

## **CALIFORNIA DEPARTMENT OF FISH AND GAME**

North Central Region  
1701 Nimbus Road, Suite A  
Rancho Cordova, CA 95670-4599  
916-358-2900



Streambed Alteration Agreement  
Notification No. 1600-2010-0023 -R2  
Angora Creek  
El Dorado County Department of Transportation  
Angora Fisheries & SEZ Enhancement Project

This Streambed Alteration Agreement (Agreement) is entered into between the California Department of Fish and Game (DFG) and the El Dorado County Department of Transportation (Permittee) as represented by Brendan Ferry, Senior Planner.

### **RECITALS**

WHEREAS, pursuant to Fish and Game Code (FGC) section 1602, Permittee notified DFG on February 8, 2010 that Permittee intends to complete the project described herein.

WHEREAS, pursuant to FGC section 1603, DFG has determined that the project could substantially adversely affect existing fish or wildlife resources and has included measures in the Agreement necessary to protect those resources.

WHEREAS, Permittee has reviewed the Agreement and accepts its terms and conditions, including the measures to protect fish and wildlife resources.

NOW THEREFORE, Permittee agrees to complete the project in accordance with the Agreement.

### **PROJECT LOCATION**

The project is located at Angora Creek, in the County of El Dorado, State of California; Latitude 38.88119, Longitude -120.04063.

### **PROJECT DESCRIPTION**

The Angora Creek Fisheries & Stream Environment Zone Enhancement Project (Project) is defined in the Tahoe Regional Planning Agency's Environmental Improvement Program (EIP) as Project #406. The intent of Project #406 is to modify and improve Angora Creek in the vicinity of the culverts under Lake Tahoe Boulevard to improve fish passage. These improvements are intended to adjust channel morphology where the creek has become entrenched, stabilize banks with vegetation, and improve passage at two existing culverts by installing a 3-sided bridge structure. Anticipated construction activities include channel reconstruction, bioengineered bank stabilization, riffle pool sequences, reestablishment or creation of fish and wildlife habitat, construction of a 3-sided concrete bridge, removal of debris, removal and restoration of temporary access roads, finish grading, salvaging of existing native vegetation, planting

of shrubs and sod, willow stakes, seeding and mulching and construction site temporary BMPs.

The Angora Creek crossing of Lake Tahoe Boulevard consists of two 72" X 44" corrugated arch pipe culverts, with a concrete headwall at the inlet and outlet. Currently, the culverts are in poor condition and are a barrier to fish passage during spring flood flows and fall low flow periods. The Project intends to replace the culverts with a 3-sided bridge and perform minor channel modification/reconstruction from roughly 100 feet upstream of the bridge to roughly 50 feet downstream of the bridge. A new channel will be constructed that improves fish habitat, that has proper width:depth ratios and allows for more interaction hydrologically with the stream's floodplain. Existing stream substrate will be utilized where applicable for the new channel. Because this channel has a natural bottom, fish passage conditions can mimic the natural channel upstream and downstream. Habitat features such as resting pools, can be included in the channel to maximize the range of fish passage flows. This will provide a continuous Angora Creek corridor for fish, amphibians, and mammals from the confluence with Upper Truckee River to the headwaters. The new channel will be stabilized primarily with native locally harvested sod on the banks. The sod will be wrapped with a loose weave coir fabric that will be keyed in to create greater strength in the banks. Some grade control structures are also specified which will include rock and large root wads. Minor rock rip rap is planned for the new channel and around the new bridge structure. Willow clumps will be planted and willow wattling techniques will be employed using locally harvested materials. The old channel will be filled with native material from the new channel excavation and will be stabilized with native seed and plantings. A loose weave coir fabric will be placed over the old channel to help protect the surface until vegetation becomes established.

The area around the existing culverts will be excavated from the roadway and concrete bridge footings will be poured. The bridge will be prefabricated off site and will be delivered in three sections. These sections will be dropped in place by a crane and anchored to the steel bolts that will be placed in the footings. Once the bridge is in place, the culverts will be removed and the channel bottom will be created with rock beneath the bridge. This will greatly enhance fish habitat and passage in this area. A dewatering and diversion plan has been prepared in order to minimize construction impacts in this area to the maximum extent possible. See attached plan for further details.

Another component of the Project involves removing improvements installed as an emergency response to the 2007 Angora Fire that burned much of the upper watershed of Angora Creek. These improvements include a timber trash rack, steel sheet pile and rock rip rap, which were installed to prevent large debris flows from damaging or blowing out the road. However, since the upper watershed has begun to stabilize itself with vegetation and mulch, it has been determined that these improvements are no longer needed. The area where these improvements were located will be lightly scarified and revegetated with native vegetation.

Finally, a small section of curb and gutter will be poured along the roadway and a sediment trap will be installed to capture road cinders, sediment and other debris, prior to discharging to the Angora Creek floodplain.

The volume and nature of the fill material will be roughly: 870 cubic yards of soil, 132 cubic yards of topsoil, 17 cubic yards of humus, 49 cubic yards of mulch, 192 cubic yards of rock, 21 cubic yards of gravel, 15 cubic yards of cobble, 523 cubic yards of locally harvested sod, 6,080 square feet of coir blanket.

The Project will be constructed in the late summer when flows are the lowest in order to minimize impacts to the area and to fish and wildlife species. However, it is anticipated that the creek will still require diversion and certain areas may require dewatering to construct the Project.

## **PROJECT IMPACTS**

Existing fish or wildlife resources the project could substantially adversely affect include: cold water fish species, birds, amphibians, and other aquatic and terrestrial plant and wildlife species.

The adverse effects the project could have on the fish or wildlife resources identified above include: Change in contour of bed, channel or bank; change in gradient of bed, channel or bank; channel profile change: confinement or widening; channel degradation or aggradation; accelerated channel scour; loss of bank stability during construction; increase of bank erosion during construction; change in composition of channel materials: LWD and D50; soil compaction or other disturbance; restriction or increase in sediment transport; exposure of concrete sills on structures; change in turbidity; increased sedimentation from adjacent construction; increased sedimentation from project roads; chronic increases of sedimentation to streams; change in pH; short-term release (e.g. incidental from construction); release of leachate (e.g. concrete, creosote, wood preservatives, etc.); disruption to nesting birds and other wildlife: disturbance from project activity; loss or impediment of terrestrial animal species travel routes due to temporary structures such as survey tape, sandbags, erosion protection materials etc.; diversion of flow water from stream activity site or around activity site; dewatering; rewatering; change in hydrology below site; change (increase or decrease) in sediment delivery below site; change in flow depth, width or velocity; flow deflection; change in fluvial geomorphology;

## **STREAM ZONE DEFINED**

The Stream Zone comprises all components of a stream, including the channel, bed, banks, and floodplains. The Stream Zone is the land, including vegetation, that bounds a lake or the channel of a stream and that defines the lateral extent of their waters.

## MEASURES TO PROTECT FISH AND WILDLIFE RESOURCES

### 1. Administrative Measures

Permittee shall meet each administrative requirement described below.

- 1.1 Documentation at Project Site. Permittee shall make the Agreement, any extensions and amendments to the Agreement, and all related notification materials and California Environmental Quality Act (CEQA) documents, readily available at the project site at all times and shall be presented to DFG personnel, or personnel from another state, federal, or local agency upon request.
- 1.2 Providing Agreement to Persons at Project Site. Permittee shall provide copies of the Agreement and any extensions and amendments to the Agreement to all persons who will be working on the project at the project site on behalf of Permittee, including but not limited to contractors, subcontractors, inspectors, and monitors.
- 1.3 Notification of Conflicting Provisions. Permittee shall notify DFG if Permittee determines or learns that a provision in the Agreement might conflict with a provision imposed on the project by another local, state, or federal agency. In that event, DFG shall contact Permittee to resolve any conflict.
- 1.4 Project Site Entry. Permittee agrees that DFG personnel may enter the project site to verify compliance with the Agreement. DFG personnel may only enter the project site when it is safe to do so. When appropriate, DFG personnel shall contact the Permittee prior to entering the construction area.
- 1.5 Authorized Work. The notification, together with all supporting documents submitted with the notification, is hereby incorporated into this agreement to describe the location and features of the proposed project. The Permittee agrees that all work shall be done as described in the notification and supporting documents, incorporating all project modifications, wildlife resource protection features, mitigation measures, and provisions as described in this agreement. Where apparent conflicts exist between the notification and the provisions listed in this agreement, the Permittee shall comply with the provisions listed in this agreement. The Permittee further agrees to notify DFG of any modifications made to the project plans submitted to DFG. At the discretion of DFG, this agreement will be amended to accommodate modifications to the project plans submitted to DFG and/or new project activities.
- 1.6 This Agreement does not authorize the construction of any temporary or permanent dam, structure, flow restriction or fill except as described in the Applicant's notification.

## 2. Avoidance and Minimization Measures

To avoid or minimize adverse impacts to fish and wildlife resources identified above, Permittee shall implement each measure listed below.

- 2.1 Work Period. The time period for completing the work within the stream zone shall be restricted to periods of low stream flow and dry weather and shall be confined to the period of July 15 to October 31. Construction activities shall be timed with awareness of precipitation forecasts and likely increases in stream flow. Construction activities within the stream zone shall cease until all reasonable erosion control measures, inside and outside of the stream zone, have been implemented prior to all storm events. Revegetation, restoration and erosion control work is not confined to this time period.
- 2.2 Work Period Extensions. At DFG's discretion, the work period may be extended based on the extent of the work remaining, on site conditions and reasonably anticipated future conditions. If the Permittee finds more time is needed to complete the authorized activity, the Permittee shall submit a written request for a work period time extension to DFG. The work period extension request shall provide the following information: 1) Describe the extent of work already completed; 2) Provide specific detail of the activities that remain to be completed within the stream zone; and 3) Detail the actual time required to complete each of the remaining activities within the stream zone. The work period extension request should consider the effects of increased stream conditions, rain delays, increased erosion control measures, limited access due to saturated soil conditions, and limited growth of erosion control grasses due to cool weather. Photographs of the work completed and the proposed work areas are helpful in assisting DFG in its evaluation. Time extensions are issued at the discretion of DFG. DFG will have ten calendar days to approve the proposed work period extension. DFG reserves the right to require additional measures designed to protect natural resources.
- 2.3 Stream Diversions / Dewatering. If work in the flowing portion of the stream is unavoidable, the entire stream flow shall be diverted around or through the work area during the excavation and/or construction operations. Stream flow shall be diverted using gravity flow through temporary culverts/pipe's or pumped around the work site with the use of hoses. When any dam or other artificial obstruction is being constructed, maintained, or placed in operation, sufficient water shall at all times be allowed to pass downstream to maintain aquatic life below the dam pursuant to Fish and Game Code section 5937. Any temporary dam or other artificial obstruction constructed shall only be built from clean materials such as sandbags, gravel bags, water dams, or clean/washed gravel which will cause little or no siltation.
- 2.4 Bird Nests. It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird except as otherwise provided by the Fish and Game Code. No trees that contain active nests of birds shall be disturbed until all eggs have hatched and young birds have fledged without prior consultation and approval of a Department representative.

- 2.5 Vegetation Removal. Disturbance or removal of vegetation shall not exceed the minimum necessary to complete operations. Except for the trees specifically identified for removal in the notification, no native trees with a trunk diameter at breast height (DBH) in excess of four (4) inches shall be removed or damaged without prior consultation and approval of a Department representative. Using hand tools (clippers, chain saw, etc.), trees may be trimmed to the extent necessary to gain access to the work sites. All cleared material/vegetation shall be removed out of the riparian/stream zone.
- 2.6 Sediment Control. Precautions to minimize turbidity/siltation shall be taken into account during project planning and implementation. This may require the placement of silt fencing, coir logs, coir rolls, straw bale dikes, or other siltation barriers so that silt and/or other deleterious materials are not allowed to pass to downstream reaches. Passage of sediment beyond the sediment barrier(s) is prohibited. If any sediment barrier fails to retain sediment, corrective measures shall be taken. The sediment barrier(s) shall be maintained in good operating condition throughout the construction period and the following rainy season. Maintenance includes, but is not limited to, removal of accumulated silt and/or replacement of damaged silt fencing, coir logs, coir rolls, and/or straw bale dikes. The Permittee is responsible for the removal of non-biodegradable silt barriers (such as plastic silt fencing) after the disturbed areas have been stabilized with erosion control vegetation (usually after the first growing season). Upon Department determination that turbidity/siltation levels resulting from project related activities constitute a threat to aquatic life, activities associated with the turbidity/siltation shall be halted until effective Department approved control devices are installed or abatement procedures are initiated.
- 2.7 Pollution Control. Utilize Best Management Practices (BMPs) to prevent spills and leaks into water bodies. If maintenance or refueling of vehicles or equipment must occur on-site, use a designated area and/or a secondary containment, located away from drainage courses to prevent the runoff of storm water and the runoff of spills. Ensure that all vehicles and equipment are in good working order (no leaks). Place drip pans or absorbent materials under vehicles and equipment when not in use. Ensure that all construction areas have proper spill clean up materials (absorbent pads, sealed containers, booms, etc.) to contain the movement of any spilled substances. Any other substances which could be hazardous to aquatic life, resulting from project related activities, shall be prevented from contaminating the soil and/or entering the waters of the state. Any of these materials, placed within or where they may enter a stream or lake by the Permittee or any party working under contract or with the permission of the Permittee, shall be removed immediately. DFG shall be notified immediately by the Permittee of any spills and shall be consulted regarding clean-up procedures.
- 2.8 Bottom of bridge superstructure shall be of sufficient height to allow maximum water flows generated during 100 year high intensity storms to pass beneath unrestricted.

### 3. Compensatory Measures

To compensate for adverse impacts to fish and wildlife resources identified above that cannot be avoided or minimized, Permittee shall implement each measure listed below.

- 3.1 Site Restoration. All exposed/disturbed areas and access points within the stream zone left barren of vegetation as a result of the construction activities shall be restored using locally native grass seeds, locally native grass plugs and/or a mix of quick growing sterile non-native grass with locally native grass seeds. Seeded areas shall be covered with broadcast straw and/or jut netted (monofilament erosion blankets are not authorized).

### 4. Reporting Measures

Permittee shall meet each reporting requirement described below.

- 4.1 The Permittee shall notify DFG within two working days of beginning work within the stream zone of Angora Creek. Notification shall be submitted as instructed in Contact Information section below. Email notification is preferred.
- 4.2 Upon completion of the project activities described in this agreement, the work area within the stream zone shall be digitally photographed. Photographs shall be submitted to DFG within two days of completion. Photographs and project commencement notification shall be submitted as instructed in Contact Information section below. Email submittal is preferred.

### CONTACT INFORMATION

Any communication that Permittee or DFG submits to the other shall be in writing and any communication or documentation shall be delivered to the address below by U.S. mail, fax, or email, or to such other address as Permittee or DFG specifies by written notice to the other. Refer to the project's Notification Number when submitting documents to DFG.

To Permittee:

El Dorado County Department of Transportation  
Brendan Ferry  
924B Emerald Bay Road  
South Lake Tahoe, CA 96150  
530-573-7900  
530-541-7049 (fax)  
Brendan.Ferry@edcgov.us

To DFG:

Department of Fish and Game  
North Central Region

1701 Nimbus Road, Suite A  
Rancho Cordova, CA 95670  
Attn: Lake and Streambed Alteration Program – Laurie Soule  
Notification #1600-2010-0023-R2  
Fax: 916-358-2912  
lsoule@dfg.ca.gov

## **LIABILITY**

Permittee shall be solely liable for any violations of the Agreement, whether committed by Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents or contractors and subcontractors, to complete the project or any activity related to it that the Agreement authorizes.

This Agreement does not constitute DFG's endorsement of, or require Permittee to proceed with the project. The decision to proceed with the project is Permittee's alone.

## **SUSPENSION AND REVOCATION**

DFG may suspend or revoke in its entirety the Agreement if it determines that Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, is not in compliance with the Agreement.

Before DFG suspends or revokes the Agreement, it shall provide Permittee written notice by certified or registered mail that it intends to suspend or revoke. The notice shall state the reason(s) for the proposed suspension or revocation, provide Permittee an opportunity to correct any deficiency before DFG suspends or revokes the Agreement, and include instructions to Permittee, if necessary, including but not limited to a directive to immediately cease the specific activity or activities that caused DFG to issue the notice.

## **ENFORCEMENT**

Nothing in the Agreement precludes DFG from pursuing an enforcement action against Permittee instead of, or in addition to, suspending or revoking the Agreement.

Nothing in the Agreement limits or otherwise affects DFG's enforcement authority or that of its enforcement personnel.

## **OTHER LEGAL OBLIGATIONS**

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from obtaining any other permits or authorizations that might be required under other federal, state, or local laws or regulations before beginning the project or an activity related to it.

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with other applicable statutes in the FGC including, but not limited to, FGC sections 2050 et seq. (threatened and endangered species), 3503 (bird nests and eggs), 3503.5 (birds of prey), 5650 (water pollution), 5652 (refuse disposal into water), 5901 (fish passage), 5937 (sufficient water for fish), and 5948 (obstruction of stream).

The Permittee shall notify DFG where conflicts exist between the provisions of this agreement and those imposed by other regulatory agencies. Unless otherwise notified, the Permittee shall comply with the provision that offers the greatest protection to water quality, species of special concern and/or critical habitat.

Nothing in the Agreement authorizes Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, to trespass.

## **AMENDMENT**

DFG may amend the Agreement at any time during its term, provided the amendment is mutually agreed to in writing by Permittee and DFG.

Permittee may amend the Agreement at any time during its term, provided the amendment is mutually agreed to in writing by DFG and Permittee. To request an amendment, Permittee shall submit to DFG a completed DFG "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the corresponding amendment fee identified in DFG's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5).

## **TRANSFER AND ASSIGNMENT**

This Agreement may not be transferred or assigned to another entity, and any purported transfer or assignment of the Agreement to another entity shall not be valid or effective, unless the transfer or assignment is requested by Permittee in writing, as specified below, and thereafter DFG approves the transfer or assignment in writing.

The transfer or assignment of the Agreement to another entity shall constitute a minor amendment, and therefore to request a transfer or assignment, Permittee shall submit to DFG a completed DFG "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the minor amendment fee identified in DFG's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5).

## **EXTENSIONS**

In accordance with FGC section 1605(b), Permittee may request one extension of the Agreement, provided the request is made prior to the expiration of the Agreement's term. To request an extension, Permittee shall submit to DFG a completed DFG "Request to Extend Lake or Streambed Alteration" form and include with the completed

form payment of the extension fee identified in DFG's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5). DFG shall process the extension request in accordance with FGC 1605(b) through (e).

If Permittee fails to submit a request to extend the Agreement prior to its expiration, Permittee must submit a new notification and notification fee before beginning or continuing the project the Agreement covers (Fish & G. Code, § 1605, subd. (f)).

## **EFFECTIVE DATE**

The Agreement becomes effective on the date of DFG's signature, which shall be: 1) after Permittee's signature; 2) after DFG complies with all applicable requirements under the California Environmental Quality Act (CEQA); and 3) after payment of the applicable FGC section 711.4 filing fee listed at [http://www.dfg.ca.gov/habcon/ceqa/ceqa\\_changes.html](http://www.dfg.ca.gov/habcon/ceqa/ceqa_changes.html).

## **TERM**

This Agreement shall expire on December 31, 2014, unless it is terminated or extended before then. All provisions in the Agreement shall remain in force throughout its term. Permittee shall remain responsible for implementing any provisions specified herein to protect fish and wildlife resources after the Agreement expires or is terminated, as FGC section 1605(a)(2) requires.

## **AUTHORITY**

If the person signing the Agreement (signatory) is doing so as a representative of Permittee, the signatory hereby acknowledges that he or she is doing so on Permittee's behalf and represents and warrants that he or she has the authority to legally bind Permittee to the provisions herein.

## **AUTHORIZATION**

This Agreement authorizes only the project described herein. If Permittee begins or completes a project different from the project the Agreement authorizes, Permittee may be subject to civil or criminal prosecution for failing to notify DFG in accordance with FGC section 1602.

## **CONTRACT ADMINISTRATOR**

The County Officer or employee with responsibility for administering this Agreement is Brendan Ferry, Senior Planner, Department of Transportation, or successor.

**CONCURRENCE**

The undersigned accepts and agrees to comply with all provisions contained herein.

**FOR EL DORADO COUNTY DEPARTMENT OF  
TRANSPORTATION**

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James W. Ware, P.E.  
Director of Transportation

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Date

**FOR DEPARTMENT OF FISH AND GAME**

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Kent Smith  
Acting Regional Manager

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Date

Prepared by: Laurie Soule  
Staff Environmental Scientist