

**SUBSTITUTE ENVIRONMENTAL DOCUMENT  
TOTAL MAXIMUM DAILY LOAD FOR SEDIMENT  
BASIN PLAN AMENDMENT**

**SQUAW CREEK, PLACER COUNTY**

**April 2006**

**California Regional Water Quality Control Board, Lahontan Region  
2501 Lake Tahoe Boulevard  
South Lake Tahoe, CA 96150  
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## INTRODUCTION

The Lahontan Regional Water Quality Control Board (Water Board) is the California State agency responsible for water quality protection east of the Sierra Nevada crest. It is one of nine Water Boards that function as part of the State Water Resources Control Board (State Board) system within the California Environmental Protection Agency. The Water Board implements both the federal Clean Water Act and the Porter-Cologne Water Quality Control Act, which is part of the California Water Code. Water quality objectives along with beneficial uses (together defined as water quality standards by USEPA) and control measures for waters of the Lahontan Region are contained in the *Water Quality Control Plan for the Lahontan Region* (Basin Plan). The Squaw Creek Total Maximum Daily Load (TMDL) is a proposed Basin Plan amendment developed to ensure that Squaw Creek meets the applicable water quality standards.

Basin Plan amendments contain regulations, and their adoption is considered a project subject to the California Environmental Quality Act (CEQA). The State Board's water quality planning process is certified by the Secretary for Resources as functionally equivalent to the environmental review process required by CEQA (Public Resources Code (PRC) 21080.5 and California Code of Regulations (CCR) Title 14, 15251(g)), and this environmental document was prepared in accordance with the applicable provisions (PRC 21159).

This document provides a program level analysis (Tier One – PRC 21159) of reasonably foreseeable methods of compliance, mitigation measures, and alternative means of compliance with the TMDL. A subsequent second level review, or Tier Two analysis, must be done by project proponents for specific implementation projects to comply with the TMDL (PRC 21159.2). This environmental document includes the proposed Basin Plan Amendment (Attachment 1) and the TMDL Staff Report (Attachment 2), which together provide the information used to evaluate potential physical environmental impacts. These documents are also available at the following website:  
<http://waterboards.ca.gov/lahontan>.

## PROJECT DESCRIPTION

The Basin Plan amendment is a restoration plan for the Squaw Creek watershed. It sets the TMDL for the creek, which is the maximum amount of sediment loading that the water body can assimilate and still meet its water quality standards. It includes an implementation and monitoring plan that is expected to ensure improving conditions such that Squaw Creek will meet its water quality standards within 20 years. This estimate takes into consideration time to plan, fund, and construct sediment control measures, and

allows time for the creek conditions to respond to decreased sediment loading. The plan includes requirements to implement effective hillslope erosion controls to reduce sediment delivery to Squaw Creek by 25 percent from the level estimated as of 2001. Compliance with the TMDL will be assessed with physical and biological in-stream numeric targets that interpret the narrative sediment-related water quality standards.

Erosion controls and sediment delivery reductions will be accomplished through waste discharge requirements (WDRs) currently issued to dischargers and by issuing new WDRs or conditional waivers of WDRs to other dischargers in the watershed. These WDRs may include federal Non-Point Source Discharge Elimination System (NPDES) permits. Dischargers will be required to identify their significant sediment source areas and implement appropriate best management practices (BMPs) that control erosion and reduce sediment loading. Examples of BMPs that may be implemented include:

- Revegetating bare soil areas,
- Stabilizing or removing dirt roads,
- Stabilizing road cuts,
- Stabilizing runoff conveyances,
- Installing sediment treatment basins,
- Restoring infiltration capacity of slopes,
- Installing runoff relief structures,
- Reducing and/or collecting traction sand from paved surfaces, and
- Installing temporary BMPs at construction sites.

Hillslope and in-stream monitoring will also be required from permitted dischargers to track watershed improvement. Hillslope monitoring includes inspection of source areas and BMPs to ensure that controls are effective, and to identify additional controls as needed. In-stream monitoring includes a bioassessment and stream channel substrate analysis every two years.

## **ALTERNATIVES ANALYSIS DISCUSSION**

Title 23, Section 3777 of the California Code of Regulations states that any standard, rule, regulation, or plan proposed for board approval or adoption must be accompanied by a discussion of reasonable alternatives to that activity. The Preferred Alternative (i.e., this proposed Total Maximum Daily Load amendment to the Basin Plan), a No Action Alternative, and other alternatives are discussed in this section.

### **Preferred Alternative**

The *Preferred Alternative* is the adoption of the Basin Plan amendment incorporating the TMDL for Sediment in Squaw Creek. In addition to the TMDL, the Basin Plan amendment includes sediment loading allocations, numeric targets, and an implementation and monitoring plan. Sediment loading will be reduced by approximately 25 percent, and will be allocated to existing sediment source categories, future growth and a margin of safety. Numeric targets for stream channel substrate

characteristics and biologic health are established as indicators of whether load reductions are being met. An adaptive management approach employs a monitoring plan to evaluate numeric targets in combination with information on the completion of specific implementation actions identified in the implementation plan. The estimated timeframe for meeting the numeric targets and achieving the TMDL is 20 years.

This project will not result in significant adverse environmental impacts (defined as physical changes in the environment). However, if the proposed amendment is adopted, there may be indirect environmental impacts from projects implemented to comply with this amendment. The *Preferred Alternative* meets the requirements of the CWA, CWC, and the State Board's *Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program*.

### **Alternative - No Action**

The *No Action* alternative means that the Water Board would not adopt the Basin Plan amendment, including the TMDL, numeric targets, TMDL implementation plan, and monitoring program. Because the Water Board is required to regulate all nonpoint sources of pollution, many of the actions required by this Basin Plan Amendment (i.e., issuance and compliance with WDRs or waivers, including implementation of BMPs, monitoring and reporting) would eventually occur regardless of TMDL adoption, but the time frame would be uncertain. Additionally, numeric targets needed to interpret the narrative water quality objectives related to sediment would not be established and methods to evaluate the success of sediment control efforts in the watershed could be inconsistently applied. The *No Action* alternative would eliminate an opportunity for increased public input on the watershed restoration plan and could circumvent focusing implementation actions on the most problematic sources. The *No Action* alternative would also avoid establishing a schedule for assessing success and may result in less effective efforts to ensure protection of water quality.

### **Alternative – Less Stringent Numeric Targets**

The *Less Stringent Numeric Targets* alternative would involve setting targets for biologic health and stream substrate conditions in Squaw Creek at lower (less stringent) levels than those proposed. However, this would result in less-than-adequate conditions for aquatic life that would not be protective of the creek's beneficial uses, or meet water quality standards. Because TMDLs must be written to achieve water quality standards, the *Less Stringent Numeric Targets* alternative would result in this TMDL being rejected by the State Board and USEPA.

### **Alternative – More Stringent Numeric Targets**

The *More Stringent Numeric Targets* alternative would involve setting target values for biologic health and stream substrate conditions in Squaw Creek at higher (more stringent) levels than those proposed. However, the proposed targets are set at levels that will

protect the creek's beneficial uses, and meet water quality standards; therefore, more stringent targets are unnecessary.

## **ECONOMIC CONSIDERATION**

The implementation actions required by the TMDL are consistent with the existing WDRs already in place for Squaw Valley Ski Corporation, The Resort at Squaw Creek, the Village at Squaw Valley Phases I and II, and project proponents for construction or similar land disturbing activities. Storm water discharges containing sediment from other areas under the jurisdiction of Placer County have also been identified and were assigned load reductions to meet the TMDL. These discharges are not currently regulated under a formal permit. As required by the State Board's *Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program*, sediment discharges from these areas will be regulated under the permitting authorities provided by the Porter-Cologne Act, which include but are not limited to WDRs (including National Pollutant Discharge Elimination System [NPDES] permits) and conditional waivers of WDRs.

The Water Board cannot specify the means of compliance for implementing the TMDL and it is expected that dischargers will implement sedimentation controls iteratively until water quality objectives are attained. This approach is consistent with the State Board's policy for controlling storm water pollution. Specific pollution control projects have been or will be implemented depending on types of source areas and approaches dischargers may select. Many structural controls and other management practices have already been implemented by the currently permitted dischargers, and it is expected that conditions in Squaw Creek will respond over time to implementation measures already completed or those initiated in the future.

The requirements to implement the TMDL generally include assessing sediment sources, developing corrective actions plans, and monitoring for effectiveness and maintenance needs. Based on the response of in-stream indicators, pollution control actions must be implemented iteratively such that water quality objectives are attained. A wide array of potential implementation measures are available, many of which are shown in Table 1 below. The list of potential implementation measures is not exhaustive, but provides a reasonable range of activities that may be used to implement the TMDL. These costs are not additive; therefore, it is not possible to estimate a total cost range for TMDL implementation. Additionally, overall costs may change over time depending on the response of Squaw Creek to the control measures taken.

Costs to conduct the additional in-stream bioassessment and physical habitat assessment required by the monitoring plan include sampling three sites every two years at approximately \$4,000 per site, which equals \$12,000 every two years. If the costs were shared by the four entities with operational WDRs, each permitted discharger would incur an average annual cost of approximately \$1,500.

**Table 1 - Squaw Creek TMDL Implementation and Monitoring Cost Evaluation**

| <b>Road BMP - Units</b>   | <b>Number of Units</b> | <b>Cost/Unit</b> | <b>Source</b>  | <b>Total</b> |
|---|------------------------|------------------|----------------|--------------|
| 1 Install Rolling Dips (100-foot spacing) - Per Count   | 1,425                  | \$23             | (a)            | \$33,131     |
| 2 Install Rolling Dips (500-foot spacing) - Per Count   | 285                    | \$23             | (a)            | \$6,626      |
| 3 Crushed Rock Surface Treatment (2-inch thick) - Per Mile  | 27                     | \$4,400          | (a)            | \$118,800    |
| 4 Crushed Rock Surface Treatment (4-inch thick) - Per Mile  | 27                     | \$8,800          | (a)            | \$237,600    |
| 5 Road Reconstruction (3-inch road base, drainage dips, 2 culverts, labor, equipment) - Per Mile      | 27                     | \$9,530          | (a)            | \$257,310    |
| 6 Install/Replace Drainage Crossings - Per Mile   | 27                     | \$18,000         | (b)            | \$486,000    |
| 7 Road Decommissioning - Per Mile   | 6                      | \$976            | (a)            | \$5,856      |
| 8 Annual Operations and Maintenance - 5 Percent of Road Reconstruction (5) and Drainage Crossings (4) | 1                      | \$37,166         | Staff Estimate | \$37,166     |

(a) USEPA, Polluted Runoff (Nonpoint Source Pollution) - <http://www.epa.gov/owow/nps/MMGI/Chapter3/ch3-2c.html>  
(b) "Response to Comments on Water Quality Improvement Plan, Squaw Valley Ski Corporation Olympic Valley, California", Rosewood Environmental Engineering, March 31, 2005

| <b>Graded Ski Run BMP</b>   | <b>Acres/Units</b> | <b>Cost/Acre</b> | <b>Source</b> | <b>Total</b> |
|---|--------------------|------------------|---------------|--------------|
| 1 Seeding   | 322                | \$470            | (a)           | \$151,340    |
| 2 Wood Fiber Mulching   | 322                | \$1,200          | (a)           | \$386,400    |
| 3 Seeding and Mulching  | 322                | \$1,800          | (a)           | \$579,600    |
| 4 Jute Netting  | 322                | \$4,450          | (a)           | \$1,432,900  |
| 5 Revegetate incorporating physical and chemical soil amendments, seeding, and mulching | 322                | \$26,000         | (b)           | \$8,372,000  |
| Annual Operations and Maintenance - 20 Percent of Seeding and Mulching (3)              | 322                | \$360            | (a)           | \$115,920    |

(a) USEPA, Polluted Runoff (Nonpoint Source Pollution) - <http://www.epa.gov/owow/nps/MMGI/Chapter4/table415.gif>  
(b) Pers. Comm. W/Michael Hogan - 1/24/06

| <b>Road/Paved Surface Sanding Control BMP</b>  | <b>Units</b> | <b>Cost/Unit</b> | <b>Source</b>  | <b>Total</b> |
|--|--------------|------------------|----------------|--------------|
| 1 Assess baseline sanding rates and establish waste sand reduction program                     | 1            | \$10,000         | Staff Estimate | \$10,000     |
| 2 Conduct street sweeping and conveyance cleaning to recover waste traction sand - Annual Cost | 20           | \$16,000         | Staff Estimate | \$320,000    |

| <b>Stream Restoration</b>        | <b>Miles</b> | <b>Cost/Mile</b> | <b>Source</b> | <b>Total</b> |
|----------------------------------|--------------|------------------|---------------|--------------|
| 1 Bank Stabilization - High end  | 2            | \$220,000        | (a)           | \$440,000    |
| 2 Channel Restoration - High end | 2            | \$350,000        | (a)           | \$700,000    |

(a) Stream Restoration Cost Estimates, Brian Blair USDA Forest Service - [http://www.st.nmfs.gov/st5/Salmon\\_Workshop/11\\_Bair.pdf](http://www.st.nmfs.gov/st5/Salmon_Workshop/11_Bair.pdf)

| <b>Numeric Target Monitoring</b>  | <b>Sites</b> | <b>Cost/Site</b> | <b>Source</b> | <b>Total</b> |
|---|--------------|------------------|---------------|--------------|
| 1 Bioassessment and Physical Habitat Sampling and Analysis (10 sampling events over 20 years)<br>(a) Pers. Comm. W/Dr. Herbst, January 10, 2006 | 30           | \$4,000          | (a)           | \$120,000    |

| <b>Annual Reporting</b>                                   | <b>Units<br/>(Over 20 years)</b> | <b>Cost/Unit</b> | <b>Source</b>  | <b>Total</b> |
|---|----------------------------------|------------------|----------------|--------------|
| 1 Annual reporting for complex site activities/facilities | 40                               | \$10,000         | Staff Estimate | \$400,000    |
| 2 Annual reporting for less complex sites/facilities      | 40                               | \$5,000          | Staff Estimate | \$200,000    |

Cost estimates provided above were inflated to 2003 (latest available date) using the Producer Price Index <http://www.jsc.nasa.gov/bu2/inflation/ppi/inflatePPI.html>

## ENVIRONMENTAL REVIEW

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1. **Project title:**  
Total Maximum Daily Load (TMDL) for Sediment in Squaw Creek, Basin Plan Amendment
2. **Lead agency name and address:**  
Lahontan Regional Water Quality Control Board  
2501 Lake Tahoe Blvd.  
South Lake Tahoe, CA 96150
3. **Contact person and phone number:**  
Anne Holden, (530) 542-5450
4. **Project location:**  
Olympic Valley (Squaw Valley), Placer County, California
5. **Project sponsor's name and address:**  
Lahontan Regional Water Quality Control Board  
2501 Lake Tahoe Blvd.  
South Lake Tahoe, CA 96150  
Attn: Anne Holden
6. **General plan designation:**  
Not Applicable
7. **Zoning:**  
Not Applicable
8. **Description of project:**  
The Water Board intends to adopt a Basin Plan amendment incorporating the *Total Maximum Daily Load for Sediment in Squaw Creek, Placer County* into the Water Quality Control Plan for the Lahontan Region (Basin Plan). The project would involve numerous implementation actions to reduce sediment loads in Squaw Creek and protect beneficial uses.
9. **Surrounding land uses and setting:**  
The proposed Basin Plan amendment affects the high elevation mountainous environment within the Squaw Creek watershed. Land use is generally for commercial, residential, and recreational purposes.
10. **Other public agencies whose approval is required** (e.g., permits, financing approval, or participation agreement.)  
The California State Water Resources Control Board, California Office of Administrative Law, and U.S. Environmental Protection Agency must approve the proposed Basin Plan amendment.

**ENVIRONMENTAL IMPACTS:**

|   | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|--------------------------------|---|------------------------------|-----------|
| <b>I. AESTHETICS</b> -- Would the project:  |                                |   |                              |           |
| a) Have a substantial adverse effect on a scenic vista?   |                                |   |                              | X         |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?  |                                |   |                              | X         |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings?   |                                |   |                              | X         |
| d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?  |                                |   |                              | X         |
| <b>II. AGRICULTURE RESOURCES:</b> In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project: |                                |   |                              |           |
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?  |                                |   |                              | X         |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?  |                                |   |                              | X         |
| c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?  |                                |   |                              | X         |
| <b>III. AIR QUALITY</b> -- Where available, the significance criteria established by the applicable air quality management or air pollution control   |                                |   |                              |           |

|  | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|--|--------------------------------|---|------------------------------|-----------|
| district may be relied upon to make the following determinations. Would the project:   |                                |   |                              |           |
| a) Conflict with or obstruct implementation of the applicable air quality plan?  |                                |   |                              | X         |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?   |                                |   |                              | X         |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?                      |                                |   |                              | X         |
| d) Expose sensitive receptors to substantial pollutant concentrations?   |                                |   |                              | X         |
| e) Create objectionable odors affecting a substantial number of people?  |                                |   |                              | X         |
| <b>IV. BIOLOGICAL RESOURCES</b> -- Would the project:  |                                |   |                              |           |
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? |                                | X   |                              |           |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?   |                                | X   |                              |           |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?   |                                | X   |                              |           |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or   |                                | X   |                              |           |

|  | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|--|--------------------------------|---|------------------------------|-----------|
| migratory wildlife corridors, or impede the use of native wildlife nursery sites?  |                                |   |                              |           |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?  |                                |   |                              | X         |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?   |                                |   |                              | X         |
| <b>V. CULTURAL RESOURCES</b> -- Would the project:   |                                |   |                              |           |
| a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5?   |                                |   |                              | X         |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?  |                                |   |                              | X         |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?  |                                |   |                              | X         |
| d) Disturb any human remains, including those interred outside of formal cemeteries?   |                                |   |                              | X         |
| <b>VI. GEOLOGY AND SOILS</b> -- Would the project:   |                                |   |                              |           |
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:   |                                |   |                              |           |
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. |                                |   |                              | X         |
| ii) Strong seismic ground shaking?   |                                |   |                              | X         |
| iii) Seismic-related ground failure, including liquefaction?   |                                |   |                              | X         |
| iv) Landslides?  |                                |   |                              | X         |
| b) Result in substantial soil erosion or the loss of   |                                |   |                              | X         |

|  | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|--|--------------------------------|---|------------------------------|-----------|
| topsoil?   |                                |   |                              |           |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?                               |                                |   |                              | X         |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?   |                                |   |                              | X         |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?   |                                |   |                              | X         |
| <b>VII. HAZARDS AND HAZARDOUS MATERIALS:</b> Would the project:  |                                |   |                              |           |
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?  |                                |   |                              | X         |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?  |                                |   |                              | X         |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?  |                                |   |                              | X         |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?                                   |                                |   |                              | X         |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? |                                |   |                              | X         |

|   | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|--------------------------------|---|------------------------------|-----------|
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?   |                                |   |                              | X         |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?   |                                |   |                              | X         |
| h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?  |                                |   |                              | X         |
| <b>VIII. HYDROLOGY AND WATER QUALITY -- Would the project:</b>  |                                |   |                              |           |
| a) Violate any water quality standards or waste discharge requirements?   |                                | X   |                              |           |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? |                                |   |                              | X         |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?  |                                | X   |                              |           |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?   |                                |   |                              | X         |
| e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?   |                                |   |                              | X         |
| f) Otherwise substantially degrade water quality?   |                                |   |                              | X         |

|   | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|--------------------------------|---|------------------------------|-----------|
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?  |                                |   |                              | X         |
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?   |                                |   |                              | X         |
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?  |                                |   |                              | X         |
| j) Inundation by seiche, tsunami, or mudflow?   |                                |   |                              | X         |
| <b>IX. LAND USE AND PLANNING</b> - Would the project:   |                                |   |                              |           |
| a) Physically divide an established community?  |                                |   |                              | X         |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? |                                |   |                              | X         |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan?   |                                |   |                              | X         |
| <b>X. MINERAL RESOURCES</b> -- Would the project:   |                                |   |                              |           |
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?  |                                |   |                              | X         |
| b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?   |                                |   |                              | X         |
| <b>XI. NOISE:</b> Would the project result in:  |                                |   |                              |           |
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?   |                                |   |                              | X         |

|  | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|--|--------------------------------|---|------------------------------|-----------|
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?  |                                |   |                              | X         |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?   |                                |   |                              | X         |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?   |                                |   | X                            |           |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?  |                                |   |                              | X         |
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?   |                                |   |                              | X         |
| <b>XII. POPULATION AND HOUSING --</b> Would the project:   |                                |   |                              |           |
| a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?  |                                |   |                              | X         |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?  |                                |   |                              | X         |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?  |                                |   |                              | X         |
| <b>XIII. PUBLIC SERVICES</b>   |                                |   |                              |           |
| a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the |                                |   |                              |           |

|  | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|--|--------------------------------|---|------------------------------|-----------|
| public services:   |                                |   |                              |           |
| Fire protection?   |                                |   |                              | X         |
| Police protection?   |                                |   |                              | X         |
| Schools?   |                                |   |                              | X         |
| Parks?   |                                |   |                              | X         |
| Other public facilities?   |                                |   |                              | X         |
| <b>XIV. RECREATION --</b>  |                                |   |                              |           |
| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?   |                                |   |                              | X         |
| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?  |                                |   |                              | X         |
| <b>XV. TRANSPORTATION/TRAFFIC --</b> Would the project:  |                                |   |                              |           |
| a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)? |                                |   |                              | X         |
| b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?   |                                |   |                              | X         |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?  |                                |   |                              | X         |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?   |                                |   |                              | X         |
| e) Result in inadequate emergency access?  |                                |   |                              | X         |

|   | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|--------------------------------|---|------------------------------|-----------|
| f) Result in inadequate parking capacity?   |                                |   |                              | X         |
| g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?  |                                |   |                              | X         |
| <b>XVI. UTILITIES AND SERVICE SYSTEMS</b><br>Would the project:   |                                |   |                              |           |
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?   |                                |   |                              | X         |
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?                          |                                |   |                              | X         |
| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?                                   |                                |   |                              | X         |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?  |                                |   |                              | X         |
| e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments? |                                |   |                              | X         |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs?   |                                |   |                              | X         |
| g) Comply with federal, state, and local statutes and regulations related to solid waste?   |                                |   |                              | X         |
| <b>XVII. MANDATORY FINDINGS OF SIGNIFICANCE --</b>  |                                |   |                              |           |
| a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species,   |                                |   |                              | X         |

|  | <b>Potentially Significant Impact</b> | <b>Less Than Significant with Mitigation Incorporation</b> | <b>Less Than Significant Impact</b> | <b>No Impact</b> |
|--|---------------------------------------|--|-------------------------------------|------------------|
| cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?   |                                       |  |                                     |                  |
| b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? |                                       |  | X                                   |                  |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?  |                                       |  |                                     | X                |

## **EXPLANATION OF ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED**

There are no direct environmental affects that would result from adoption of this Basin Plan amendment project. Water Board staff evaluated reasonably foreseeable indirect affects that might result from actions taken by others to comply with the Basin Plan amendment. The Water Board is precluded by law from specifying the manner of compliance with its regulations, so it is unknown exactly what projects might be undertaken as a result of this Basin Plan amendment. At this level of analysis, it is uncertain whether all potential environmental impacts will be mitigated to a level of insignificance. The following impacts were considered to have either less than significant impact or less than significant impact with mitigation.

Analysis of the potential impacts and measures to mitigate impacts is provided in the text below and addresses the following:

- Biological Resources (IV.a,b,c,d);
- Cultural Resources (V. a - d);
- Hydrology and Water Quality (VIII. a,c);
- Noise (XI. d); and
- Mandatory Findings of Significance (XVII. b).

### **IV. Biological Resources**

a-b) The species listed below in Table 2 were identified as rare, threatened, endangered, or special concern species in the Squaw Creek Area. Temporary impacts to riparian or other sensitive habitat could occur if projects are proposed that involve construction and earthmoving activities to implement long-term soil stabilization or treatment measures. However, specific implementation project proposals subject to CEQA must undergo a Tier Two analysis to identify potential impacts and appropriate mitigation measures. Additionally, implementation projects, whether subject to CEQA or not, must comply with Basin Plan requirements and conditions from applicable local, state, and federal permitting authorities. No discharges are allowed that would cause a violation of water quality objectives. At a minimum, mitigation measures to avoid, minimize, and mitigate any impacts to sensitive habitats for specific projects are required under the regulatory authority of the California Department of Fish and Game (CDFG) and the Water Board.

Mitigation measures required in operational and construction-related WDRs or NPDES permits issued by the Water Board and those required by the CDFG under its stream alteration agreement program (CDFG Code §1603) include or should include, but are not limited to:

- Developing written storm water pollution prevention plans (SWPPPs),
- Stabilizing disturbed areas to protect against adverse weather conditions,
- Restricting vehicle use to roadways or existing disturbed areas,

- Limiting the extent of land disturbance,
- Prohibiting land disturbance during winter months (between October 15 and May 1),
- Installing temporary erosion control measures at active construction sites,
- Revegetating disturbed land areas,
- Properly managing earthen waste materials,
- Diverting streamflows away from work areas, and
- Providing in-kind replacement of disturbed vegetation
- Prohibiting activities that would likely jeopardize the continued existence of a threatened or endangered species and activities that would likely destroy or adversely modify critical habitat of such species,
- Prohibiting the “take” of a threatened or endangered species.

Therefore, activities taken to comply with the Basin Plan amendment would not cause substantial adverse affects to habitats, special-status species, or sensitive communities, and the impacts would be less than significant with mitigation.

**Table 2.**  
**Rare, Threatened, Endangered, or Special Concern Species in the Squaw Creek Area <sup>(1)</sup>**

| <b>Common Name</b>              | <b>Scientific Name</b>              | <b>Federal Status</b> | <b>State Status</b> | <b>DFG Status</b> | <b>Quad Name</b>          |
|---------------------------------|-------------------------------------|-----------------------|---------------------|-------------------|---------------------------|
| Mountain yellow-legged frog     | <i>Rana muscosa</i>                 | Endangered            | None                | Special Concern   | Tahoe City, Granite Chief |
| Willow flycatcher               | <i>Empidonax traillii</i>           | None                  | Endangered          | None              | Tahoe City                |
| Lahontan cutthroat trout        | <i>Oncorhynchus clarki henshawi</i> | Threatened            | None                | None              | Tahoe City, Granite Chief |
| Northern goshawk                | <i>Accipiter gentilis</i>           | None                  | None                | Special Concern   | Tahoe City                |
| Yellow warbler                  | <i>Dendroica petechia brewsteri</i> | None                  | Endangered          | None              | Tahoe City                |
| Sierra Nevada snowshoe hare     | <i>Lepus americanus tahoensis</i>   | None                  | None                | Special Concern   | Tahoe City                |
| Western white-tailed jackrabbit | <i>Lepus townsendii</i>             | None                  | None                | Special Concern   | Tahoe City                |
| Sierra Nevada mountain beaver   | <i>Aplodontia rufa californica</i>  | None                  | None                | Special Concern   | Tahoe City, Granite Chief |
| California wolverine            | <i>Gulo gulo</i>                    | None                  | Threatened          | None              | Tahoe City                |
| Tahoe yellow cress              | <i>Rorippa subumbellata</i>         | Candidate             | Endangered          | None              | Tahoe City                |

<sup>(1)</sup> California Natural Diversity Database – California Department of Fish and Game, 2005 online QuickViewer

c) Temporary impacts to federally protected wetlands could occur if projects are proposed that involve construction and earthmoving activities to implement long-term

soil stabilization or treatment measures. However, specific implementation project proposals subject to CEQA must undergo a Tier Two analysis to identify potential impacts and appropriate mitigation measures. Additionally, the Basin Plan includes a "no net loss" policy for wetland protection and requires that discharges to wetlands must be protected with respect to the same standards and minimum treatment as for surface waters. Policies to avoid, minimize, and mitigate wetland impacts are ensured under CWA Sections 401 (Water Quality Certification issued by the Water Board) and 404 (Permits for work in "waters of the U.S." issued by the U.S. Army Corps of Engineers). Measures required to prevent significant impacts to federally protected wetlands include, but are not limited to:

- Reviewing project plans to ensure that wetland disturbances are avoided and minimized to the extent practicable,
- Installing temporary and permanent erosion controls to all disturbed land surfaces and areas below the high water mark,
- Prohibiting activities that would substantially disrupt the movement of species migrating through the work area,
- Using protective mats for heavy equipment working in wetlands,
- Preventing use of unsuitable fill materials,
- Removing all temporary fill and restoring affected areas to their preexisting elevation,
- Providing in-kind replacement of wetlands at a ratio sufficient to compensate for temporal and spatial wetland impacts.

Therefore, activities taken to comply with the Basin Plan amendment would not substantially affect federally protected wetlands, and the impacts would be less than significant with mitigation.

d) Certain restoration activities (e.g., in-stream restoration work, temporary construction disturbance, etc.) have the potential to interfere with fish or wildlife movement, wildlife corridors, or wildlife nursery sites. However, specific implementation project proposals subject to CEQA must undergo a Tier Two analysis to identify potential impacts and appropriate mitigation measures. Projects that are determined to potentially affect fish and wildlife habitat or activities would be regulated under the state and federal authority described above. Mitigation measures required under the authority of the Water Board, CDFG, and/or U.S. Army Corps of Engineers would include those previously described under items IV. a,b, and c. Therefore, activities taken to comply with the Basin Plan amendment would not substantially interfere with fish or wildlife movement, wildlife corridors, or wildlife nursery sites, and the impacts would be less than significant with mitigation.

### **VIII. Hydrology and Water Quality**

a) Temporary land disturbing projects could be proposed that have the potential to violate water quality standards or waste discharge requirements. However, the California Water Code (Porter-Cologne Water Quality Act) requires that any entity discharging

waste, or proposing to discharge waste that could affect the quality of the waters of the state must submit a report of waste discharge to the Water Board. The Water Board regulates such discharges by issuing general and individual WDRs (including NPDES permits) and conditional waivers of WDRs. These WDRs and waivers of WDRs require written pollution prevention plans and implementation of mitigation measures to ensure that discharges do not cause a violation of water quality objectives. Mitigation measures associated with land disturbing activities include a variety of techniques to:

- retain soil and sediment on the construction site,
- prevent non-storm water discharges that would discharge pollutants off site,
- prevent the discharge of other pollutants associated with construction activities to land or surface waters,
- permanently stabilize disturbed soils, and
- minimize the effects of increased storm water runoff from impervious surfaces.

With required mitigation, activities taken to comply with the Basin Plan amendment would not violate water quality standards or waste discharge requirements.

c) It is possible that stream restoration activities could be proposed that include modifying the current stream elevation and alignment. Other activities taken to address hillslope erosion could involve temporary land disturbance. These activities done without mitigation could temporarily cause increased erosion or siltation. However, stream alteration activities are regulated under CWA Sections 401 and 404 by state and federal authority, respectively, and require appropriate mitigation to prevent violations of water quality objectives in order to be authorized. The Water Board also regulates minor stream channel alteration projects that are not regulated by federal authority through a general WDR in the Truckee River watershed, including Squaw Creek. Mitigation measures to ensure compliance with water quality objectives include, but are not limited to, the following:

- Developing and implementing pollution prevention plans,
- Conducting work during low flow periods,
- Isolating work areas from flowing water,
- Monitoring water quality and adjusting operations if necessary,
- Restoring disturbed riparian vegetation, and
- Permanently stabilizing disturbed areas.

## **XI. Noise**

d) Projects could be proposed that involve use of earthmoving or other heavy construction equipment, which would result in temporary increases in ambient noise levels in excess of current noise levels without the Basin Plan amendment. However, excessive noise is regulated by the Placer County Code (Chapter 9, Article 9.36), which in part prevents unreasonable noise levels while allowing persons to conduct necessary construction activities. Therefore, activities taken to comply with the Basin Plan

amendment will not result in substantial noise increase, and the impacts will be less than significant.

**XVII. Mandatory Findings of Significance**

b) Reasonably foreseeable impacts from the proposed Basin Plan amendment are temporary and would result in long-term benefits to the environment by reducing erosion potential and sediment delivery to Squaw Creek. Potential short-term impacts can be mitigated to less than significant levels. Therefore, the overall effect of adopting the proposed Basin Plan amendment is determined to have less than significant impacts to the environment.

**DETERMINATION**

On the basis of this initial evaluation:

I find the proposed project could not have a significant effect on the environment.

I find that the proposed project may have a significant adverse impact on the environment. However, there are feasible alternatives and/or feasible mitigation measures available that would substantially lessen any significant adverse impact. These alternatives and mitigation measures are discussed in the attached written report.

I find that the proposed project MAY have a significant effect on the environment. There are no feasible alternatives and/or feasible mitigation measures available that would substantially lessen any significant adverse impacts. See the attached written report for a discussion of this determination.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**ATTACHMENT 1**  
**Basin Plan Amendment**  
**Total Maximum Daily Load for Sediment in Squaw Creek**

**ATTACHMENT 2**  
**Staff Report**  
**Total Maximum Daily Load for Sediment in Squaw Creek**