CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

RESOLUTION R6T-2012-0005

CALIFORNIA TAHOE CONSERVANCY, LOWER BLACKWOOD CREEK RESTORATION PROJECT - EXEMPTIONS TO WASTE DISCHARGE PROHIBITIONS CONTAINED IN THE WATER QUALITY CONTROL PLAN FOR THE LAHONTAN REGION

_____ Placer County _____

WHEREAS, the California Water Quality Control Board, Lahontan Region (Water Board) finds:

1. On October 21, 2011 the California Tahoe Conservancy (Conservancy) submitted the following information for the Lower Blackwood Creek Restoration Project (hereafter referred to as the "Project") to the California Regional Water Quality Control Board, Lahontan Region (Water Board):

   a. Notice of Determination for a Mitigated Negative Declaration for the Project, filed on March 22, 2010.
   b. Project plans and associated design report.
   c. Draft Storm Water Pollution Prevention Plan (SWPPP) to comply with Board Order No. R6T-2011-0019, Updated Waste Discharge Requirements and National Pollutant Discharge Elimination System (NPDES) General Permit No. CAG616002 for Discharges of Storm Water Runoff Associated with Construction Activity Involving Land Disturbance in the Lake Tahoe Hydrologic Unit.
   d. Complete application for Clean Water Act 401 Water Quality Certification.

2. The Project area is located within the Blackwood Creek watershed, north of the Tahoe Pines subdivision and south of Eagle Rock in Placer County. The Project area includes portions of Blackwood Creek immediately upstream of State Route 89. The Project vicinity is shown in Attachment A, which is made part of this Resolution.

3. The Blackwood Creek watershed has been historically disturbed by intensive logging, grazing and gravel mining. Upland and stream corridor disturbance has resulted in elevated sediment discharges from upland areas and high rates of stream bank erosion.

4. The purpose of the Project is to improve riparian and terrestrial ecosystem conditions by reducing channel erosion, restoring and expanding riparian habitat and function, and encouraging long-term sustainability of aspen stands. The Project includes habitat-enhancing bank protection structures, upland trail improvements,

channel realignment, and construction of inset floodplain areas to reduce the impacts of historical disturbance.

5. Implementation of the Project is planned to begin in May 2012 and will be completed no later than October 2013.

6. The purpose of this Resolution is to grant waste discharge prohibition exemptions to two waste discharge prohibitions contained in the Water Quality Control Plan for the Lahontan Region (Basin Plan) for activities that will be occurring within Stream Environment Zones (SEZs). Project activities located within SEZs include the following:

   a. Removing coniferous trees and planting aspens to support aspen restoration.
   b. Constructing rock riffles and placing boulders within the stream channel.
   c. Installing 63 in-stream woody material structures on the channel banks and floodplain surfaces.
   d. Constructing five wood and rock revetment structures.
   e. Realigning three channel segments.
   f. Extensive revegetation including sod and willow salvage and replanting, seeding, and woody riparian planting.
   g. Installing a creek diversion pipeline and dewatering system to support construction activities and mitigate impacts.
   h. Trail restoration and narrowing.

7. The Basin Plan specifies the following discharge prohibitions:

   a) Lake Tahoe Basin:
   The discharge or threatened discharge, attributable to new development or permanent disturbance in Stream Environment Zones, of solid or liquid waste, including soil, silt, sand, clay, rock, metal, plastic, or other organic, mineral or earthen materials, to Stream Environment Zones in the Lake Tahoe Basin is prohibited. (Chapter 5, Waste Discharge Prohibitions, page 5.2 – 4)

   b) Regionwide:
   The discharge of waste which causes violation of any numeric water quality objective contained this Plan is prohibited. (Chapter 5, Waste Discharge Prohibitions, page 5.2 - 1)

   The Water Quality Control Plan for the Lahontan Region (Basin Plan) contains a numeric water quality objective for turbidity:

   Increases in turbidity shall not exceed natural levels by more than 10 percent. (Chapter 5, Water Quality Objectives, page 5.1-9)

8. The activities listed in Finding 6 will result in the discharge or threatened discharge of solid or liquid waste to SEZs. Therefore these activities require an exemption to the prohibition stated in Finding 7(a), above.

9. The Basin Plan contains a provision that the prohibition stated in Finding 7(a), above, shall not apply to any activity the Water Board approves as reasonably necessary for erosion control projects, habitat restoration projects, wetland rehabilitation projects, Stream Environment Zone restoration projects, and similar projects, provided the following findings can be made:

(a) The project, program, or facility is necessary for environmental protection.

Historic anthropogenic activities in the Blackwood Creek watershed have resulted in degraded stream and riparian conditions, including severe channel incision, hydrologic disconnection between the channel and the floodplain, stream bank erosion, and conifer encroachment into aspen stands.

The Project is expected to lead to improved conditions of riparian, meadow, and terrestrial ecosystems by reducing sedimentation, restoring and expanding riparian habitat and function, and encouraging long-term sustainability of aspen stands.

(b) There is no reasonable alternative, including relocation, which avoids or reduces the extent of encroachment in the Stream Environment Zone (SEZ).

The project purpose is to restore SEZ areas within the Blackwood Creek watershed. There is no reasonable alternative that would reduce the extent of encroachment in the SEZ due to the inherent nature of the Project.

(c) Impacts are fully mitigated.

The total area of proposed work within the SEZ is approximately 3.3 acres. The majority of this area occurs in and adjacent to the 1200 linear feet of Blackwood Creek stream channel to the west of the State Route 89 culvert, with a small area (approximately ½ acre) of SEZ disturbance occurring in the sod and willow salvage area to the northwest of the channel restoration effort.

Construction Best Management Practices, described within the Project's Storm Water Pollution Protection Plan, Mitigated Negative Declaration, and construction plans, will be in place to reduce adverse effects on water quality from construction. Disturbances such as temporary roads will be rehabilitated following completion of restoration activities. Temporary roads within the SEZ will

be removed at the end of each construction season. The Project will result in overall water quality and riparian improvement. All impacts are fully mitigated.

10. Data collected between August 2009 and October 2011 indicate that Blackwood Creek's background in-stream turbidity at a monitoring station upstream of the Project area typically varied between 0.17 and 1.41 Nephelometric Turbidity Units (NTUs) during low flow periods (July-Oct). During high flow periods (spring snowmelt events) the turbidity was measured as high as 44.6 NTUs.

    Due to the very low natural levels of turbidity during the construction period of summer/fall, even a slight increase in fine sediment input to the creek during restoration activities could result in a violation of the numeric water quality objective for turbidity stated in Finding 7(b), above. For example, a measured increase in turbidity of only 0.1 to 0.2 NTUs would violate the turbidity objective during low flows expected to occur in the construction season.

11. The introduction of flow into the newly constructed channel and restored bank areas may result in a violation in the numeric water quality objective for turbidity, even after the Conservancy "seasons" the new channels. "Seasoning" the new channels will include flood irrigation of the new channel segments and percolation of introduced flow to facilitate the settling of sediments and channel hardening. This flooding/percolation technique will be conducted a minimum of three times with the goal of stabilizing any loose fine sediments into the project reach of the channel. The Conservancy will also use pumps and hoses to "jet" newly constructed channel bed and banks to mobilize loose sediment, further wash channel substrate materials, and lodge loose sediment into substrate interstitial spaces. The Conservancy will then introduce flow into the improved channel without discharging or connecting to the live channel. This introduced flow will be pumped to approved upland dewatering areas until the turbidity in the last reach of the new channel is less than or equal to 15 NTUs. At that time, flows in the improved channel reach can be released and connected to the existing channel.

    Elevated turbidity downstream of the Project is not expected to exceed 15 NTUs, and turbidity levels are expected to return to background conditions (as described in Finding 10) within 48 hours of reestablishing flow through the Project area.

12. In the Basin Plan the Water Board encourages restoration projects that are intended to reduce or mitigate existing sources of soil erosion, water pollution, or impairment of beneficial uses. The Basin Plan contains provisions for the Water Board to grant exemptions to prohibitions including the discharge of waste which causes violation of any narrative water quality objective contained in the Basin Plan, including the Nondegradation Objective, whenever if finds that a specific restoration project meets all the following criteria:

(a) The project will eliminate, reduce, or mitigate existing sources of soil erosion, water pollution, and/or impairment of beneficial uses of water.

The purpose of the Project is to improve Blackwood Creek watershed and channel conditions by reducing accelerated stream bank and bed erosion, restoring and expanding riparian habitat and function, and encouraging long-term sustainability of aspen stands. The Project will realign stream channel segments, construct five rock and log revetment structures, place woody material structures in the channel, place boulders in strategic locations, construct rock riffles, restore/decommission portions of existing roads and trails, and revegetate disturbed areas. These activities are expected to reduce stream channel erosion, improve riparian and aquatic habitat condition, and reduce sediment loading to Lake Tahoe.

(b) There is no feasible alternative to the project that would comply with the provisions of the Basin Plan, precluding the need for an exemption.

Accelerated stream bank and bed erosion are the result of ongoing incision and bank instability of the existing channel. The Project is needed to address erosion sources and improve the impaired natural functions of the ecosystem.

Other alternative actions to restore Blackwood Creek would involve similar risk of elevated turbidity either during construction or during connection of creek flow to the improved channel. The Conservancy considered design alternatives in planning the Project, including no action. Conservancy work and design modifications resulted in a reduction in acreage of proposed disturbance to the absolute minimum necessary to construct the proposed improvements.

(c) Land disturbance will be limited to the absolute minimum necessary to correct or mitigate existing sources of soil erosion, water pollution, and/or impairment of beneficial uses of water.

The Project proposes to disturb approximately 3.3 acres of SEZ. The majority of this area occurs in and adjacent to the 1200 feet of Blackwood Creek stream channel to the west of the State Route 89 culvert, with a small area (approximately ½ acre) of SEZ disturbance occurring in the sod and willow salvage area to the northwest.

These disturbances are the minimum necessary to meet Project objectives of improving the function of the riparian and aquatic ecosystems.

(d) All applicable Best Management Practices and mitigation measures have been incorporated into the project to minimize soil erosion, surface runoff, and other potential adverse environmental impacts.

The Conservancy has submitted a draft Storm Water Pollution Prevention Plan which describes Best Management Practices and mitigation measures designed to avoid, reduce, and minimize adverse environmental impacts, particularly during phases that include in-channel excavation and seasoning, creek flow introduction, and dewatering of the existing channel. Specific procedures are outlined for the methods, timing, and monitoring of the following activities:

(a) Construction and decommissioning of temporary access roads
(b) Sod salvage and sod borrow
(c) Excavation of new channel improvements and floodplain areas
(d) Dewatering the construction area and infiltration of construction water
(e) Phased introduction of flow into newly improved channel, including post-construction channel seasoning and phased flow re-initiation with monitoring to ensure low turbidity levels (see Finding 11)
(f) Diversion of Blackwood Creek during construction

The flow of Blackwood Creek will remain in the diversion pipeline until the channel improvement construction is complete, and turbidity levels within the channel are reduced to the maximum extent practicable in accordance with plan and criteria described in Finding 11.

(e) The project complies with all applicable laws, regulations, plans, and policies.

Prior to Project implementation the Conservancy must obtain the following permits from the Water Board:

a) Water Quality Certification pursuant to Clean Water Act section 401
b) Notice of Applicability of Board Order No. R6T-2011-0019, Waste Discharge Requirements and NPDES General Permit No. CAG616002 for Storm Water Discharges Associated with Construction Activity in the Lake Tahoe Hydrologic Unit

(f) Additional exemption criteria apply to restoration projects proposed within the Lake Tahoe Basin. To the extent that they are more stringent, the Lake Tahoe Basin criteria supersede the regionwide criteria, above.

As described in Findings 8 and 9, above, disturbances within the SEZ resulting from Project activities requires an exemption to a waste discharge prohibition against the discharge or threatened discharge to SEZs attributable to new development or permanent disturbance within an SEZ. This exemption is also part of this resolution.

13. The California Tahoe Conservancy certified a Mitigated Negative Declaration for the Lower Blackwood Creek Restoration Project and a Notice of Determination was filed on March 22, 2010 accordance with the California Environmental Quality Act (Public Resources Code 21000, et seq.).

    As a responsible agency, Water Board staff have reviewed the Mitigated Negative Declaration and noted that the document includes specific mitigation actions to reduce potentially significant impacts to less than significant levels. These mitigation measures are further described in the project plans and other submitted documents. The Water Board will include implementation of these measures as described in the submitted material in the required Water Quality Certification that must be issued pursuant to Clean Water Act Section 401.

14. The Water Board has notified the Project proponent and interested agencies and persons of its intent to adopt this Resolution.

15. The Water Board, in a public meeting, heard and considered all comments pertaining to the proposed activities and a proposed exemption to a prohibition in the Basin Plan.

THEREFORE, BE IT RESOLVED THAT:

1. The Lower Blackwood Creek Restoration Project is reasonably necessary for stream channel, habitat, and SEZ restoration as outlined in Finding 9 above.

2. The Water Board hereby grants an exemption to the Basin Plan prohibition stated in Finding 7(a), above.

3. The Lower Blackwood Creek Restoration Project is a restoration project that is intended to reduce or mitigate existing sources of soil erosion, water pollution, or impairment of beneficial uses, and meets the eligibility criteria for an exemption to the Basin Plan waste discharge prohibition as outlined in Finding 11, above.

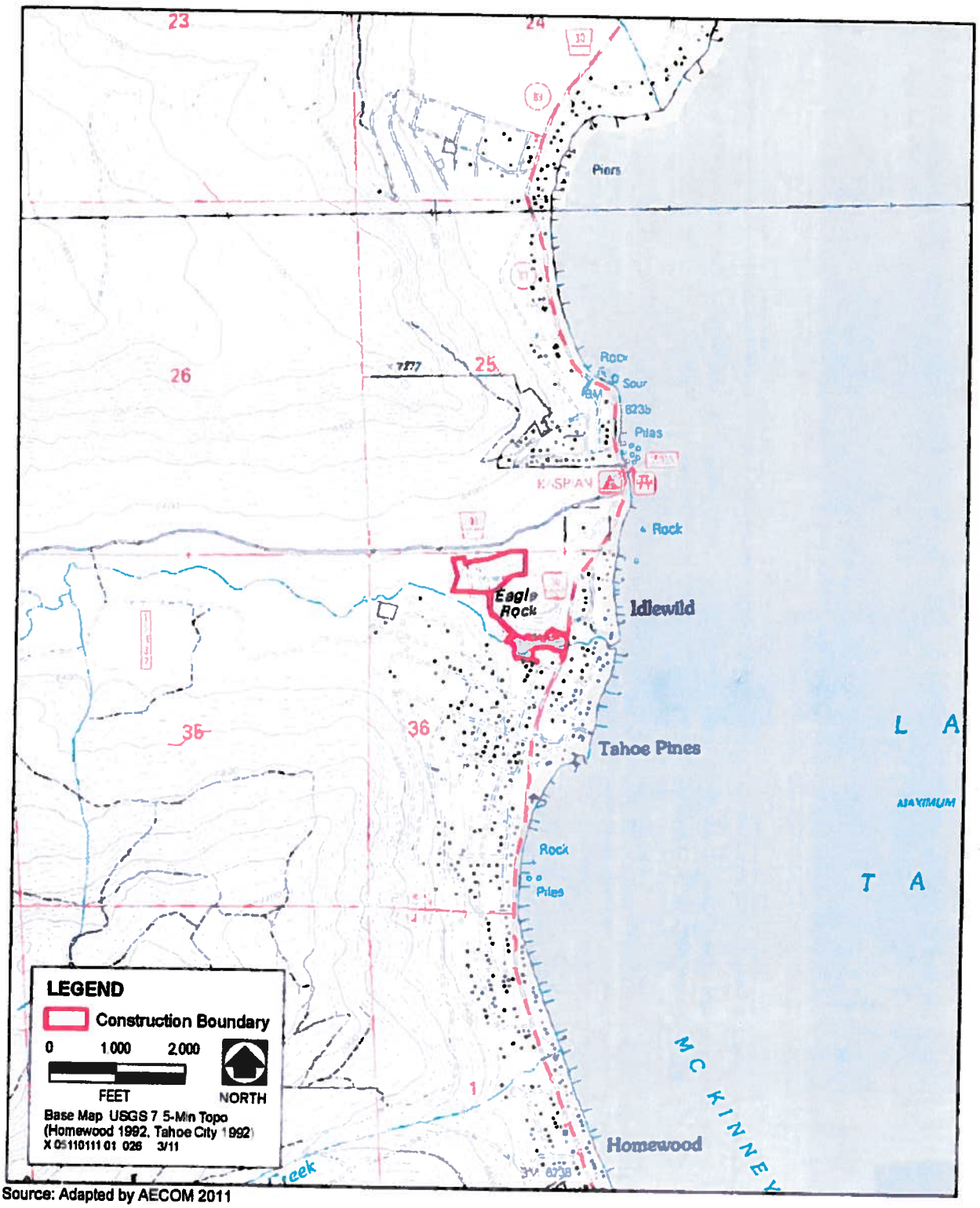
4. The Water Board hereby grants an exemption to the Basin Plan prohibition stated in Finding 7(b), above. This exemption is limited to the water quality objective for turbidity and to the specific turbidity limit described in Finding No. 11, above.

5. Prior to construction commencing, the Conservancy must receive Water Quality Certification (WQC) pursuant to Clean Water Act section 401 and obtain coverage under Order R6T-2011-0019, General Waste Discharge Requirements and NPDES General Permit No. CAG616002 for Storm Water Discharges Associated with Construction Activity in the Lake Tahoe Hydrologic Unit.

I, Harold J. Singer, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, Lahontan Region, on January 11 and 12, 2012.

HAROLD J. SINGER
EXECUTIVE OFFICER

Attachments: A. Project Vicinity Map



Source: Adapted by AECOM 2011

Attachment A: Lower Blackwood Creek Restoration Project Vicinity Map