Revised November 23, 2016

2003 Kirkwood Specific Plan

Mitigation Compliance
10-Year Review

Prepared for:

Tri-County Technical Advisory Committee

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(RCI # 14-600.1)

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LIST OF ACRONYMS

BMPs	Best Management Practices
CDFW	California Department of Fish & Wildlife
CEQA	California Environmental Quality Act
COE	U.S. Army Corps of Engineers
CVRWQCB	Central Valley Regional Water Quality Control Board
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
Final EIR	October 2002 Kirkwood Recirculated Revised Final Environmental Impact Report
FTE	full time equivalent
GBUAPCD	Great Basin Unified Air Pollution Control District
HMBPs	Hazardous Material Business Plans
KCA	Kirkwood Community Association
KMD	Kirkwood Mountain Development
KMOA	Kirkwood Master Owner's Association (now referred to as Kirkwood Community Association or KCA)
KMPUD	Kirkwood Meadows Public Utility District
KMR	Kirkwood Mountain Resort
MMDP	Mountain Master Development Plan
MMRP	Mitigation Monitoring and Reporting Plan
SPCC Plans	Spill Prevention, Control, & Counter Measures
SSMP	Sewer System Management Plan
SWPPP	Stormwater Pollution Prevention Plan
TC-TAC	Tri-County Technical Advisory Committee

Executive Summary

The Kirkwood Specific Plan was created in 2003 to guide development on private land within the Kirkwood community. Anticipated environmental impacts resulting from implementation of the Plan were analyzed and disclosed within the October 2002 Kirkwood Recirculated Revised Final Environmental Impact Report (Final EIR). A Mitigation Monitoring and Reporting Plan (MMRP) was developed to ensure that the mitigation measures committed to in the Final EIR are implemented appropriately, and that environmental effects from development remain within the context of impacts disclosed. This report serves as a 10-year review (2003-2013) of the overall compliance with the Specific Plan Mitigation Monitoring Program.

Inclusion of mitigation measures into project design, monitoring during construction, and annual reporting requirements provide a framework in which effective mitigation can be achieved. Of the more than 180 mitigation measures, most were found to be in compliance. Areas of non-compliance or partial non-compliance were noted with respect to weed management, site revegetation, street sweeping, grazing management and recreation. Additionally, ambiguity in language of some mitigation measures makes it unclear as to the party responsible for implementation.

Introduction

The 2003 Kirkwood Specific Plan was prepared to illustrate the ultimate development of privately held lands within the Kirkwood community, located within Alpine, Amador, and El Dorado counties, California. The Plan, which is enforced through county ordinance, was adopted by Amador and Alpine counties in 2003 and establishes the community's goals, objectives, and policies, and designates land use zoning. In 2003 El Dorado County was in the process of revising their General Plan and not able to formally adopt the 2003 Specific Plan. Now that El Dorado County has a General Plan in place (2004), Kirkwood Mountain Development is actively pursuing formal adoption of the 2003 Kirkwood Specific Plan by El Dorado County.

In accordance with the California Environmental Quality Act of 1970 (CEQA), a Draft Environmental Impact Report (EIR) was prepared in November 1999 to disclose the potential environmental effects of the proposed activities identified in the 2003 Specific Plan. The Alpine County Planning Department served as the lead CEQA agency. A Final EIR was published in 2000, but later revised to provide a more comprehensive effects analysis that included potential impacts associated with the Kirkwood Mountain Resort's 2003 Mountain Master Development Plan and Kirkwood Meadows Public Utility District (KMPUD) Wastewater Treatment Plant upgrades and expansions. In October 2002, the Kirkwood Recirculated Revised Final Environmental Impact Report was completed and included a Mitigation Monitoring and Reporting Plan (MMRP). The MMRP identifies mitigation measures required to minimize negative effects of the proposed activities and the entities responsible for review and enforcement.

Proposed development within Kirkwood is reviewed for conformance with the Plan and MMRP by the Tri-County Technical Advisory Committee (TC-TAC) which is comprised of representatives of Alpine, Amador, and El Dorado counties and the building department of the county in which the project is proposed. The joint powers agreement which established TC-TAC was amended in 1985 to include representatives from El Dorado National Forest, Toiyabe National Forest, and KMPUD as ex-officio members of the committee. The applicable county planning department may be involved if the project requires a use permit, tentative map, or variance.

Purpose of Report

This report is required by the Amador County Condition of Approval #2, which states the following:

> *During the tenth year following approval of the Proposed Project, KMR or its successor will retain a qualified consultant to review the development for compliance with the mitigation requirements in the MMRP and any other conditions of approval of the Proposed Project. The selection of the consultant will be mutually agreed to by TC-TAC. The consultant will identify any shortcomings and make recommendations for adjustment to conditions to overcome those shortcomings. Additionally, the consultant will identify any new circumstances or unanticipated impacts that were not foreseen when the 2002 Final EIR was certified and the Proposed Project approved. The consultant will recommend whether or not supplemental CEQA documentation may be necessary.*
>
> *The consultant's report and recommendations will be reviewed at a regular meeting of TC-TAC. Prior to the meeting, the report will be made available to the public. TC-TAC will consider the report and forward recommendations, along with the consultant's report, to the planning commissions and boards of supervisors of all three counties.*
>
> *Any decision regarding preparation of supplemental CEQA documentation will be made by the lead agency subject to the requirements of CEQA. Further action - including additional mitigation measures, adjustments to the Proposed Project, and additional conditions of approval - may be considered and imposed only in accordance with the requirements of CEQA and other applicable laws, ordinances, and regulations.*

This report serves as the 10-year review of compliance with the 2003 Specific Plan Mitigation Monitoring and Reporting Plan. Specifically, the purpose of this report is:

1. To review implementation of the 2003 Kirkwood Specific Plan for compliance with the mitigation measures found in the Mitigation Monitoring Program and other conditions of approval of the project;
2. Identify short comings, if any, and make recommendations for adjustments to overcome shortcomings;
3. Identify any new circumstances or unanticipated impacts that were not foreseen when the 2002 Final EIR was certified and Plan approved; and,
4. Make recommendations as to whether new projects that were not within the scope of the original Environmental Impact Review require supplemental CEQA documentation.

Background

Application of the 2003 Kirkwood Specific Plan

The 2003 Kirkwood Specific Plan covers the privately held land in the counties of Alpine, Amador and El Dorado. Rezoning, tentative and final subdivision maps and public works projects within Kirkwood are required by law to be consistent with the 2003 Kirkwood Specific Plan. All residential, commercial, mixed-use, public works, recreation and conservation projects must comply with the policies of the 2003 Kirkwood Specific Plan, and implementation of those projects must comply with the Ordinances of the Plan (Specific Plan, page 12).

The 2003 Kirkwood Specific Plan states that the county planning and building departments will bear the majority of enforcement responsibilities as they relate to development projects at Kirkwood (page 100). When a proposed project is required to submit an application to the appropriate county for a grading permit, building permit or approval of tentative map, the planning and building departments have the responsibility to review the project design for compliance with the Plan and are charged with monitoring and enforcing the mitigation measures. Each county has adopted enforcement procedures for addressing non-compliance with its adopted plans, policies, and regulations.

Each county has adopted enforcement procedures for addressing non-compliance with its adopted plans, policies, and regulations. The adequacy of those procedures is outside the scope of the 10-year Specific Plan review. The TC-TAC is an advisory board and cannot enforce mitigation measures or levy fines. As necessary, TC-TAC can make recommendations to the appropriate county enforcement department.

Status of 2003 Kirkwood Specific Plan Implementation

The 2003 Kirkwood Specific Plan primary objective is to create a year-round destination resort. The proposed residential build-out is 1,413 housing units and a multiple use recreation and community center, with a maximum build-out (overnight) population of 6,142 persons.

The following table summarizes the residential development that was entitled prior to adoption of the 2003 Kirkwood Specific Plan and residential development that was entitled or is pending under the 2003 Kirkwood Specific Plan. Development entitled under the 2003 Kirkwood Specific Plan is subject to the conditions and mitigation measures presented in the Plan and MMRP.

Table 1. Summary of Specific Plan Development to Date

Development	# of Units
Development Entitled Prior to 2003 Kirkwood Specific Plan	
Single-family (includes built and unbuilt lots in KMA, East Meadows, Juniper Ridge, Palisades III, IV, and V)	331
Multi Family (Includes Edelweiss, Thimblewood, Sentinels, The Meadows, Meadowstone, Sun Meadows I-IV, Base Camp, The Lodge at Kirkwood, Mountain Club, Timber Ridge, Employee Housing, Caples View)	461
Subtotal of Entitled Development under previous plans	**792**

Development	# of Units
Development Entitled and Subject to the 2003 Kirkwood Specific Plan	
Single-family (includes built and unbuilt lots in Palisades V)	15
Multi Family (Includes Sentinels West and Sentinels Way)	18
Timber Creek Lodge	--
Recreation and community center (phases 1 and 2)	--
Subtotal of Entitled Development Under 2003 Specific Plan	**33**
Pending Development / Tentative Maps approved pursuant to 2003 Kirkwood Specific Plan	
Single-Family (includes lots in Palisades VI-A and VI-B, Martin Point, East Village)	70
Multi-Family (includes Timber Creek Village, Thunder Mountain Lodge, Expedition Lodge)	123
Subtotal of Pending Development	**193**
TOTAL ENTITLED OR PENDING DEVELOPMENT	**1,018**

Development plans for Thunder Mountain Lodge and Expedition Lodge were also reviewed and approved by TC-TAC and Amador County for compliance with the conditions of the 2003 Specific Plan, but have since been halted due to the economic downturn. Additionally, the temporary redevelopment of the Timber Creek Lodge commercial facilities was reviewed, approved, and constructed pursuant to the 2003 Kirkwood Specific Plan.

New Circumstances and Potential Supplemental CEQA Review

The 2003 Kirkwood Specific Plan describes a development project that consists of a series of actions, where the actions are both geographically related and governed by the same regulations. Pursuant to CEQA Guidelines, the 2002 Specific Plan EIR was completed as a Program EIR (CEQA Guidelines 15168[a]). A Program EIR is suitable for projects that have: 1) longer implementation schedules, 2) general parameters or conditions that will be applied to future activities, and 3) requires subsequent agency discretionary approvals for future implementation of the Plan. TC-TAC and the county planning and building departments are responsible for reviewing proposed projects under the 2003 Kirkwood Specific Plan for CEQA compliance in the context of impacts disclosed in the Kirkwood Recirculated Revised Final EIR (2002). If the review indicates that the effects of a new proposed project were not disclosed in the EIR, and the Plan has the potential to cause new significant environmental impacts, the Lead Agency must determine whether 1) the impacts have been avoided or reduced by existing mitigation measures or alternatives required by the Lead Agency, or 2) the impacts would be avoided, or reduced by mitigation measures, or alternatives which should be adopted by another agency. However, under CEQA there is a presumption that the certified EIR is adequate unless one of the events specified under the law triggers the need for a subsequent or supplemental EIR (Public Resources Code § 21166; CEQA Guidelines § 15162.) These include a proposal for modification to the prior project that would result in substantial changes in the proposed project, or circumstances under which the project was undertaken, or new information that was not known at the time the EIR was drafted. Supplemental CEQA review is only required if the modified project will have new significant environmental effects (Public Resources Code § 21166; CEQA Guidelines § 15162). As explained in detail below, no such modification, which would trigger this standard and require additional review under CEQA, exists at Kirkwood.

Electrical Utilities

In July 2011, the KMPUD purchased Mountain Utilities, and the following year became the electric service provider for the Kirkwood community and resort. Initially the KMPUD provided electrical power via a diesel fired electrical plant with an overall output capacity of 5.0 megawatts. The environmental effects of continued reliance on diesel generated electric power through build-out of the 2003 Kirkwood Specific Plan was analyzed in the 2002 Specific Plan EIR.

In 2013, KMPUD began construction of the 28-mile Out-Valley Power Line Project, which provides a connection to the regional electric grid and sufficient electrical power to support build-out of the 2003 Kirkwood Specific Plan. Because the potential effects of the Out-Valley Power Line Project were not included in the 2002 Final EIR and had potential to result in significant impacts on both private and federally managed lands, KMPUD, in cooperation with the U.S. Forest Service, prepared a joint EIR/EIS that analyzed the environmental effects of construction, operation, and long-term maintenance of the power line (Kirkwood Meadows Power Line Reliability, Final Environmental Impact Statement/Environmental Impact Report, 2012.) The Final EIS/EIR for the Out-Valley Power Line (2012) analyzed the potential effects on natural resources (e.g. water resources, biological resources, air quality, greenhouses gases) and other areas of concern related to human use and perceptions (cultural resources, land use, traffic, visual and aesthetics, noise, and public safety) of a power supply interconnection to the regional electric grid instead of diesel generated power as discussed in the 2003 Kirkwood Specific Plan. The Out-Valley connection was commissioned in November of 2014 and the diesel plant was converted to a backup facility. Because the effects were analyzed in the joint EIR/EIS

and no new significant environmental effects were identified, the Out-Valley Power Line is in compliance CEQA regulations and no additional environmental review is required.

Change in Resort Operator

In April 2012, the resort operations and remaining undeveloped "West Village" parcels were sold to a subsidiary of Vail Resorts. Accompanying this change in ownership was the division of responsibilities for implementing required mitigation and monitoring responsibilities. These responsibilities have been divided and assigned to either the Resort Operator (Kirkwood Mountain Resort or KMR) or Master Developer (Kirkwood Mountain Development or KMD) and will continue to be implemented pursuant to the 2003 Kirkwood Specific Plan criteria. Therefore, this change in ownership is essentially an administrative change and does not change the development plan or operational model assumed in the environmental analyses completed as part of the 2002 Final EIR. The ownership change will not constitute a change in the project or result in new significant environmental impacts and no additional environmental review is necessary.

Mountain Master Development Plan

In November 2007, the United States Forest Service issued a Record of Decision approving the Environmental Impact Statement (EIS) for the 2003 Mountain Master Development Plan (MMDP) on National Forest Service land within the resort's existing Special Use Permit area boundary. The MMDP documents long-term investment in the resort's facilities and improvements, such as chairlifts, terrain and trails, infrastructure, and snowmaking facilities, and could result in cumulative impacts on private lands analyzed under the EIR. In compliance with CEQA and in order to provide a comprehensive analysis of the 2003 Kirkwood Specific Plan in its full context, the Kirkwood Recirculated Revised Final Environmental Impact Report included analysis and disclosure of impacts associated with implementation of the MMDP. Therefore, no additional environmental analysis is necessary.

CEQA Compliance

The MMRP contains over 180 mitigation measures, most of which are found to be in compliance. TC-TAC's and the counties' planning department reviews of proposed development plans, on-going monitoring, and reporting requirements provides a mechanism to ensure that projects conform to the mitigation measures. Additionally, many of the mitigation measures reflect standard regulatory requirements duplicated in county, State, and federal permit conditions, further reiterating appropriate implementation and providing additional compliance review and a means of enforcement. Areas of non-compliance or partial compliance, were primarily related to weed management activities, project revegetation, grazing management, street sweeping, traffic control monitoring and reporting, and completion of recreation surveys.

Since adoption of the 2003 Kirkwood Specific Plan, numerous reports have been generated in compliance with or as documentation of compliance with required mitigation measures. Attachment B lists the documents that were reviewed to assess compliance with the various mitigation measures. Additionally, the following table lists the persons that were interviewed to gain insight on implementation of the measures, compliance, and recommendations for improvement.

Mitigation Compliance

General Compliance

The MMRP and accompanying county conditions of approval contain over 180 measures that were reviewed in this report. Determination of compliance with each individual mitigation measures is addressed within the Summary Table provided in Attachment A. The following sections provide a brief overview of compliance by resource topic and address issues that have been expressed as areas of concern and compliance measures which are in need of a more in depth discussion.

Table 2. Persons Interviewed Regarding Compliance with the MMRP Measures

Name	Date
Chuck Beatty *Planner* *Amador County Planning Department*	September 4, 2014 October 31, 2016 November 16, 2016
Casey Blann *Vice President & General Manager* *Kirkwood Mountain Resort*	August 11, 2014
Bruce Gianola *President* *Kirkwood Community Association*	October 7, 2014
Susan C. Grijalva *Planning Director* *Amador County Planning Department*	September 4, 2014
LeAnne Mila *Senior Agricultural Biologist* *County of El Dorado*	September 29, 2014
Dave Myers *Sr. Director of Operations* *Kirkwood Mountain Resort*	August 11, 2014
Brian Peters *Director* *Community Development Department Alpine County*	September 29, 2014
Michael Richter *Former Director of Environmental Affairs* *Kirkwood Mountain Resort*	September 19, 2014 November 16, 2016
Michael Sharp *General Manager* *KMPUD*	August 22, 2014 September 18, 2014
Andrew Strain *Vice President of Planning and Governmental Affairs* *Heavenly Ski Resort*	August 11, 2014
Nate Whaley *Chief Financial Officer* *Kirkwood Capital Partner*	May 15, 2014 August 11, 2014
Zach Wood *Planner II* *Alpine County Community Development*	August 1, 2014

Geology, Soils, and Geologic Hazards

In general, the mitigation measures designed to protect geology, soils, and geologic hazards consist of construction related best management practices (BMPs) and building and public works code

requirements. Many of these measures are taken directly from the 2003 Kirkwood Specific Plan Erosion Control Ordinance (2003 Kirkwood Specific Plan, Appendix 1). When a proposed project requires a grading permit, building permit or approval of a tentative map, the project proponent is responsible for integrating these mitigation measures into individual project designs and specifications. Project plans are then submitted to the applicable county planning and building departments for review to ensure that the mitigation measures have been sufficiently incorporated into design and that the project is consistent with the 2003 Kirkwood Specific Plan prior to final plan approval. Geotechnical reports prepared by a professional engineer are required for certain improvements pursuant to county regulations. When required, these reports are submitted with planning documents for county review. These reports address the suitability of soils and geologic stability of each development site and provide recommendations for design measures to avoid and minimize risks of geologic hazards. Certain activities and improvements, such as maintenance of existing structures, roads or parking lots, or minor activities that do not trigger the need for a permit, do not require authorization by the County or review by TC-TAC and therefore, monitoring by the County is not required under the 2003 Kirkwood Specific Plan. However, all activities must be in compliance with State and federal regulations.

The State's Construction General Permit (Water Quality Order 2009-0009-DWQ) augments and further enforces many of the 2003 Kirkwood Specific Plan mitigations measures on private lands by requiring development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that require weekly site monitoring by a Qualified SWPPP Practitioner that has been trained in State adopted monitoring protocol. Additionally, SWPPPs require pre- and post- storm event monitoring to ensure proper installation of BMPs and review of effectiveness. This is an independent process from implementation of the mitigation measures, but serves to achieve the same water quality goals.

This suite of mitigation measures for geologic and soil resources also addresses soil conservation and revegetation of disturbance post-construction. Pursuant to the MMRP, development projects are required to prepare landscaping designs and revegetation plans, many of which are incorporated into the site's improvement plans. These plans are reviewed by the appropriate county planning department for conformance with the Kirkwood Landscape and Revegetation Ordinance. Compliance with revegetation measures are enforced through the withholding of a security bond in Amador County and public improvement bonds in Alpine County. Final inspection of the project area and return of the bonds signify compliance.

Compliance Summary and Recommendations

Compliance with the geology, soils, and geologic hazard mitigation measures has been achieved through the process of design review, implementation and inspection during construction. Many of these mitigation measures are also required pursuant to State and federal law and county code, providing a redundancy in review and compliance enforcement. Interviews with resort personnel identified previous instances when measures were incorporated into design but were not implemented or initially implemented incorrectly during construction. Many of these instances were discovered during required inspections and corrected before project completion. Other instances resulted in water quality violations and enforcement actions and subsequent restoration and mitigation imposed by the Regional Water Quality Control Board. All known enforcement actions have been, or are currently being complied with.

The following mitigation measure regarding site revegetation requires additional discussion and effort to bring into compliance.

Mitigation Measure 4.8 (h) requires that permanent vegetative cover to be established on disturbed area, and replanting is required if initial efforts fail. The responsibility of implementing this measure rests on the project proponent, and monitoring and enforcement are the responsibility of the applicable county.

Multiple areas were identified as having failed revegetation efforts, including Sentinels West, Thunder Mountain and Expedition Lodge. Areas of temporary disturbance around Sentinels West were revegetated as required by the 2003 Kirkwood Specific Plan but have subsequently failed. Amador County Planning Department withheld return of the revegetation bond and is currently working with the landowner on a remedial vegetation plan (Chuck Beatty, personal communication, October 31, 2016). In this instance, the system of review, implementation, monitoring and enforcement has worked. However, for projects such as Thunder Mountain and Expedition Lodge, permanent vegetation efforts were not completed, the projects were not finished and the developments were abandoned. Project abandonment is not specifically addressed in the 2003 Kirkwood Specific Plan or MMRP. If revegetation efforts are not completed or fail after initial installation, responsibility to revegetate the site falls to the property owner. Incidents where revegetation is not completed or has failed should be reported to the appropriate County for enforcement.

Water Resources

Similar to the measures discussed above, many of the mitigation measures designed to protect water resources are intended to slow surface runoff and avoid soil compaction. They are incorporated into the design by the project proponent, reviewed and approved by the appropriate county planning department, implemented during construction by the project proponent, and monitored by the county during and post construction for compliance.

KMPUD's water supply and treatment system is regulated by the California Department of Public Health (CDPH) (Permit No. 85-015, amended April 2013). This permit regulates the addition or removal of wells to the water system. KMPUD has been proactive in implementation of conservation measures to reduce consumptive use as necessary and is actively pursuing additional water supply to meet demand at build out. In accordance with Mitigation Measure 4.02 (g), KMPUD developed a Water Stage Alert System in 2007, which was voluntarily implemented in the summer of 2014. Based on recommendations in the 2014 Services Capacity Analysis (Matt Wheeler Engineering), KMPUD intends to pursue the acquisition of surface water rights to meet the water supply demand at build-out of the 2003 Kirkwood Specific Plan, and does not anticipate the use of wastewater to meet future water supply demands as implied in mitigation measure 4.02 (f), though this simply increases the options available to the KMPUD should conditions warrant. Additionally, KMPUD is planning to construct additional water storage for future domestic use and fire suppression as recommended in the Service Capacity Analysis (Matt Wheeler Engineering, 2014).

Additionally, water resource mitigation measures address protection of groundwater contamination from discharge of treated wastewater. KMPUD's wastewater facilities are operated under the jurisdiction of the State Water Resources Control Board (order number 2006-003-WQ) and the Regional Water Quality Control Board Waste Discharge Requirements (WDR R5-2007-0125). The permits require monitoring and reporting on a regular basis for demonstration of permit compliance. Collection systems are operated and maintained pursuant to the Sewer System Management Plan (2012). The current wastewater treatment and disposal facilities are capable of meeting ultimate build-out flows and no

expansion of the wastewater absorption beds is anticipated. KMPUD is in good standing with the State and regional boards (Michael Sharp, General Manager, KMPUD. personal communication. September 18, 2014).

Compliance Summary and Recommendations

In general, compliance with the mitigation measures designed to protect water resources are being met through the process of design review, implementation and inspection during construction, and through adherence to State permit conditions. While the objectives of the mitigation measure are being achieved, the following measures pertaining to the Grazing Management Plan and street sweeping require additional discussion and effort to bring them into full technical compliance.

Mitigation Measure 4.02 (dd) requires implementation of the grazing management practices from the Draft Grazing Plan prepared as part of the 2002 EIR. The Draft Grazing Plan requires fencing of Kirkwood Creek, fencing of the grazing area, and use of remote water troughs. Based on interviews with KMR, no formal implementation of the Draft Grazing Plan has occurred. In preparation of this report, the grazing area and adjacent sections of Kirkwood Creek were inspected for evidence of overuse and degradation. Horse grazing was evident throughout the portion of the meadow used for grazing, but there was no evidence of degradation to the meadow or Kirkwood Creek. The dense willow stands along the creek act as a natural barrier preventing degradation of the streambanks from horse grazing. During the summer of 2015 and 2016, no horses were kept in the meadow.

In November 2008, KMD proposed a revised Grazing Management Plan (Attachment D) as part of a comprehensive mitigation plan to protect Kirkwood Meadow to the US Army Corps of Engineers (COE) and the Central Valley Regional Water Quality Control Board (CVRWQCB) as part of their Clean Water Act 404 and 401 permit applications. Once the final CWA 404 and 401 permits are issued by these agencies, implementation of the revised Grazing Management Plan will be required whenever the meadows are used for grazing as a condition of the permits. The revised Grazing Management Plan requires establishment of baseline conditions, collection of use records submitted by the concessionaires and homeowners, and annual photo documentation and utilization mapping to track changes within the meadow. The Grazing Management Plan also requires evaluation of grazing practices based upon documented use and makes recommendations for modification of grazing practices as necessary. Because the revised Grazing Management Plan is based on actual utilization data and annual monitoring, it is recommended that TC-TAC and the counties adopt the revised 2008 plan in place of the Draft Grazing Plan included in the Final EIR. Prior to adoption, the revised Grazing Management Plan should be updated to clarify the roles, responsibilities, and authority of the various parties, including the COE and CVRWQCB, the developer (KMD), and the property owner (KMR).

There are two mitigation measures which address street sweeping within Kirkwood:

> Mitigation Measure 4.2 (v): Conduct street sweeping two times per year and when buildup of loose materials occurs on paved roads.
>
> Mitigation Measure 4.4 (e): Streets will be swept by a vacuum sweeper during periods when road conditions are dry enough to allow the removal of anti-skid materials (i.e. sand). The streets must be swept from curb to curb, which includes the driving lanes, to maximize the control effectiveness.

The wording of these mitigation measures is ambiguous as to which streets require sweeping and who is responsible for doing the sweeping. Our research indicates there are differing opinions among

stakeholders regarding interpretation of these measures. However, this comment raises legal questions that are outside of the scope of this review. While the goal of these mitigation measures is to require street sweeping as a source control measure, implementation implicates legal questions as to who controls the use and maintenance for roads and who has the legal authorization to enter and / or perform maintenance in those areas. A potential solution to this may be that the responsibility for street sweeping should mirror the responsibility for snow plowing.

Given the ambiguity of mitigation measures 4.2(v) and 4.4(e), the counties should analyze the legal responsibility for the implementation of these measures.

Aquatic and Biological Resources

Several of the aquatic and biological resource mitigation measures are specific to the protection of Kirkwood Creek. As such, many of the measures designed to protect Kirkwood Creek focus on soil stabilization and were included in the discussion on Geology, Soils, and Geologic Hazards above.

Mitigation Measure 4.03.1 (f) requires implementation of the site-specific recommendations from the Kirkwood Creek Floodplain Study (EBCE 1996) including:

1. Build a diversion structure to operate with the existing drain and inlet for diversion of surface water between Lifts 10 and 11;
2. Prevent flooding in the area near Base Camp One condominiums by either clearing snow out of the sharp bend in Kirkwood Creek, or constructing a low floodwall;
3. Replace the two existing footbridges upstream of Kirkwood Meadows Drive, which currently restrict the flow of Kirkwood Creek;
4. Prevent the infrequent overtopping of Kirkwood Meadows Drive by enlarging the bridge opening or constructing a floodwall eastward along the east creek bank; some boulders could be removed from the creek in this area as well;
5. Proposed structures in this area should be built a few feet above the floodplain elevation; and,
6. Channel work such as bank protection (subject to permit requirements).

Review of the 2007 Biennial Review Report submitted to Amador County Staff in December 2007 indicates that the diversion structure between Lifts 10 and 11 was permitted in 1997 and constructed in 1998. The Report also states that the low floodwall near Base Camp One condominiums and the floodwall eastward along the east creek bank had been completed, and permits and photos were previously submitted for County review. The 2007 Biennial Review was reviewed and approved by TC-TAC. Although actual permits and photos could not be obtained from either Amador or Alpine county for reference, discussions with Mike Richter, former Director of Environmental Affairs for Kirkwood Mountain Resort (personal communication November 16, 2016), indicted that both projects have been completed.

Remaining to be constructed are two replacement bridge crossings which are included as part of the proposed East Village development plans. Future building pads proposed within the floodplain will be constructed above flood elevation as required by county code.

Mitigation Measure 4.03.2 (f) requires that all projects minimize impacts to wetlands and streams, and projects with the potential to impact waters of the U.S., including wetlands, be reviewed by the COE. To comply with this measure, KMD is in the final stages of permitting with the COE and the CVRWQCB to complete permits which authorize impacts to waters of the U.S. necessary for build-out of the 2003 Kirkwood Specific Plan. A critical component of the agencies' approval is adequate demonstration of impact avoidance and minimization. Additionally, as specific site plans are developed, KMD, or other project proponents, will prepare and apply for a Streambed Alteration Agreement permit from the California Department of Fish and Wildlife (CDFW), as necessary.

Although KMD has been diligent in obtaining appropriate permits, in 2005 the previous developers of Thunder Mountain Lodge proceeded with relocation of a jurisdictional stream without the necessary permits from the COE, CVRWQCB, or CDFW permits, and the developers were issued a notice of violation. The property is currently in compliance with remedial actions required by the enforcement agencies.

Pursuant to Mitigation Measure 4.03.2(h), pre-construction surveys for sensitive wildlife and plant species have been completed for all on-going projects and were recently updated (July 2014) for Martin Point, Timber Creek, East Village, North of Highway 88, and the Northwest Parcel project areas. Wildlife surveys were also completed at Kirkwood and Caples Lake as required by Mitigation Measure 4.03.2 (g). Surveys were completed using CA Department of Fish and Wildlife survey protocols when available. No State or federally listed species have been identified.

Compliance Summary and Recommendations

In general, compliance with the mitigation measures designed to protect biological and aquatic resources are being met through a process of pre-construction surveys, protection of sensitive resources through project design, and compliance with required permit conditions. Additionally, design based mitigation measures are being successfully implemented that protect degradation of aquatic resources from increased erosion and sedimentation during construction. However, the following mitigation measure regarding noxious weeds require additional discussion and effort to be brought into compliance.

Mitigation Measure 4.03.4 (b) requires that KMR implement the Draft Noxious Weed Management Plan for Kirkwood Mountain Resort that was included as Appendix B in the Final EIR. The plan addresses prevention and control of noxious weeds through mitigation measures such as requiring the use of native seed mixtures, certified weed-free hay, and construction practices such as the cleaning of residual soil off of construction equipment transported from other areas prior to use at Kirkwood. Additionally, the plan requires annual monitoring for noxious weeds within Kirkwood. Interviews with KMR and KMD suggest that there has been no formal implementation of the noxious weed management plan, although aspects are implemented through other means such as annual county noxious weed surveys, pre-construction botanical studies, and implementation of Kirkwood's Landscape and Revegetation Guidelines and Erosion Control Plan.

Field inspection of the Kirkwood area and conversations with El Dorado County's Senior Agricultural Biologist (LeAnne Mila, personal communication September 29, 2014) indicates that the presence of State and federally listed noxious weeds within Kirkwood is minimal and limited to two (2) known occurrences that are actively being treated. The environmental effects from establishment of listed noxious weed species is less than significant at this time. However, to improve the effectiveness, the Draft Noxious Weed Management Plan should be updated to identify the specific species of concern, reflect the current status of targeted species within the Kirkwood area, provide clarification and

prioritization on the monitoring, reporting, and treatment of the species managed, provide preventative measures to reduce the risk of noxious weed introductions, and include an adaptive management protocol to routinely update the plan based on the survey data. The plan should be comprehensive, such that it includes all private lands within Kirkwood, and the parties responsible for implementation should include all private land owners. Responsibilities should be clearly delineated and a mechanism of reporting and review should be developed. Survey efforts should be coordinated with El Dorado County staff to reduce duplication of efforts.

Air Quality

Mitigation measures designed to protect air quality within Kirkwood Valley focus primarily on the reduction of particulate emissions from diesel generated power and wood burning stoves. Mitigation measures related to operation of the diesel-generated power plant (MM 4.04 (a) and MM 4.04 (b)) are no longer applicable to the project. With construction of the new power house in 2012, the emission control technologies installed at that time supersede those of the old power house and greatly reduce emissions air pollutants. The emissions from the new diesel generated power house are regulated by the Great Basin Unified Air Pollution Control District (GBUAPCD), and operation of the new power house is in compliance with permit conditions.

Mitigation Measure 4.04 (a) requires that the counties develop and enact an ordinance to reduce particulate emissions from wood burning within Kirkwood. This ordinance is to include incentives to replace existing wood burning devices with Environmental Protection Agency (EPA) Phase II Certified devices and require that all new residences install wood burning devices that incorporate EPA Phase II Certification requirements. However, since publication of the 2003 Kirkwood Specific Plan, CA State Building Codes were issued that required installation of EPA Phase II compliant wood burning stoves in all new residences. Concurrently, funding was provided by Alpine County to implement a rebate program that provided incentives to homeowners to retrofit their existing wood burning stove. Given the regulations in place, TC-TAC did not feel that development of a new ordinance with similar requirements to existing State Building Code was warranted and no new ordinance was developed.

Compliance Summary and Recommendations

Compliance with the mitigation measures designed to protect air quality is achieved through KMPUD's compliance with existing permit conditions under authority of the GBUAPCD and adherence to EPA regulations and California Building Codes for wood burning stoves.

Cultural Resources

In preparation of the Final EIR, cultural and historic resource surveys were completed for the entire 2003 Kirkwood Specific Plan project area. The mitigation measures 4.05 (b), 4.05 (c), 4.05 (d), 4.05 (f), and 4.05 (g) that require notification of newly found cultural and historic resources are standard construction protocols included on project design sheets. There is no new development or modification proposed to the Kirkwood Inn, and the specific plan development area has been modified to avoid impacts to Mace Camp.

Compliance Summary and Recommendations

Development is in compliance with all cultural resource related mitigation measures. No additional actions are needed to maintain compliance with the 2003 Kirkwood Specific Plan.

Land Use

No mitigation was required.

Traffic

Mitigation measures for traffic focus on the control of traffic flow and provision of adequate parking during peak visitation. As required by the mitigation measure 4.7 (a), KMR contracts with the CA Highway Patrol to conduct manual control of egress and ingress at the intersection of SR 88 and Kirkwood Meadows Drive during periods of peak visitation. Mitigation measure 4.7 (b) also specifies that traffic counts and LOS modeling be completed every three years during periods of peak visitation and submitted to TC-TAC, who will then submit its recommendations to the Caltrans District 10. The frequency of submittal may be modified by TC-TAC.

Under the Master Development Agreement (2012) between KMR and KMD, KMD is responsible for conducting traffic counts and LOS modeling. The most recent traffic study was completed in 2010 (Fehr & Peers). In 2013, TC-TAC allowed for the additional analysis to be deferred till 2014 (or until as may be appropriate) due to lack of new development within Kirkwood Valley since the 2010 traffic study. No new on-mountain facilities or private land developments occurred in 2014 that would contribute to an increase in peak traffic. However, documentation of any communication between KMR or KMD and TC-TAC since 2013 on this issue is lacking.

Documentation of parking spaces in KMR's annual report suggests that adequate parking is available for the number of documented visitors.

Compliance Summary and Recommendations

The mitigation measure specifies that traffic reports are to be completed every three years or as determined appropriate by TC-TAC. No traffic reports have been completed since 2010 and completion of traffic reports were deferred in 2013. TC-TAC should determine if additional traffic studies are necessary based on current conditions or if further deferment is appropriate and notify Caltrans of its determination.

Visual and Aesthetic Resources

The 2003 Kirkwood Specific Plan Design Ordinance forms the foundation from which the visual and aesthetic resource mitigation measures were developed. All developments approved under the 2003 Specific Plan are required to prepare and submit landscape and revegetation plans (often included within site improvement plans) to the appropriate county planning department, which are reviewed for consistency with the Specific Plan mitigation measures. County approval of plans signifies that these measures have been adequately incorporated into project design and that the project is in compliance with the 2003 Kirkwood Specific Plan mitigation measures for visual and aesthetic resources. The county provides periodic monitoring during construction to ensure the landscape design is implemented in conformance with the approved plans.

Compliance Summary and Recommendations

Compliance with the measures designed to protect visual and aesthetic resources can be met through design, review, and approval of landscape plans that incorporate the conditions of the 2003 Kirkwood Specific Plan Design Ordinance. County planning and building departments typically require a security bond to ensure revegetation success. Return of the bond amount to the developer signifies approval of the county that all project revegetation requirements have been met. However, project abandonment is not specifically addressed in the 2003 Kirkwood Specific Plan or MMRP. If a project is completed or abandoned and vegetation efforts fail, responsibility to revegetate the site falls to the

property owner. Incidents where revegetation has failed should be reported to the appropriate county for enforcement.

Noise

Mitigation measures for noise restrict hours of construction activity and loudspeaker use at special events, which are specified on the construction plans or within the use permit, respectively. KMR continues to implement the Snowmaking Noise Management Program and provides annual reports documenting compliance for TC-TAC review.

Compliance Summary and Recommendations

Development is in compliance with all noise related mitigation measures. No additional actions are needed to maintain compliance with the 2003 Kirkwood Specific Plan mitigation measures for noise.

Socioeconomics

Mitigation Measure 4.10 (a) pertains specifically to the development of designated employee housing. Mitigation Measure 4.10 (a) requires that the counties develop and enact an ordinance requiring that employee housing be provided at Kirkwood. At a minimum, the ordinance should address the following elements:

A. A requirement that at least 30 percent of the number of average peak-season employees be provided with employee housing concurrent with future development of the resort.

B. A method of ensuring that the amount of required employee housing will continue to be provided in the future.

C. Consideration of possible allowance for a fee to be paid in lieu of constructing employee housing.

D. Consideration of possible credit toward the employee housing requirement in exchange for KMR providing transportation for employees residing outside of the Kirkwood area.

E. Consideration of possible credit toward the employee housing requirement for housing units located outside of the Kirkwood area which are reserved by KMR for use by employees within the Kirkwood area.

In 2003, and as part of the 2003 Kirkwood Specific Plan, Amador and Alpine counties developed an Employee Housing Ordinance (2003 Kirkwood Specific Plan, Appendix 5) that meets the requirement that 30 percent of the average peak season full time equivalent (FTE) employees be provided with employee housing and outlines a program for completing new employing housing concurrently with approval of new project development. The existing Employee Housing Ordinance (Ordinance) also provides criteria for receiving employee housing credit to fulfill the 30 percent requirement based on size and type of housing unit, and requires use restrictions for new designated employee housing units. The 2003 Kirkwood Specific Plan requires an annual audit comparing the 30 percent housing requirement and the amount of housing available to be submitted by September 30th of each year.

Since the 2003/2004 ski season KMR has submitted annual reports demonstrating compliance with the Ordinance based upon the number of FTE employees and the number of employee housing units

available. TC-TAC annually reviews the report to determine its compliance with the Ordinance, and to date has accepted all annual reports indicating compliance with the Ordinance.

While KMR does not currently own or have plans to develop, or provide employee housing outside of the Kirkwood area, during the ski season KMR currently provides daily transportation for employees living within the South Lake Tahoe area. No employee housing credit is given in compensation for these efforts.

Compliance Summary and Recommendations

Based upon TC-TAC's acceptance of all prior employee housing reports, Mitigation Measure 4.10 (a) is being complied with and no additional actions are required to maintain compliance with the 2003 Kirkwood Specific Plan mitigation measure.

Although the mitigation measures pertaining to employee housing are being met, it is clear that the existing housing ordinance could be updated and revised in order to respond to actual conditions and be more effective in achieving the needs of the major stakeholders. It is recommended that KMR, KMD, KMPUD, and the counties work together to update and revise the Housing Ordinance to meet the current conditions and housing needs.

Based on review of the information presented above, and discussions with the county planning departments and the major employers within Kirkwood, it is recommended that amendments to the Employee Housing Ordinance be considered to address the following issues:

- Target number of additional employee housing units required for build-out.
- Formalize a funding mechanism, such as in-lieu-fees / connection fees.
- Clarify the language of the measure with respect to the employer's ability to receive credit towards the employee housing requirement in exchange for providing transportation for employees to and from South Lake Tahoe or other areas outside of Kirkwood.
- Clarify that the employee housing credit for transportation or provision of off-site housing referred to in Mitigation Measure 4.10(a), subsections D and E is not limited to KMR and is available to any entity that meets the requirements.

Hazardous Materials

Maintenance, storage, and handling of all hazardous materials is outlined in the Hazardous Material Business Plans (HMBPs) prepared and maintained by both KMR and KMPUD in compliance with Title 19 of the California Code of Regulations as administered by the counties. Additionally, Spill Prevention, Control and Countermeasures Plans (SPCC Plans) have been prepared for the handling of petroleum products used at the maintenance shop, power house and other facilities throughout Kirkwood. SPCC Plans are reviewed and updated on an annual basis and submitted to the applicable counties for approval. KMPUD and KMR provide regular training to employees in the appropriate use and cleanup of hazardous materials.

Compliance Summary and Recommendations

KMPUD and KMR maintain compliance with the mitigation measures for hazardous materials through implementation of the HMBP and SPCC Plans as required by the CA Code of Regulations. No additional actions are needed to maintain compliance with the 2003 Kirkwood Specific Plan mitigation measures.

Recreation

Recreational mitigation measures are designed to protect recreational resources within and surrounding Kirkwood through public outreach. KMR has created educational posters and brochures that describe the area's sensitive resources and regulations. These materials are made available at the Kirkwood Inn, The Lodge, Kirkwood General Store, and are posted at Kirkwood Lake and Caples Lake.

Compliance Summary and Recommendations

Mitigation Measure 4.12 (b) requires KMR to conduct surveys to identify on-and-off-site recreation use patterns of residents and guest every four (4) years. The most recent recreation survey report was completed in June 2006. Since 2006 little residential development within Kirkwood or to on-mountain facilities has occurred that would significantly increase the number of residents and guests at Kirkwood or influence their recreational patterns; however, to achieve compliance with this measure, it is recommended that KMR consult with TC-TAC on the need for and timing of future surveys.

Public Services

Public services include the community's needs for police protection services, fire protection, medical services, and educational facilities. In 2011, a Crisis Management Plan was developed to guide and coordinate KMR's response to emergency situations and crisis that disrupt normal operations of the resort. The need for fire protection services is included in the Fire Services Master Plan (1997), which outlines the infrastructure and personnel that need to be maintained as the Kirkwood community is built out. During the ski season, KMR contracts with Barton Medical to provide medical services and temporary facilities as needed. Police protection services are provided by Alpine and Amador counties.

The 2003 Kirkwood Specific Plan designates a parcel north of Loop Road for educational facilities for elementary school children at Kirkwood. However, in 2008 it was determined by the Alpine County Unified School District that there was not sufficient need for an elementary school and the property was transferred to KMR.

Compliance Summary and Recommendations

Operation of the communities' basic public services have been previously evaluated (Crisis Management Plan, 2011; and Fire Master Plan 1997) and plans have been developed to ensure Kirkwood maintains a safe level of services to protect the community and its resources through build-out.

Mitigation Measure 4.13 (a) requires KMR to monitor the level of police protection services required as development proceeds and the resident population increases. Alpine and Amador counties will add deputies as dictated by community needs. Based on interviews with KMR, no formal monitoring has been completed. However, KMR maintains a cooperative relationship and meets annually with both the Amador and Alpine County Sheriff Departments to discuss police protection services.

Utilities and Infrastructure

Under management of KMPUD and with completion of the Out-Valley power line in November 2014, the primary power supply is currently provided through interconnection to the regional electric grid and is capable of providing sufficient electric power to meet the anticipated build-out demand. The existing diesel generated power house will be used as a backup facility and no future expansion is anticipated.

In 2014, KMPUD completed a Services Capacity Analysis (Wheeler Engineering) which evaluated their capacity to meet both water supply and wastewater treatment under current and estimated build-out demands. Based on this report, KMPUD has determined that their current wastewater treatment and

disposal facilities are sufficient to meet ultimate build-out wastewater flows and loads, and no expansion of existing or construction of new facilities will be necessary. The analysis also estimates that existing water supply wells will not meet maximum daily demand at build-out and recommends that KMPUD explore the options of increasing capacity of existing wells, drilling additional source water wells, or pursuing surface water from Caples Lake.

Compliance Summary and Recommendations

Operation of the community's utilities and infrastructure is in compliance with the mitigation measures. No additional actions are needed to maintain compliance with the 2003 Kirkwood Specific Plan mitigation measures for utilities and infrastructure.

Summary of Recommendations

Overall compliance with the nearly 180 mitigation measures is high, with very few measures requiring additional actions to bring them into compliance. Review of proposed development plans for conformance with the mitigation measures by TC-TAC, and the county planning departments, is critical to overall compliance success for many resources. Additionally, many measures are successfully implemented through adherence to permit conditions of general state and local regulations.

The following recommendations are made for TC-TAC's consideration to improve upon compliance of a few specific measures and mediate potential future impacts as development continues within Kirkwood.

- **Mitigation Measure 4.2 (dd) Implementation of a revised Grazing Management Plan.** Formal implementation of the draft Grazing Plan has not occurred since 2003. At this time, it does not appear that utilization of the horse grazing pastures within Kirkwood Meadow has caused degradation to the meadow or adjacent reaches of Kirkwood Creek. However, as development continues, and summer visitation at Kirkwood increases, potential changes to future grazing management practices could result in impacts to Kirkwood Creek and Meadow. County adoption and implementation of the KMD's revised Grazing Management Plan (Attachment D) is recommended in order to establish baseline vegetation conditions and annual utilization, allow for concise evaluation of changes to Meadow productivity, and provide a means by which to review and formally modify management practices should future use patterns result in significant impacts to Kirkwood Meadow and Creek.
- **Mitigation Measure 4.3.4 (b) Implementation of a Noxious Weed Management Plan.** Although formal implementation of the draft Noxious Weed Management Plan has not occurred, establishment of State and federally listed noxious weeds within Kirkwood private lands has been minimal. However, increased development activities will create more favorable opportunities for establishment of noxious weeds through removal of vegetation and ground disturbance during construction. To minimize and avoid environmental impacts from the establishment of noxious weed species, it is recommended that the draft Noxious Weed Management Plan be updated to identify the specific species of concern, reflect the current status of targeted species within the Kirkwood area, provide clarification and prioritization on the monitoring, reporting, and treatment of the species managed, provide preventative measures to reduce the risk of noxious weed introductions, and include an adaptive management protocol to routinely update the plan based on the survey data. The parties responsible for implementation of the revised Plan should be clearly delineated, and a mechanism of reporting and review should be developed and included in the revised Plan. Survey efforts should be coordinated with El Dorado County staff.
- **Mitigation Measure 4.7 (b) Traffic Control.** Review of this mitigation measure determined that it was in partial compliance. The mitigation measure requires that traffic counts and LOS modeling be completed every three years during periods of peak visitation, but allows for the frequency to be modified by TC-TAC. To bring this measure into compliance, TC-TAC should determine if additional traffic studies are necessary based on current conditions or if further deferment is appropriate and notify Caltrans of its determination.
- **Mitigation Measures 4.10 (a) and 4.10 (b) Employee Housing**. As written, implementation of these measures is currently in compliance. However, there appears to be a need for a new Employee Housing Ordinance that better reflects the current needs of the communities'

employers. It is recommended that KMR, KMD, and KMPUD, and the counties work together to update and revise the Housing Ordinance to meet the current conditions and housing needs.

Specifically, amendments to the Employee Housing Ordinance should consider and address the following issues:

- Determine the target number of additional employee housing units required for build-out.
- Formalize a funding mechanism, such as in-lieu-fees / connection fees.
- Clarify the language of the measure with respect to the employer's ability to receive credit towards the employee housing requirement in exchange for providing transportation for employees to and from South Lake Tahoe or other areas outside of Kirkwood.
- Revise the language in conditions D and E of the mitigation measure such that employee housing credit for transportation or provision of off-site housing should be given regardless of who provides it and not be limited to KMR.

- **Mitigation Measure 4.02 (v) Street Sweeping**. As written, the wording of these mitigation measures is ambiguous as to which streets require sweeping and who is responsible for doing the sweeping, and there are differing opinions among stakeholders regarding interpretation of this measure. TC-TAC should provide a recommendation to county decision makers specifying which parties are responsible for sweeping of which streets and parking areas. In assignment of the responsibilities, TC-TAC must consider who controls the use and maintenance for roads, and who has the legal authorization to enter and / or perform maintenance in those areas.
- **Mitigation Measure 4.12 (b) Recreation Surveys.** The measure requires that surveys be completed every four years to identify on- and off- site recreation use patterns of residents and guests. The most recent recreation survey was completed in 2006. To comply with this measure, KMR needs to complete a new survey, or demonstrate to TC-TAC that one is not warranted based on the lack of new development and changes in population from when the last survey was completed.

Attachment A

Summary of Compliance with 2003 Kirkwood Specific Plan MMRP

Attachment A –
Table 1. Summary of Compliance with 2003 Kirkwood Specific Plan MMRP

Mitigation Measure	Impact and Mitigation Measure	Responsible for Implementation[1]	Review Authority	Compliance Status	Comments / Recommendations
Amador COA #1	Biennial Review. Every two years KMR or its successor will provide a report on development to date, and projected development for the next two years. The report will contain information on the following: a. Status of total development within the resort b. Construction and phasing of necessary infrastructure and utilities. c. Status of any required off-site improvements necessary to support development of the resort. d. Compliance with the required mitigation monitoring and conditions of approval for the Proposed Project. e. Fiscal review as set forth in the Mitigation Monitoring Plan. The report will be reviewed at a regular meeting of the Tri-County Technical Advisory Committee (TC-TAC). Copies of the report, along with the comments of TC-TAC, will be forwarded to the planning commission and Boards of Supervisors of all three counties and will be made available to the public. KMR will provide a summary of the report to all property owners within the resort.	KMD[2]	TC-TAC	Compliant	Development update reports were prepared in 2007, 2009 and 2013. Due to a slowdown in development and as approved by TC-TAC, this interval has been extended to 5 years. KMR currently in compliance.
Amador COA #2	Ten Year Review. During the tenth year following approval of the Proposed Project, KMR or its successor will retain a qualified consultant to review the development for compliance with the mitigation requirements in the MMRP and any other conditions of approval of the Proposed Project. The selection of the consultant will be mutually agreed to by TC-TAC. The consultant will identify any shortcomings and make recommendations for adjustment to conditions to overcome those shortcomings. Additionally, the consultant will identify any new circumstances or unanticipated impacts that were not foreseen when the 2002 Final EIR was certified and the Proposed Project approved. The consultant will recommend whether or not supplemental CEQA documentation may be necessary. The consultant's report and recommendations will be reviewed at a regular meeting of TC-TAC. Prior to the meeting, the report will be made available to the public. TC-TAC will consider the report and forward recommendations, along with the consultant's report, to the planning commissions and boards of supervisors of all three counties. Any decision regarding preparation of supplemental CEQA documentation will be made by the lead agency subject to the requirements of CEQA. Further action - including additional mitigation measures, adjustments to the Proposed Project, and additional conditions of approval - may be considered and imposed only in accordance with the requirements of CEQA and other applicable laws, ordinances, and regulations.	KMD, KMR[4]	TC-TAC	Compliant	Resource Concepts, Inc. was retained by Kirkwood Mountain Development (KMD) and Kirkwood Mountain Resort (KMR) in December 2013 to complete review of compliance with the mitigation requirements.
GEOLOGY, SOIL AND GEOLOGIC HAZARDS					
	Soil Disturbance and Erosion				
4.1(a)	Construction will comply with the requirements of the Kirkwood erosion control ordinance, which includes, but is not limited to measures (b) through (h) below.	Project Proponent	TC-TAC, County Planning	Compliant	See comments below for measures 4.01(b) through (h). Reference photos in Attachment C.
4.1(b)	Practice selective soil exposure by removing soil only in areas of immediate development/ construction; coordinate erosion and sedimentation control with grading, development, and construction practices.	Project Proponent	TC-TAC, County Planning	Compliant	Final design plans are required to include a grading and erosion control plan that is submitted to TC-TAC and the applicable county planning and building departments for review and incorporation of mitigation measure. Approval of plans indicates adequate incorporation of these measures into plans. Successful implementation of the measure is periodically monitored by the County during construction.
4.1(c)	Stockpile topsoil for usage as a revegetative media on disturbed areas and restore sites with topsoil placed over subsoil fill; control runoff from these stockpiled areas to minimize erosion and sedimentation.	Project Proponent	TC-TAC, County Planning	Compliant	same as above
4.1(d)	Utilize sediment basin and retention structures when other control measures are unacceptable.	Project Proponent	TC-TAC, County Planning	Compliant	same as above
4.1(e)	Preserve floodplains and riparian areas adjacent to natural drainages and streams.	Project Proponent	TC-TAC, County Planning	Compliant	The 2003 Kirkwood Specific Plan provides for floodplain and riparian protection by requiring a 35-foot required stream setback (see mitigation measure 4.03.3 (j).) Tentative maps are reviewed by the TC-TAC and appropriate county planning and building departments for incorporation of this measure into project design. Approval of plans indicates compliance with measure.
4.1(f)	Design runoff control to fit the hydrologic setting of the area and in compliance with the Alpine County Subdivision, Parcel Map and Site Improvement Standards.	Project Proponent	TC-TAC, County Planning	Compliant	All approved development projects include grading and erosion control plans that incorporate this measure. Approval of plans indicates compliance with measure.

Mitigation Measure	Impact and Mitigation Measure	Responsible for Implementation[1]	Review Authority	Compliance Status	Comments / Recommendations
4.1(g)	Preserve natural features (e.g., existing vegetation, wetlands) through effective construction-site management.	Project Proponent	TC-TAC, County Planning	Compliant	The county completes periodic inspections during construction to insure compliance with measure. When applicable, impacts to jurisdictional wetlands require state and federal permits and adherence to permit conditions to minimize impacts.
4.1(h)	KMR will coordinate phasing with ENF and TC-TAC in order to preclude having the amount of concurrent construction so great that a torrential storm or other high-runoff event could cause significant erosion.	KMR	TC-TAC and Forest Service	Compliant	TC-TAC reviews construction schedules each May. KMR submits summer operating plan to Forest Service for review and approval at annual operations meeting.
4.1(i)	Utilize construction roads only where and when necessary.	Project Proponent	TC-TAC, County Planning	Compliant	Project specific improvement plans are reviewed by TC-TAC and the appropriate county planning and building departments for incorporation of this measure into design. Approval of plans indicates compliance with measure.
4.1(j)	Limit soil disturbance and vegetation removal to only permanent disturbance locations and those areas necessary for access to construction zones.	Project Proponent	TC-TAC, County Planning	Compliant	Project specific improvement and grading plans are reviewed by TC-TAC and the appropriate county planning and building departments for incorporation of this measure into design. Approval of plans indicates compliance with measure. County completes periodic inspections during construction to assure implementation of the plan as designed and approved.
4.1(k)	Construction roads and road beds will require water bars, mulching, and other erosion control techniques.	Project Proponent	TC-TAC, County Planning	Compliant	Project specific grading and erosion control plans are reviewed to TC-TAC and the appropriate county planning and building departments for review and incorporation of this measure into design. Approval of plans indicates compliance with measure. County completes periodic inspections during construction to assure implementation of the plan as designed and approved.
4.1(l)	KMPUD will include sedimentation monitoring as a component of water quality monitoring efforts, including tests for total suspended solids.	KMPUD	Central Valley Regional Water Quality Control Board	Compliant	KMPUD does sedimentation monitoring as needed after large storm events or when activities are occurring that have potential to increase erosion and sedimentation within Kirkwood Creek. Sedimentation monitoring is not a requirement of their current permit from the CVRWQCB.
4.1(m)	Construction activities will be monitored to ensure compliance with soil erosion prevention practices and mitigation measures, outlined above.	Project Proponent	TC-TAC, County Planning	Compliant	County completes periodic inspections during construction. Additional oversight provided through compliance with SWPPP, when required, which requires weekly monitoring of erosion control materials, and pre- and post-storm event monitoring.
4.1(mm)	Utilities (power, phone, water, sewer, cable) for new projects will be placed in a common trench whenever feasible.	Project Proponent	TC-TAC, County Planning, KMPUD	Compliant	Project specific utility plans are reviewed by TC-TAC, the appropriate county planning and building departments and KMPUD for incorporation of this measure into design. Approval of plans indicates compliance with measure.
	Decreased Soil Productivity				
4.1(n)	Apply Mitigation Measures 4.1 (a) through 4.1 (k), as described above to maintain soil stability.	N/A		Compliant	See comments above for measures 4.1(a) through 4.1(k).
4.1(o)	Promptly revegetate all disturbed ground immediately following construction. This revegetation effort will be supplemented by the placement of erosion matting during seeding to preserve topsoil and prevent erosion if an unforeseen runoff event occurs. Temporarily disturbed areas will be reseeded to re-establish the vegetation type and density comparable to native vegetation surrounding the disturbed area.	Project Proponent	TC-TAC, County Planning	Compliant	Project specific revegetation plans are reviewed by TC-TAC and the county planning and building departments for incorporation of this measure into design. Approval of plans indicates compliance with measure. Alpine and Amador counties typically require a bond to insure revegetation efforts are completed and successful.
4.1(p)	Mulching, hydro mulching, landscape netting, sterile straw, or other protective materials will be used to maintain soil moisture. This will enhance revegetation efforts.	Project Proponent	TC-TAC, County Planning	Compliant	Project specific revegetation plans are reviewed by TC-TAC and the county planning and building departments for incorporation of this measure into design. Approval of plans indicates compliance with measure. The county typically requires a bond to insure compliance with this measure.
4.1(q)	Fill placed in areas to be revegetated will be compacted to a bulk density and porosity similar to adjacent native soils.	Project Proponent	TC-TAC	Compliant	Per project plans and specifications, areas to be revegetated are wheel roll compacted or tracked with heavy equipment to achieve relative compaction prior to seeding.
	Shrink/swell potential of soils				
4.1(r)	If shrink/swell soils are discovered at proposed building sites they should be avoided by relocating the proposed facility, or the material should be removed and replaced with non-expansive soils.	Project Proponent	TC-TAC, County Planning	Compliant	Presence of shrink swell soils are identified during pre-construction geotechnical investigations, and if necessary, make recommendations for removal of soil. Geotechnical recommendations are incorporated into design plans and submitted to the applicable county planning and building departments for review and approval. Final approval of plans indicates compliance with mitigation measure. The county completes periodic inspections during construction to assure implementation of the plan as designed and approved.
	Seismic hazards				
4.1(s)	Plans and specifications for structures should integrate engineering and design standards appropriate to UBC Seismic Zone III to minimize structural effects.	Project Proponent	TC-TAC, County Building Department	Compliant	All development projects are designed to Uniform Building Code standards as required by the county. Improvement plans are reviewed for compliance by the applicable county building department.
4.1(t)	Specific building sites will be evaluated by a geotechnical or soils engineer to determine the level of liquefaction hazard. The factors to consider include: soil density, porosity, moisture content, water table, gradation, and depth.	Project Proponent	TC-TAC, County Planning	Compliant	A geotechnical report which assess the project's liquefaction potential has been prepared and submitted to the appropriate county for review with each set of improvement plans (see references Attachment B.)
4.1(u)	In areas of high liquefaction potential, engineering should include standard measures (e.g., increasing the density of foundation soils, employing larger foundations, and site drainage) to increase stability.	Project Proponent	TC-TAC, County Planning	Compliant	Soils with high liquefaction potential are identified within project specific geotechnical investigations. The geotechnical investigations for Palisades 5&6, Timber Creek and Sentinels West did not identify areas of high liquefaction potential.

Mitigation Measure	Impact and Mitigation Measure	Responsible for Implementation[1]	Review Authority	Compliance Status	Comments / Recommendations
	Rockfall and unstable slopes.				
4.1(v)	During excavation, remove loose sediments and large boulders by scaling to minimize the hazard.	Project Proponent	TC-TAC, County Planning	Compliant	A geotechnical investigation report has been prepared for each development and evaluates the soil and rock excavation characteristics and makes recommendations site excavation. The geotechnical recommendations are incorporated into project design, which are submitted to the applicable county planning and building departments for review. Approval of final design indicates compliance with the mitigation measure. The county completes periodic inspections during construction to assure implementation of the plan as designed and approved.
4.1(w)	If appropriate, install temporary barricades and/or wire mesh fencing.	Project Proponent	TC-TAC, County Planning	Compliant	A geotechnical investigation report has been prepared for each development and evaluates the soil and rock excavation characteristics and makes recommendations site excavation. The geotechnical recommendations are incorporated into project design, which are submitted to the applicable county planning and building departments for review. Periodic inspection by the geotechnical engineer would identify loose sediments and large boulders and the appropriate measures would be taken, which may include installation of temporary barricades and/or wire fencing as appropriate.
4.1(x)	A professional engineer or engineering geologist should certify that slopes associated with excavation are designed to ensure stability.	Project Proponent	TC-TAC, County Planning	Compliant	A geotechnical investigation report has been prepared for each development and makes recommendations for fill and cut slopes. The geotechnical recommendations are incorporated into project design, which are submitted to the applicable county planning and building departments for review. Periodic inspection by the geotechnical engineer and county inspectors during construction ensures that slopes are constructed as designed.
	Ground settlement.				
4.1(y)	Alluvial soils at the site of specific structures should be evaluated by a geotechnical or soils engineer to determine if the risks associated with ground settlement are significant.	Project Proponent	TC-TAC, County Planning	Compliant	All projects since 2003 have been evaluated by a geotechnical or soils engineer and the risks associated with ground settlement were evaluated (see references in Attachment B.) Recommendations made by the geotechnical engineer were incorporated into the project design and submitted to the applicable county planning and building departments for review. Final approval of plans indicates compliance with mitigation measures.
4.1(z)	Where feasible, remove susceptible soils to eliminate risk.	Project Proponent	TC-TAC, County Planning	Compliant	Geotechnical reports identify soils that are not suitable for support of new structures and make recommendations for removal. Recommendations made by the geotechnical engineer were incorporated into the project design and submitted to the applicable county planning and building departments for review. Final approval of plans indicates compliance with mitigation measure (see references in report text).
4.1(aa)	Incorporate accepted engineering controls to minimize effects on the structure, or avoid problematic sites.	Project Proponent	TC-TAC, County Planning	Compliant	All projects since 2003 have been evaluated by a geotechnical or soils engineer. Geotechnical reports make recommendations made by the geotechnical engineer were incorporated into the project design and submitted to the applicable county planning and building departments for review. Final approval of plans indicates compliance with mitigation measure (see references in report text).
4.1(ab)	Note water table elevations and identify active springs at each site and adjust designs or preventative measures per accepted engineering standards.	Project Proponent	TC-TAC, County Planning	Compliant	All projects since 2003 have been evaluated by a geotechnical or soils engineer and water table elevations and active springs were identified within a geotechnical report prior to design.
	Avalanches.				
4.1(ac)	In accordance with the 2003 Kirkwood Specific Plan, avoid residential development, or development that concentrates human activity (ticket areas, parking lots, trail heads, etc.) in areas designated as high hazard (Figure 4.3; Mears 1995a, b, 1997). Limited road construction in these zones is acceptable.	Project Proponent	TC-TAC, County Planning	Compliant	No residential development is proposed within high hazard zones. Ski runs are located within areas designated as high hazard and KMR has posted signs along ski runs to warn people of potential avalanche hazards. Reference photos in Attachment C.
4.1(ad)	Construction of private buildings may be acceptable in zones of moderate hazard (Figure 4.3). However, reinforcement or protection for design avalanche loads is necessary. Incorporation of Mears (1997) four structural types of avalanche mitigation is recommended: (1) direct protection structures, (2) deflecting structures, (3) retarding mounds, and (4) catchment dams.	Project Proponent	TC-TAC, County Planning	Compliant	Construction of buildings has not been proposed within moderate hazard zones. Palisades VI is proposed adjacent to a moderate hazard zone, but no part of the development is located within the zone. Prior to the start of development, signs warning of avalanche danger must be posted where hazard zones encroach on roads or private property boundaries.
4.1(ae)	To minimize hazards, the current avalanche forecasting and control program carried out within the ski area boundaries at Kirkwood should continue, with annual evaluation of the program's effectiveness.	KMR	TC-TAC, County Planning	Compliant	Annual reports are submitted to TC-TAC by September 30th of each year.
4.1(af)	Properties located adjacent to the boundaries of mapped avalanche hazard zones should display signs identifying the potential for this hazard.	Project Proponent	TC-TAC, County Planning	Compliant	There are no existing developments adjacent to mapped avalanche hazard zones at this time. Palisades VI is proposed adjacent to a moderate hazard zone. Prior to start of development, signs warning of avalanche danger must be posted where hazard zones encroach on roads or private property boundaries.

Mitigation Measure	Impact and Mitigation Measure	Responsible for Implementation[1]	Review Authority	Compliance Status	Comments / Recommendations
WATER RESOURCES					
	Increased Surface Runoff Volumes, Velocities, Flooding, and Erosion.				
4.2(a)	Implement grading measures to retard and reduce runoff, e.g., minimize slopes, construct detention basins, and design swales to diffuse runoff and absorb excessive energy.	Project Proponent	TC-TAC, County Planning	Compliant	Project specific grading and erosion control plans are reviewed by TC-TAC and the applicable county planning and building departments for incorporation of this measure into design. Approval of plans indicates compliance with measure. Implementation of this design features was evident during visual inspections. Reference photos in Attachment C.
4.2(b)	Use vegetation, geotextiles, rock, gravel, and other surface treatments to retard and absorb runoff.	Project Proponent	TC-TAC, County Planning	Compliant	Project specific grading and erosion control plans are reviewed by TC-TAC and the applicable county planning and building departments for incorporation of this measure into design. Approval of plans indicates compliance with measure. Implementation of this design feature was evident during visual inspections. Reference photos in Attachment C.
4.2(c)	Avoid creation of future flow barriers, obstructions and constrictions in streams and gullies.	Project Proponent	TC-TAC, COE, CVRWQCB, CDFW	Compliant	Placement of barriers, obstructions and constrictions in streams require permits from U.S. Army Corps of Engineers, CVRWQCB, and CDFW. Any future proposed placement of materials within streams will be designed to maintain existing flows.
4.2(d)	Implement Mitigation Measure 4.1 (a).	N/A			See comments for mitigation measure 4.1
4.2(dd)	Implement grazing management practices outlined in the grazing plan (see Appendix B), such as fencing livestock out of the riparian area of Kirkwood Creek.	KMR	TC-TAC	Partial Compliance	There is no formal implementation of the Draft Grazing Plan included as part of the 2003 Kirkwood Specific Plan EIR. Components of the plan are implemented through other means (reference discussion in report text.)
	Increased future water demands and resultant consumptive use.				
4.2(e)	Implement maximum water conservation and xeriscape landscaping measures, such as limited yard watering and use of drought resistant native plants.	Project Proponent	TC-TAC, County	Compliant	Project improvement plans include revegetation specifications which are reviewed by the appropriate county and TC-TAC for consistency with this mitigation measure. Approval of plan indicates compliance. Revegetation plans must comply with the Kirkwood Landscaping and Revegetation Ordinance, which provides a list of appropriate native plants for use in landscaping.
4.2(f)	Reclaim wastewater if necessary to help meet future water supply demands.	KMPUD	TC-TAC	Not Applicable	KMPUD does not use reclaimed wastewater for drinking water supply and is not likely to in the future due to associated costs. If demand warrants an increase the supply of drinking water, other options will be pursued.
4.2(g)	To avoid sustained drawdown of the Kirkwood Valley water table, KMPUD will develop and implement a Water Stage Alert System establishing a sliding scale from voluntary to required water conservation measures based on their ongoing monitoring of aquifer levels, coupled with their projections of water supply (based on precipitation data) and water demand. This system would be triggered when aquifer levels fall to less than 40 feet above the top of well pumps. Specific water conservation measures may include restrictions on vehicle washing, landscape watering, and household consumption.	KMPUD	TC-TAC	Compliant	A Water Stage Alert System plan was developed on March 7, 2007 and was revised and updated in March 2014. The plan includes water conservation measures that are triggered based on depth of the aquifer levels or at the recommendation of the Board of Directors.
4.2(h)	To assist in minimizing impacts to instream flows in Kirkwood Creek and downstream waterways, KMPUD will limit or cease pumping from Well 2, which taps the shallow aquifer and is indirectly associated with the creek, when the Water Stage Alert System is in effect.	KMPUD	TC-TAC	Compliant	Pumping from Well 2 is discontinued when the Water Stage Alert System is in Effect.
	Reductions in groundwater surface elevations and supplies.				
-	Implement Mitigation Measures 4.2 (e), (f) and (g).	N/A			See comments for mitigation measures 4.2 (e), (f) and (g).
	Reduced infiltration rates and recharge of the Kirkwood Valley groundwater basin.				
4.2(i)	Minimize the extent of impervious surfaces and disturbed soils to those that are absolutely necessary for implementation of the Proposed Project.	Project Proponent	TC-TAC, County Planning	Compliant	Residential lots have designated building envelopes and no permanent disturbance may occur outside the building envelop. Location and size of envelopes as shown on tentative plans maps are reviewed TC-TAC and the applicable county planning and building departments. Approval of grading plans indicates compliance with mitigation measure. The area of disturbance is monitored during construction.
4.2(j)	Avoid soil compaction in disturbed areas by limiting use of heavy equipment, stockpiling and re-spreading of forest duff and topsoils, and use of geotextiles.	Project Proponent	TC-TAC, County Planning	Compliant	Project specific improvement plans are reviewed for consistency with this mitigation measure by the TC-TAC and applicable county planning and building departments. Approval of plans indicates compliance with the mitigation measure. Project is monitored during construction.
4.2(k)	Install low-slope permeable swales, porous dams, such as hay bales, earthen benches, and infiltration basins to retard and capture runoff from impermeable surfaces.	Project Proponent	TC-TAC, County Planning	Compliant	Project specific improvement plans are reviewed for consistency with this mitigation measure by the TC-TAC and applicable county planning and building departments. Approval of plans indicates compliance with the mitigation measure. Project is monitored during construction.
	Groundwater contamination from poor quality groundwater seepage.				
4.2(l)	Use sealed well casings and other wellhead protection measures to preclude any movement of poor quality groundwater (and surface water) into pumped aquifers.	KMPUD	TC-TAC, County Health Department	Compliant	All wellheads have a sealed casing for a minimum of 100-feet as required by County Health Code standards. No new wells are planned.

Mitigation Measure	Impact and Mitigation Measure	Responsible for Implementation[1]	Review Authority	Compliance Status	Comments / Recommendations
	Leakage or spillage of untreated wastewater.				
4.2(m)	Install sewage spill catch basins at vulnerable locations located outside the flood plain.	KMPUD	CVRWQCB	Compliant	Sewage spill catch basins located within flood plains are not proposed and would not likely be authorized by the CA State Water Resources Control Board.
4.2(n)	Use accepted engineering design and construction features at flood-prone locations, particularly stream crossings.	Project Proponent	TC-TAC, County Planning	Compliant	Project specific improvement plans are reviewed for consistency with this mitigation measure by the TC-TAC and applicable county planning and building departments. Approval of plans indicates compliance with the mitigation measure.
4.2(o)	Install backup pump systems, auxiliary power sources, and system failure alarms.	KMPUD	TC-TAC	Compliant	The current system includes redundancy measures to protect against leakage or spillage of untreated wastewater.
	Groundwater contamination from the routine discharge of treated wastewater.				
4.2(p)	Avoid infiltration areas underlain by impermeable or poorly permeable soils.	KMPUD	TC-TAC, CVRWQCB	Compliant	KMPUD does not anticipate building any new absorption beds. Permitting of wastewater absorption beds requires review and approval by the Regional Water Quality Control Board. Placement of absorption beds in impermeable or poorly permeable soils would not be authorized.
4.2(q)	Pressure transducers have been connected to the existing absorption bed monitoring system in selected monitoring wells to monitor the projected increases in groundwater surface elevations. KMPUD will take avoidance actions such as more rapid rotation of the discharge to alternate beds and/or abandonment of individual beds that may cause problems, if monitoring results indicate potential surfacing or near-surfacing of effluent.	KMPUD	CVRWQCB	Compliant	Pressure transducers are no longer used in the wastewater treatment system. Groundwater elevation within the absorption bed is measured in monitoring wells. If monitoring results indicate potential surfacing or near-surfacing effluent, KMPUD stops pumping.
4.2(r)	Prevention of excessive infiltration of sewage collection and disposal systems by storm water.	KMPUD	CVRWQCB	Compliant	KMPUD maintains a Sewer System Management Plan (SSMP) as part of their operating permit through the Central Valley Regional Water Quality Control Board which outlines procedures to prevent excessive infiltration of sewage collection and disposal systems by storm water. SSMP was most recently updated in 2014.
4.2(s)	Police for and eradicate unauthorized discharges to the sewer system.	KMPUD	CVRWQCB	Compliant	SSMP outlines procedures for monitoring unauthorized discharges to the sewer system and stopping any such discharges detected. SSMP was most recently updated in 2014.
4.2(t)	Expand the wastewater absorption beds and construct new ones in suitable areas.	KMPUD	CVRWQCB	Not applicable	Evaluation of the existing wastewater absorption beds (2014) indicates that the capacity is sufficient through build-out of the 2003 Kirkwood Specific Plan. No need to expand wastewater absorption beds or construct new ones.
4.2(u)	Utilize low flow water conserving plumbing fixtures wherever possible.	Project Proponent	TC-TAC	Compliant	Project specific improvement plans are reviewed by TC-TAC and the county building department for consistency with mitigation measure. Approval of plans indicates compliance. Implementation of approved plans would be assured by inspections by county building department. Use of low flow water conserving plumbing fixtures is not required by KMPUD; however, they do have a "low flow toilet rebate" to encourage water conservation.
	Contamination from treated effluent inadvertently exceeding the intended and assimilated waste loads discharged to surface and ground waters.				
-	See Mitigation Measures 4.2 (p) through 4.2 (u).	N/A			Reference comments for Mitigation Measures 4.2 (p) through 4.2 (*u*).
	Contamination from non-point source emissions in storm water runoff from impervious and disturbed areas.				
4.2(v)	Conduct street sweeping twice-a-year and when buildup of loose materials occurs on paved road ways.	Not Clearly Specified	TC-TAC	Partial Compliance	Documentation of street sweeping was found for 2008, 2010, 2011, 2012, and 2013. Sweeping was completed one time per year, except in 2010 when it was done twice. KMR provided the County with photo documentation and receipt from contractor. See text within report for further discussion.
4.2(w)	Develop drainage systems for parking lots which collect runoff from impermeable surfaces and channel it to settling basins or through drainage filter strips, grassy swales, sand traps, or alterative sediment control features.	Project Proponent	TC-TAC	Compliant	No new parking lots have been constructed since approval of the 2003 Kirkwood Specific Plan. Existing parking lots at Timber Creek and Red Cliff Lodge have been retrofitted with drainage strips and sand traps.
4.2(x)	Implement Mitigation Measure 4.3.3 (k).	N/A			See comments for mitigation measure 4.3.3 (k)
4.2(y)	Implement Mitigation Measure 4.3.1 (e).	N/A			See comments for mitigation measure 4.3.1 (e)
	Water quality degradation from erosion resulting from increased flooding or increased surface runoff velocities.				
4.2(z)	Implement mitigation measures 4.1 (a), 4.2 (a) and 4.2 (b). Implement surface and channel erosion control measures such as rock placement, bank stabilization, geotextiles, sedimentation basins and traps, and earthen benches.	N/A	TC-TAC	Compliant	See comments for mitigation measure 4.1 (a), 4.2 (a), and 4.2(b)

Mitigation Measure	Impact and Mitigation Measure	Responsible for Implementation[1]	Review Authority	Compliance Status	Comments / Recommendations
4.2(aa)	KMPUD will monitor for total suspended solids in Kirkwood Creek, and ensure that construction activities are monitored so as to implement necessary sediment prevention measures	KMPUD	CVRWQCB	Compliant	KMPUD does sedimentation monitoring as needed after large storm events or when activities are occurring that have potential to increase erosion and sedimentation within Kirkwood Creek. Sedimentation monitoring is not a requirement of their current permit from the CV Regional Water Quality Control Board.
	Contamination resulting from excessive treated effluent volumes.				
4.2(ab)	Provide accommodations for wastewater storage or hauling in case of emergency situations.	Agency - KMPUD	TC-TAC	Compliant	KMPUD has existing storage tanks to use in emergency situations. Due to the Kirkwood's remote location, KMPUD is not likely to haul effluent offsite.
4.2(ac)	Add additional nitrate removal to the advanced treatment processes.	Agency - KMPUD	CVRWQCB	Compliant	Since approval of the 2003 Kirkwood Specific Plan, KMPUD has upgraded its wastewater treatment system to an advanced membrane process which provides for a high level of nitrate removal. The level of nitrate removal is in compliance with State permit requirements.
4.2(ad)	Implement previously described non-point source and erosion control measures, including mitigation measures 4.2 (a) - (d), 4.2 (w) - (z), and 4.2 (aa) - (ab).	N/A			See comments for mitigation measures 4.2 (a) - (d), 4.2 (w) - (z), and 4.2 (aa) - (ab).
AQUATIC RESOURCES					
	Kirkwood Creek Short-term and Long-term Sedimentation Impacts				
4.3.a(a)	Implement Mitigation Measures 4.2 (a) through 4.2 (d), 4.2 (w), 4.2 (x), 4.2 (z), and 4.2 (aa), as described in the Water Resources section.	N/A			See comments for mitigation measures 4.2 (a) through 4.2 (d), 4.2 (w), 4.2 (x), 4.2 (z), and 4.2 (aa).
4.3.1(b)	Allow no heavy construction equipment to operate within the Kirkwood Creek floodplain or within 100 feet of the Kirkwood Creek stream channel during periods when soils are saturated from rain or snowmelt.	Project Proponent	TC-TAC	Compliant	Specified on plan sheets and monitored in field prior to construction.
4.3.1(c)	Implement Mitigation Measures 4.2 (k) and 4.2 (z). Sediment control structures will remain in place until vegetation has been established in disturbed areas.	Project Proponent	TC-TAC, County Planning	Compliant	Field review indicates that this measure is being implemented.
4.3.1(d)	Implement Mitigation Measure 4.1(a), 4.1(l), 4.1(m), 4.1(mm), and 4.1(o) to prevent erosion and subsequent sedimentation into Kirkwood Creek.	N/A			See comments for mitigation measures 4.1(a), 4.1(l),4.1(m), 4.1(mm), and 4.1(o)
4.3.1(e)	Minimize salting and/or sanding of parking lots or other impervious surfaces within 100 feet of the floodplain.	KMR Project Proponent	TC-TAC	Compliant	KMR uses sand primarily on sloped areas and steep portions of road, and it is not typically used in flatter flood plain areas. KMR instructs snow removal operators to be judicious in use of sanding within 100 feet of Kirkwood floodplain.
4.3.1(f)	Implement the following site-specific recommendations from the Kirkwood Creek Floodplain Study (EBCE 1996) prior to the initiation of any proposed construction: 1) Build a diversion structure to operate with the existing drain and inlet for diversion of surface water between Lifts 10 and 11; 2) prevent flooding in the area near Base Camp One condominiums by either clearing snow out of the sharp bend in Kirkwood Creek, or constructing a low floodwall; 3) replace the two existing footbridges upstream of Kirkwood Meadows Drive, which currently restrict the flow of Kirkwood Creek; 4) prevent the infrequent overtopping of Kirkwood Meadows Drive by enlarging the bridge opening or constructing a floodwall eastward along the east creek bank; some boulders could be removed from the creek in this area as well; 5) any proposed structures in this area should be built a few feet above the floodplain elevation; 6) channel work such as bank protection (subject to permit requirements).	KMR KMD[2]	TC-TAC	Compliant	Item 1) A diversion structure to operate the existing drain was completed in 1997 when Mountain Club was built. Item 2) A low flood wall /bank stabilization improvement was constructed around 2001; Item 3) Not yet complete, but will be constructed as part of East Village development and has been included in approved improvement plans. Item 4) boulders were removed and floodwall was constructed. Bridge opening was not enlarged, but due to other measures, does not appear to be necessary as Kirkwood Meadows Drive does not flood. If flooding becomes a problem, KMD will consider enlarging bridge opening. 5) Nothing has been constructed or planned to be constructed within Kirkwood floodplain. Proposed new building pads will be constructed above floodplain elevation as required by County Code. 6) bank stabilization was completed along Kirkwood Creek downstream of Kirkwood Meadow Drive Road crossing in 2001.
4.3.1(ff)	Implement the grazing management plan (Appendix B).	KMR			See comments for Mitigation Measure 4.02(dd)
4.3.1(g)	Implement Mitigation Measures 4.2(a), 4.2(b), 4.2(e), and 4.2 (k) to reduce impacts associated with storm water runoff from parking lots and other impervious surfaces.	N/A			See comments for Mitigation Measures 4.2(a), 4.2(b), 4.2(e), and 4.2 (k)
	Impacts to Kirkwood Lake Fisheries				
4.3.1(h)	KMR will assist in educating Kirkwood residents and visitors about fishing regulations at Kirkwood Lake and, with the permission of the Forest Service, post such regulations at angler access points to the lake.	KMR	TC-TAC, Forest Service	Compliant	KMR annually posts fishing regulations at the Kirkwood Inn, The Lodge, Kirkwood General Store, Kirkwood Lake and Caples Lake. Reference photos in Attachment C.
4.3.1(i)	KMR will not create additional parking for the purpose of facilitating access to Kirkwood Lake.	KMR	TC-TAC, Forest Service	Compliant	No additional parking proposed for access to Kirkwood Lake.
	Increased Human Presence				
4.3.2(a)	All dogs will be kept indoors or controlled on a leash.	Project Proponent HOA	TC-TAC	Compliant	All new developments include this measure in CC&Rs. KMR, under Vail ownership, has tried to implement a more institutionalized approach to enforcing the leash laws, including placement of new signs in and around public areas.

Mitigation Measure	Impact and Mitigation Measure	Responsible for Implementation[1]	Review Authority	Compliance Status	Comments / Recommendations
4.3.2(b)	Expand CC&Rs to include regulations to govern cat ownership, requiring owners to keep all cats indoors unless these pets are also controlled on a leash.	Project Proponent HOA	TC-TAC	Compliant	All new approved CC&Rs include regulations that require cats to be leashed.
4.3.2(c)	Require household garbage to be stored in wildlife-proof containers prior to pick up.	Project Proponent HOA	County Planning,	Compliant	There is no centralized household garbage collection. Residents either deposit trash in wildlife-proof containers located at KMPUD offices, Red Cliff offices, dumpsters in The Village, or at Timber Creek. Large condo complexes have indoor receptacles.
4.3.2(d)	All pets will be fed inside, and pet food will not be stored or provided to pets where wild animals could gain access.	Project Proponent HOA	County Planning,	Compliant	All new CC&Rs include regulations that require pets to be fed indoors.
4.3.2(e)	Implement restrictions to prohibit the feeding of wildlife, except seed feeders for birds and nectar feeders for hummingbirds.	Project Proponent HOA	County Planning,	Compliant	All new CC&Rs include regulations that prohibit the feeding of wildlife.
4.3.2(f)	Implement mitigation measures 4.3.3 (a) through 4.3.3 (k), as described in the Wetlands Resources section (4.3.3) of this document to avoid or minimize impacts to wetlands and streams. All projects with the potential to impact waters of the U.S., including wetlands, will be reviewed by the COE and the appropriate county and will be designed to avoid impacts and/or minimize impacts to the maximum extent possible.	Project Proponent	County Planning, COE	Partial Compliance	A 404 Individual Permit has been submitted to the COE for authorization of all potential impacts to waters of the U.S. resulting from build-out of the 2003 Kirkwood Specific Plan, with exception of the Thunder Mountain Lodge Development (Lot 7 Timber Creek). The previous landowner took on the responsibility of permitting and failed to get the COE permits for relocation of the stream channel through the lot. The violation was detected by the CA Department of Fish and game and received a notice of violation from the CVRWQCB and COE.
BIOLOGICAL RESOURCES					
	Impacts to Wildlife at Kirkwood and Caples Lakes				
4.3.2(g)	KMR will retain a qualified wildlife biologist to survey the basin immediately surrounding Kirkwood and Caples Lakes in early summer to determine the presence of special-status species identified in this analysis (see Table 4.13) and establish baseline conditions. After the initial survey to establish baseline conditions, surveys will be performed every 3 years for a 6-year period (i.e., two additional surveys or as determined to be needed by the Forest Service). The summary results will be submitted within 60 days of the survey completion to the Amador Ranger District. If the wildlife populations or resources appear to be negatively affected, the Forest Service will develop management plans designed to mitigate the effects documented by the surveys. These plans will include specific measures such as trail re-routing, interpretive signing, protective fencing, area closures, and limits on user numbers or seasons of use. They may also call for KMR involvement in the development and implementation of an education program for Kirkwood visitors. The objective of the management plans will be to ensure that the pertinent statutory protections extended to special-status species (see Table 4.11) are met.	KMD[3]	TC-TAC, Forest Service.	Compliant	Baseline surveys completed in July 2004/2005 with follow up surveys in July 2007 and 2010. Reference list of wildlife studies completed in Attachment B.
	Impacts to Threatened, Endangered, or Sensitive Species				
4.3.2(h)	The project proponent will employ a qualified biologist to conduct surveys for threatened, endangered, and sensitive wildlife species at Kirkwood prior to individual project construction. Surveys will be conducted within two breeding seasons prior to commencement of individual project construction. These surveys will be completed during the appropriate season addressing species for which suitable habitat exists in the project area. The geographic scope of the surveys should be limited to the area in which direct or indirect impacts could occur. A report outlining results of the surveys will be submitted to the CDFG and to the respective county where construction is to take place within one month of completion of the survey and prior to construction activities. If state listed species are found, a 2081 Permit will be obtained from the CDFG. If federally listed threatened or endangered Species are found, KMR will enter into consultation with the USFWS to determine the appropriate course of action, including obtaining an Incidental Take Permit if necessary.	Project Proponent	TC-TAC, County Planning	Compliant	Surveys for sensitive wildlife have been completed prior to individual project construction. Sensitive wildlife surveys have recently been completed for the Martin Point, Timber Creek, East Village, North of Highway 88, and the Northwest Parcel project areas. No state of federally listed species have been identified. Reference list of wildlife studies completed in Attachment B.
4.3.2(i)	The project proponent will implement mitigation measures 4.3.3 (a) through 4.3.3 (k), and 4.3.4 (d) to minimize impacts to wetlands and riparian areas.	N/A		Compliant	Refer to discussions on mitigation measures 4.3.3 (a) through 4.3.3 (k), and 4.3.4 (d).
4.3.2(j)	Implement aquatic resource mitigation measures 4.3.1 (a) through 4.3.1 (e) to reduce short-term and long-term impacts to Kirkwood Creek and associated aquatic wildlife habitat.	N/A		Compliant	Refer to discussions on mitigation measures 4.3.1 (a) through 4.3.1 (e).

Mitigation Measure	Impact and Mitigation Measure	Responsible for Implementation[1]	Review Authority	Compliance Status	Comments / Recommendations
	Potential direct impact to water of the U.S., including wetlands				
4.3.3(a)	The project proponent will negotiate and abide by an acceptable Streambed Alteration Agreement (Fish and Game Code Section 1603) with CDFG prior to construction of any improvements affecting streambeds.	Project Proponent	TC-TAC, Department of Fish and Wildlife	Compliant	All projects with approved plans having potential impacts to stream beds have obtained required LSA (Palisades 5 & 6; Sentinel Way, Timber Creek Phase 1) with the exception of Thunder Mountain Lodge. The CA Department of Fish and Wildlife issued a Notice of Violation for not acquiring a Streambed Alteration Agreement for a stream relocation during grading for Thunder Mountain Lodge. These violations have been rectified with the agency and brought into compliance.
4.3.3(b)	The project proponent will obtain appropriate permits from the COE prior to any placement of fill in wetlands. The applicant will also comply with the terms and conditions specified in any permits obtained from the COE.	Project Proponent	TC-TAC, Corps of Engineers	Compliant	A 404 Individual Permit has been prepared and submitted to the US Army Corps of Engineers for all potential impacts to waters of the U.S., including wetlands, for build-out of the 2003 Kirkwood Specific Plan with exception of Thunder Mountain Lodge. In 2008, Paragon Development was cited for a violation for a stream relocation without the appropriate COE permit. This violation has been rectified and brought into compliance.
4.3.3(c)	During construction of any utility infrastructure within wetlands, the construction contractor will place side cast materials in upland areas to minimize impacts as a result of temporary storage. These materials will be used to backfill the trench as soon as possible.	Project Proponent	TC-TAC, Corps of Engineers	Not applicable	Not applicable at this time, but considered a standard condition of all COE permits.
4.3.3(d)	Implement Mitigation Measure 4.1 (c).	N/A		Compliant	Refer to discussion on mitigation measures 4.1 (c).
4.3.3(e)	In the vicinity of wetlands, the construction contractor will restrict construction equipment, vehicles, and the placement of soil stockpiles to upland sites except for implementation of COE-authorized crossings.	Project Proponent	TC-TAC, Corps of Engineers	Not applicable	Not applicable at this time, but considered a standard condition of all COE permits.
4.3.3(f)	The project proponent will review proposed development plans with the county of jurisdiction or the Forest Service, if in the SUP area, and the COE to ensure that specific projects have been designed to avoid any impacts to wetlands or other waters of the U.S. to the maximum extent practicable. In cases where avoidance is not feasible, such as a road crossing of a linear wetland feature, then the impact should be minimized by making the crossing as narrow as possible and crossing at a narrow point in the wetland.	Project Proponent	TC-TAC, Forest Service, Corps of Engineers	Compliant	All project plans are reviewed by the county for approval. As part of the 404 Permit from the COE and the 401 permit from the Central Valley Regional Water Quality Control Board, the project proponent must first demonstrate that waters of the U.S. are avoided to the extent practicable and that impacts are minimized before either agency will issue a permit authorizing an impact to a wetland or other waters of the U.S. Permit authorization indicates compliance with mitigation measure.
4.3.3(g)	The project proponent will review proposed stream crossings with the respective counties or the Forest Service, if in the SUP area, and the COE and determine, based on the quality of the stream system and adjacent riparian habitat, which site would be appropriate for bridging.	Project Proponent	TC-TAC, Forest Service, Corps of Engineers, CVRWQCB	Compliant	A detailed analysis of all stream crossings anticipated to be constructed through build out of the 2003 Kirkwood Specific Plan has been submitted to the COE and CVRWQCB as part of the 404 and 401 permit applications.
4.3.3(h)	The project proponent will develop and implement a mitigation plan to replace any wetland losses due to the proposed development. The mitigation plans will be reviewed and approved by the COE and the appropriate counties prior to implementation.	Project Proponent	TC-TAC, Corps of Engineers	Compliant	A mitigation plan has been prepared and submitted as part of the COE and CVRWQCB as part of the 404 and 401 permit applications.
	Potential indirect impact to waters of the U.S., particularly streams				
4.3.3(i)	Implement Mitigation Measure 4.1 (a).	N/A		Compliant	Refer to comments for mitigation measure 4.1 (a).
4.3.3(j)	If on private land, the county with jurisdiction will require a minimum 35-foot buffer of undisturbed vegetation between wetlands, and perennial or intermittent streams with riparian vegetation, and disturbed areas, (construction sites), or parking lots, or other impervious areas that produce runoff. If in the SUP area, minimum setback requirements outlined for riparian conservation areas in the *Sierra Nevada Forest Plan Amendment* will be required. These include setback requirements of 300 feet for perennial streams and meadows, and 150 feet for seasonally flowing streams.	Project Proponent	TC-TAC, Forest Service	Compliant	Setback incorporated into design, which is reviewed and approved by county planning and building departments. Inspection during construction insures implementation of project as designed and approved.
4.3.3(k)	KMR's landscape and revegetation guidelines (KMR 1998) will be followed, and revised if necessary, to limit the use of traditional manicured lawns in landscaping; to limit fertilizer use to direct application to plants installed during revegetation efforts; and to limit the use of herbicides, pesticides, and fungicides by individual property owners to direct applications to control exotic species.	Project Proponent	TC-TAC.	Compliant	Use of KMR's Landscape and Revegetation Guidelines is specified in all CC&R's and incorporated into project design. Plan sheets reviewed and approved by county.
	Vegetation Communities				
4.3.4(a)	KMR will follow the landscape and revegetation guidelines (KMR 1998), unless an item is specifically updated by requirements of the noxious weed control plan (Appendix B).	Project Proponent	TC-TAC	Compliant	Use of KMR's Landscape and Revegetation Guidelines is specified in all CC&R's and incorporated into project design. Plan sheets reviewed and approved by county.

Mitigation Measure	Impact and Mitigation Measure	Responsible for Implementation[1]	Review Authority	Compliance Status	Comments / Recommendations
4.3.4(b)	KMR will implement the noxious weed control plan (Appendix B) prior to construction of any elements approved in this EIR. The plan addresses weed issues of concern through measures such as requiring the use of approved, native seed, weed-free hay, and construction practices such as the cleaning of residual soil from off of construction equipment transported from other areas prior to use at Kirkwood. As under Mitigation Measure 4.3.4 (a), KMR will utilize current and approved seed mixes and revegetation techniques, outlined in the landscape and revegetation guidelines, except for specifically updated guidelines, as follows: a. Strongly recommended use of native grasses only. This would change the seed mix #1 in the landscape and revegetation guidelines by excluding the use of Dactylis glomerata (Orchard grass.) b. As outlined under the Eldorado National Forest Seed, Mulch, and Fertilizer Prescriptions (Forest Service 2000), rice straw, (local) native grass straw, or pine needle mulch (if certified to be from a non-infected area) may be used in place of certified weed-free hay, pending development of the California certification program. c. Use of quick-release, inorganic fertilizers should be avoided, as their use tends to favor establishment of exotic weeds and grasses (Forest Service 2000).	KMR, KMD[4]	TC-TAC	Non-compliance	There has been no formal implementation of the Noxious Weed Control Plan found in Appendix B. It is recommended that this plan be updated based on current conditions at Kirkwood. The new plan should clearly delineate responsibility of implementation. See report text for further discussion.
4.3.4(c)	KMR will retain the services of a California Registered Professional Forester to assess forest conditions and meet the requirements for submitting timber harvesting plans.	Project Proponent	TC-TAC, Department of Forestry and Fire Protection	Compliant	All Timber Harvest Plans have been prepared in coordination with a CA Registered Professional Forester.
	Threatened, endangered, and special-status plants				
4.3.4(d)	KMR will obtain the services of a qualified botanist to conduct preconstruction surveys for special-status plant species if individuals are known to potentially occur in the area of proposed disturbance. A report outlining results of the surveys will be submitted to the respective county where construction is to take place within one month of completion of the survey and prior to construction activities. If sensitive species are found, construction envelopes should be redesigned (if feasible) to avoid the populations of sensitive plants. If federally listed threatened or endangered species are found on federal land, the project proponent will enter into consultation with the USFWS.	Project Proponent	TC-TAC, Forest Service, County Planning, Department of Fish and Game, Fish and Wildlife Service	Compliant	Preconstruction botanical surveys were completed for Palisades Unit 6 in 2005; East Village in 2007, Community Park Parcel in 2007; updated surveys were completed in 2014 for Martin Point, East Village, Timber Creek, Northwest Parcel, Community Park Parcel, and North of Hwy 88 developments.
4.3.4(e)	Implement recommendations to minimize or eliminate impacts to special-status species, as cited in the botanical survey report (Jones and Stokes 2000), which include: using a helicopter lift to transport equipment and supplies, using stakes and flagging to carefully delineate and restrict the construction area, and notifying construction crews of the presence of the sensitive biological resource.	Project Proponent	TC-TAC, Forest Service.	Compliant	No sensitive special-status species have been identified within 2003 Kirkwood Specific Plan project areas since adoption of mitigation measure.
AIR QUALITY					
	Increase in particulate matter emissions.				
4.4(a)	The counties will develop and enact an ordinance to reduce particulate emissions from wood burning within Kirkwood. The ordinance shall include the following elements: a. Incentives to eliminate or replace existing wood burning devices which do not comply with EPA Phase II Certification requirement. b. A requirement that all new residences previously approved for the installation of new wood burning devices incorporate EPA Phase II Certified requirements. c. A requirement that, upon installation of a new EPA Phase II Certified wood burning device, at least one noncompliant wood burning device be eliminated within the Kirkwood area. d. A prohibition on installation of new wood burning devices, including open hearth-style fireplaces, which do not comply with EPA Phase II Certification requirements, except that one noncompliant open hearth style fireplace will be allowed in the following locations: - a common lobby area located in a building containing more than four multi-family units, - a common lobby area located within lodges, hotels, motels, bed and breakfast accommodations, or a public recreation/meeting facility, - a bar/saloon or restaurant, - outdoors in the Village plaza area.	Amador, Alpine, and El Dorado Counties	TC-TAC.	Not Applicable	TC-TAC determined that based on new state and federal building codes which require the use of EPA Phase II Certified wood burning stoves for all new development that a new ordinance was redundant and unnecessary.

Mitigation Measure	Impact and Mitigation Measure	Responsible for Implementation[1]	Review Authority	Compliance Status	Comments / Recommendations
4.4(aa)	Prior to the addition of a second diesel generator at the wastewater treatment plant, particulate matter source testing will be conducted on the first generator to determine its emissions with the catalytic soot filter in place. The results will be combined with estimates of emissions from the second generator and also with emissions produced by generators associated with the MU power plant expansion, to assess the potential cancer risk. Particulate matter source-testing will be conducted on the second generator once it is installed. Additional environmental controls, such as a catalytic soot scrubber on the second generator, will be installed as necessary to meet all current, applicable air quality standards. Any additional generators will need to meet the GBUAPCD performance standard of (currently) a cancer risk less than or equal to ten in one million.	KMPUD	TC-TAC, Great Basin Unified Air Pollution Control District.	Not Applicable	With completion of the new KMPUD power house in 2012 and interconnection to the regional electric grid in 2014, the wastewater treatment plant is no longer powered by stand-alone diesel generators, and therefore, emissions testing is not applicable. Emissions generated from the new power house are regularly tested and in compliances with GBUAPCD standards.
	Increase in SO_x and NO_x.				
4.4(b)	MU will continue to operate the power generation plant with the SCR (Selective Catalytic Reduction) system in place as required by the GBUAPCD.	KMPUD	TC-TAC, Great Basin Unified Air Pollution Control District.	Not Applicable	Mountain Utilities was sold to KMPUD in April 2010, and KMPUD completed construction of a new power house in 2012. Current technologies in use meet all emission standards as required by the GBUAPCD.
	Regional Haze				
4.4(c)	To mitigate regional haze during the winter, EPA-compliant wood burning fireplaces and stoves will be required in all new housing units as described in Mitigation Measure 4.4 (a).	N/A	TC-TAC, County Planning	Compliant	New state and federal building codes require EPA Phase II compliant wood burning stoves in all new development. Refer to comments for mitigation measure 4.04(a).
4.4(d)	During summer months, the application of dust suppressants will be required in areas where earth-moving activities are being conducted.	Project Proponent	County Engineer.	Compliant	This measure is a standard construction practice required within each project SWPPP and is monitored weekly during construction for compliance. There are periodic inspections by County during construction.
4.4(e)	Streets will be swept by a vacuum sweeper during periods when road conditions are dry enough to allow the removal of anti-skid materials (i.e., sand). The streets must be swept from curb to curb, which includes the driving lanes, to maximize the control effectiveness.	Not Clearly Specified	TC-TAC, County Planning	Compliant	Vacuum sweepers are used to sweep the roads under dry conditions.
CULTURAL RESOURCES					
	Prehistoric Resources				
4.5(a)	Any area ultimately identified for project development should be surveyed for prehistoric cultural resources by a qualified archaeologist prior to ground-disturbing activity.	Project Proponent	TC-TAC, State Historic Preservation Officer.	Compliant	Historic resource surveys have been completed many times throughout Kirkwood since 1973. Most recently, in 2009, a Heritage Resource Inventory was completed for the 2003 Kirkwood Specific Plan Development and Mitigation project that covered all proposed development projects authorized by the 2003 Kirkwood Specific Plan.
4.5(b)	If cultural resources are found, and if the resource is determined to be significant under CEQA/CRHR criteria, or is a unique archaeological resource, mitigation through data recovery or other appropriate measures should be devised and carried out by a qualified archaeologist, in consultation with all concerned parties.	Project Proponent	TC-TAC, State Historic Preservation Officer.	Compliant	There are no significant prehistoric cultural resources proposed to be impacted through development of the 2003 Kirkwood Specific Plan.
4.5(c)	If Native American burial sites are found, specific mitigation measures would be determined in consultation with Native American most likely descendants, as identified by the NAHC. Options could include leaving a burial in place if further disturbance can be avoided, or removal and reburial with or without previous archaeological treatment. All such procedures should be conducted within the context of CEQA, Section 15064.5 Guidelines and the California Public Resources Code 5097.94, 5097.98 and 5097.99.	Project Proponent	TC-TAC, Native American Heritage Commission, applicable tribal authority.	Compliant	No Native American burial sites have been found within the 2003 Kirkwood Specific Plan project area.
4.5(d)	In the event that construction personnel observe previously undiscovered subsurface prehistoric archaeological deposits (e.g., concentrations of bone, ash, charcoal, and/or artifacts) or human bones are encountered in an area subject to development activity, work in the immediate vicinity of the find should be halted and a professional archaeologist consulted, or, in the case of human burials, the County Coroner and the appropriate Native American most likely descendants (identified by the NAHC). If the resource is determined to be historically significant under CEQA/CRHR criteria, mitigative data recovery or other measures should be devised, and carried out by a qualified archaeologist in consultation with all concerned parties.	Project Proponent	TC-TAC, State Historic Preservation Officer.	Compliant	This measure is incorporated into all plans and specification.
	Historic Resources				
4.5(e)	Any area ultimately identified for potential project development should be surveyed for historic cultural resources by a qualified archaeologist prior to ground-disturbing activity.	Project Proponent	TC-TAC, State Historic Preservation Officer.	Compliant	Historic resource surveys have been completed many times throughout Kirkwood since 1973. Most recently, in 2009, a Heritage Resource Inventory was completed for the 2003 Kirkwood Specific Plan Development and Mitigation project that covered all proposed development projects authorized by the 2003 Kirkwood Specific Plan.

Mitigation Measure	Impact and Mitigation Measure	Responsible for Implementation[1]	Review Authority	Compliance Status	Comments / Recommendations
4.5(f)	If historic cultural resources are found, and if the resource is determined to be a historic resource or unique archaeological resource under CEQA/CRHR criteria, mitigation through data recovery or other appropriate measures should be devised and carried out by a qualified archaeologist, in consultation with all concerned parties. All such procedures should be conducted within the context of CEQA Section 15064.5 Guidelines.	Project Proponent	County Planning, TC-TAC, State Historic Preservation Officer.	Compliant	There are no significant cultural resources proposed to be impacted through development of the 2003 Kirkwood Specific Plan.
4.5(g)	In the event that construction personnel observe previously undiscovered subsurface historic archaeological deposits (e.g., concentrations of historic materials such as ceramics, glass, or other historic materials) in an area subject to development activity, work in the immediate vicinity of the find should be halted and a professional archaeologist consulted. All such procedures should be conducted within the context of CEQA Guidelines Section 15064.5.	Project Proponent	TC-TAC, State Historic Preservation Officer.	Compliant	This measure is incorporated into all plans and specification.
4.5(h)	Implementation of any element of the Draft Plan that could affect the integrity of the Kirkwood Inn setting should be subject to review by Alpine and El Dorado counties. Any future additions should follow the same architectural style. Any future additions must also consider the view to and from the building, especially from the front or highway side. For structural reasons, any new development and related heavy equipment should be distanced from the Kirkwood Inn so as to not place additional stresses on the existing foundation. Review should include development of measures to mitigate indirect impacts to the Kirkwood Inn to a less-than-significant level. Specific mitigation measures to be implemented by KMR will include some or all of the following: a. Include use of architecturally compatible materials and design developed with the input of a qualified historical architect, if the new construction affects the visual setting of the Kirkwood Inn and it is determined that its setting contributes to its significance. b. Use of vegetative screening. c. Use of architecturally harmonious materials and sensitive placement of new structures. d. Placement of an appropriate interpretive sign near the Kirkwood Inn explaining the significance of the structure and its place in local and regional history.	Project Proponent	TC-TAC, State Historic Preservation Officer.	Not Applicable	No new development is proposed that could affect integrity of Kirkwood Inn.
4.5(i)	If the Mace Camp in Kirkwood North cannot be removed from proposed development plans or from sale to private developers, then the following protective measures will be undertaken by KMR or the project proponent: a. The archaeological site and a 100- foot buffer area around the site will be excluded from sale to a private individual. b. No structures, other than those necessary to protect the integrity of the site, will be established within the 100-foot protected buffer area. c. With the cooperation of a qualified archaeologist and Eldorado National Forest to determine appropriate design and content, KMR will install a low visibility interpretive sign at the site as an educational and protective measure. d. KMR will monitor the site annually to assure the site is not degraded by vandalism or over use. If degradation occurs, KMR will work with the El Dorado County Cultural Resources Commission and the Eldorado National Forest to establish additional appropriate protective measures for the site.	KMD[3]	TC-TAC, State Historic Preservation Officer.	Not Applicable	Mace Camp was previously located within Kirkwood North Development Plans, but the 2003 Kirkwood Specific Plan was modified to avoid impacts to the archeological site.
	Indirect Impacts to Sites on the Emigrant Trail				
4.5(j)	Educational literature will be developed by KMR to educate guests about the fragile and irreplaceable nature of cultural resources and the penalties for violation of state and federal laws related to cultural resources. This informational literature could be in the form of a pamphlet or other handout that could be distributed at the same venues where other Kirkwood materials are distributed.	KMR	TC-TAC	Compliant	KMR has prepared a brochure titled, "The Cultural History of Kirkwood California" that is available to the public throughout Kirkwood Mountain Resort.
LAND USE					
4.6	No Mitigation Required	N/A			
TRAFFIC					
	Effects of increased traffic volumes on state and local roads				
4.7(a)	A northbound to westbound left-turn acceleration lane on SR88 should be created to accommodate left-turn movements. Kirkwood Meadows Drive should be restriped and/or widened to accommodate three 10-foot-wide lanes (minimum), which would include one southbound lane and two northbound lanes (one left-turn, one right-turn). Either restriping additional turn lanes or temporarily placing traffic cones during peak periods to form turn lanes would allow left-turn vehicle storage while allowing right turning vehicles to flow.	KMD, KMR[5]	TC-TAC, Caltrans	Compliant	Kirkwood Meadow Drive is currently wide enough to accommodate three 10-foot wide lanes at the intersection with SR 88. During peak use periods, traffic is controlled through temporary placement of traffic cones to form designated turn lanes. As traffic increases, restriping to allow permanent turn lanes may be warranted.

Mitigation Measure	Impact and Mitigation Measure	Responsible for Implementation[1]	Review Authority	Compliance Status	Comments / Recommendations
4.7(b)	Traffic control during peak periods, either through signalization or manual control, at the SR 88/Kirkwood Meadows Drive intersection would improve the LOS rating to B at build-out (modeling results in Appendix A). KMR will conduct traffic counts and LOS modeling during periods of peak visitation, which could include summer special events, every 3 years and provide the results to TC-TAC. The frequency of this requirement may be modified by TC-TAC based on the rate of growth in traffic experienced since the last evaluation and that expected in the near future. Signalization or manual control of the intersection will occur if traffic flows meet Caltrans minimum requirements for signalization. Alternatively, KMR may pursue other traffic control measures acceptable to Caltrans and all three counties that would improve the LOS rating of the SR88/Kirkwood Meadows Drive intersection to LOS B. The following actions shall be completed by KMR every three years beginning in 2005 and every three years thereafter or as determined by TC-TAC pursuant to the stated mitigation measure: (a) Collect morning and evening peak hour turning movement counts at the SR 88/Kirkwood Meadows Drive intersection at least on peak summer and winter weekday and weekend data (total of at least 4 days) with more than 4000 day use visitors at the resort; (b) Collect three-year accident history from Caltrans and/or CHP for accidents that occurred within 500 feet of the intersection. (c) Retain a registered professional engineer to perform the following: (i) Review the current condition of the intersection including geometrics, sight distance constraints, and field observations (delays, queues, etc.); (ii) Compute the LOS at the intersection during these peak hours in accordance with the methodologies prescribed in the most recent version of the Highway Capacity Manual; (iii) Evaluate the accident data to determine if the type or lack of control at the intersection contributed to any of the reported accidents; (iv) Conduct a signal warrants analysis based on the peak hour counts and the accident experience per Caltrans' Traffic Manual; (v) Recommend changes to the intersection geometrics and/or traffic control devices necessary to maintain acceptable LOS; and (vi) Document the results of the tasks described above in (c) (i) through (v) for review and comment by Caltrans. (d) KMR will submit the report to TC-TAC, who will then submit their recommendations to Caltrans District 10. Improvements may include signalization, manual control during peak days, lane additions, signing and/or striping improvements, sight distance modifications and other appropriate measures. KMR will then be responsible for construction of the improvements as deemed necessary by TC-TAC and Caltrans. KMR may work with the counties, regional transportation planning agencies and Caltrans to pursue State sources to help fund these improvements.	KMD[6]	TC-TAC, Caltrans	Partial - compliance	During peak periods, KMD contracts with uniform CA Highway Patrol to conduct manual control of egress and ingress at the intersection of SR 88 and Kirkwood Meadows Drive. The most recent traffic study was completed in 2010 (Fehr & Peers). The 2013 review by TC-TAC allowed for analysis to be deferred to 2014 (or as appropriate) due to lack of new development within Kirkwood Valley since the 2010 traffic study; however, since 2014 there has been no additional review or discussions addressing the need for additional studies. Additionally, communications between Caltrans and TC-TAC is lacking. TC-TAC needs to determine if traffic studies are necessary based on current conditions or if further deferment is sufficient and notify Caltrans of their determination.
4.7(c)	Alpine County will implement a traffic impact mitigation fee for future development within Kirkwood. The fee would be used to mitigate traffic impacts on SR 88 both the east and west of Kirkwood (in Amador County) that are partially attributable to Alpine County development. The fee system would be based on a similar mitigation fee program already in place within Amador County, which is applicable to development at Kirkwood within Amador County.	Agency - County	TC-TAC	Compliant	Alpine County established the Kirkwood Area Traffic Impact Mitigation Fee under Ordinance No. 670-06 adopted April 18, 2006.

Mitigation Measure	Impact and Mitigation Measure	Responsible for Implementation[1]	Review Authority	Compliance Status	Comments / Recommendations
	Adequacy of parking.				
4.7(d)	KMR will prepare an annual report that includes a detailed analysis of day-visitor parking during peak periods such as the Christmas holiday, Presidents Day weekend and other weekends during the ski season, peak periods during the summer, and special events, when more than 4,000 day-use visitors are at the resort. The study will compare day-visitor parking demand during these periods to day-visitor parking capacity at the resort. The results will be reported to TC-TAC in June of each year. If the study shows that the number of day-visitor related vehicles parked within the resort exceeds the amount of parking spaces available for day visitors (approximately 2,500 spaces), TC-TAC will require KMR to implement a mitigation plan which will include one or more of the following actions: a. Provide additional parking spaces in surface lots or parking structures. b. Implement methods to provide greater efficiency in the use of existing parking lots. c. Reduce parking demand through greater utilization of mass transit, increased vehicle occupancy, car/van pools or other programs that will result in reduced parking demand during peak periods. d. Restrict day-visitor use to a level that allows parking demand to be accommodated in existing day-visitor parking areas Implementation of the actions under this mitigation measure shall result in adequate day-visitor parking capacity for the expected day-visitor demand at the resort in a manner that does not result in potentially significant adverse environmental effects that have not been identified and evaluated in this EIR.	KMR	TC-TAC	Compliant	The 2012/2013 parking report identified a total of 3,097 parking spaces that are available for visitors, well above the 2,500 spaces required by the 2003 Kirkwood Specific Plan. Peak day parking occurred in March 2013 with a total of 2,261 cars. There was no shortage of parking spaces during the 2012/2013 season. KMR continues to work on reducing parking demand by providing a shuttle bus for employees living in South Lake Tahoe and has instituted a car-pool incentive program. KMR also provides financial incentives to groups that provide bussed transportation to the resort. KMR implements a Parking Management plan which provides an efficient and formalized parking plan that corresponds to the resorts ability to remove snow from parking areas. KMR intends to conduct a more detailed analysis of the factors impacting utilization of parking so that it can identify options to meet current and future demand, including improving the efficiency in which existing spaces are cleared, improving accessibility to visitors after heavy snow storms, and adding additional spaces along Kirkwood Meadow Drive. KMR gives financial incentives for groups that come in busses.
	Effects of Kirkwood North development on traffic.				
4.7(e)	Caltrans design requirements should be used to develop the final intersection layout.	Project Proponent	TC-TAC, Caltrans.	Not applicable	Final design plans for Kirkwood North have not yet been developed. Prior to construction of intersection, a permit from Caltrans would be required that would incorporate Caltrans' design requirements.
VISUAL AND AESTHETIC RESOURCES					
	Project Visibility				
4.8(a)	At high-visibility locations, such as upper elevations of Ski-In/Ski-Out South, new trees will be grouped and planted strategically to help break up or screen out the visibility of the proposed development. Additional refinements to location will be defined through design review and analysis of specific proposals.	Project Proponent	TC-TAC, County Planning	Compliant	Landscape plans are submitted to TC-TAC and the applicable county planning and building departments for review and approval. Final approval of plans indicates sufficient incorporation of measure into design. The county provides periodic monitoring during construction to ensure development is constructed as approved.
4.8(b)	Proposed development in forested areas will be established with curvilinear, undulating boundaries wherever possible.	Project Proponent	TC-TAC, County Planning	Compliant	Landscape plans are submitted to TC-TAC and the applicable county planning and building departments for review and approval. Final approval of plans indicates sufficient incorporation of the measure into design. The county provides periodic monitoring during construction to insure development is constructed as approved.
4.8(c)	During construction, clearing of land for facilities or activities will emphasize curvilinear boundaries instead of straight lines in natural appearing landscapes.	Project Proponent	TC-TAC, County Planning	Compliant	Landscape plans are submitted to TC-TAC and the applicable county planning and building departments for review and approval. Final approval of plans indicates sufficient incorporation of measure into design. The county provides periodic monitoring during construction to insure development is constructed as approved.
4.8(d)	Grading will be done in a manner which minimizes erosion, conforms to the natural topography, and minimizes cuts and fills.	Project Proponent	TC-TAC, County Planning	Compliant	Grading plans are submitted to TC-TAC and the applicable county planning and building departments for review and approval. Final approval of plans indicates sufficient incorporation of measure into design. The County provides periodic monitoring during construction insure development is constructed as approved.
4.8(e)	Clearing trees and vegetation for the project will be limited to the minimum area required.	Project Proponent	TC-TAC, County Planning	Compliant	Landscape plans are submitted to TC-TAC and the applicable county planning and building departments for review and approval. Final approval of plans indicates sufficient incorporation of measure into design. The County provides periodic monitoring during construction to insure development is constructed as approved.
4.8(f)	Soil excavated during construction and not used will be backfilled evenly into the cleared area, and will be graded to conform with the terrain and the adjacent landscape.	Project Proponent	TC-TAC, County Planning	Compliant	Grading plans are submitted to TC-TAC and the applicable county planning and building departments for review and approval. Final approval of plans indicates sufficient incorporation of measure into design. The County provides periodic monitoring during construction insure development is constructed as approved.
4.8(g)	Site-specific efforts will be made, such as removing stumps or smoothing soil, to ensure a temporary impact where clearing is required in sensitive or scenic areas.	Project Proponent	TC-TAC, County Planning	Compliant	Grading plans are submitted to TC-TAC and the applicable county planning and building departments for review and approval. Final approval of plans indicates sufficient incorporation of measure into design. The County provides periodic monitoring during construction insure development is constructed as approved.

Mitigation Measure	Impact and Mitigation Measure	Responsible for Implementation[1]	Review Authority	Compliance Status	Comments / Recommendations
4.8(h)	Permanent vegetative cover will be established on disturbed areas. Replanting poor or difficult sites will be done if initial efforts fail to ensure the establishment and continued growth of plant material to prevent erosion and sedimentation. Qualified personnel will perform all reseeding and revegetation efforts.	Project Proponent	TC-TAC, County Planning	Partial Compliant	Landscape plans are submitted to TC-TAC and the applicable county planning and building departments for review and consistency with Kirkwood Landscape and Revegetation Ordinance. County Planning typically requires a security bond to ensure revegetation success. Return of the bond amount to the developer signifies success vegetation restoration. See discussion in report text.
4.8(i)	Native or indigenous plant materials will be selected on the basis of site-specific climatic conditions, soil characteristics, soil moisture regime, and topography, and further selected based on their ability to blend with existing vegetation.	Project Proponent	TC-TAC, County Planning	Compliant	Landscape plans are submitted to TC-TAC and the applicable county planning and building departments for review and consistency with Kirkwood Landscape and Revegetation Ordinance. The Ordinance specifies appropriate seed mixes by habitat and allowable tree species. Approval of plans indicates compliance with mitigation measure.
4.8(j)	The seedbed will be modified to provide an optimum environment for seed germination, seedling growth, and survival, as specified in the Kirkwood erosion control ordinance (see Mitigation Measure 4.1 (b)-(h)) and KRMOA Design Guidelines.	Project Proponent	TC-TAC, County Planning	Compliant	Landscape plans are submitted to TC-TAC and the applicable county planning and building departments for review and approval. Final approval of plans indicates sufficient incorporation of measure into design. The county provides periodic monitoring during construction to insure development is constructed as approved.
4.8(k)	Landscape design which repeats or blends with the surrounding existing landscape character will be applied in highly visible or sensitive areas to enhance the appearance of project building installation.	Project Proponent	TC-TAC, County Planning	Compliant	Landscape plans are submitted to TC-TAC and the applicable county planning and building departments for review and approval. Final approval of plans indicates sufficient incorporation of measure into design. The county provides periodic monitoring during construction to insure development is constructed as approved.
4.8(l)	Feathering the edges of the highway ROW in certain areas will be utilized to repeat vegetation patterns of existing open space edges.	KMR	Forest Service, TC-TAC, County Planning	Not applicable	No development has occurred along highway ROW
4.8(m)	Natural woody vegetation within 100 to 200 feet of SR 88 in Kirkwood North will be evaluated carefully before removal in order to preserve a visual buffer for this area. Selective removal or pruning of trees in areas with sensitive scenic values (e.g., SR 88 recreation areas and residences) will be done in consultation with the Caltrans landscape architect or county-approved visual resource specialist prior to any tree removal in these areas.	Project Proponent	Forest Service, TC-TAC, County Planning	Not applicable	No development has occurred north of SR 88.
4.8(n)	Trees and other plants for landscaping will be selected based on their ability to blend with existing vegetation. Rip-Rap stabilization material will be a non-contrasting color.	Project Proponent	TC-TAC, County Planning	Compliant	Landscape plans are reviewed by TC-TAC and the applicable county planning and building departments for consistency with mitigation measure. Final approval of plans indicates compliance with mitigation measure. The county provides periodic monitoring during construction to insure development is constructed as approved.
4.8(o)	Mulch or scatter tree slash debris on cut and fill areas to mask bare soil and maintain a more appropriate texture to areas back from travelways.	Project Proponent	TC-TAC, County Planning	Compliant	Landscape plans are reviewed by TC-TAC and the applicable county planning and building departments for consistency with mitigation measure. Final approval of plans indicates compliance with mitigation measure. The county provides periodic monitoring during construction to insure development is constructed as approved.
4.8(p)	Control planting times to maximize successful revegetation.	Project Proponent	TC-TAC, County Planning	Compliant	Landscape plans are reviewed by TC-TAC and the applicable county planning and building departments for consistency with mitigation measure. Final approval of plans indicates compliance with mitigation measure. The county provides periodic monitoring during construction to insure development is constructed as approved.
4.8(q)	Use natural-looking planting patterns on cut/fill slopes.	Project Proponent	TC-TAC, County Planning	Compliant	Landscape plans are reviewed by TC-TAC and the applicable county planning and building departments for consistency with mitigation measure. Final approval of plans indicates compliance with mitigation measure. The county provides periodic monitoring during construction to insure development is constructed as approved.
4.8(r)	Implement Mitigation Measure 4.1 (c).	N/A			Reference comments on Mitigation Measure 4.1 (c).
4.8(s)	Implement Mitigation Measures 4.1 (m) and 4.1 (n).	N/A			Reference comments on Mitigation Measures 4.1 (m) and 4.1 (n).
4.8(t)	Design to take advantage of natural screens (i.e., vegetation, landforms).	Project Proponent	TC-TAC, County Planning	Compliant	Landscape plans are reviewed by TC-TAC and the applicable county planning and building departments for consistency with mitigation measure. Final approval of plans indicates compliance with mitigation measure. The county provides periodic monitoring during construction to insure development is constructed as approved.
4.8(u)	Seed cuts and fills with native grass species that will not have substantial winter or other seasonal color contrasts.	Project Proponent	TC-TAC, County Planning	Compliant	Landscape plans are reviewed by TC-TAC and the applicable county planning and building departments for consistency with mitigation measure. Final approval of plans indicates compliance with mitigation measure. The county provides periodic monitoring during construction to insure development is constructed as approved.
4.8(v)	Visual prominence of development within visually sensitive areas, as viewed from SR 88, will continue to comply with requirements for building colors, construction materials, and architectural design as administered by the Forest Service and the TC-TAC, and outlined in KRMOA CC &Rs and Design Guidelines. Particular attention should be given to any new Kirkwood North development, especially regarding the architectural style and color scheme.	Project Proponent	Forest Service, TC-TAC, County Planning	Compliant	TC-TAC and USFS have jurisdiction of the scenic Highway Corridor on SR 88. Final plans for Kirkwood North have not yet been developed or submitted for review. All development plans within visually sensitive areas as viewed from SR 88 will be reviewed by the Forest Service and TC-TAC for compliance with building colors, construction materials, and architectural design as outlined in the Design Guidelines.

Mitigation Measure	Impact and Mitigation Measure	Responsible for Implementation[1]	Review Authority	Compliance Status	Comments / Recommendations
4.8(w)	Structures will be constructed of materials that blend with the landscape character. Lift components will meet FSM 2380 (Forest Service Manual) policy for color and reflectivity, which is 4.5 on the Munsell neutral value color scale. Building designs (on NFS lands), including color and material, will be submitted to the Forest Service for approval prior to construction.	Project Proponent	TC-TAC, County Planning	Compliant	Landscape plans are reviewed by TC-TAC and the applicable county planning and building departments for consistency with mitigation measure. Final approval of plans indicates compliance with mitigation measure. The county provides periodic monitoring during construction to insure development is constructed as approved.
4.8(x)	The appearance of human-made openings will simulate existing natural openings in the forest such as those that occur in the project area.	Project Proponent	TC-TAC, County Planning	Compliant	Landscape plans are reviewed by TC-TAC and the applicable county planning and building departments for consistency with mitigation measure. Final approval of plans indicates compliance with mitigation measure. The county provides periodic monitoring during construction to insure development is constructed as approved.
4.8(y)	In accordance with FSM 2380, appropriate siting of buildings will be incorporated, as will the use of low-impact materials and colors, on NFS lands.	KMR	TC-TAC, County Planning, Forest Service	Compliant	For buildings located on National Forest Lands, the color of buildings is submitted to ENF landscape architect for approval.
	Light and Glare				
4.8(z)	For working and public gathering areas, lighting levels will be 3.5 foot-candles average horizontal, with a minimum illumination of 1/3 average, a maximum of three times the average.	Project Proponent	TC-TAC, County Planning	Compliant	As required in 4.08 (ab), lighting plans are required for all new development. Review and approval of plans by the applicable county indicates compliance with mitigation measures.
4.8(aa)	Fixtures will be required to minimize fugitive light into existing residential areas, including East Meadow, KMA subdivision, and other residential locations susceptible to light and glare, by using asymmetrical distribution, light shields and vegetation.	Project Proponent	TC-TAC, County Planning	Compliant	As required in 4.08 (ab), lighting plans are required for all new development. Review and approval of plans by the applicable county indicates compliance with mitigation measures.
4.8(ab)	A lighting plan for all new development will be required, as outlined in KRMOA Design Guidelines, that will be reviewed by the counties when specific project level plans are submitted for review.	Project Proponent	TC-TAC, County Planning	Compliant	As required in 4.08 (ab), lighting plans are required for all new development. Review and approval of plans by the applicable County indicates compliance with mitigation measures.
NOISE					
	Construction and operational noise				
4.9(a)	Construction activities which generate or produce noise that can be heard beyond the boundaries of a project site will be limited to the hours of 7 a.m. to 7 p.m. Exceptions are allowed for emergency repairs.	Project Proponent	TC-TAC	Compliant	Construction activities are limited to the hours of 7 a.m. to 7 p.m. Monday through Saturday within Kirkwood. No documentation of non-compliance.
4.9(aa)	Loudspeaker use will continue to be allowed at special events related to ski area operation. Their operation will be limited to between the hours of 7 a.m. and 7 p.m.	Project Proponent	TC-TAC	Compliant	No documentation of non-compliance.
	Snowmaking activities				
4.9(b)	KMR will implement the Snowmaking Noise Management Program, which was adopted when the snowmaking project was approved. This incorporates several features including restrictions on the type of nozzle, shielding of nozzles, and acceptable time of operation.	KMR	TC-TAC, County Planning	Compliant	KMR currently implements a Snowmaking Noise Management Program, which was adopted when the snowmaking project was approved (1996).
SOCIO-ECONOMICS					
	Housing				
4.10(a)	Counties will develop and enact an ordinance requiring employee housing to be provided at Kirkwood. The ordinance will, at a minimum, include the following elements: a. A requirement that at least 30 percent of the number of average peak-season employees be provided with employee housing concurrent with future development of the resort. b. A method of ensuring that the amount of required employee housing will continue to be provided in the future. c. Consideration of possible allowance for a fee to be paid in lieu of constructing employee housing. d. Consideration of possible credit toward the employee housing requirement in exchange for KMR providing transportation for employees residing outside of the Kirkwood area. e. Consideration of possible credit toward the employee housing requirement for housing units located outside of the Kirkwood area which are reserved by KMR for use by employees within the Kirkwood area.	County agencies	TC-TAC.	Compliant	A housing ordinance was established in 2003 as part of the 2003 Kirkwood Specific Plan. Annual Workforce Housing Audits have been submitted annually for review and have been approved by TC-TAC. Although the mitigation measures pertaining to the Ordinance are being met, the various parties involved generally agree that the Ordinance could be updated to include additional options for compliance, such as additional funding mechanisms, introduction of a fee in-lieu option or introduction of credits for employee transportation from off-site locations. Discussed further in text of report.
HAZARDOUS MATERIALS					
	Fuel Storage and Use				
4.11(a)	Underground storage tanks or other hazardous material storage will not be sited within the Caltrans right-of-way.	KMR Agency	TC-TAC.	Compliant	No underground storage tanks or hazardous material storage has been located within the Caltrans right-of-way.
4.11(b)	The Kirkwood Maintenance Shop and MU will maintain spill prevention plans for all hazardous materials. These plans will be reviewed and updated annually, as appropriate, and filed with the appropriate county.	KMR KMPUD[7]	TC-TAC.	Compliant	KMPUD and KMR are required by the CA Health and Safety Code to maintain Hazardous Materials Business Plans (HMBP) for all hazardous materials utilized at the maintenance shop, power house, and other facilities throughout Kirkwood. The HMBP includes a spill prevention plan. The HMBPs are reviewed and updated on an annual basis and submitted to the county for approval.
4.11(c)	All existing and proposed fuel tanks will be maintained, operated and tested in accordance with local, state and federal regulations.	KMR, KMD[8]	TC-TAC, County	Compliant	Procedures for operating and testing fuel tanks are outlined in the SPCC Plans. The counties set the schedule for testing of fuel system components and issues operating approval.

Mitigation Measure	Impact and Mitigation Measure	Responsible for Implementation[1]	Review Authority	Compliance Status	Comments / Recommendations
4.11(d)	Hazardous materials cleanup and containment supplies will be carried in any vehicle that transports fuel for refueling construction equipment.	KMR, KMD[9] Project Proponent	TC-TAC.	Compliant	KMR confirmed that all vehicles that transport fuel for refueling construction equipment contain cleanup and containment supplies. This measure is required as part for the SPCC Plan.
4.11(e)	Hazardous materials cleanup and containment supplies will be present at any permanent location where refueling is done.	KMR Agency	TC-TAC.	Compliant	This measure is required as part of the KMR's and KMPUD's SPCC Plan.
4.11(f)	KMR, MU, and KMPUD will train all vehicle operators who will be participating in refueling activities in spill prevention and in the use of cleanup materials.	KMR, KMD, KMPUD[10]	TC-TAC.	Compliant	Both KMPUD and KMR have training programs for year-round and seasonal employees as outlined in the SPCC Plan.
4.11(g)	No motor fuel refueling will be conducted within 100 feet of Kirkwood Creek or any of its perennial tributaries, or within 50 feet of any occupied housing unit.	KMR Project Proponent	TC-TAC.	Compliant	There are no fueling stations within 100 feet of Kirkwood Creek or any of its perennial tributaries or 50 feet of any occupied housing unit.
4.11(h)	In the event that a hazardous material spill of a reportable quality occurs, the responsible party will immediately notify the Department of Environmental Health of the affected county or counties, the CDFG and any other agencies as required under regulations applicable at the time of the spill. If the spill occurs on NFS land, Kirkwood will also notify the Amador Ranger District.	KMR, Project Proponent	TC-TAC, Forest Service	Compliant	In the event of a Spill KMR notifies the Department of Environmental Health of the affected county and in accordance with the Hazardous Materials Business Plan and the Office of Emergency Services Guidance (2014).
4.11(i)	KMR and its agents and subcontractors will adhere to the reporting standards outlined in California Hazardous Materials Spill/Release Notification Guidance (Lercari 1999) established by the Governor's Office of Emergency Services.	KMR[10]	TC-TAC	Compliant	KMR and its subcontractors adhere to the reporting standards outlined in the most updated California Hazardous Materials Spill/Release Notification Guidance.
4.11(j)	KMR, MU, and KMPUD shall comply with Title 22 for submission of business plans, inventory statements, explosive storage, and spill prevention control countermeasure plans, as may be required.	KMR, KMD, KMPUD	TC-TAC	Compliant	KMR and KMPUD comply with Title 22 and have prepared Hazardous Material Business Plans, inventory statements, of hazardous materials stored on-site, and SPCC Plans. These plans are annually updated and submitted for review and approval to California OSHS.
4.11(k)	Future development in portions of Alpine or Amador County where soil or groundwater contamination by petroleum products has been identified will at a minimum require approval from the applicable County Health Department and the CVRWQCB.	Project Proponent	TC-TAC	Not applicable	No development has occurred on contaminated sites in Alpine or Amador counties. Any future development on contaminated sites will require compliance with this mitigation measure.
RECREATION					
	Effects of increased population on use of surrounding public lands.				
4.12(a)	Implement Mitigation Measures 4.3.1 (i) and 4.3.1 (j) as described in the Aquatic Resources section.	N/A			See comments for Mitigation Measures 4.3.1 (i) and 4.3.1 (j)
4.12(b)	KMR will conduct surveys to identify on/off-site recreation use patterns of residents and guests and report results to TC-TAC and the Forest Service. Such surveys will be conducted every 4 years or as deemed necessary by TC-TAC and the Forest Service. Results will be reported to these agencies within 60 days. This information will increase TC-TAC and Forest Service knowledge of recreational use patterns in the Kirkwood area and contribute to development of responsive management plans for heavily impacted recreational sites and facilities.	KMR	TC-TAC, Forest Service	Non-Compliance	A recreation survey was completed in June 2006. KMR will coordinate with TC-TAC and USFS on need and timing for future surveys.
	Effects on Kirkwood Lake, including fishing.				
4.12(c)	Implement mitigation measures 4.3.1 (h) through 4.3.1 (i), as described in the Aquatic Resources section. In addition, KMR will work with the Forest Service to develop and implement an instructional/interpretive program to inform Kirkwood visitors about sensitive resource issues at Kirkwood Lake.	KMR	TC-TAC, Forest Service	Compliant	KMR has created a poster describing sensitive resources at Kirkwood Lake at the Kirkwood Inn, The Lodge, General Store, Kirkwood Lake and Caples Lake.
PUBLIC SERVICES					
	Police/Sheriff Protection				
4.13(a)	KMR will monitor the level of police protection services required as development proceeds and the resident population increases. Alpine and Amador counties will add deputies as dictated by community needs.	KMR	TC-TAC	Compliant	KMR maintains a cooperative relationship with Sheriff's Department in Alpine and Amador counties and meets annually with the County Sheriff's Department to discuss the community safety needs.
	Fire Protection				
4.13(b)	Construct all facilities to adhere to the UBC.	Project Proponent	TC-TAC	Compliant	All new construction complies with the Uniform Building Code (UBC). Plans are reviewed by the applicable County Building Office and KMPUD.
4.13(c)	KMR should continue to implement, maintain, and revise as needed, the Kirkwood Village Fire and Safety Plan and demonstrate that the development complies with the plan.	KMR Project Proponent	TC-TAC		Document has been replaced with the Crisis Management Plan (2008).
4.13(d)	KMR will increase infrastructure and physical accommodations in the service district to support the level of fire protection required for the proposed development.	Project Proponent	TC-TAC	Compliant	The criteria for assessing the need for paid firefighters is outline in the Fire Service Master Plan (1997). The Plan outlines the staffing, equipment, and infrastructure needs to provide an adequate level of service through build out of the 2003 Kirkwood Specific Plan. KMPUD has undertaken improvements outlined in the Plan such as construction of the new Community Services Building and Fire House.

Mitigation Measure	Impact and Mitigation Measure	Responsible for Implementation[1]	Review Authority	Compliance Status	Comments / Recommendations
4.13(e)	KMR will monitor the level of firefighting services required as development proceeds and the resident population increases. KMPUD will add fire fighters as dictated by community needs.	KMR KMPUD	TC-TAC	Compliant	See response above. The level of firefighting services as development proceeds is described in the Fire Service Master Plan.
	Medical Services				
4.13(f)	KMR will continue to maintain medical facilities during the ski season consistent with the requirements of the U.S. Forest Service special use permit issued for the ski area.	KMR	TC-TAC, Forest Service	Compliant	Vail subcontracts to Barton Medical to provide temporary medical facilities during the ski season.
4.13(g)	KMR will monitor the level of medical services required as development proceeds and the resident population increases. If the increase in year-round population warrants, KMR will add medical services to meet community needs.	KMR	TC-TAC	Compliant	Based on the current year-round resident population at Kirkwood, no new medical services are warranted at this time.
	School and Child Care				
4.13(h)	KMR will continue providing funding support of educational facilities for elementary school children (Grades K-6) at Kirkwood (e.g., continue financial support for rented facilities). This requirement will be reviewed every 5 years and a determination made by Alpine County as to whether the requirement should be continued, modified or eliminated.	KMR	TC-TAC, Alpine County Unified School District	Not Applicable	In a formal agreement between the Alpine County Unified School District and KMR (August 18, 2008), the school district states that it is unlikely that a school will be constructed on the site and agrees to transfer the property to Kirkwood Mountain Resort.
UTILITIES AND INFRASTRUCTURE					
	Energy				
4.14(a)	MU[3] will expand the existing electrical facility or construct a new facility to meet projected electrical demands as identified in section 4.14.4.1. As electrical requirements increase and the existing facility reaches capacity, expanded or new facilities must be developed. At the time a tentative development map is submitted, MU must provide the respective county with the current capacity of the electrical generation facility, the current electrical demand of the Kirkwood area, and the projected electrical requirements of the development. If the projected electrical need will not be met by the existing facility, improvements will also be provided and the schedule for completion will be identified. Expanded or new facilities must be in operation prior to electrical demands of the new development.	KMPUD, Project Proponent	TC-TAC	Not Applicable	Mountain Utilities was sold to KMPUD in April 2010. In 2014, KMPUD completed a power line that connects the Kirkwood community to the regional electric grid. The new power line was designed and constructed to meet the estimated electrical demands of the Kirkwood community and resort at build-out of the 2003 Kirkwood Specific Plan. The existing 5 MW powerhouse will be used as a back-up facility and no future expansion is anticipated. KMPUD will be able to meet all electrical demands of future development of the Kirkwood area as approved under the2003 Kirkwood Specific Plan.
	Water Supply				
4.14(b)	KMPUD will connect a new well to the water supply system if the maximum daily demand exceeds the available supplies with the largest well out of service, such that emergency storage reserves would be depleted in 7 days if demands continued at the maximum rate.	KMPUD	TC-TAC	Compliant	KMPUD's current water supply system can meet the current maximum daily demand along with reserve requirement.
4.14(c)	KMPUD will monitor water supply output and install additional wells prior to increased water supply demands of new development parcels. At the time a tentative development map is submitted, KMPUD will provide the respective county with the current water supply, the current water consumption of the Kirkwood area, and the projected water requirements of the development. If the projected water requirements will not be met by the existing supply, as defined in Mitigation Measure 4.14 (b), KMPUD will identify the number and location of proposed wells to be installed and the schedule for completion. Additional wells must be in operation prior to water demands of the new development.	Project Proponent	TC-TAC	Compliant	KMPUD reviews tentative maps and determines if they have the capacity to accommodate the needs of the development, and if so, KMPUD provides a "will serve" letter to the project proponent. KMPUD provides a report to the applicable county documenting supply and demonstrating that they have the capacity to service the proposed development. In 2013, KMPUD completed a Services Capacity Analysis that included assessment of water supply. The Report indicates that existing supply wells will not meet maximum day demand at build-out and recommends that KMPUD pursue obtainment of surface water rights and construct a treatment facility to meet estimated demand rather than installation of additional wells.
4.14(d)	Plan and implement new development to ensure the use of best available technologies for water conservation, including, but not limited to, water conserving toilets, showerheads, faucets, and irrigation systems.	Project Proponent	TC-TAC	Compliant	KMD uses the best available technology in its own projects to the extent practicable, and a list is provided to architects, owners, contractors, and county building departments to incorporate this technology into their plans.
	Wastewater Treatment				
4.14(e)	Monitor wastewater treatment operations and upgrade as appropriate. Expanded or new facilities must be in operation prior to wastewater demands of the new development.	KMPUD	TC-TAC, CVRWQCB	Compliant	The 2013 All Services Capacity Analysis evaluated the capacity of the existing wastewater treatment and disposal facilities and determined that they were sufficient to meet ultimate build-out wastewater flows and loads. No expanded or new facilities are required.
4.14 (f)	At the time a tentative development map is submitted, KMPUD will provide the respective county with the current capacity of the wastewater treatment facility and the current wastewater output of the Kirkwood area. KMPUD will also provide the projected wastewater requirements of the development.	Project Proponent	TC-TAC, CVRWQCB	Compliant	KMPUD reviews each tentative maps and estimates projected wastewater requirements and provides the respective county with a status report documenting current capacity of the wastewater treatment facility and the current wastewater output of the Kirkwood area.
4.14(h)	Implement Mitigation Measure 4.14 (d).	N/A			See comments under Mitigation Measure 4.14
Amador COA #154	Offsite employee housing within the Tahoe Basin must be new construction of which Kirkwood Mountain Resort is either the primary developer or substantial development partner that results in additional housing stock within the Tahoe Basin. Within the Tahoe Basin, leasing, remodeling, retrofitting, or otherwise using existing housing stock will not result in credit toward employee housing pursuant to this ordinance.	KMR	Amador County	Not Applicable	There is no existing or planned offsite employee housing within the Tahoe Basin.

Mitigation Measure	Impact and Mitigation Measure	Responsible for Implementation[1]	Review Authority	Compliance Status	Comments / Recommendations
Amador COA #157	The Amador County Board of Supervisors will adopt an AB1600 fire mitigation fee ordinance based on KMPUD's fire protection capital improvement plan to mitigate new development's impact on fire protection.	Amador County	Amador County	Not Applicable	KMPUD has a fire impact fee that is assessed and imposed on all new development within Amador County.

1/ The original text of the mitigation measures does not always clearly specific the responsible party and this column lists the party assumed by the author to most appropriately be responsible for implementation. Additionally, the responsibility of implementation of some measures has changed with the sale of KMR to Vail and the implementation of the 2012 Master Development Agreement. These changes are reflected in the table.

2/ KMD is responsible for requirements 1), 2), 3), 4), and 6). KMD shall be responsible for compliance with requirement 5) for KMD's projects and KMR shall be responsible for requirement 5) for KMR's projects.

3/ Per the 2012 Master Development Agreement, this is now the responsibility of KMD.

4/ Per the 2012 Master Development Agreement, operator shall comply with mitigation measure on ski terrain and all other property owned by Operator. Developer shall comply with the mitigation measure on property owned by Developer.

5/ Per the 2012 Master Development Agreement, KMR to be responsible for temporary placement of traffic cones to form turn lanes during peak periods. All other requirements of the mitigation measure shall be allocated between KMR and KMD in an agreement to be negotiated in the future.

6/ Per the 2012 Master Development Agreement, KMD to perform traffic counts and LOS modeling as required every three years by mitigation measure and provide the results to TC-TAC.

7/ KMPUD now replaces MU (Mountain Utilities) and is responsible for compliance with mitigation measure.

8/ Per the 2012 Master Development Agreement, operator shall comply with mitigation measure for all fuel tanks located on operator-owned property; Developer shall comply with mitigation measure for all fuel tanks located on developer-owned property.

9/ Per the 2012 Master Development Agreement, operator shall comply with mitigation measure for all Operator-owned or controlled vehicles; Developer shall comply with mitigation measure for all developer-owned or controlled vehicles.

10/ Per the 2012 Master Development Agreement, operator shall comply with mitigation measure for all spills located on property owned by Operator; Developer shall comply with mitigation measure for all spills located on property owned by Developer.

Attachment B

Reference Materials

Attachment B
Kirkwood Specific Plan 10-Year CEQA Review
Reference Material Reviewed

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- Appendix 3 Landscaping and Revegetation Ordinance
- Appendix 4 Design Ordinance
- Appendix 5 Housing Ordinance

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Attachment C

Site Photographs

Attachment C – Site Photographs

Photo 1. Examples of erosion control material in place during construction of Timber Creek Phase 1.

Photo 2. Examples of erosion control material in place during construction of Timber Creek Phase 1.

Photo 3. Avalanche warning signs located along ski runs within high hazard area.

Photo 4. Avalanche warning signs located along ski runs within high hazard area.

Photo 5. Educational material located at Kirkwood Lake Campground informing visitors of sensitive resources and fishing regulations.

Photo 6. Segment of Kirkwood Creek located within grazing management area.

Photo 7. Overview of Kirkwood Meadow within grazing management area.

Photo 8. Temporary slope stabilization within Palisades 5. Success of temporary revegetation is variable, but over slope stability maintained by erosion control fabrics and rock as evidenced by lack of dirt and debris on road.

Photo 9. Temporary slope stabilization within Palisades 5. Success of temporary revegetation is variable, but over slope stability maintained by erosion control fabrics and rock as evidenced by lack of dirt and debris on road.

Photo 10. Phase 2 of Kirkwood Recreation Center.

Photo 11. View of failed revegetation along Sentinels Way.

Attachment D

Revised Grazing Management Plan

Five-Year Adaptive Management Plan for the Kirkwood Meadows Horse Pastures

1.0 Purpose

There are two primary purposes for the Kirkwood Horse Pastures Adaptive Management Grazing Plan:

- Define the appropriate conditions and criteria for annual use of the Kirkwood Meadows as horse pasture that can be easily understood and implemented by current and future horse owners and stable operators.

- Establish a method for early detection and response to natural resource problems that could occur as a result of horse grazing in the meadows.

2.0 Background

Description of the Area. Kirkwood Meadow is a montane meadow approximately 120 acres in size at an elevation of 7,700 feet ASL. The vegetation within the meadow is variable and correlated to soil moisture conditions. Areas that stay wet longer into the summer are dominated by sedges (*Carex aquatilis, Carex* spp.), wiregrass (*Juncus balticus)*, and hairgrass (*Deschampsia cespitosa*). Drier parts of the meadow are characterized by Kentucky bluegrass (*Poa pratensis)*, other grasses and forbs. Small areas of lodgepole pine (*Pinus contorta*) and sagebrush (*Artemisia tridentata* and A. *arbuscula*) are fenced within the pastures on upland sites.

Portions of Kirkwood Creek flow south to north through both pastures. Kirkwood Creek traverses and bisects the south pasture and flows along the east boundary of the north pasture. Riparian vegetation along Kirkwood Creek includes Lemmon's willow (*Salix lemmonil*) and eastwood willow (*Salix eastwoodii*).

Livestock Use. Kirkwood Meadow has a long history of livestock grazing dating back to the 1800's. Currently, and in more recent time since 1979, approximately 50 acres on the north end of the meadow have been fenced and used for grazing horses. An east-west fenced alley divides the grazing area into north and south pastures, each of which are approximately 25 acres in size.

The north pasture is used by the horseback-riding concessionaire based at the Kirkwood Corrals. Kirkwood Corrals pastures between 15 to 25 horses. These horses are moved out of the pasture everyday and used in the stable operation. During the day they are given 5 to 10 pounds of feed by the stable manager. This would be equivalent to approximately 20 to 30 percent of their daily food requirement. The remaining 80 percent of their daily diet is provided by pasture grazing.

The south pasture is used by the Kirkwood Horsemen's Association, which is made up of Kirkwood residents and employees. Currently, the Kirkwood Horseman's Association limits the number of animals in the south pasture to a maximum of 12 horses. In drought years, horses from the north pasture may be relocated to the southern pasture to reduce grazing pressures in the north pasture, which typically supports greater numbers of horses.

Grazing Season. The grazing season is somewhat variable and is adjusted annually based upon weather conditions and the growing conditions in the meadow. Horses are put in the meadow once the ground is dry enough to support livestock without harm to the vegetation. The typical grazing season on the meadow extends from June 15 to October 31, but could begin as early as June 1 in a dry year.

Carrying Capacity.
Annual forage production on Kirkwood Meadow has been estimated between 3,000 and 6,000 pounds of forage per acre depending on annual growing conditions (Personal communication with John Stewart, Eldorado National Forest). This production rate yields approximately 75,000 – 150,000 pounds of forage each year in each pasture. As a rough rule-of-thumb, approximately one-half of the production can be used for grazing, and one-half should be left for plant physiological requirements and other ecological functions. At a consumption rate of approximately 800 pounds of air-dry forage per horse per month, each pasture would support approximately 47 to 93 Animal Unit Months (AUMs) or approximately 12 to 23 horses per pasture for the entire 4-month grazing season. During drought years, horses may be given feed to supplement pasture grazing. All feed will be certified weed free.

The water supply for both the north and south pastures is Kirkwood Creek. This has been the source of water since the pasture was created in 1979.

Typical stocking rates within the north pasture range from 15-25 horses per day. Within the south pasture, the Kirkwood Horseman's Association limits the number to a maximum of 12 horses per day, although actual use is much less. Horses within the north pasture may be relocated to the south pasture if persistent drought necessitates a more even grazing distribution.

3.0 Objectives

The objective of this grazing plan is to protect the Kirkwood Creek riparian corridor and to ensure that the meadow is grazed at a sustainable, appropriate level. Specific goals of the plan are to:

- Document the current vegetation condition within the meadow in terms of species composition and ground cover. (Establish the baseline condition.)
- Define the appropriate conditions for turnout into the pasture in terms that can be implemented consistently between years and by different people.
- Evaluate the current stocking rate and season of use and develop adaptive management recommendations for adjustments. Define the conditions that would be used to determine if changes are necessary.

4.0 Responsibilities

The Kirkwood Mountain Resort Director of Planning and Environmental Affairs will be the primary person responsible for implementing and reporting the results of annual monitoring, and for consulting with a Certified Range Management Consultant to interpret the monitoring data and make adaptive management decisions.

5.0 Management Goals

Initial Stocking Rate. Horses will continue to be stocked in the pasture as they have been in the past. Any future recommendations for stocking rate or season of use will be developed through the adaptive management process.

Utilization Levels. Achieve moderate and uniform utilization throughout the pastures.

Streambank Stability. Avoid excessive use along the streambanks of Kirkwood Creek that would result in accelerated erosion or affect proper functioning condition of the stream. Maintain an overall residual stubble height at the end of the growing season along Kirkwood Creek that is adequate to provide stabilization, filtration of sediments, and withstand high flows during spring runoff.

Meadow Condition. Maintain existing ground cover and species composition throughout both pastures. Prevent establishment of invasive and noxious species.

6.0 Monitoring Methods

Meadow Condition. Sample the existing vegetation using frequency point intercept transects in sufficient quantity to estimate the mean vegetation cover with 90 percent probability and 90 percent accuracy. Calculate relative and absolute species composition based upon cover data.

Utilization Mapping – Map the limits of light, moderate and heavy use zones within the entire pasture system and streambanks at the end of the growing season. Record utilization patterns on aerial photographs at a scale of 1"=100' (or better). Document with GPS points as necessary to locate specific features.

Install utilization cages in dry and wet zones in each pasture to provide an annual calibration of total, ungrazed plant growth.

Photo Points. Establish permanent photo point locations and document with GPS coordinates and/or steel fence posts to assure repeatability. Print a copy of each permanent photo and create a field guide to ensure that photographs repeated in the future are comparable.

Annual Precipitation. Document monthly precipitation totals between March 1 and October 1 utilizing exiting rain gages located at Kirkwood Village.

Actual Use. Provide the stable concessionaire and homeowners with actual use record keeping forms. Collect and summarize actual use data at the end of each month throughout the entire grazing season. Include dates and number of horses in each pasture.

7.0 Adaptive Management Strategy

The adaptive management strategy will be developed upon review of the baseline data and the first year monitoring results. The preliminary adaptive management strategy matrix will be tested in 2010 and finalized in 2012. The matrix will identify alternative management recommendations for specific results identified during annual and 5-year monitoring intervals.

The management plan and adaptive management strategy will be evaluated and updated every five years.

8.0 Schedule

2009

- Set out utilization cages in wet and dry parts of each pasture prior to turn-out.
- Document baseline meadow conditions.
- Establish permanent photo points at the beginning of the grazing season and develop a photo point field guide. Retake permanent photos at the end of the grazing season.
- Map utilization patterns on aerial photographs at a scale of 1"=100 feet (or better) at the end of the growing/grazing season. Reset utilization cages.
- Document monthly precipitation and/or soil moisture conditions throughout the growing season.
- Document actual horse use in each pasture – number of horses, dates, and time.

2010

- Preliminary design of the adaptive management strategy and decision matrix.
- Photograph Photo points at the beginning and end of the grazing season.
- Map utilization patterns on aerial photographs at a scale of 1"=100' (or better) at the end of the growing/grazing season. Reset utilization cages.
- Document monthly precipitation and/or soil moisture conditions throughout the growing season
- Document actual horse use in each pasture – number of horses, dates, and time.

2011

- Evaluate the need for modifying grazing practices based upon the adaptive management criteria. Update the adaptive management matrix if needed.
- Photograph Photo points at the beginning and end of the grazing season.
- Map utilization patterns on aerial photographs at a scale of 1"=100' (or better) at the end of the growing/grazing season. Reset utilization cages.
- Document monthly precipitation and/or soil moisture conditions throughout the growing season
- Document actual horse use in each pasture – number of horses, dates, and time.

2012

- Evaluate the need for modifying grazing practices based upon the adaptive management criteria. Update the adaptive management matrix if needed.
- Photograph Photo points at the beginning and end of the grazing season.
- Map utilization patterns on aerial photographs at a scale of 1"=100' (or better) at the end of the growing/grazing season. Reset utilization cages.

- Document monthly precipitation and/or soil moisture conditions throughout the growing season
- Document actual horse use in each pasture – number of horses, dates, and time.

2013

- Reevaluate baseline meadow conditions.
- Photograph photo points at the beginning and end of the grazing season.
- Map utilization patterns on aerial photographs at a scale of 1"=100' (or better) at the end of the growing/grazing season. Reset utilization cages.
- Document monthly precipitation and/or soil moisture conditions throughout the growing season.
- Document actual horse use in each pasture – number of horses, dates, and time.
- Finalize adaptive management strategy. Implement adaptive management recommendations if needed.

2003 KIRKWOOD SPECIFIC PLAN
Mitigation Compliance 10-Year Review

Comments Received and Responses Based on Resource Concepts, Inc. Report dated November 6, 2015

The following provides responses to the public comments made on the Kirkwood Specific Plan Mitigation Compliance 10-Year Review. The intent of this response document is to address issues applicable to the 2003 Specific Plan brought forward to the Tri-County Technical Advisory Committee. Some comments received pertained to items outside of the purview of the 2003 Specific Plan and the associated mitigation measures. Those comments are noted in this document for information. Comments similar in nature were combined to avoid redundancy.

GENERAL COMMENTS

GC-1)

Commenters raised questions on whether the Tri-County Technical Advisory Committee (TC-TAC) provided adequate review and recommendations of proposed projects, and whether there exists sufficient on-site mitigation monitoring to enforce compliance with mitigation measures.

> *<u>Response</u>: RCI based its determination of compliance on review of formal reporting requirements as submitted, reviewed and approved by TC-TAC. Compliance with the mitigation measures was discussed in interviews with both past and present TC-TAC members. Additional interviews were conducted with the key stakeholders, including KMR, KMD, and KMPUD. During the interview process, and in review of the reports and documents referenced, the author was not made aware of any concerns regarding the adequacy of TC-TAC's review and approval of proposed projects and whether there was sufficient onsite mitigation monitoring. The scope of this review is limited to the compliance with the mitigation measures by the project proponent(s), not the monitoring or enforcement capacity of each county in the event of non-compliance.*

GC-2)

TC-TAC's 10-year review should include a specific listing of each instance of mitigation noncompliance and provide recommendations for rectifying.

> *<u>Response</u>: The table in Appendix A of the Report lists all the mitigation measures and includes a determination of mitigation compliance or non-compliance. Mitigation measures determined to be in non-compliance were discussed in further detail in the text of the original report (November 6, 2015). Recommendations were summarized on page 19 of the original report. Additional recommendations formulated during the response to comments are included in the revised final report.*

GC-3)

Buildout of the Specific Plan is developing more slowly than expected. Given the problems with mitigation non-compliance, it is requested that the next mitigation compliance review be scheduled for five, not 10 years.

Another 10-year Review should occur in 10 years because there has been much less development than anticipated in the past ten years.

> *Response: The Amador County Condition of Approval 2 requires that during the 10th year following the approval of the Proposed Project, a review of the development for compliance with the mitigation requirements in the MMRP, and any other conditions of approval, shall be completed by a qualified consultant. Additional 10-year compliance reviews of the MMRP and conditions of approval are not required under the current Conditions of Approval, and are not typical of most MMRPs.*
>
> *Ongoing reporting requirements and compliance reviews as specified by individual mitigation measures will continue at various time intervals as specified in those measures and address the issue of pace of development.*

GC-4)

Clarification of Mitigation Responsibilities. It is essential that the public agencies and the homeowners know which entity is responsible for which mitigation measure. Therefore, it is important that for each mitigation measure, it be specified who is responsible for implementing that particular mitigation measure. The roles and responsibilities of the Resort and the Master Developer need to be explicit.

> *Response: The table in Appendix A of the Report lists all the mitigation measures, the party responsible for implementation, and the reviewing authority. Notations were included when changes were made to designated responsible party following the sale of the resort to Vail. The table in Appendix A has been updated to provide additional clarity and correct previously reported errors.*

GC-5)

Future CEQA compliance reviews should not be first submitted as drafts to the Resort and the Master Developer. The report should be reviewed by the public and the TC-TAC members and the consultant should prepare and respond in writing by correcting and/or supplementing the Review. This will allow for preparation of the most accurate and thorough report that can be used by the Board of Supervisors in each county to direct staff accordingly to clarify mitigations, add mitigations, or assure mitigations are being implemented. This supplemental document should be paid for by Vail and the Developer.

> *Response: The Amador County Condition of Approval requiring the 10-year review does not specify any protocols for review of the draft report; however, the Kirkwood Mountain Resort*

(Vail), and Kirkwood Mountain Development landowner, commissioned and submitted a report. Before doing so, a work plan was submitted to and approved by TC-TAC.

GC-6)

Not enough attention is paid to enforcement of these mitigation measures. There needs to be oversight of all projects and not just major developments. There should be consequences for KMR/Vail when mitigation measures are not in compliance, such as stop issuing building permits and fines should be possible.

Reviews and compliance have failed in instances when County permits have not been required, or if required, not sought. This has resulted in improper discharges into Kirkwood Creek.
Every contractor of every project – whether it be cut, fill, a new roof, a remodel – needs to be made aware of the mitigations and monitored.

<u>Response</u>: The 2003 Specific Plan (page 100) states that the County Planning and Building Departments will bear the majority of enforcement responsibilities as they relate to development projects at Kirkwood. When a proposed project is required to submit an application to the County for a grading permit, building permit or approval of tentative map, the County Planning and Building Departments have the opportunity to review the project design and proposed erosion control, and are charged with monitoring and enforcing the project. The Specific Plan Erosion Control Ordinance specifically states that "it is intended to supplement any grading and erosion control requirements that may be required for development project approvals." Therefore, implementation of the Erosion Control Plan under the Specific Plan is tied to the project's need for a regulatory authorization (e.g. tentative map approval, building permits, grading permits, etc.). Preparation of an Erosion Control Plan is linked to a project's application to the County and enforcement of the Erosion Control Plans is the responsibility of the appropriate County staff.

Activities and smaller projects, such as maintenance of existing structures, roads or parking lots, or minor activities that do not trigger the need for a permit, do not need authorization by the County or review by TC-TAC and therefore, monitoring by the County is not required under the Specific Plan. All projects do need to be in compliance with State and federal regulations which regulate the discharge of materials and sediment into regulated waters for the maintenance of State Water Quality standards and protection of stream functions.

The TC-TAC is an advisory board and cannot enforce mitigation measures or levy fines. Each county has adopted enforcement procedures for addressing non-compliance with its adopted plans, policies, and regulations. The adequacy of those procedures is outside the scope of the 10-year Specific Plan review.

GC-7)

There should be more mitigation monitoring in Kirkwood. TC-TAC may choose to respond to the KMPUD's recent offer to assist with the administration and communication around the monitoring process. With TC-TAC's approval the KMPUD might work with property managers in

the Kirkwood community to participate in pre-construction meetings and review the proposed scope of work or repair or planned for property improvements to existing structures in Kirkwood.

Response: The County's delegation of monitoring responsibilities is outside the scope of this report. The counties can consider KMPUD's offer and determine the most effective approach to improving the monitoring process. However, it should be noted that KMPUD is also a regulated entity under the Specific Plan, so if KMPUD is designated a monitoring authority, the counties should consider appointing an independent third party monitor of Specific Plan related activities undertaken by KMPUD.

GC-8)

Multiple comments were raised regarding compliance with the Specific Plan for projects approved prior to 2003 and review authority of KCA under the Specific Plan.

Response: As stated on page 2, the Specific Plan covers the 732 acres of privately held land in the counties of Alpine, Amador and El Dorado. Rezoning Tentative and Final subdivision maps, and public works projects within Kirkwood, are required by law to be consistent with the Plan. All residential, commercial, mixed-use, public works, recreation and conservation projects must comply with the policies of the Plan. Implementation of those projects must comply with the Ordinances of the Plan.

Development projects that were approved prior to the adoption of the 2003 Specific Plan were reviewed and approved pursuant to the Kirkwood Master Plan which originally was prepared in 1971 and last amended in 1988. Comments received concerning the applicability of the Specific Plan mitigation measures to development approved prior to the implementation of the Specific Plan raise complicated legal questions, including questions related to vested rights. Determination of a legal response to these comments is outside the scope of this review.

The initial report incorrectly stated that KCA had review authority for several mitigation measures. With respect to the Specific Plan mitigation measures, which are governmental requirements, the private KCA does not have any review, approval or enforcement authority. KCA only has authority for development projects within HOAs that are members of the KCA and as outlined in the Kirkwood Community Association Design Guidelines (2005).

GC-9)

The Summary of Recommendations included in the 10-year Review should identify the responsible parties to address each and establish a project plan/timeline for completion as well as benchmarks for reporting progress to TC-TAC and the community.

Response: Comment noted. This suggestion will be brought forward to TC-TAC for consideration.

GC-10)

With completion of the 10-year Review and other factors, TC-TAC may want to consider adding a teleconference option for the TC-TAC Board and county planners to move issues forward expeditiously.

> *Response: Comment noted. This comment is outside the scope of the 10-year Specific Plan review.*

SPECIFIC COMMENTS ON REPORT

SC-1 - Page 2 of report

The KMPUD's General Manager is also an ex-officio member of TC-TAC.

> *Response: The author relied on information included in the 2003 Specific Plan which does not include the Kirkwood Meadows Public Utility District General Manager as an ex-officio member and states (page 10):*
>
> > *Proposed development within Kirkwood is reviewed for conformance with the Plan and its accompanying documents. The reviewing bodies include the Tri-County Technical Advisory Committee (Tri-TAC) comprised of representatives of Alpine, Amador, and El Dorado counties and the county building department of the county in which the project is proposed. Representatives of the U.S. Forest Service serve as ex-officio members of Tri-TAC. The county planning department may be involved if the project requires a use permit, tentative map or variance.*
>
> *However, the joint powers agreement of 1992 clearly states that the TC-TAC shall include representatives from El Dorado National Forest, Toiyabe National Forest and Kirkwood Meadows Public Utility District as ex-officio members of the Committee. The report has been updated to reflect this change*

SC-2 - Page 4 of report

Please include a table showing numbers of units actually built (not just entitled), and potential development remaining. The 395 units of "potential development remaining" understates the potential actual development/construction yet to be done, and therefore also the potential mitigation efforts that will need to be taken. E.g. East Meadows probably has about 40 lots remaining to be built, but all are entitled. Having a number of units yet to be built (both entitled and not yet entitled) is what is more relevant for both mitigation compliance and for KMPUD planning.

> *Response: Quantification of the number of units currently developed, or remaining to be developed, was not required to determine compliance with any of the mitigation measures and therefore that information was not collected. The intent of the table on page 4 is to clarify which developments are entitled under the 2003 Specific Plan, and subject to the conditions and mitigation measures presented in the Mitigation Monitoring Plan.*

SC-3)

Entrance sign is not in compliance with permit granted by Amador County. Only "events" are to be listed.

> *Response: Compliance with this Amador County permit requirement is not within the scope of this review as it is not included as a required mitigation measure in the Specific Plan Mitigation and Monitoring Plan.*

SC-4)

KMPUD's photos of damage to creek, meadow and trees should be included as an appendix to the report.

> *Response: Comment noted. The commenter does not specify how the photos relate to the 10-year Specific Plan review. Also, see response to GS-1.*

GEOLOGY, SOILS AND GEOLOGIC HAZARDS

GS-1) Page 8 - the last sentence in the next to last paragraph

"These instances (of non-compliance) were discovered…and corrected before project completion…") glosses over the damage that has been done during construction. The KMPUD has photographic evidence of this damage: toxic runoff into Kirkwood Creek, damaged vegetation in the Meadow, trees removed. This sentence would be accurate if it said "in some cases corrected before project completion but after damage was done".

> *Response: The author has not received any photographic evidence referenced in this comment, nor were any photographs included in the report comments listed on the TC-TAC webpage. To the extent this comment is referring to the recent activities related to the use of asphalt grindings in existing parking lots and subsequent snow removal, no county permit is required for these activities, but the potential impacts to regulated waters are governed by federal and state laws (Clean Water Act and Porter-Cologne Water Quality Control Act) and are being assessed and remediated pursuant to authority granted to the Regional Water Quality Control Board.*
>
> *Additional text has been included in this section of the revised report.*

GS-2)

One result of this 10-year review should be a mandate for pre-construction meetings to review erosion control, meadow preservation, tree protection and related practices, for all sizes of projects.

> *Response: Comment noted. The 2003 Kirkwood Specific Plan, Mitigation and Monitoring Plan and the Kirkwood Erosion Control Ordinance do not require pre-construction meetings.*

GS-3)

The County and KCA have failed in their enforcement of proper revegetation in the cases of projects that have been started then abandoned. We have major examples where re- vegetation has not taken place in the partially completed construction projects, allowing invasive plants to take hold. New enforcement actions, and possibly a policy statement, are required to deal with partially completed and abandoned project sites.

The Report identifies an area at Sentinels West that has not been successfully revegetated. Bonds with Amador County are being held pending completion of the revegetation. There were several construction projects during the summers of 2014 and 2015 that were observed with no BMPs in place. The KMPUD contacted the counties to enforce BMPs and control runoff; required permits were not obtained in these two cases.

> *Response: Project abandonment is not specifically addressed in the Specific Plan or MMRP. If a project is completed or abandoned and vegetation efforts fail, responsibility to revegetate the site falls to the property owner. Incidents where revegetation has failed should be reported to the appropriate county for enforcement.*
>
> *With respect to the Specific Plan mitigation measures, KCA is not responsible for implementation or enforcement of revegetation measures. KCA is only responsible for development projects within HOAs that are members of the KCA. If the KCA Design Review Board (DRB) determines that the landscaping is not in conformance with the plans as approved by the DRB, they can notify the owner and require a timely replanting effort. If the owner fails to replant, DRB has the right to enter the property and re-landscape the site at the owner's expense. This is a separate, private, and independent process from enforcement of the Specific Plan mitigation measures which is a governmental process, but serves to meet similar objectives.*

GS-4) Page 9

This paragraph should differentiate between large-scale projects, for which the Counties provide resources for proper mitigation compliance and enforcement, and smaller scale projects, for which no resources are provided.

> *Response: Mitigation measures are specific to implementation of projects regulated by, and proposed under, the 2003 Specific Plan. The Report was revised to include clarification regarding what projects are subject to county permitting and review.*

WATER RESOURCES

WR-1) Page 10 - 2nd paragraph

Regarding protection of water resources. Reviews and compliance have failed in instances when County permits have not been required, or if required, not sought. This has resulted in improper discharges into Kirkwood Creek.

See response to GS-1.

∋ *Water Supply*

WR-2) Page 9

The District is also planning to construct additional water storage for future domestic use and fire suppression as recommended in the 2014 Bennett Engineering Water Capacity Study.

Response: Comment noted. The final report has been revised to reflect this comment.

WR-3)

Street sweeping must be done twice a year. The Compliance Review Report should clarify that the Resort is required to sweep all streets twice each year. Clarification is required as to which roadways are covered, the frequency and the party responsible for the expense of street sweeping.

Response: There are two mitigation measures which address street sweeping within Kirkwood.

> *Mitigation Measure 4.02 (v): Conduct street sweeping two times per year and when buildup of loose materials occurs on paved roads.*
>
> *Mitigation Measure 4.4(e): Streets will be swept by a vacuum sweeper during periods when road conditions are dry enough to allow the removal of anti-skid materials (i.e. sand). The streets must be swept from curb to curb, which includes the driving lanes, to maximize the control effectiveness.*

The wording of these mitigation measures is ambiguous as to which streets require sweeping and who is responsible for doing the sweeping. Our research indicates there are differing opinions among stakeholders regarding interpretation of these measures. However, this comment raises legal questions that are outside of the scope of this review. While the goal of these mitigation measures is to require street sweeping as a source control measure, implementation implicates legal questions as to who controls the use and maintenance for roads, and who has the legal authorization to enter and / or perform maintenance in those areas. It may be that responsibility for street sweeping should mirror the responsibility for snow plowing.

Given the ambiguity of mitigation measures 4.2(v) and 4.4(e), the counties should analyze the legal responsibility for the implementation of these measures.

WR-4)

Do the applications submitted to U.S. Army Corps of Engineers, Central Valley Water Resource Control Board, and CA Fish and Game to authorize impacts to regulated waters of the U.S. properly address protection of Kirkwood's water sources?

Response: Under the federal Clean Water Act and California's Porter-Cologne Water Quality Control Act, the U.S. Army Corps of Engineers (USACE), and the Central Valley Regional Water Quality Control Board (CVRWQCB), respectively, regulate the placement of fill material within a

stream or wetland, and ensure that project discharges to a stream meet federal and state water quality standards. Under the California Fish and Game Code 1600, the California Department of Fish and Wildlife (CDFW) regulates any activity that would substantially divert or obstruct the natural flow of any stream, change or use material from the bed, channel or bank of any stream, or deposit debris, waste or other material that could pass into any stream. These permits are focused on the protection of surface waters and do not directly address groundwater, but through implementation of the permit conditions, adherence to these permits indirectly protects groundwater by requiring maintenance of pre-development runoff rates, maintenance of State water quality limits, and avoidance or mitigation of disturbance to riparian areas. In addition, the CVRWQCB is also responsible for protection of groundwater quality in accordance with the California Water Code.

WR-5)

KMPUD's photos of damage to creek, meadow and trees should be included as an appendix to the report.

Response: The author has not received any photographic evidence referenced in this comment, nor were any photographs included in the report comments listed on TC-TAC webpage.

AQUATIC RESOURCES

AR-1)

KMR/Vail should have installed a flood prevention wall to keep Kirkwood Creek from flooding Base Camp by now (it recently flooded about one foot).

Response. Mitigation Measure 4.3.1 (f) requires implementation of several site-specific recommendations from the Kirkwood Creek Floodplain Study (EBCE 1996), including a recommendation to prevent flooding in the area near Base Camp One condominiums by either clearing snow out of the sharp bend in Kirkwood Creek, or through construction of a low floodwall. Review of the 2007 Biennial Review submitted to County Staff in December 2007 indicates that a low flood wall (berm) had been completed and permits and photos were previously submitted for County review. The 2007 Biennial Review was reviewed and approved by TC-TAC. Although actual permits and photos could not be obtained from either Amador or Alpine county for reference in this response to comments, discussions with Mike Richter, former Director of Environmental Affairs for Kirkwood Mountain Resort (personal communication November 16, 2016), confirmed that the bank of Kirkwood Creek near Base Camp One condominiums was raised and fortified with rock to reduce the potential for flooding.

BIOLOGICAL RESOURCES

∋ *Invasive and Noxious Weeds*

B-1)

The Draft Noxious Weed Plan needs to be updated prior to increased development activity to reflect the current status of noxious and invasive weeds within the Kirkwood area. Education is needed for property managers in Kirkwood as to the species/description of noxious weeds of concern in Kirkwood and the preferred method/timing of elimination.

Will survey efforts to identify areas of noxious weeds include private properties where construction projects have been abandoned?

Response: Mitigation Measure 4.3.4(b) requires KMR to implement the draft Noxious Weed Management Plan included as Appendix B in the 2002 EIR. The draft Noxious Weed Management Plan includes:

1) *A strategy of prevention of weeds from entering and becoming established in Kirkwood;*
2) *Requires annual inspection to locate, identify, and map weeds that have become established in the area;*
3) *Eradication of noxious weeds; and,*
4) *Education.*

The draft Noxious Weed Plan specifically references noxious weeds as defined by the State of California, and also includes a list of noxious weed species from the Eldorado National Forest that includes many species not listed by the State of California as noxious. As written, it is unclear if the intent is to regulate California state listed noxious weeds, as is typically required on private land, or if the plan is to be applied to those species listed by Eldorado National Forest as noxious and includes many additional species typically only regulated on US Forest Service lands.

There has been no formal adoption or implementation of the draft Noxious Weed Management Plan. Review of development plan specifications suggests that preventative measures are not included within project design. However, prior to initiating construction of development projects, KMR and KMPUD have completed botanical surveys within the project areas that included identification and discussion of State listed and US Forest Service listed noxious weeds. When noxious weeds were identified during these surveys, they were reported to the appropriate County and/or Eldorado National Forest, as appropriate.

As stated within the Report, the draft plan should be updated to identify the specific species of concern, reflect the current status of targeted species within the Kirkwood area, provide clarification and prioritization on the monitoring, reporting, and treatment of the species managed, provide preventative measures to reduce the risk of noxious weed introductions, and include an adaptive management protocol to routinely update the plan based on the survey data. The draft report is titled "Noxious Weed Management Plan for Kirkwood Mountain

Resort," which implies the plan covers only resort-owned property. This is not the most effective approach for controlling the spread of noxious weeds. TC-TAC should consider whether a more comprehensive approach involving all property owners and stakeholders in Kirkwood is warranted.

B-2

The KMPUD disagrees with the Report's findings in terms of the current impact of noxious weeds in Kirkwood. There is no mention of the infestation of sweet clover, scotch broom and other non-native invasive species which are spreading throughout Kirkwood. A Noxious Weed Management Plan needs to be formulated, but a plan to deal with the existing problem needs to be included.

Response: The report findings that occurrences of State listed noxious weeds within Kirkwood are minimal were based on site reconnaissance in 2014 and discussions with El Dorado County's Senior Agricultural Biologist. Sweet clover was not mentioned in the report as it is not listed as noxious by the California Department of Food and Agriculture, and no occurrences of scotch broom were observed. As stated within the Report, it is recommended that an updated Noxious Weed Management Plan be prepared that provides clarification and prioritization of species to be monitored and treated.

∋ *Grazing Management Plan*

B-3)

The revised draft of the Grazing Management plan needs to be updated to prevent impacts to Kirkwood Meadow and Creek. The Grazing Plan should be approved as soon as possible with clear guidelines as to the roles and responsibilities of various parties.

Response: This is a recommendation made in the Kirkwood Specific Plan 10-year Compliance Review Report.

B-4)

The review of Condition of Approval 55 – Mitigation Measure 4.3.1(f) regarding flooding to Base Camp and Kirkwood Meadows Drive was ignored.

Response: Condition of Approval 55 – Mitigation Measure 4.3.1(f) is discussed in Attachment A of the Kirkwood Specific Plan 10-year Mitigation review report and has been updated in the final report. See response to comment AR-1.

∋ *Traffic*

T-1)

Mitigation Measure 4.7 (d) requires evaluations of parking and implementation of parking facility improvements, efficiency improvements and demand management to reduce the impacts of parking under peak conditions. KMR is to prepare an annual report that analyzes day-visitor parking during peak periods. If the study shows that the number of day-visitor-related vehicles

parked within the resort exceeds the amount of parking spaces available, the TC-TAC will require KMR to implement a mitigation plan that may include the provision of additional spaces.

Recent discussions regarding parking between Vail, Kirkwood Resort Development and the community indicate very low confidence in the parking counts that have been done in past years and in the related annual reports to TC-TAC. Recent proposals for additional surface parking along Kirkwood Meadows Drive and the "School Site" have met with controversy. This review should not imply that "additional spaces along Kirkwood Meadows Drive" is an approved action. The 2001 Kirkwood Master Parking Plan prohibits parking on the west side of Kirkwood Meadows Drive.

Mitigation priority should be to improve parking efficiency in existing lots, expansion of existing lots, and reducing demand of parking under peak conditions. Expansion of linear paved parking, to include proposed new linear parking on the west side of KMD is by the very nature of its impact, incompatible with the Specific Plan.

> *Response: Compliance with Mitigation Measure 4.7 (b) was determined by review of KMR's annual parking reports which document that adequate parking is available for the recent number of documented visitors. These reports were reviewed and approved by TC-TAC. Interviews with KMR confirmed that traffic control during peak use periods is contracted to CA Highway Patrol in an attempt to maintain the LOS rating required by Caltrans for SR 88.*
>
> *Based on review and approval of the traffic reports, KMR is currently in compliance with this mitigation measure. KMR may conduct a more detailed analysis of the factors impacting utilization of parking in order to identify options to meet current and future demand. Any modifications to parking would be required to be consistent with the Specific Plan and to obtain any applicable permits.*

T-2)

Several traffic mitigations that have not been implemented are simply not mentioned. COA 94, 95 and 96 are completely ignored in this Report. These mitigations require traffic monitoring, improvements to Highway 88 and a traffic impact fee. These mitigations should be addressed in the Report. Additionally, two commenters stated the eastbound lane on SR 88 to Kirkwood Meadows Drive needs improvement due to hazardous conditions (during rain and snow events) and to increate potential for queuing capacity to avoid backups to the avalanche area at Carson Spur.

The eastbound SR 88 turn lane to Kirkwood Meadows Drive (KMD) is a known hazard in slippery (snow and rain) conditions. There have been several reported and unreported accidents at this location. The radical slope and radius of the turn on KMD promotes vehicle drift into opposing traffic lanes. This is a dangerous situation well deserving of mention and mitigation.

> *Response: COA 94 is addressed in Table 1 of Attachment A under the Traffic sub-section Mitigation Measure 4.7 (a). Mitigation measure 4.7 (a) states:*

> *A northbound to west bound left-turn acceleration lane on SR88 should be created to accommodate left-turn movements. Kirkwood Meadows Drive should be restriped and/or widened to accommodate three 10-foot-wide lanes (minimum), which would include one southbound lane and two northbound lanes (one left-turn, one right turn). Either restriping the additional turn lanes or temporarily placing traffic cones during peak periods to form turn lanes would allow left turn vehicle storage while allowing right-turning vehicles to flow.*

It is determined that KMR is in compliance with this measure. Although a left-turn acceleration lane has not been constructed, Kirkwood Meadows Drive is currently wide enough to accommodate three 10-foot wide lanes at the intersection with SR 88 and does not need to be widened. During peak use periods traffic is controlled through temporary placement of traffic cones and CHP officers to form designated turn lanes and to meter the flow of existing traffic.

Mitigation measure 4.7 (a) specifically addresses the northbound to westbound SR 88 turn lane. While the suggestion for improvements the eastbound SR 88 turn to KMD may be beneficial, it is not required for compliance with this mitigation measure.

Similarly, the 2007 and 2010 traffic studies did recommend extending the westbound SR 88 left turn pocket; however, this is not a required mitigation measure.

COA 95 is partially addressed in Table 1 of Attachment A under the Traffic sub-section Mitigation Measure 4.7 (b); however, the final bullets included in the measure were mistakenly omitted from the Table and not addressed in report. This omission has been corrected in Attachment A of the final report.

As required by the mitigation measure, KMR contracts with the CA Highway Patrol to conduct manual control of egress and ingress at the intersection of SR 88 and Kirkwood Meadows Drive during periods of peak visitation. The mitigation measure also specifies that traffic counts and LOS modeling be completed every three years during periods of peak visitation, but allows for the frequency to be modified by TC-TAC. The mitigation measure further specifies that the traffic reports be submitted TC-TAC, who will then submit its recommendations to the Caltrans District 10.

Under the Master Development Agreement (2012) between KMR and KMD, KMD is responsible for conducting traffic counts and LOS modeling. The most recent traffic study was completed in 2010 (Fehr & Peers). In 2013, TC-TAC allowed for the analysis to be deferred to 2014 (or until as may be appropriate) due to lack of new development within Kirkwood Valley since the 2010 traffic study. No new on-mountain facilities or private land developments occurred in 2014 that would contribute to an increase in peak traffic. However, documentation of any communication between KMR or KMD and TC-TAC since 2013 on this issue is lacking.

Additionally, the mitigation measure specifies that traffic reports are to be submitted to TC-TAC, which will then submit its recommendations to the Caltrans District 10. Based on the comments from Caltrans (March 10, 2016), which stated that it did not receive the traffic evaluations for 2010 and 2013, it appears neither the 2010 report nor the decision to defer the

2013 report were submitted to Caltrans. TC-TAC should determine if additional traffic studies are necessary based on current conditions or if further deferment is appropriate and notify Caltrans of its determination.

COA 96 is addressed in Table 1 of Attachment A under the Traffic sub-section Mitigation Measure 4.07 (c). This measure recommends that Alpine County implement a traffic impact mitigation fee for future real estate development within Kirkwood. The fee is to be used to mitigate traffic impacts on SR 88 both the east and west of Kirkwood (in Amador County) that are partially attributable to Alpine County development. Alpine County established the Kirkwood Area Traffic Impact Mitigation Fee under Ordinance No. 670-06 adopted April 18, 2006. In 2003, a similar mitigation fee program was implemented in Amador County for real estate development.

∋ *Visual and Aesthetics*

VA-1)

Additional action is needed to address abandoned construction sites. There are at least three abandoned commercial project foundations with exposed metal that are highly visible and which clearly intrude on the intended aesthetics. These abandoned projects significantly degrade the aesthetic qualities of Kirkwood's natural and built environments. Mitigation, i.e. removal and restoration, is likely under the purview of one or more of the project's approving agencies and should be initiated.

See response to GS-3 above.

VA-2)

Mitigation Measures 4.08(a)-(y) are associated specifically with the 2003 Kirkwood Specific Plan and the October 2002 Kirkwood Recirculated Revised Final Environmental Impact Report (EIR). Planned development that was approved prior to the 2003 Kirkwood Specific Plan and the EIR is not subject to the visual and aesthetic mitigation measures committed to in the EIR and, therefore, KMA is not required to obtain approval regarding these requirements.

<u>Response</u>: The Specific Plan applies to all privately held land in the counties of Alpine, Amador and El Dorado (Specific Plan page 2). The map on page 9 of the Specific Plan shows the plan development area and includes KMA.

Development projects that were approved prior to the adoption of the Specific Plan were reviewed and approved pursuant to the Kirkwood Master Plan which originally was prepared in 1971 and last amended in 1988. Comments received concerning the applicability of the Specific Plan mitigation measures to development approved prior to the implementation of the Specific Plan raise a complicated legal question related to vested rights. Determination of a legal response to these comments is outside the scope of this review.

VA-3)

The requirement of TC-TAC approval is limited to new development within the viewshed of State Route 88; sixteen such lots within KMA have been identified as fitting within this category. KCA does not have jurisdiction over KMA or its members, and KCA approval is not required.

> *Response: As discussed in response GS-3, KCA is a private entity with authority over the development projects of its HOA members.*

∋ *Socioeconomics*

S-1)

The current employee housing ordinance is not clear. Substandard (as defined in the Specific Plan), pre-existing housing should not be included in the count of employee housing, nor, under current rules, be eligible for deed restriction. Make clear that a reliable system of recording deed restrictions is required. The report should make clear that this mitigation measure was not designed to simply transfer developer dollars into the pockets of the resort or developer in "repayment" for substandard, old housing stock. There should be exploration of in-lieu fees to build more consolidated employee housing units.

> *Response: TC-TAC has taken the position that the inclusion of "existing employee housing" (i.e., employee housing units in existence as of the date of adoption of this ordinance), in the total count of available housing is allowed as specifically referenced in Section 3.A.1 of the Employee Housing Ordinance. Existing employee housing units, therefore, are not required to meet the standards of new employee housing (use restricted) as prescribed in Section 3.A.2 of the Employee Housing Ordinance.*
>
> *While this mitigation is in compliance, it is clear that the existing housing ordinance could be updated and revised in order to respond to actual conditions and be more effective in achieving the needs of the major stakeholders. It is recommended that KMR, KMD, and KMPUD, and the counties work together to update and revise the Housing Ordinance to meet the current conditions and housing needs.*

∋ *Recreation*

R-1)

Surveys are to be conducted every four years. Most recent survey completed in 2006. Are surveys needed?

> *Response: Mitigation Measure 4.12(b) requires surveys be conducted every four years, or as deemed necessary by TC-TAC to identify on/off-site recreation use patterns of residents and guests and report results to TC-TAC and the Forest Service. Such surveys will be conducted every 4 years or as deemed necessary by TC-TAC and the Forest Service.*
>
> *Since 2006 little residential development within Kirkwood or to on-mountain facilities has occurred that would significantly increase the number of residents and guests at Kirkwood or*

influence their recreational patterns; however, to achieve compliance with this measure, it is recommended that KMR consult with TC-TAC on the need for and timing of future surveys.

∋ *Public Services*

P-1)

The level of police protective services for the winter months needs to be evaluated to insure that it meets the community's current and future needs.

Response: Mitigation Measure 4.13 (a) requires KMR to monitor the level of police protection services required as development proceeds and the resident population increases. Alpine and Amador counties will add deputies as dictated by community needs. Based on interviews with KMR, no formal monitoring has been completed. KMR maintains a cooperative relationship with both Amador and Alpine County Sheriff Departments. It is recommended that KMR pursue a discussion with the Amador and Alpine County Sheriff Departments regarding this comment.

∋ *Utilities and Infrastructure*

UI-1)

The 2014 Bennett Engineering Capacity Study also recommends additional water storage to meet build-out demand.

Response: Comment noted.