daily basis, the table indicates there will be 100 miscellaneous trips (50 inbound and 50 outbound), while in the two peak-hour periods, there will be 20 trips in the Saturday AM (10 in and 10 out) and in the Sunday PM, there will be 15 trips (5 in and 10 out). Given the lack of documentation and the "roundness" of the numbers, it is difficult to escape the conclusion that the estimates were simply fabricated from thin air.

O8d-5

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- The condo hotel and fractional cabin trip generation estimates were based partly on the guest parking supply (i.e., 0.75 guest parking spaces per 1-bedroom unit, 1.0 guest parking space per 2-bedroom unit, and 1.25 guest parking spaces per 3-bedroom unit, as presented in the parking analysis in DEIR Appendix G). Derivation of a trip generation estimate based on the proposed parking supply is contrary to standard practice in the traffic engineering profession. There is simply no connection between the number of parking spaces and the volume of traffic generated in any peak-hour period. To be valid, the trip generation estimate must be based on the size of the actual "generator," which in this case is the number of lodging units.

  Moreover, if the proposed parking supply is inadequate, the project's trip generation will be under-estimated. Of particular concern in this case is the proposal to provide only 0.75 parking spaces per 1-bedroom unit at a development where surveys show that 82 - 86 percent of the visitors and guests arrive by auto. (Ref.: DEIR Tables 9-12 through 9-15, pp. 9-18 through 9-21) According to the trip generation tables presented in DEIR Appendix G, 1,118 of the 1,255 condo hotel units (i.e., 89 percent) will be 1-bedroom units. Thus, inadequate parking will be provided due to allocation of less than one parking space per unit to almost 90 percent of the lodging development. (See comment 10 below.) 08d-6

  In addition to the fact that guests will be left scrambling to find a place to park their vehicles, the volume of project-generated traffic has been under-estimated by 20 – 25 percent.

- DEIR p. 9-37 says, "[t]he proposed project would not be expected to affect the number of day-use skiers, or any of their travel behaviors . . ." The validity of this statement is clearly questionable. As noted above, one of the project objectives is to provide a resort that is, "on par with peer world class North American ski destinations." Achieving this objective will certainly result in substantial growth in day-skier demand. Moreover, it seems obvious that part of the reason for building 29,530 SF of restaurants, 27,700 SF of retail, and the 90,000 SF "Mountain Adventure Camp" is to attract more day-use skiers from other ski areas. The project trip generation estimate must reflect this likelihood. 08d-7

- In fact, it's reasonable to expect that the Mountain Adventure Camp, with its extensive and challenging recreational opportunities will become an attraction in its own right. Despite this, DEIR Table 9-18 indicates that the MAC will generate a grand total of 58 guest trips over the course of an entire Saturday, with 4 guest trips in the Saturday AM peak hour and 6 guest trips in the Sunday PM peak hour. Again, the project trip generation estimate must be revised to include a more realistic assessment of the magnitude of this attraction. 08d-8

4. ***Failure to Analyze Project Impacts on the Interstate 80 Freeway*** – The DEIR presents an in-depth analysis of traffic operations on SR 89 and Squaw Valley Road. However, no consideration is given to the potential impacts of the proposed project on Interstate 80 (I-80), which will serve a substantial portion of the project-generated traffic.

   Among the intersections included in the analysis are SR 89/I-80 Westbound Ramps and SR 89/I-80 Eastbound Ramps. DEIR Exhibit 9-10 (p. 9-51) illustrates the "Project-Only Trips." Review of that figure reveals that a total of 152 PM peak-hour project-generated trips were assigned to/from the west on I-80 on a summer Friday. Those 152 trips represent 25 percent of the total project trip generation in the summer Friday PM peak hour. In that same summer Friday PM peak-hour period, 96 project-related trips (17 percent of the project-generated total) were assigned to/from the east on I-80. 08d-9

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Despite the fact that I-80 was projected to carry a substantial portion of the traffic generated by the proposed project, no analysis was conducted to assess potential project-related traffic impacts at the I-80/SR 89 on- or off-ramps or the merge/diverge points where those ramps meet the freeway mainline. Further, no analysis of project-related impacts on the I-80 mainline was performed. Consequently, it is impossible to determine whether the proposed project will adversely impact traffic operations on the freeway or its ramps. To ensure a thorough analysis of potential traffic impacts, it is essential that these analyses be performed and documented in a revised DEIR. O8d-9 cont.

5. ***Inadequate Documentation of Vehicle Miles Traveled (VMT) Estimate*** – Certain of the analyses documented in the DEIR Air Quality section (Chapter 10) are based upon, ". . . an estimate of project-generated vehicle trips and VMT developed as part of the analysis presented in Chapter 9. 'Transportation and Circulation' (Fehr & Peers 2014) . . ." (DEIR p. 10-12) Further, "[t]he VMT was calculated by Fehr & Peers, the traffic consultant that prepared the EIR's Transportation and Circulation (Chapter 9) analysis." (DEIR p. 10-12)

   Similar references are found in DEIR Chapter 16, Greenhouse Gases and Climate Change.

   Careful review of the Transportation and Circulation analysis presented in DEIR Chapter 9 reveals no mention of VMT and certainly no documentation of the assumptions and procedures employed in developing any VMT estimates. In fact, a digital search of the chapter reveals only a single reference to VMT or vehicle miles traveled; that reference occurs in the description of the Lake Tahoe Regional Plan and bears no relationship to the specific travel characteristics of the proposed project.

   In any event, the project's VMT estimates are presented on DEIR p. 10-15, as follows:

   > *Upon full buildout of the Specific Plan . . . the project would generate up to 2,821 trips per day and 85,398 VMT in Placer County and/or the MCAB [Mountain Counties Air Basin] during the peak day of the winter season and up to 8,410 trips per day and 172,168 VMT in Placer County and/or the MCAB during the peak summer season day. (According to the analysis presented in Chapter 9, 'Transportation and Circulation,' another 86,912 VMT would be generated by the project on a peak summer day that would occur outside of this area but this portion of VMT would be split among areas of Nevada, El Dorado County, and counties in the Sacramento and Bay Area regions [Fehr & Peers, 2014].*

   O8d-10

   First, we note that these VMT estimates are inaccurate because of the deficiencies in the trip generation estimates described above. Correcting the trip generation errors will result in higher VMT values.

   In addition, the VMT estimates are difficult to comprehend, particularly with respect to the summer estimate, for which ". . . another 86,912 VMT would be generated by the project on a peak summer day that would occur outside of this area . . ." The meaning of this statement is unclear, to say the least. Do these trips never enter the study area in the immediate vicinity of the proposed project? If so, what is the nature of the trips? Why do such trips only occur in the summer?

   The derivation of the VMT values must be explained in greater detail to clarify exactly how the estimates were derived.

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6. ***Questionable Average Trip Length Estimate*** – The VMT estimates described above in combination with the project trip generation estimates can be used to derive an average trip length for the proposed project. Using the VMT and daily trip generation figures, the following average trip lengths result:

   - Peak winter day: Average trip length = 30.3 miles (i.e., 85,398 VMT / 2,821 daily trips)
   - Peak summer day: Average trip length = 31.1 miles (i.e., (172,168 VMT + 89,612 additional VMT) / 8,410 daily trips)

   However, these average trip lengths may not be reasonable. The Squaw Valley travel surveys documented in the DEIR show the following trip origins for summer and winter overnight guests; the same percentages apply to both seasons (Ref.: Table 9-12, p. 9-18 for winter overnight guests and Table 9-15, p. 9-21 for summer overnight guests):

   - Bay Area: 38 percent,
   - Sacramento/Central Valley: 13 percent, and
   - Reno/Sparks: 10 percent.

   08d-11

   Thus, these three locations account for 61 percent of the guests at Squaw Valley.

   According to Yahoo! Maps, the average travel distance to Squaw Valley from each of these trip origins is as follows:

   - Bay Area: 195 miles (from San Francisco),
   - Sacramento/Central Valley: 109 miles (from Sacramento, which is conservative since most Central Valley origins would be substantially farther from Squaw Valley), and
   - Reno/Sparks: 44 miles (from Reno).

   Based on these values, the weighted average trip length for guests coming from these three locations is over 92 miles. Although it is possible that the combination of guest trips with the other types of trips might result in an overall average trip length of about 30 miles, it is impossible to be sure of this, given the limited information provided in the DEIR.

   Because this information is critical to the analysis of project-related air quality and greenhouse gas emissions impacts, the VMT estimate must be explained in greater detail, so the public can be assured of its validity.

7. ***Specific Plan Policies Ensure Future Traffic Congestion*** – As presented on DEIR p. 9-33, Specific Plan Policy CP-1 states that:

   During peak periods, LOS F is acceptable within the Plan Area . . .

   08d-12

   Although we recognize that Placer County allows such a policy to be adopted within a specific plan area, we believe it bears noting that this policy will ensure the presence of substantial traffic congestion in the vicinity of Squaw Valley and could even result in the creation of hazardous conditions. This would become a particular issue in the event that Squaw Valley proposes a future expansion.

First, it should be noted that LOS F is defined as the worst possible roadway system operation. It represents a condition under which traffic demand exceeds the capacity of the roadway facility. For traffic signal-controlled intersections, LOS F means that the average driver was delayed for over 80 seconds. At a stop sign, a driver would be delayed for over 50 seconds.

Under this policy, no matter how much congestion exists or how long delays might become at local intersections, traffic operations will still be defined to be at LOS F, as there is no lower level of service category . Consequently, for any future analysis of traffic operations, even if local intersections or roadway segments are found to operate at LOS F, the addition of traffic associated with a proposed project will still result in LOS F; it will be impossible to have a significant traffic impact.

Considering LOS F operation to be acceptable will have safety impacts, as well. For example, intersection delays such as those described above typically result in extensive queues of vehicles waiting to pass through an intersection. Such queues can be a serious impediment to the flow of emergency vehicles. Delays to ambulances or police or fire vehicles can obviously have life or death consequences. This is a particular concern in rural or mountainous areas, such as Squaw Valley, where the road system is constrained by topography and few (if any) alternative emergency access routes are available.

In addition, implementation of this policy will almost certainly result in adverse impacts in the form of air quality and greenhouse gas emission deficiencies.

O8d-12 cont.

8. ***Emergency Vehicle Access*** – The DEIR contains an extensive discussion of emergency access issues within the Specific Plan area. However, the project-related impacts on off-site emergency vehicle response are virtually ignored.

   Squaw Valley Road and State Route 89 are the only roadways by which emergency vehicles could approach or depart the proposed project. What will be the effect on emergency vehicle response time when Squaw Valley Road between Squaw Creek Road and the village area operates at LOS F under Existing Plus Project conditions (DEIR Table 9-20, p. 9-49)? Or when queues in the two eastbound lanes on Squaw Valley Road at SR 89 reach 800 – 825 feet under those same conditions (DEIR Table 9-22, p. 9-62)? Or when most segments of SR 89 operate at LOS E (i.e., virtually at capacity), also under Existing Plus Project conditions (DEIR Table 9-23, p. 9-64)?

   DEIR Appendix J presents a "Wildland Fire Evacuation Plan." The plan provides valuable information to assist residents in being prepared to evacuate in the event of a wildfire. It instructs residents to take Squaw Valley Road to SR 89, then to either Truckee or Tahoe City, whichever is away from the fire. Unfortunately, the plan seems to reflect no quantitative analysis with respect to whether adequate capacity exists on those roads to accommodate the crush of traffic that will occur during an evacuation. Further, there is no indication of the incremental impacts of the added traffic resulting from construction of the proposed project.

   On a "typical" day, the added delays caused by the proposed project's traffic would be inconvenient. On a day when a wildfire threatens, the effects of the additional traffic could be dire.

O8d-13

9. ***Deficient Mitigation Measures*** – The DEIR presents a number of mitigation measures aimed at offsetting the significant impacts identified in the Transportation and Circulation section.

O8d-14

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- Mitigation Measure 9-1a (DEIR p. 9-56) calls for development of a "predictive model" to identify days when the various traffic management procedures will be needed. Specifically, the model is intended to identify days when Squaw Valley Road will exceed a traffic volume of 13,500 VPD. But DEIR p. 9-8 accurately says, "Peak attendance days can be difficult to forecast . . ." This calls into question the feasibility of the mitigation measure. At their very best, travel demand forecasting models are imprecise tools. The output from such a model is typically rounded off severely and, even then, there's limited expectation that the predicted values will be accurate. In short, there is little assurance that the required "predictive model" will be effective in accurately determining the need for traffic management activities.

- We also note that there seems to be an expectation that Mitigation Measure 9-1a will only apply on "ski days." However, given the project objective regarding development of a year-round destination resort, assurance should be provided that the traffic management plan will be implemented any time the 13,500 ADT threshold will be exceeded, regardless of time of year.

- Mitigation Measure 9-2a (DEIR, p. 9-58) calls for restricting northbound Far East Road to right-turns only at Squaw Valley Road during the PM peak hour (on peak days only). What if drivers need to go left? There is no discussion of mitigation-related impacts. O8d-14 cont.

- Mitigation Measure 9-2a also says, "Information provided by the project applicant team suggests the configuration may already be in existence when traffic management is implemented." If it already exists, it's not project-related mitigation. The DEIR should identify another feasible mitigation measure to offset this significant impact.

- Mitigation Measures 9-2b, 9-2c, and 9-2d (DEIR, p. 9-58) all call for stopping traffic on Squaw Valley Road to allow vehicles on side streets to turn onto Squaw Valley Road, but provide no information regarding the impacts to Squaw Valley Road traffic (i.e., delays and queues). The adverse impacts associated with implementing these measures must be revealed.

- Mitigation Measure 9-4 (DEIR, p. 9-61) calls for providing substantially more signal time for northbound left turns at SR 89/Squaw Valley Road, in order to reduce the length of the left-turn queue. The added signal time would come out of the time currently allocated to the southbound thru and right-turn movements. No information is provided regarding the effects on southbound traffic (especially with regard to delays and queues). Again, the adverse impacts associated with implementing this measure must be revealed.

10. ***Inadequate Parking Supply*** – The DEIR Transportation and Circulation section incorporates the results of a parking analysis completed by LSC Transportation Consultants (*Village At Squaw Valley Parking Analysis*, September 22, 2014), which is presented within DEIR Appendix G. According to that report (p. 3):

    The analysis of condominium hotel parking is based on the rate of 0.75 spaces per 1 bedroom unit for guests. O8d-15

    This parking ratio is strictly an assumption, and is not based on any analysis of actual parking conditions at Squaw Valley. The LSC report attempts to justify the adequacy of this parking ratio through the conduct of a literature review and by referring to the parking ratios that apply at other locations. The other locations referred to in the analysis had a wide range of parking ratios, from as low as 0.86 spaces per unit to as high as 1.66 spaces per unit. The composition of

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the study locations apparently also varied greatly, in terms of the numbers of bedrooms per unit. (The specific composition of the other locations is not always specified.)

To be fair, we note that the parking ratios at the locations referred to above include both guest and employee parking needs, while the assumed ratio of 0.75 space per unit relates only to guest parking requirements. However, the LSC parking analysis specifies an employee parking requirement of only 0.11 space per unit at Squaw Valley. This value is based on surveys of existing Squaw Valley USA employees, so it reflects the actual travel characteristics (in terms of travel mode (auto or other), vehicle occupancy, and whether they live in the Squaw Valley employee housing) of those individuals. Applying that employee parking factor to the results of the literature review suggests guest parking ratios as high as 1.55 spaces per unit.

The parking study concludes:

> *Based on this review, a guest parking rate for the proposed project is 0.75 space per one-bedroom unit plus 0.25 space per bedroom over one bedroom, for a total of 1.00 guest spaces per two-bedroom unit and 1.25 per three-bedroom unit.*

The justification for these recommended ratios seems particularly flimsy when viewed in the light of the travel surveys conducted by Squaw Valley, which are documented in DEIR Tables 9-12 through 9-15 (pp. 9-18 through 9-21). Those tables identify the travel characteristics of Squaw Valley guests, including their travel mode. Key findings revealed on the tables are as follows:

- Table 9-12 – Travel Characteristics of Skiers/Boarders and Winter Overnight Guests at Squaw Valley
  - Skiers/Boarders: Auto = 82 percent
  - Overnight Guests: Auto = 82 percent
  - Overnight Guests: Airplane & Rental Car = 18 percent
- Table 9-13 - Travel Characteristics of Village at Squaw Valley Winter Visitors and Employees
  - Visitors: Auto = 85 percent
  - Employees: Auto = 82 percent
- Table 9-14 - Travel Characteristics of Village at Squaw Valley Summer Visitors and Employees
  - Visitors: Auto = 86 percent
  - Employees: Auto = 82 percent
- Table 9-15 - Travel Characteristics of Summer Overnight Guests
  - Auto = 85 percent
  - Airplane & Rental Car/Shuttle = 15 percent

08d-15 cont.

According to Squaw Valley's own surveys, between 82 and 86 percent of guests at Squaw Valley arrive by auto. Further, according to the survey results presented in Table 9-12, an additional 18 percent of winter overnight guests arrive by rental car, meaning that a total of 100 percent of those individuals arrive by auto. Table 9-12 confirms this, as it literally shows "0%" for every other travel mode for overnight guests.

Similarly, Table 9-15 shows that up to 100 percent of summer overnight guests arrive by auto, although it is unclear how many of the "Rental Car/Shuttle" guests are in rental cars and how many are on a shuttle.

In any event, it is clear that provision of 0.75 parking space per unit for one-bedroom condo hotel units will result in insufficient parking at Squaw Valley. If 100 percent of winter overnight guests arrive by auto, as revealed by Squaw Valley's surveys, a minimum of 1.0 space per unit will be necessary to provide adequate parking.

This is a significant issue, given that one-bedroom condo hotel units predominate in the proposed lodging scheme. The trip generation tables presented in DEIR Appendix G reveal that 1,118 of the 1,255 total units (after lock-off) will be one-bedroom units. Thus, 89 percent of the lodging units will have inadequate parking. Specifically, although one space per unit (i.e., 1,118 parking spaces) will be required for the one-bedroom units, only 0.75 space per unit will be provided (i.e., 839 spaces). The obvious result is a parking deficit of 279 spaces for that component of the proposed project. **O8d-15 cont.**

The parking deficit specified here relates only to the one-bedroom units, but it is likely that corresponding inadequacies will apply to the two-bedroom and three-bedroom units. If each of those unit types has a similar parking deficiency of 0.25 space per unit, an additional shortage of 35 spaces would result, for a total parking deficiency of 314 parking spaces.

Although parking is not technically a CEQA issue, as noted earlier, the proposed project's trip generation estimate was based on the parking supply estimate. Further, such a substantial parking deficiency has implications with respect to air quality and greenhouse gas emissions, as late-arriving patrons will be forced to circulate through the parking facilities in a fruitless effort to find an available space. Moreover, the potential exists for vehicles to be queued out from the parking facilities onto Squaw Valley Road, as drivers search for the rare available parking spaces, with some of those drivers inevitably waiting in parking aisles for other drivers to depart, thereby blocking on-site traffic flow.

These potential environmental impacts, which have been ignored in the DEIR, must be addressed.

11. ***Inadequate Consideration of Construction Impacts*** – DEIR p. 9-66 states that project construction:

> *. . . would generate a substantial amount of truck and employee trips, which would use SR 89 and Squaw Valley Road to access the Village Area.*

That page of the DEIR also says:

> *Construction activities are anticipated to require up to an estimated 136 construction workers during this most intense year of construction.*

O8d-16

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Because construction workers might be unlikely to ride-share, these 136 construction workers could generate 136 inbound trips in the AM peak hour and 136 outbound trips in the PM peak hour. In addition, other forms of construction traffic will occur during those peak-hour periods including deliveries of material and equipment, ready-mix trucks, food vendors, etc.

Comparing this volume of construction period peak-hour traffic to the project trip generation estimate suggests that a detailed traffic analysis for construction conditions is warranted. Specifically, DEIR Table 9-18 (p. 9-38) shows that 92 inbound trips are projected for the Saturday AM peak hour. This is at least 44 inbound AM peak-hour trips fewer than could reasonably be expected during the construction period. The project's outbound traffic estimate for the Sunday PM peak hour is slightly higher than the likely construction traffic volume (159 versus 136+), but the construction traffic estimate is considerable.

O8d-16 cont.

Given the likelihood that peak hour traffic volumes associated with construction activity will be generally similar to the volumes associated with the proposed project, it seems reasonable to expect that the impact of those trips on the study area intersections and road segments should be evaluated. Of course, the construction activity will primarily occur on weekdays, when background traffic volumes on the study area road system might be higher than on weekends. Therefore, the construction traffic analysis should address weekday AM and PM peak hours.

Although the DEIR claims that it would be "speculative" to perform any quantitative analysis, the fact is that sufficient project-related information is presented to allow such an analysis to be conducted.

CONCLUSION

Our review of the Transportation and Circulation analysis incorporated into the Draft Environmental Impact Report for the proposed Village at Squaw Valley Specific Plan revealed several issues potentially affecting the validity of the conclusions and recommendations presented in that document. Of particular concern is the failure to address all of the time periods during which traffic impacts are reasonably likely to occur. We are also highly concerned about the deficient project traffic estimates employed in the analysis, and the related shortcomings in the analysis of emergency vehicle access, construction traffic impacts, and air quality and greenhouse gas emissions impacts. These issues and the others described above must be addressed prior to approval by Placer County of the proposed project and the related environmental documentation.

O8d-17

We hope this information is useful. If you have questions concerning any of the items presented here or would like to discuss them further, please feel free to contact me at (916) 783-3838.

Sincerely,

MRO ENGINEERS, INC.

Neal K. Liddicoat

Neal K. Liddicoat, P.E.
Traffic Engineering Manager

O8d

Sierra Watch, Attachment 4
Neal K. Liddicoat, P.E., Traffic Engineering Manager with MRO Engineers, Inc.
June 18, 2015

O8d-1 The comment is an introductory statement and summary of the project description and does not address the content, analysis, or conclusions in the DEIR. Therefore, a response is not provided here.

O8d-2 Comments O8d-2 and O8d-3 were likely made without knowledge of traffic volumes and conditions during Summer Friday daily, Winter Friday PM peak hour, and Summer Sunday PM peak hour conditions. This information was not included in the DEIR, because it was not relevant to the analysis. The responses to these two comments present traffic data for these periods and then explain why these additional time periods did not need to be studied.

The comment asserts that a summer daily condition analysis should have been performed. Guidance for the selection of analysis periods was obtained from TRPA documentation. Specifically, the following paragraph from page 3.3-33 of the TRPA Regional Plan Update EIS (2012) is particularly relevant:

> During summer peak months, conditions are often busiest during Friday afternoons as visitors and part-time residents travel into the Region. While Saturday and Sunday conditions are also busy, they have a less pronounced peak hour surge, meaning that intersections (for the Region as whole) are typically at their busiest during the Friday evening peak hour. Therefore, study intersections and roadways are analyzed for August Friday PM peak hour conditions.

Notwithstanding the above, this response provides a detailed analysis of project impacts on Squaw Valley Road for a summer Friday weekday condition. Daily conditions only pertain to County roadway segments (i.e., Squaw Valley Road). Hence, this evaluation does not include any intersections or the segment of SR 89, for which operations are analyzed for peak hour conditions only.

A hose count (a traffic data collection device where hoses that sense vehicle crosses are laid across a road) was placed on Squaw Valley Road directly east of Wayne Road on Thursday afternoon August 13, 2015 through Saturday, August 15, 2015. This is the 'critical' study segment because it is two lanes and has a LOS C policy (the segment between SR 89 and Squaw Creek Road has three lanes and a LOS D policy). On Friday, August 14, 2015, the segment was observed to carry 5,883 vehicles (3,044 westbound and 2,839 eastbound). This corresponds to an acceptable LOS B condition according to thresholds contained in Table 9-7 of the DEIR.

The ITE *Trip Generation Manua*l (2012) Resort Hotel land use category does not provide any trip rate data for weekday conditions. Accordingly, the project team searched for comparable built projects in the Tahoe area that could be counted to develop an empirically measured trip rate. The most applicable project was the Marriott Timbers Lodge located on U.S. Highway 50 (Tahoe Boulevard) in South Shore near Stateline. This facility consists of 264 one-, two-, or three-bedroom timeshare ownership and rental units, which are equipped with full kitchens, separate living and dining areas, and washer/dryers. Rooms can also be reserved on a nightly basis similar to a hotel. The Timbers project is situated within walking distance of various restaurant, retail, and recreational amenities, which is similar to the proposed project's proximity to the Village at Squaw Valley and facilities included in the Specific Plan. Given the similarities of these attributes to the proposed project, the Marriott Timbers Lodge was determined to be the most appropriate comparable project to count. On

Friday, August 14, 2015, vehicle trips at the Marriott Timbers Lodge were measured and determined to generate 3.42 daily vehicle trips per unit. Although precise occupancy levels on that Friday are not known, the facility's website (which was checked on August 13th) advertised that there was very limited availability for those wishing to reserve a room.

The proposed project is estimated to generate 3,300 daily vehicle trips during a summer Friday daily condition. This estimate includes 2,912 daily trips from the main Village area (3.42 daily trips per unit per the Marriott Timbers Lodge trip count multiplied by 850 total units). It is appropriate to apply the trip rate from the Marriott Timbers to the 850 proposed project units (versus the total number of after 'lock-off' rooms) because the Marriott Timbers is a timeshare that enables a similar breakdown of rooms as the proposed project. The MAC is estimated to generate another 140 daily trips (see response to comment O8d-8 for additional details). The East Parcel land uses are estimated to generate an additional 250 daily trips.

Table O8d-1 displays the resulting existing plus project volumes for summer Friday daily conditions. Data is shown for Friday, August 14, 2015. Data is also shown for Friday, August 7, 2015, which was the day prior to the Brews, Jazz, and Funk Festival held at the Squaw Valley USA Ski Resort. Additionally, it is noted that both the Resort at Squaw Creek and Village at Squaw Valley lodging establishments had no available rooms on either Friday evening. Table O8d-1 shows that Squaw Valley Road would continue to operate at LOS B on a summer Friday daily condition with the addition of project traffic.

Table O8d-1 Analysis of Existing and Existing Plus Project Summer Friday Daily Conditions on Squaw Valley Road between Squaw Valley Ski Resort and Squaw Creek Road

Existing Conditions				Project-Added Daily Traffic	Existing Plus Project Conditions	
Date of Count	ADT	LOS	Comment		ADT	LOS
Friday, August 7, 2015	6,531	B	Day prior to the beginning of the Brews, Jazz, and Funk Fest held at Squaw Valley.	3,300	9,831	B
Friday, August 14, 2015	5,883	B	No major events scheduled within Olympic Valley.	3,300	9,183	B

Notes: Both counts were conducted on Squaw Valley Road directly east of Wayne Road.
Refer to previous text for description of how proposed project's daily trip generation was estimated.
LOS based on Table 9-7 of DEIR.

Source: Data provided by Fehr & Peers in 2015

According to thresholds contained in Table 9-7 of the DEIR, operations on Squaw Valley Road between the project site and Squaw Creek Road are considered to be at LOS C so long as the daily volume does not exceed 12,000 daily trips. Table O8d-1 indicates that the typical peak summer Friday (August 14), when combined with proposed project trips, would be 2,817 daily trips under this threshold. Thus, project impacts would be less than significant, with a substantial number of additional trips (over 2,000) needed to approach potential significance.

The August 7 analysis contained in Table O8d-1 is considered conservative because it does not take into account the likelihood that some employees who were preparing for the Brews, Jazz, and Funk Festival the next day would stay overnight during Thursday and/or Friday nights if additional lodging was available. As noted previously, the Village at Squaw Valley and Resort at Squaw Creek were both fully occupied on the evening of August 7. Had additional lodging been provided within the Olympic Valley, such as the proposed project would provide, some employees could have stayed overnight, thereby eliminating the need to commute into and out of Olympic Valley.

Project impacts during summer Friday conditions would also be less than significant under cumulative conditions. This is demonstrated as follows. Assuming summer Friday daily traffic on Squaw Valley Road grows at 20 percent between existing and cumulative background conditions

(consistent with the estimated growth along SR 89), the segment west of Squaw Creek Road would carry 7,060 daily trips. The project would add 3,300 daily trips, resulting in an existing plus project volume of 10,360 daily trips, which corresponds to an acceptable LOS B condition.

It is noted that Page 10-15 of the DEIR states that the project's ADT would be "up to 8,410 trips per day …during the peak summer season." This estimate was provided as an input to the air quality analysis. Because it was not accurately known at the time what the project's daily summer trip generation might be, a purposefully conservative value was provided to ensure that air quality analysis was conservative. The FEIR acknowledges that the DEIR summer daily trip generation estimate was substantially overstated, and documents that the proposed project's summer Friday daily trip generation is 3,300 trips. The commenter is correct in pointing out that the statement in the DEIR indicating "summer daily conditions are not analyzed because the winter daily volume is much higher" does not accurately reflect the traffic modelling results, because even revised summer ADT of 3,300 exceeds the maximum winter ADT of 2,821. Therefore, this response provides the analysis of summer ADT requested by the commenter. As indicated above, the analysis shows that there would not be a significant impact on summer ADTs.

In conclusion, it was not necessary to study a summer Friday daily condition. This scenario would not have led to any new significant impacts.

O8d-3 The comment asserts that: (a) a winter Friday PM peak hour should also have been studied, (b) the analysis underestimated the amount of winter peak hour traffic, and (c) a summer Sunday PM peak hour should have also been studied. Each of these assertions is handled in order below.

Winter Friday PM Peak Hour Should Have Been Studied

Table O8d-2 shows the directional and total traffic volume from 3 to 4 PM on Squaw Valley Road during the 5th and 6th busiest Sunday afternoon peak periods of the 2011-2012 ski season (see Table 9-3 of the DEIR). This table also shows the traffic volumes for the Friday PM peak period that occurred two days prior to each of these Sundays. As noted in the DEIR, the Sunday peak hour occurs from 3 to 4 PM. Because the exact hour associated with the Winter Friday PM peak hour has not been calculated, hourly data from 3 to 6 PM is shown below to be sure to capture data for the peak hour. In both sample Friday dates (Jan. 7, 2012 and Feb. 10, 2012) the data shows that the peak traffic volume was during the 4 to 5 pm period. These data indicates that the Winter Sunday PM peak hour carried 23 to 33 percent more traffic than the Winter Friday PM peak hour.

Table O8d-2 Available Traffic Volume Counts on Squaw Valley Road West of Squaw Creek Road

Date of Count	Time Period	Traffic Volume on Squaw Valley Road		
		Eastbound	Westbound	Total
Friday, January 27, 2012	3 to 4 pm	722	252	974
	4 to 5 pm	781	245	1,026
	5 to 6 pm	367	177	544
Sunday, January 29, 2012	3 to 4 pm	1,085	182	1,267
Friday, February 10, 2012	3 to 4 pm	600	277	877
	4 to 5 pm	700	260	960
	5 to 6 pm	336	205	541
Sunday, February 12, 2012	3 to 4 pm	1,076	203	1,279

Source: Traffic count database collected by Squaw Valley Real Estate and LSC Transportation Consultants, Inc. in 2011-2012

According to the data in Table 9-16 of the DEIR (page 9-22), the average occupancy during several peak winter weekends at the Village at Squaw Valley during the 2010-2011 and 2011-2012 ski seasons were as follows:

- Wednesday night: 31 percent of rooms occupied.
- Thursday Night: 53 percent of rooms occupied.
- Friday Night: 78 percent of rooms occupied.
- Saturday Night: 82 percent of rooms occupied.
- Sunday Night: 40 percent of rooms occupied.

Given the similar location and function of the Village at Squaw Valley to the proposed project, it provides a valuable source of anticipated occupancy levels and arrival/departure patterns.

Project-related travel during a winter Friday PM peak hour would consist of guests arriving to check-in to the hotel/condos to begin their stay, and guests departing the hotel/condos to end their stay, employee trips, and other miscellaneous trips. Although occupancy levels between Thursday and Friday nights increased by 25 percentage points, data from page 9-22 of the DEIR indicated that only 19 percent of guests checking in arrived between 3 and 4 PM. Guests who checked in on Thursday night stayed an average of 1.75 nights, meaning only one of every 8 occupied rooms had a Friday departure. According to Table 9-12, the majority of guests checking out of the Village at Squaw Valley departed between 9 AM and noon (32 percent) or after 4 PM (24 percent). Only 6 percent of guests checked out between 3 and 4 PM. In contrast, occupancy levels between Saturday and Sunday nights decreased by 42 percentage points. And despite the data in Table 9-12 showing that only 6 percent of guests checked out between 3 and 4 PM, the analysis conservatively assumed 15 percent of guests departed during the Sunday PM peak hour.

The data yields the following conclusions, which provide support for why a Winter Friday PM peak hour analysis was not necessary:

- The Winter Sunday PM peak hour carried 23 to 33 percent more traffic than the winter Friday PM peak hour.

- The absolute number of trips generated by the project during the winter Friday PM peak hour would be less than the winter Sunday PM peak hour. This is because the increase in room occupancy on Friday night is much less than the decrease in room occupancy on Sunday night.

- The majority of Winter Friday PM peak hour trips that would be generated by the project would be inbound (in anticipation of checking into the hotel/condos). However, the majority (68 to 75 percent) of existing traffic on Squaw Valley Road during the Winter Friday PM peak hour is outbound. This means that the majority of project trips would be added to the 'non-peak direction of travel.'

Analysis Underestimated the Amount of Winter Peak Hour Traffic

The comment offers no analytical data in support of the contention that winter peak hour trips were underestimated. In fact, the analysis of the project's winter peak hour trip generation was conservative, as evidenced by the following:

- The analysis assumes 100 percent of hotel/condo rooms and lock-offs are occupied during the Winter Saturday study period. To demonstrate the conservativeness of this assumption, the Village at Squaw Valley had an average occupancy of 82 percent of rooms during several peak winter weekends during the 2010-2011 and 2011-2012 ski seasons, with maximum occupancy at 87 percent. The assumption of 100 percent occupancy provides a "15 percent design safety factor" by virtue of not assuming the comparable site's 87 percent occupancy.

- Although surveys indicated that 5 percent of guests arrived between 8 and 9 AM on Saturday morning, the analysis conservatively assumed 10 percent arrived during the winter Saturday AM peak hour.

- Although surveys indicated that 19 percent of guests arrived between 3 and 4 PM on Sunday afternoon to check-in, the analysis conservatively assumed 25 percent arrived during the winter Sunday PM peak hour.

- The analysis conservatively assumes that all employees would be working during the winter Saturday study period (versus some having a vacation day). Although data suggests that 19 percent of employee shifts are expected to end at 3 PM, the analysis conservatively assumed 25 percent of employees departed during the winter Sunday PM peak hour.

In addition, the DEIR traffic analysis conservatively did not make any reductions in background traffic associated with a likely shift in Squaw Valley skier lodging activity to the Village. In reality, the expanded availability of lodging in Squaw Valley would redistribute a portion of Squaw Valley skiers who utilize lodging from lodging remote from Squaw Valley to lodging at the Village, thereby reducing peak hour and daily skier volumes on roadways such as SR 89.

In summary, the analysis is based on a series of empirically-developed estimates and assumptions upon which a 'design safety factor' has been added, which results in a reasonably conservative analysis of project impacts during the winter peak hours.

Summer Sunday PM Peak Hour Should Have Also Been Studied

Table O8d-3 displays the hourly afternoon traffic volumes on SR 89 between Tahoe City and Squaw Valley Road for several August Fridays and Sundays in 2011. These data provides a sense of the relative traffic volumes and peak hours of travel on each day. Each Friday had an hourly traffic volume greater than the busiest hourly volume on the Sunday two days later. And as shown at the bottom of this table, the Friday average was greater than the Sunday average for each of the three afternoon hours, ranging from 6 to 12 percent greater. Traffic data was not collected on Squaw Valley Road during the Summer Sunday conditions.

Table O8d-3 Traffic Counts on SR 89 north of Tahoe City

Date of Count	Traffic Volume		
	3-4 PM	4-5 PM	5-6 PM
Friday, August 12, 2011	1,368	**1,481**	1,383
Sunday, August 14, 2011	**1,417**	1,334	1,272
Friday, August 19, 2011	**1,359**	1,353	1,302
Sunday, August 21, 2011	**1,202**	1,179	1,132
Friday, August 26, 2011	1,294	**1,312**	1,158
Sunday, August 28, 2011	**1,169**	1,164	1,004
Friday Average	1,340	1,382	1,281
Sunday Average	1,263	1,226	1,136

Note: Bolded values represent the greatest hourly volume for the day of count.

Source: Caltrans traffic counts

Table O8d-4 displays historic occupancy of the Village at Squaw Valley Lodge during six weekends from Thursday through Sunday nights in July and August of 2011. As shown, the average occupancy steadily increased from 67 percent on Thursday night, to 77 percent on Friday night, and then to 79 percent on Saturday night. Occupancy then dropped to 42 percent on Sunday night. Furthermore, the traffic data on SR 89 (and elsewhere in the Tahoe Basin such as the 'South Y' intersection) indicates that Sunday traffic peaks in the late morning or early afternoon versus Sunday evening. This provides further explanation for why a Summer Sunday PM peak hour analysis was not necessary.

Table O8d-4 Village at Squaw Valley Overnight Lodging Patterns during Summer Weekends

Date	Percent Occupancy
Thursday, July 14, 2011	92%
Friday, July 15, 2011	95%
Saturday, July 16, 2011	79%
Sunday, July 17, 2011	40%
Thursday, July 28, 2011	93%
Friday, July 29, 2011	94%
Saturday, July 30, 2011	95%
Sunday, July 31, 2011	54%
Thursday, August 4, 2011	50%
Friday, August 5, 2011	81%
Saturday, August 6, 2011	86%
Sunday, August 7, 2011	66%
Thursday, August 11, 2011	79%
Friday, August 12, 2011	74%
Saturday, August 13, 2011	87%
Sunday, August 14, 2011	42%
Thursday, August 18, 2011	34%
Friday, August 19, 2011	59%
Saturday, August 20, 2011	62%
Sunday, August 21, 2011	27%
Thursday, August 25, 2011	54%
Friday, August 26, 2011	57%
Saturday, August 27, 2011	67%
Sunday, August 28, 2011	21%
Thursday Average	67%
Friday Average	77%
Saturday Average	79%
Sunday Average	42%

Note: Hotel consisted of 190 rooms.

Source: Occupancy data provided by the Village at Squaw Valley

The following summarizes why a Summer Sunday PM peak hour analysis was not necessary:

- Existing traffic levels on SR 89 are greater during the Summer Friday PM peak hour versus the Summer Sunday PM peak hour.
- Whereas a Winter Sunday PM peak hour typically represents the end of a ski day, there is no similar, recurring, popular, fixed-time activity during a Summer Sunday that concludes around this time. Hence, study of a Summer Friday PM peak hour (when seasonal residents, visitors, campers, etc. arrive for the weekend) was studied. A Summer Sunday PM peak hour would be comprised of relatively few guests who arrive during this timeframe to begin their stay. And the majority of departing guests will have departed prior to the period.

The following paragraph from Page 3.3-33 of the TRPA Regional Plan Update EIS (2012) further confirms the above conclusions:

> During summer peak months, conditions are often busiest during Friday afternoons as visitors and part-time residents travel into the Region. While Saturday and Sunday

conditions are also busy, they have a less pronounced peak hour surge, meaning that intersections (for the Region as whole) are typically at their busiest during the Friday evening peak hour. Therefore, study intersections and roadways are analyzed for August Friday PM peak hour conditions.

08d-4 The comment suggests that the trip generation of the 5,000-square-foot retail pad on the East Parcel should have been estimated as a convenience market. According to page 3-8 of the DEIR, the 5,000-square-foot retail pad is planned as a "community market." On page 3-11 of the DEIR, it is referred to as a "retail/market" building. Page 4-30 refers to the pad as having "grocery-type sales." This pad is not referenced as a "convenience market" anywhere in Chapter 3, "Project Description," or Chapter 4,"Land Use and Forest Resources."

Examples of convenience markets include Seven-Eleven, AM/PM, and Circle K stores. A Seven-Eleven store is already located less than 1,000 feet to the east of the East Parcel along Squaw Valley Road. Thus, providing a second convenience market so close would not seem financially feasible. Based on data from the *Trip Generation Manual* (ITE 2012), convenience markets typically range from 2,000 to 3,500 square feet. The project's size (5,000 square feet) exceeds even the largest data point that supports the Convenience Market land use category (851) in the *Trip Generation Manual.* For all of the above reasons, it is not appropriate to use this land use category to estimate the East Parcel retail pad's trip generation.

The comment suggests the Shopping Center land use category (820) in ITE's *Trip Generation Manual* was inappropriate to use because the average shopping center size in the weekday PM peak hour database was 426,000 square feet. While true, the comment does not disclose that the shopping center database includes centers that are as small as 1,700 square feet. Further, the scatter plot of data points supporting the Shopping Center category show dozens of observations in the 50,000 square feet and under category.

Contrary to the comment's assertion, the average trip rate is routinely used (even when a fitted curve equation is available) by transportation professionals when estimating the trip generation of smaller-sized land uses, including retail centers. According to Table 9-19, the retail pad would generate 19 trips during the Summer Friday PM peak hour based on the average rate of 3.71 trips per thousand square feet (ksf). The trip generation estimate conservatively did not make any reductions for internal trips between the retail pad and adjacent employee housing, despite the retail facility's obvious ability to serve the adjacent employee housing.

Had the fitted curve equation (on page 1,563 of ITE's *Trip Generation Manual*) been used, the resulting weekday PM peak hour trip generation would have been 81 trips, which corresponds to a rate of 16.2 trips per ksf. Because retail pads are often parked at one space per 250 square feet, the retail pad would be expected to have a supply of about 20 parking spaces. For the pad to generate 81 trips during a single hour, the parking lot would need to: completely fill (20 inbound trips), completely empty (20 outbound trips), completely fill again (20 inbound trips), and then completely empty again (20 outbound trips) within a 60-minute span. This type of parking demand and turnover is clearly unrealistic.

In response to comments on the DEIR, the TRPA base year (2008) travel demand model was reviewed by Fehr & Peers to understand how it models retail uses for summer daily and peak hour conditions. Traffic Analysis Zone 280 consists of a mix of 205 retail and service employees, and generates 1,188 average daily summer vehicle trips. This equates to 5.8 daily trips per employee. A 5,000 square feet retail pad, conservatively assuming 3 employees per thousand square feet, would yield 15 employees. Using the TRPA model trip rate of 5.8 daily trips per employee, this would yield 87 trips *per day*. The comment had suggested that the fitted curve equation be used, which would have resulted in 81 trips *per hour*. Therefore, the suggested fitted curve methodology also results in trips far in excess of the TRPA travel demand model.

In conclusion, the trip generation of the East Parcel retail pad was correctly calculated.

08d-5 Table 9-18 shows that 'miscellaneous' trips are assumed to generate 50 inbound and 50 outbound vehicle trips during the Winter Saturday condition. Footnote 3 indicates that these trips consist of delivery trucks, emergency/utility vehicles, transit vehicles, taxis, etc. It was not feasible to prepare a calculation of the exact number of each type of vehicle that would arrive. Instead, an estimated 50 inbound and 50 outbound trips was made based on the expected operations of the site. The estimate was purposefully conservative (i.e., higher than what would generally be assumed given the available informaton) to ensure that project impacts are not understated. The comment provides no alternative numbers or methodologies to use for the miscellaneous trips category.

08d-6 The comment is correct in that parking supply is typically not used in the estimation of a project's trip generation. The available parking supply should only be considered in the calculation under very special circumstances, in which there is both physical parking limitations in the area and a substantial amount of empirical survey data that helps explain travel patterns. This is precisely the situation for the peak winter conditions that were studied in the DEIR.

During the winter Saturday AM peak hour and Sunday PM peak hour study periods, all available parking in the vicinity of the Squaw Valley USA Ski Resort was assumed occupied. In other words, no additional overflow parking areas were provided to lodging guests that could accommodate additional vehicles. This situation is in contrast to a proposed shopping center or apartment complex whose on-site parking supply is inadequate, thereby resulting in overflow parking into adjacent neighborhoods, office parks, etc. In that instance, the parking supply limitation ceases to limit the project's trip generation due to other parking opportunities. In the proposed project situation, trip generation is physically limited by how much parking is provided on-site. To the extent that a condo/hotel guest chooses to park in a day-use parking area, they would be replacing a day-use skier vehicle. And depending on the length of stay, it is possible that project-related vehicle use of day-use parking areas could actually result in a net reduction in travel during the peak Saturday AM and daily conditions (i.e., from day use skiers not travelling to Squaw Valley because the resort is at capacity, or day use skiers parking at temporary offsite parking locations identified by the ski resort and being shuttled to the resort).

The abundance of empirical overnight guest, room occupancy, and employee survey data allows for detailed analyses, which are supported by substantial evidence, to be made for the trip generation calculations. The work begins from the basic premise that all available parking spaces for the project will be occupied during peak periods. The applicant has the ability to regulate parking through establishment of parking passes/gates, parking surcharges, use of valet parking, etc. The survey data is then used to answer the following: What time of day will overnight guests arrive? What time of day will overnight guests depart? How many nights will guests stay? How many trips will they make outside of Olympic Valley during their stay? What proportion of the new retail and restaurant space will be comprised of 'captured trips' from overnight and day-use visitors? What are employee shift times? What is their mode split? What percentage will live within and outside of Olympic Valley? By having answers to each of these questions, it was possible to develop a detailed trip generation estimate.

The comment is also incorrect in stating that the project will provide only 0.75 spaces per 1-bedroom unit. This figure is for guest parking only; as 0.12 spaces will be provided for employees, the total spaces per 1-bedroom unit will be 0.87. Given the proportion of guests arriving by non-auto modes and the proportion of guest groups using more than one unit, this rate is sufficient.

The comment asserts that the project's winter trip generation has been underestimated by 20 to 25 percent. The comment does not provide any information in support of this assertion. Please refer to response to comment 08d-3 for a discussion of why the analysis of the project's winter peak hour trip generation was conservative.

08d-7 The comment questions the assumption in the DEIR (page 9-37) that the proposed project "would not be expected to affect the number of day-use skiers, or any of their travel behaviors." The comment however excludes a parenthetical description of the travel

behaviors that are considered in the DEIR; "(i.e., vehicle occupancy, parking location, etc.)." The comment asserts that meeting the project objective of providing a resort "on par with peer world class North American ski destinations" will result in substantial growth in day skier demand. The comment provides no evidence to support this assertion. Providing services and amenities on par with peer world class North American ski destinations could result in the maintenance of existing day skier demand and increase the number of skiers that utilizing lodging in the Olympic Valley. Or the number of skiers could remain relatively constant and improved services and amenities could support higher prices for lift tickets and other goods and services at the resort. It is not a fait accompli that increased or improved amenities will result in increased numbers of day skiers. For example, the comment identifies the MAC as an amenity that would attract more day use skiers. However, the commenter identifies in comment O8d-3 that the MAC would "generate very few trips," consistent with the analysis in the DEIR, and incorporates this assumption into a trip generation calculation. As identified in the Master Response regarding the MAC, and response to comment O8d-8, this facility would frequently primarily serve those lodging in the main Village area and would generate few vehicle trips from outside of Olympic Valley, and therefore would not be attracting increased day skiers. Ultimately, skier capacity is limited by parking capacity and mountain capacity, and mountain capacity is limited by lift capacity (see response to comment I2-4). Amenities in the main Village area cannot increase the number of day-use skiers that can be accommodated. The management of the mountain and the provision of parking and other infrastructure for day use skiers are the factors that primarily affect day use skier numbers. The proposed project does not affect mountain operations or capacity, and includes sufficient parking to maintain day use skier numbers (but not excess spaces to expand day use skier numbers), and therefore supports the assumption that the number of day use skiers and their travel behaviors would not be affected.

O8d-8 A detailed trip generation analysis of the MAC was performed by LSC Transportation Consultants, Inc. (2015). The LSC study relied upon a "Market Feasibility Study" prepared in 2012 for the MAC by Hotel and Leisure Advisors, Inc. The Market Feasibility Study concluded that financial success depends on a high proportion of guests that attend the MAC do so as part of a hotel package. The study further mentions that it is necessary to provide priority treatments for these guests in terms of purchasing passes, hours of operation, and control of crowding. The applicant has a vested interest in seeing the MAC be a successful venture. Accordingly, the applicant is committed to operating it with tight controls on busy summer and winter days to provide a high-quality experience to hotel patrons using the facility. These limitations on access by outside guests will greatly reduce traffic generation. The LSC study concluded that the MAC would generate approximately 150 new winter daily trips and 140 new summer daily trips. The Winter Saturday AM peak hour, Winter Sunday PM peak hour, and Summer Friday PM peak hour trip generation would be 4, 14, and 19 trips, respectively. The DEIR assumed 7, 10, and 10 trips for Winter Saturday AM peak hour, Winter Sunday PM peak hour, and Summer Friday PM peak hour, respectively. In all cases, the difference is less than 10 peak hour trips, which is not of sufficient volume to affect any study conclusions.

O8d-9 The comment states that I-80 should have been studied. See the portion of the traffic Master Response related to this topic.

O8d-10 The comment states that the DEIR contains inadequate documentation of vehicle miles of travel (VMT). Detailed VMT calculations are provided in Appendix C of this FEIR to supplement the information included in the DEIR. The comment suggests that the VMT estimates are inaccurate because of the deficiencies in the trip generation estimates. However, as noted in responses to comments O8d-3 through O8d-8, it has been demonstrated that the project's trip generation has been calculated correctly, and consequently there no errors or deficiencies in the VMT calculations.

The commenter identifies the parenthetical statement from the following text from page 10-15 of the DEIR as unclear:

> Upon full buildout of the Specific Plan, which would occur no earlier than 2037, the project would generate up to 2,821 trips per day and 85,398 VMT in Placer County and/or the MCAB during the peak day of the winter season and up to 8,410 trips per day and 172,168 VMT in Placer County and/or the MCAB during the peak summer season day. (According to the analysis presented in Chapter 9, "Transportation and Circulation," another 86,912 VMT would be generated by the project on a peak summer day that would occur outside of this area but this portion of VMT would be split among areas of Nevada, El Dorado County, and counties in the Sacramento and Bay Area regions [Fehr & Peers 2014]. Thus, mobile-source emissions associated with this portion of VMT would be split among multiple other air basins.)

The first part of this statement identifies the VMT projected to be generated in Placer County and/or the Mountain Counties Air Basin (MCAB) because these are the areas where impacts from project generated air emissions are assessed. The project is located in Placer County and the MCAB and effects from operational emissions of criteria air pollutants and precursors are assessed in these geographic areas. The parenthetical statement is intended to explain to a reader who compares the VMT calculations expressed in the air quality chapter to those identified in the traffic analysis that there may appear to be an inconsistency. However, there is not an inconsistency because the comprehensive VMT calculations included in the traffic analysis cover a larger geographic area (e.g., state of Nevada, El Dorado County, and Sacramento and Bay Regions).

08d-11 The comment suggests that according to information provided in Chapter 9 of the DEIR, the Bay Area, Sacramento/Central Valley, and Reno/Sparks comprise 61 percent of the origins/destinations of guests visiting Squaw Valley. The comment further indicates that the weighted average trip length to these areas is 92 miles, and then asks why the overall average trip length is only 30 miles. This is a fair set of questions to ask, which can be readily answered by the detailed VMT estimates included in the FEIR.

For Saturday Winter daily conditions, VMT was calculated independently for the following travel groups: hotel/condo guests, restaurant/retail guests, MAC guests, hotel/condo employees, restaurant/retail employees, MAC employees, miscellaneous trips, shuttle trips between site and East Parcel. For hotel/condo guest trips, VMT is further differentiated by the trip being primary, which implies travel from the residence origin/destination (e.g., Bay Area) and non-primary, which implies a recreational or shopping trips while staying at the site. For each group, the number of trips is shown, along with the percentages (and travel distances) associated with each expected trip origin-destination. The results are then summed up across each travel group to yield the overall VMT. The value of 85,398 VMT is only the amount of travel that occurs within Placer County and the MCAB, and is used to support the assessment of air quality impacts in this geographic area. This, along with the above discussion about the various travel groups, helps explain why the average trip length is about 30 miles. Due to the size of the MCAB, it is not possible to obtain the substantially longer trip lengths asserted by the comment (unless motorists made particularly circuitous travel patterns). Please also refer to the detailed VMT calculations provided in Appendix C of this FEIR. VMT calculations for GHG emissions, which do not have a geographic limitation, addressed a vehicle travel over a much larger area, as indicated by the detailed VMT and vehicle emissions calculation data provided in Appendix H of the DEIR. This data shows VMT calculations for multiple counties throughout the State.

08d-12 The comment states that the Specific Plan policies ensure future traffic congestion. See the portion of the traffic Master Response related to Specific Plan Policy CP-1 and traffic congestion. As noted in the Master Response, the adoption of CP-1 simply makes LOS F at intersections in the Specific Plan Area an acceptable LOS standard during peak periods. As also identified in the traffic Master Response, two intersections in the main Village area that would subject to Policy CP-1 if the project were approved already operate at LOS E or F during peak winter periods (see Table 9-8 in the DEIR). Therefore, an argument could be made that a policy similar to CP-1 should be adopted now to make County policies consistent with existing

traffic conditions. It is acknowledged that Policy CP-1 would allow an intersection already at LOS F to further degrade without defining such a degradation as a significant impact. However, it is noted that the County can require the use of micro-simulation models to analyze the effects of such worsenings on upstream intersection operations, which are not otherwise subject to Policy CP-1. In this way, the extent to which worsening congestion at intersections subject to Policy CP-1 can be indirectly identified by determining the significance of impacts at adjacent intersections and requiring mitigation for those impacts. Policy CP-1 does not generate additional vehicle trips or vehicle miles travelled, nor entitle uses that generate additional traffic. Therefore, the policy does not change analysis or conclusions in the DEIR related to mobile source air emissions or greenhouse gas emissions, or emergency response. Also see the portion of the traffic Master Response related to emergency vehicle access.

08d-13 See the portion of the traffic Master Response related to emergency vehicle access.

08d-14 This comment suggests that Mitigation Measures 9-1a, 9-2a, 9-2b, 9-2c, 9-2d, and 9-4 are deficient for a variety of reasons. Each of these assertions is handled in order below.

Discussion of Mitigation Measure 9-1a

As described on page 9-56 of the DEIR, this mitigation measure requires that the applicant conduct traffic management on Squaw Valley Road between the project site and SR 89 under certain conditions. The comment calls into question the feasibility of this mitigation on the grounds that there is no assurance that a predictive model required to be developed as part of the mitigation will be effective in predicting when traffic management is necessary. The comment expresses concern over the accuracy of travel prediction models.

The first bulleted paragraph under mitigation measure 9-1a on page 9-56 of the DEIR provides an overview of the recommended predictive model. This model is not a traditional four-step travel demand model that predicts travel conditions 20-year into the future. Rather, the predictive model will most likely take the form of a statistical regression model, in which a dependent variable (ADT on Squaw Valley Road) will be estimated using a linear or non-linear equation that employs a variety of independent or predictor variables. Page 9-56 of the DEIR describes many of the potentially statistically important predictor variables that may be used in the model. Fehr & Peers has successfully used models such as these for a variety of travel-related purposes. Examples include transit ridership forecasting (in which ridership is estimated based on station location, surrounding land uses, headways, etc.), Napa winery trip generation (in which daily winery trips are estimated based on annual cases of wine, location, etc.), and maximum queue lengths in turn lanes (in which the maximum vehicle queue is estimated based on the conflicting traffic flow, road speed, etc.). In addition, ongoing monitoring can be used to refine this model: predicted vs. actual ADT can be used in subsequent years to improve the accuracy of days on which traffic control is (or is not) needed. Further, it can be expected that the approved model will be conservative in nature – tending to identify traffic control days in excess of those needed. In summary, there is substantial data available to develop a well-calibrated model that accurately predicts the ADT on Squaw Valley Road and substantial evidence showing that similar models have been developed by firms such as Fehr & Peers.

The comment inquires as to whether implementation of Mitigation Measure 9-1a is applicable to ski days only, or any day in which the ADT exceeds 13,500 daily trips. As currently written, Mitigation Measure 9-1a would only apply to ski days only. This is because non-ski days are not anticipated to reach this level of traffic on Squaw Valley Road. Please refer to response to comment 08d-2 for additional discussion on this topic.

Discussion of Mitigation Measure 9-2a

As described on page 9-58 of the DEIR, this mitigation measure requires the applicant to restrict the northbound Far East Road approach to Squaw Valley Road to permit right-turns only (in conjunction with traffic management along Squaw Valley Road on ski days when the ADT exceeds 13,500 vehicles). The comment asks about the effects of these movement restrictions on the northbound left-turning motorists.

As shown on Exhibit 9-11, the northbound Far East Road approach would serve 8 left-turning vehicles and 9 through vehicles during the winter Sunday PM peak hour. When traffic management is in effect, these vehicles would be forced to turn right onto eastbound Squaw Valley Road, or find other egresses from the Squaw Village. Motorists desiring to enter the neighborhood on the north side of Squaw Valley Road could access that area via Eric Road, which intersects Squaw Valley Road about 2,000 feet to the east. Motorists desiring to turn left from Far East Road onto westbound Squaw Valley Road could make this movement from Village East Road, which intersects Squaw Valley Road about 1,000 feet to the west. When traffic management is employed for large events such as sports, church services, large recreational gathering, it is common for turn movement restrictions to be made. In this particular instance, the turn movement restriction would influence a small number of motorists, each of which would have other options for reaching their destination. This mitigation measure also calls for signage to be placed within the Village Core to advise motorists of turn restrictions at Far East Road. In summary, the proposed turn movement restrictions associated with Mitigation Measure 9-2a would not have adverse, secondary impacts.

The comment also states that if this turn restriction is already in place during traffic management (as suggested on page 9-58), then another mitigation is required. This is not correct because traffic management is not assumed in place for any of the 'plus project' analyses. The technical analysis shows that incorporating the turn lane restrictions improves intersection operations (in conjunction with traffic management) relative to existing plus project conditions. The extent to which this measure is or is not already being used during traffic management is irrelevant because mitigation calls for enhanced traffic management subject to an ADT threshold that includes this mitigation.

Discussion of Mitigation Measures 9-2b, 9-2c, and 9-2d

The comment suggests that the effects of stopping traffic on Squaw Valley Road to allow vehicles on the side-street to enter (at intersections Eric Road or Wayne Road, and at the Squaw Creek Road intersection) should have been analyzed. Mitigation Measure 9-2b calls for the dissemination of information that allows residences north of Squaw Valley Road to be advised of planned traffic management activities, and information regarding which intersections will have active traffic management that will allow them to conveniently enter Squaw Valley Road. Exhibit 9-11 shows that the Winter Sunday PM peak hour southbound left-turn volume from Eric Road onto Squaw Valley Road is 14 vehicles. It is likely that a portion of the traffic from other accesses (i.e., Christy Hill Road and Wayne Road) could divert to Eric Road. To test the effects of stopping Squaw Valley Road through traffic at Eric Road, detailed intersection analysis was conducted in this FEIR. The analysis conservatively assumed the Winter Sunday PM peak hour left-turn demand would increase to 50 vehicles, and that traffic management (including three-lane coning) would be in effect. The traffic analysis further assumed that side-street vehicles would be waved through the intersection such that they experience an average delay of no more than 30 seconds per vehicle. The intersection was modeled as a pre-timed two-phase traffic signal with green time allocated to achieve this level of side street delay. As the technical calculations included in the FEIR show (see Appendix C), the intersection would have an overall delay of about four seconds per vehicle, which would correspond to LOS A conditions. The two eastbound travel lanes would experience an average delay of 3 seconds per vehicle. So, while some queuing on the eastbound approach would occur, the effects of temporarily stopping this flow, on average, once per minute, for about 10 to 15 seconds would not cause an adverse effect. Therefore, this analysis has demonstrated that active traffic management at intersections along Squaw Valley Road will not adversely affect corridor operations.

08d-15 See the portion of the traffic Master Response related to parking supply.

08d-16 See the portion of the traffic Master Response related to construction impacts.

08d-17 This comment summarizes concerns regarding the traffic analysis expressed in the previous comments. Please see responses to comments 08d-2 through 08d-16.