



United States Department of the Interior



BUREAU OF LAND MANAGEMENT

Folsom Field Office
63 Natoma Street
Folsom, CA 95630
www.blm.gov/ca/folsom

Tribute Trail and Stocking Flat restoration project (CA 180-08-46) Decision Record December 2008

1.0 Introduction and Background

The Tribute Trail and Stocking Flat restoration project is proposed for public land administered by the Bureau of Land Management's Folsom Field Office (BLM). The project is part of a larger trail project involving private and other public lands along Deer Creek, just west of Nevada City, California. Friends of Deer Creek and Americans Rivers are the primary project proponents. Project components on BLM-administered land include the construction of the Tribute Trail, including the Chinese Tribute Bridge, and ecological restoration of upper Stocking Flat. Project construction will be completed by 2010. Continuous and on-going maintenance of the Stocking Flat restoration area will occur for at least twenty years.

The project seeks to:

1. Create a multi-use trail and bridge that would provide access to BLM-administered land, and would feature recreational amenities and interpretative enhancements showcasing the biological and historical importance of Deer Creek.
2. Enhance stream and floodplain function and create wetland/riparian habitat on a floodplain terrace of Deer Creek that was degraded by historic and recent disturbance.

2.0 Decision and Rationale

2.1 Alternatives Considered but not Selected

Under the No Action alternative, the Tribute Trail and Stocking Flat restoration project would not be implemented. This alternative would negatively affect recreation use and access to BLM-administered public land near Nevada City. It is also possible that, without the Stocking Flat restoration project, the environmental integrity of the project area could degrade.

2.2 Decision and Rationale

Based on information in the EA, the project record, and consultation with my staff, I have decided to implement the proposed Tribute Trail and Stocking Flat restoration project as described in the EA, with the following stipulations:

Project Design Features:

Friends of Deer Creek follows all project design features described in the EA as they help implement the bridge, trail, and restoration projects.

Time restrictions:

For various reasons stated in this EA, the proposed trail construction, bridge construction, and restoration projects must occur during the dry season from April 15 to October 15. For all of the projects, FODC must use a BLM-approved biologist to survey for raptor nests two weeks before any on-the-ground construction work occurs unless the work starts after July 31. If active raptor nests are found, a 300 ft buffer would be established around the nests during trail, bridge, and restoration work. No work will occur within this buffer until the young have fledged or after July 31. The trail and fuels reduction will likely be constructed from April 15 to around May 15 when soil moisture conditions are appropriate and wildfire danger is low (the trail construction work will require a raptor nest survey). The bridge and restoration work will likely occur after July 31 and before October 15 when raptor nest survey is unnecessary.

Engineered bridge site plan:

BLM has already approved conceptual plans for the bridge—the Chinese Tribute Bridge—to be built as part of the proposed project. Before any on-the-ground work begins on building this bridge, BLM must approve an engineered bridge site plan. The plan must meet all BLM bridge policies and other requirements.

Motorized vehicle access:

BLM acknowledges that Friends of Deer Creek and its partners have made considerable progress on ensuring BLM will have long-term vehicle access to the proposed bridge site. Before any on-the-ground implementation work begins on the trail and bridge projects, as described in the EA, Friends of Deer Creek and its partners will finish acquiring legal vehicular access to the bridge site via an existing road that extends from Champion Mine Road to the proposed bridge site through private properties owned by Galleli & Sons, LLC and by Steve Rother. As part of this acquisition, Friends of Deer Creek will donate rights exclusively to BLM personnel to drive motorized vehicles on this access road in order to manage the trail and bridge.

3.0 Consultation and Coordination

The Federal Land Policy and Management Act (FLPMA) requires that BLM manage public lands to: protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; preserve and protect certain public lands in their natural condition; provide food and habitat for fish and wildlife and domestic animals; provide for outdoor recreation and human occupancy and use; regulate the use, occupancy, and development of public lands. This project meets these requirements. This project complies with all environmental laws pertinent to the decision including the Clean Water Act, Endangered Species Act, and National Historic Preservation Act. There are no federally listed species occur within the project area; therefore, consultation with the US Fish and Wildlife Service was not necessary.

4.0 Public Involvement

The EA was available for a formal 15-day public comment period as posted on Folsom Field Office's internet website in September 2008. No comments were received.

5.0 Plan Consistency

Based on information in the EA, the project record, and recommendations from BLM specialists I conclude that this decision is consistent with BLM's Sierra Resource Management Plan Record of Decision, approved in February 2008. The Federal Land Policy and Management Act requires that BLM manage public lands to protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; preserve and protect certain public lands in their natural condition; provide food and habitat for fish and wildlife and domestic animals; provide for outdoor recreation and human occupancy and use; regulate the use, occupancy, and development of public lands. This project is also consistent with all applicable federal environmental laws, regulations, and policies pertinent to the decision including the Clean Water Act, Endangered Species Act, and National Historic Preservation Act.

6.0 Administrative Remedies

Administrative remedies may be available to those who believe they will be adversely affected by this decision. Appeals may be made to the Office of Hearings and Appeals, Office of the Secretary, U.S. Department of Interior, Board of Land Appeals (Board) in strict compliance with the regulations in 43 CFR Part 4. Notices of appeal must be filed in this office within 30 days after publication of this decision. If a notice of appeal does not include a statement of reasons, such statement must be filed with this office and the Board within 30 days after the notice of appeal is filed. The notice of appeal and any statement of reasons, written arguments, or briefs must also be served upon the Regional Solicitor, Pacific Southwest Region, U.S. Department of Interior, 2800 Cottage Way, E-1712, Sacramento, CA 95825.

The effective date of this decision (and the date initiating the appeal period) will be the date this notice of decision is posted on BLM's (Folsom Field Office) internet website.



William S. Haigh
Field Manager,
Folsom Field Office

12-18-08
Date



United States Department of the Interior



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Tribute Trail and Stocking Flat Restoration Projects (CA-180-08-46) Finding of No Significant Impact September 12, 2008

It is my determination that this decision will not result in significant impacts to the quality of the human environment. Anticipated impacts are within the range of impacts addressed by the Sierra Resource Management Plan. Thus, the project does not constitute a major federal action having a significant effect on the human environment; therefore, an environmental impact statement (EIS) is not necessary and will not be prepared. This conclusion is based on my consideration of CEQ's following criteria for significance (40 CFR §1508.27), regarding the context and intensity of the impacts described in the EA and based on my understanding of the project:

- 1) *Impacts can be both beneficial and adverse and a significant effect may exist regardless of the perceived balance of effects.* There is potential for impacts to soils, water quality, shin oak, cultural resources, and other environmental resources. However, none of these impacts would be significant at the local scale or cumulatively with project design features that would reduce erosion and implement best management practices.
- 2) *The degree of the impact on public health or safety.* No aspects of the project have been identified as having the potential to significantly and adversely impact public health or safety. Conversely the project will increase public health by providing recreational opportunities by providing access to a multi-use trail system. This area is currently being accessed through unmaintained social trails, legal access, further development of trail infrastructure and maintenance of these trails will increase the safety of trail users.
- 3) *Unique characteristics of the geographic area.* None have been identified.
- 4) *The degree to which the effects on the quality of the human environment are likely to be highly controversial effects.* No anticipated effects have been identified that are scientifically controversial. As a factor for determining within the meaning of 40 C.F.R. § 1508.27(b)(4) whether or not to prepare a detailed environmental impact statement, "controversy" is not equated with "the existence of opposition to a use." *Northwest Environmental Defense Center v. Bonneville Power Administration*, 117 F.3d 1520, 1536 (9th Cir. 1997). "The term 'highly controversial' refers to instances in which 'a substantial dispute exists as to the size, nature, or effect of the major federal action rather than the mere existence of opposition to a use.'" *Hells Canyon Preservation Council v. Jacoby*, 9 F.Supp.2d 1216, 1242 (D. Or. 1998).
- 5) *The degree to which the possible effects on the human environment are likely to be highly uncertain or involve unique or unknown risks.* The analysis does not show that this action would involve any unique or unknown risks.

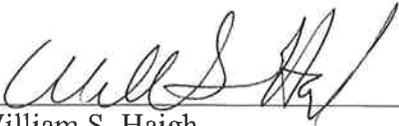
6) *The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.* Precedent for this action has already been set in this area through the use of abandoned ditches and flumes as trails.

7) *Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.* No significant cumulative impacts have been identified. The project is consistent with the actions and impacts anticipated in the Sierra RMP and Final Environmental Impact Statement.

8) *The degree to which the action may adversely affect National Historic Register listed or eligible to be listed sites or may cause loss or destruction of significant scientific, cultural or historical resources.* The proposed action would not affect cultural properties listed on or eligible for the National Register of Historic Places.

9) *The degree to which the action may adversely affect ESA listed species or critical habitat.* No ESA listed species or their habitat are known to occur in the project area. The project would be used by the federally threatened California red-legged frog. Per US Fish and Wildlife Service instructions, the proposed action would not be implemented from October 15 to April 15 to avoid negatively impacted this species.

10) *Whether the action threatens a violation of environmental protection law or requirements.* There is no indication that this decision will result in actions that will threaten such a violation.



William S. Haigh
Field Manager, Folsom Field Office

9-15-08

Date



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Proposed Action: Tribute Trail and Stocking Flat restoration project

Location: MDM, T 16 N, R 8 E, Section 14, lots 14, 16-20, Nevada County, California

EA Number: CA-180-08-46

1.0 Purpose of and Need for Action

1.1 Purpose

The Tribute Trail and Stocking Flat restoration projects (the proposed action) is part of a larger trail project that would link existing trails and roadways within Nevada County with public land managed by the Bureau of Land Management's Folsom Field Office (BLM). The public land is located on Deer Creek downstream of Nevada City in western Nevada County. The proposed action is proposed by Friends of Deer Creek and American Rivers. Project components on BLM-administered land include the construction of a 1.2-mile segment of the Tribute Trail, including the construction of a pedestrian bridge (to be called the Chinese Tribute Bridge), and floodplain restoration at Stocking Flat. Fuels treatment and noxious weed removal would occur as part of the trail and restoration project. This Environmental Assessment addresses only the proposed portion of the project on BLM-administered land in MDM, T 16 N, R 8 E, Section 14, lots 14, 16-20.

The proposed action would:

1. Promote better water quality in Deer Creek as called for by our watershed plans through planned recreation, restoration, reduction of risk of catastrophic fires.
2. Restore floodplain habitat in Deer Creek by reconnecting the creek to its floodplain and by restoring a small portion of a wetland ecosystem.
3. Increase wildlife habitat through the removal and replacement of invasive, non-native species with native species.
4. Serve as a model for other Californian communities who wish to highlight and restore their unique stream resources to serve their residents while celebrating the past.

1.2 Need

The proposed action would increase local recreational opportunities by providing public access to a BLM-administered parcel on Deer Creek. The proposed action would create new trails and connect these trails to existing roads and trails in a larger trail system to be named the Deer Creek Tribute Trail (Figure 1a/1b). Portions of the BLM-administered parcel would be available for picnics, mountain biking, hiking, swimming, fishing, nature viewing, etc. The trail would be within walking distance of Seven Hills School, Deer Creek School, Gold Run Elementary, and Nevada City Elementary. Educational signage, trail markers, and trail brochures would provide opportunities for students to learn about the natural and cultural history of Deer Creek.

The proposed action would increase the knowledge and understanding of the multiple benefits provided by our waterways and how these benefits and our perception of them have changed over time. This outreach effort would raise the public's appreciation and knowledge of the lives and accomplishments of the Chinese pioneers who came to Nevada City during the mining era and left their mark in meaningful, but often subtle and under-appreciated ways. The trail would also pay tribute to the pre-Gold Rush human inhabitants of this watershed, the Tsi Akim Maidu.

The proposed action would restore stream function and riparian habitat on the lower Stocking Flat reach of Deer Creek by reconnecting the channel with its historic floodplain and increasing the extent of riparian vegetation on the restored floodplain (Figure 2). Friends of Deer Creek and American Rivers would restore and enhance stream and floodplain function in what is considered to be a biological "hotspot" on Deer Creek because it provides valuable habitat for migratory and resident songbirds, native fish, macro-invertebrates, amphibians, and other wildlife. Removal of a recently constructed berm would allow flooding of approximately 3 acres of floodplain habitat on a more natural frequency.

Friends of Deer Creek, American Rivers, and their partners would remove stands of Scotch broom and other noxious invasive weeds on the BLM-administered parcel near the proposed trail and within the proposed restoration area. BLM would reduce manzanita and other fuels immediately adjacent to the proposed trail, helping to decrease the threat of wildfire—a major concern for local residents.

1.3 Conformance with Applicable Land Use Plans

The proposed action is consistent with the Sierra Resource Management Plan's Record of Decision, approved in February 2008. On page 26 of the ROD it states that a goal of BLM's recreation program is to "Ensure the continued availability of outdoor recreational opportunities while protecting other resources and uses."

1.4 Decision That Needs to Be Made

BLM will determine if the proposed action would result in a significant impact to the human environment or not, thereby determining if the proposed action should be authorized.

2.0 Proposed Action and Alternatives

2.1 Proposed Action

The proposed action would occur on a BLM-administered parcel on both sides of Deer Creek, downstream of Nevada City, in Nevada County. Through constructing the trail (including the Chinese Tribute Bridge) and conducting the restoration, the proposed action would:

1. Create a multi-use trail and bridge that would provide access to BLM-administered land, and would feature recreational amenities and interpretative enhancements showcasing the biological and historical importance of Deer Creek.
2. Enhance stream and floodplain function and create wetland/riparian habitat on a floodplain terrace of Deer Creek that was degraded by historic and recent disturbance.

For various reasons as stated below in this EA, the proposed trail construction project must occur during the dry season from April 15 to October 15. Work on the proposed bridge and restoration projects must occur during this time, also. For all of the projects, FODC must use a BLM-approved biologist to survey for raptor nests two weeks before any on-the-ground work occurs unless the work would start after July 31. If active raptor nests are found, a 300 ft buffer would be established around the nests during trail, bridge, and restoration work. No work would occur within this buffer until the young have fledged or after July 31. The trail and fuels reduction would likely be constructed from April 15 to around May 15 when soil moisture conditions are appropriate and wildfire danger is low (the trail construction work would require a raptor nest survey). The bridge and restoration work would likely occur after July 31 when raptor nest survey is unnecessary.

2.1.1 Trail Construction

BLM would use a Sweco trail-building machine to construct 1.2 miles of new trail on BLM-administered land in the Deer Creek canyon. The trail would be constructed in accordance with BLM multi-use construction standards, best management practices (Appendix A), and the Slopes Management Plan (Appendix B).

On the north side of Deer Creek, the trail would come off of the Newtown Ditch trail (on private land) and descend downhill (0.4 mile) connecting with the proposed Chinese Tribute Bridge (Figure 3). The trail would leave the existing ditch trail and cross a steep slope. This would require a designed departure point from the ditch trail. The trail would be constructed such that the integrity of the ditch's berm would not be damaged. It would be constructed using fill and some type of retaining structure (stacked rock wall, wood retaining wall, cribbing). The trail drops at a grade of 10% to 15% eventually reaching an abandoned ditch (0% to 2% grade). The trail would be built on the ditch which extends onto the BLM-administered parcel. Within this parcel the trail would then descend at grades of 8% to 12% to the proposed bridge site.

On the south side of Deer Creek, the lower portion of the proposed trail would start at the proposed bridge site and follow an abandoned ditch east. The trail would be built on the ditch. The trail would then turn up a ridge and back to the west and then descend to the proposed bridge site. The soils are generally rocky and the physical constraints on this portion of trail would result in a narrow, rougher surface with grades of 8% to 12%. Amenities such as interpretive signage describing the habitat, as well as the restoration project, which this section overlooks, would be included along the trail. The trail would be 0.8 miles long on the south side of the creek.

Trail segments with grades in excess of 10% are located on rocky soils so that erosion is not a concern. No trail segments would exceed 15% in grade, except in such cases where steps would be constructed. Trail tread width would vary from 3 feet to 6 feet, depending on location, amount of use, and physical constraints. On steep, rocky slopes, the trail width would be narrowed to minimize disturbance and erosion concerns. The trails would not be surfaced, except where soil characteristics require trail surfacing, for example where clay soils are slippery, or where soils remain wet because of subsurface water. In these areas, crushed rock would be used to surface the trail. Clearing for trail construction would require removal of brush, trees, and ground cover from the trail bed location as well as cut-and-fill slopes. Stumps would be removed from the trail bed and back slope. To ensure that water drains from the trail, the trail tread would be out sloped at 3% to 5% and rolling dips would be constructed at intervals of 200 feet or less throughout all new trail segments.

BLM would work with FODC to finish the trail, where necessary. The trail would be finished with hand tools (i.e., shovels, rock drills, chainsaws, etc). Rock for retaining walls and fill, logs for cribbing, and soil for grading may be used for finishing the trail. These materials may come from BLM-administered land, but only after appropriate environmental studies have been conducted, including Endangered Species Act and National Historic Preservation Act compliance studies. Cleared debris that needs to be disposed of would be lopped and scattered.

FODC would design, build, and install all signs, benches, and other trail amenities on BLM-administered portion of the project area. BLM would maintain these amenities in the future. On BLM-administered land, approximately two benches would be installed, five signs would be installed, and no kiosks would be installed. These trail amenities would be designed, built, and installed within six months of the date that the proposed trail and bridge are opened to the public.

The exact location of trail amenities has yet to be determined, but they would all be located immediately along the proposed trail and at the proposed Chinese Tribute Bridge site. It is likely that there would be benches and interpretive signs near the proposed bridge. No new trails or areas would be developed for benches, signs, kiosks, etc. If new trails and areas are to be developed, they would require additional environmental studies and must be authorized by BLM in advance of installation.

Where necessary and appropriate, FODC would place signs that indicate the location of BLM property boundaries (to help prevent trespass), indicate potential public safety hazards, and keep the general public (excluding the mining claimants) out of sensitive portions of the Stocking Flat restoration area. BLM would be responsible for identifying and signing public safety hazards and managing public use in the future.

All of FODC's proposed signs, benches, and other trail amenities would be approved by the local Planning Commission, City Council, and BLM. The trail amenities would meet all BLM requirements. Trail amenities, such as signs, would contain educational messages, illustrations, and other information appropriate to the local area, trail, and the public user groups likely to use the trail. BLM would approve all information put on trail amenities prior to installation.

2.1.2 Chinese Tribute Bridge Construction

The proposed Chinese Tribute Bridge would link two segments of the proposed Tribute Trail, on BLM-administered land, on either side of Deer Creek (Figure 3). The bridge would be built by contractors working under Friends of Deer Creek. The bridge would be a 90-foot-long by 5-foot-wide steel truss bridge with cedar decking (as conceptually depicted in Figure 4). Friends of Deer Creek would hire the appropriate specialists to create an engineered site plan for the proposed bridge. This site plan would be subject to BLM review and approval before any bridge construction work would begin. FODC would be required to meet any other BLM requirements for bridge construction. The bridge abutments that already exist on both sides of the creek at the proposed bridge site would not be used to support the new bridge. New abutments would be placed within the disturbed areas behind the existing abutments. No fill or construction within the channel or floodplain of Deer Creek would be needed. In addition, all portions of the bridge would sit significantly above the 100 year flood level. Bridge materials would be pre-fabricated and assembled on site using the skyline construction method (Figure 5a/5b). The staging area for bridge construction would be on an existing road, which is accessed approximately 0.5 mile west of the intersection of Champion Mine Road and Old Downieville Road. A portion of this road crosses private property. FODC, American Rivers, and their partners and contractors would get written permission from the owners before using this road and crossing private property to access the project areas on the BLM-administered parcel. This road would be used to bring in materials and equipment. Bridge construction would take approximately two weeks.

2.1.3 Stocking Flat Restoration

Around 1998, a berm was constructed along the north edge of Deer Creek at the upstream end of the floodplain known as Stocking Flat (Figure 1a/1b, 2). This berm has effectively cut off Deer Creek from its former floodplain, preventing the regular flooding necessary to sustain healthy riparian habitat. The berm is approximately 6 ft high, 10 ft wide at the base and 100 ft long, and made up of sand, gravel and cobble found in the immediate vicinity.

Using a small excavator, contractors working under FODC and American Rivers would relocate 50 cubic yards of material from the berm and redistribute it on the floodplain a short distance from the creek. The removed material would be graded such that it refills what appear to be the borrow pits from which the material was originally excavated to construct the berm. Woody riparian vegetation would be planted on newly contoured channel and elsewhere on the barren sediment and cobbles.

Best management practices and other measures for protecting water quality and biological resources would be implemented. These practices include limiting construction to the dry season and the non-breeding season, temporarily fencing environmentally sensitive areas, minimizing soil disturbance, designating staging areas away from the channel, installing sediment controls, and immediately stabilizing all disturbed soils (Appendix A).

The staging area for the grading work would be on an existing road that runs along the north side of Deer Creek. This road is accessed approximately 0.5 miles west of the intersection of Champion Mine Road and Old Downieville Road. The proposed staging area is approximately 100 feet from the channel and any floodplain wetlands. Equipment would not have to cross any wetland habitat to access the project area.

Riparian species that would be planted in the project area include arroyo, red, and sandbar willow (*Salix lasiolepis*, *S. laevigata*, and *S. exigua*), cottonwood (*Populus fremontii*), wild grape (*Vitis californica*), California brickell bush (*Brickellia californica*), and coyote brush (*Baccharis pilularis*). Plantings would be matched to microsite conditions and would be propagated from local sources. Less than approximately six shrubby willows would be removed and would be replaced on site and in kind at a ratio of 3:1. Approximately 50 additional willows would be planted along the restored floodplain using material propagated from cuttings collected on site.

Prior to the start of restoration project, FODC and American Rivers would prepare a grading plan. This plan would be subject to BLM review and approval. FODC and American Rivers would receive all necessary permits and other authorizations from other government agencies, including the California Department of Fish and Game (CDFG), U.S. Army Corps of Engineers (USACE) and the Regional Water Quality Control Board (RWQCB). FODC and American Rivers would comply with all permit conditions and requirements. Pre-construction notification would be made and would include a delineation of wetlands and surface waters. FODC and American Rivers would conduct a baseline inventory of water quality, riparian and aquatic species prior to the start of the restoration project. Responses before and after restoration, pertaining to vegetation, water quality, and aquatic species would be monitored as part of the restoration project.

2.2 Project Design Features and Management Recommendations

The following Best Management Practices (BMPs) and other measures are actions that would be administratively and/or contractually required if the proposed action alternative is selected.

2.2.1 BIOLOGY

Management requirements to avoid or minimize impacts to biological resources are summarized below and incorporated into this document by reference; detailed descriptions of the management requirements may be viewed in the *Deer Creek Tribute Trail Biological Inventory* (Sanders and Chainey 2008[a]) (Appendix C), Oak Management Plan (Sanders and Chainey 2008[b]) (Appendix D), and the Management Plan for Encroachment in Non-disturbance Buffers (Sanders and Chainey 2008[c]) (Appendix E).

2.2.1.1 Obtain All Necessary Permits

The applicants have notified the CDFG, USACOE, and the RWQCB and would obtain all necessary permits and comply with all terms and conditions of the permits, including any project modifications, required mitigation measures and other provisions.

2.2.1.2 Limit Construction Near Streams, Floodplains, Canal & Wetland-Riparian Areas to the Dry Season

Construction activity would occur only during dry weather. Revegetation work and planting activities may occur during wet weather if no heavy equipment is used.

2.2.1.3 Establish the Stream, Wetlands, and Riparian Areas as ESAs

Prior to construction, grading, or vegetation removal, environmentally sensitive areas (ESAs) would be delineated on the ground with orange safety netting by a qualified biologist and remain in place for the entire duration of construction. No earth-moving activities, vehicles, heavy equipment, or other construction would be permitted within the ESAs.

2.2.1.4 Minimize Construction Impacts and Indirect Impacts to Preserved Oaks and Oak Groves

The Oak Management Plan (Appendix D) requires specific tree protection measures for avoiding accidental impacts to preserved oaks during construction and minimizing indirect impacts to oaks. Included are provisions for conducting a pre-construction inventory of oaks to be removed and mitigated, delineating ESA fencing, and guidelines for pruning and minimizing impacts from cut and fill grading. The Oak Management Plan also includes guidelines for compensatory mitigation for direct and indirect impacts to oak woodlands and large diameter oaks through a combination of plantings and restoration. Specifications for the collection and planting of local acorns are included as well as guidelines for the protection and enhancement of oak seedling regeneration. The serpentine shin oak community that occurs within the project area is discussed below under 2.2.1.7.

2.2.1.5 Implement Best Management Practices during Construction

Best management practices (BMPs) for protecting aquatic habitat and water quality, including erosion control measures, guidelines for staging areas, pollution prevention, and equipment maintenance, are detailed in this measure. The specifications are designed to supplement—not replace—any additional BMPs included in the Slopes Management Plan for construction on slopes over 30 percent (Holdrege and Kull 2008) (Appendix B).

2.2.1.6 Avoid Impacts to Nesting Raptors and Migratory Birds

This measure specifies that project work done during the nesting season (March 1 to July 31) would be done in a way that prevent impacts to nesting raptors or migratory birds using the construction zone and adjacent habitats. If construction activities are planned for the nesting season, FODC would use a BLM-approved biologist to conduct pre-construction surveys to verify that the construction and potential disturbance zones do not support nesting migratory birds. If nests are identified, no work would take place within a 300 ft buffer around the nests until the young are fledged or after July 31.

2.2.1.7 Implement Sensitive Plant Community Protection Measures

This management measure provides guidance for minimizing impacts to the serpentine shin oak chaparral during construction (including vegetation removal and fuels management activities), to prevent accidental harm. Recommended measures include delineating this plant community as an ESA, avoiding doing fuels work in this ESA, and installing educational signs to teach the public about California's shin oak/serpentine plant communities, and minimizing negative impacts to the shin oak/serpentine plant communities during trail construction. With implementation of the recommended management measures no direct, indirect or cumulative significant impacts would occur to serpentine shin oak.

2.2.1.8 Avoid Potential Impacts to Special Status Plant Species

There are no BLM special status plant species in the project area. However, prior to grading or vegetation removal, the Humboldt lily occurrences outside the trail alignment would be

delineated as ESAs to prevent accidental harm during construction as well as indirect effects to the soils and seedbank. This measure also includes guidelines for erosion control near the plants, requirements for pre-construction surveys in May for mid-season-blooming special-status plants, and specifies that educational signage be installed to minimizing poaching and promotes public appreciation of rare plants.

2.2.1.9 Avoid Potential Impacts to Special Status Wildlife Species

This measure specifies pre-construction surveys and BMPs for minimizing or avoiding direct and indirect impacts to special-status wildlife known to occur in the project area vicinity (western pond turtle, yellow-breasted chats, California spotted owl and Cooper's hawk) and those that may occur based on the presence of suitable habitat and known occurrences in the region, such as the California red-legged frog. In informal communications with the US Fish and Wildlife Service, BLM, FODC, and American Rivers agreed that work on the proposed trail, bridge, and restoration projects would be conducted after April 15 and before October 15. If the project is implemented in accordance with this schedule, the US Fish and Wildlife Service concurred that the project is not likely to adversely affect the California red-legged frog.

2.2.1.10 Conduct Public Outreach and Education

The Oak Management Plan (Appendix D) and the Management Plan for work near streams, floodplains, canals, and wetland-riparian habitat (Appendix E) specifies installation of educational trail signage detailing the habitat function and value of oak woodlands, aquatic and riparian habitats, and threats and/or causes for decline or concern. The Management Plans provide brochures that offer recommendations for enhancing oak woodland and riparian habitat for wildlife and stormwater pollution prevention. The applicants have formed the Tribute Trail Association to provide a vehicle for distribution of these brochures, and for public input and education through regular newsletters and trail related activities.

2.2.1.11 Prepare Detailed Habitat Mitigation and Monitoring Plan

The Deer Creek Tribute Trail Management Plan for work near streams, floodplains, and wetland-riparian habitat (Appendix E) includes guidelines for the preparation of detailed habitat mitigation and monitoring plan for the proposed floodplain restoration and riparian plantings. Impacts to riparian trees would be mitigated on-site and in-kind at a ratio of 3:1. A conceptual restoration plan was prepared and is included in the proposed action description. The detailed plan would be finalized in accordance with USACOE guidelines for habitat mitigation and monitoring (available online), including monitoring, evaluation, and success criteria, as well as a contingency plan.

2.2.1.12 Distribute Copies of Management Recommendations and Provide Biological Construction Monitoring in Sensitive Areas

To ensure implementation of all measures contained in this EA as well as the terms and conditions of any permits, FODC and American Rivers would distribute copies of the design features and other mitigation measures to all contractors and their workers, and all volunteers involved in the project. FODC and American Rivers would have a BLM-approved biological monitor on site any time construction occurs in within 50 ft of streams, canals, and wetland-riparian habitats. FODC and American Rivers would have a BLM-approved supervisor on site at all times during implementation of the project. The supervisor would understand the mitigation measures listed above as well as the terms and conditions of all permits. Any problems, discoveries, or accidents/injuries would be reported immediately to the BLM field manager.

2.2.1.13 Prepare Mitigation Monitoring and Reporting Plan

A Mitigation Monitoring and Reporting Plan would be prepared for this project to include regular monitoring prior to construction, during construction and post-construction to ensure that all design features and other mitigation measures are implemented correctly and in a timely manner, and maintained as needed. The Plan would include a provision that the Nevada County Planning Department, BLM, and the City of Nevada City be notified within one working day in the event of any non-compliance with specific mitigation measures.

2.2.2 GEOLOGY/SOILS/WATER QUALITY: Mitigation & Residual Impact: To offset the potential geological/soils impacts and residual impacts, the following mitigation measures would be required:

2.2.2.1 Stream Course Protection

Stream course protection measures would be implemented during all aspects of the proposed action to protect the natural flow of streams, to provide unobstructed passage of storm flows, and to reduce sediment and other pollutants from entering streams. Rocking of trail tread would occur where the native soils do not provide a firm and stable trail surface.

2.2.2.2 Best Management Practices

The following best management practices would be made a part of the trail project. (Appendix A):

- a) **Control of Trail Drainage** To disperse runoff and to minimize erosion of the trail prism by runoff from trail surface and from uphill areas, measures such as properly spaced cross drains, dips, and out sloping would be installed.
- b) **Minimization of Sidecast Material** To minimize sediment production originating from sidecast material during trail construction and reconstruction, sidecasting of uncompacted material would be permitted only when necessary. Loose, unconsolidated sidecast material would not be permitted to enter any riparian areas as identified.
- c) **Servicing and Refueling of Equipment** To prevent pollutants such as fuels, lubricants, and other harmful materials from being discharged into or near rivers, streams or into natural channels leading thereto, service and refueling areas would be located outside of any riparian areas and away from other wet areas.
- d) **Control of Construction in Riparian Areas** Trail construction and reconstruction within any stream crossings or riparian areas would be kept to a minimum to protect riparian habitat, channel stability and to prevent sediment from entering any stream channel.

2.2.2.3 Maintenance of Trails

The trails and any facilities would be maintained in a manner which provides for water quality protection by minimizing rutting, failures, sidecasting and blockage of drainage facilities (all of which can cause sedimentation and erosion).

2.2.2.4 Noxious Weed Control

To prevent the introduction or spread of invasive weed species during project implementation, equipment would be cleaned before entering the site. Also, aggregate used for paving road

surfaces would be weed-free. Weeds would be aggressively treated each year along all foot/vehicle traffic areas (foot path, picnic areas, river access) using manual methods (pulling, grubbing, etc.). Interpretive signage would educate visitors about weed identification and prevention of weed spread.

2.2.3 CULTURAL RESOURCES:

All project personnel involved in any form of ground disturbance (i.e. grading, trail construction, bridge construction, erosion control along the trail, etc.) must halt work immediately if cultural resources are encountered or suspected during project implementation. The BLM field manager and archaeologist would be contacted immediately. A BLM-approved archaeologist would be consulted to assess any discoveries and develop appropriate recommendations for treatment.

2.3 No Action Alternative

Under this alternative, the portion of the Deer Creek Tribute Trail on BLM-administered land, including the proposed Stocking Flat restoration project would not be implemented.

2.4 Alternative Considered but Eliminated from Detailed Analysis

There are no alternatives considered but eliminated from detailed analysis for this project.

3.0 Affected Environment

3.1 Soil

A large portion of the soils are Dubakella series soils derived from serpentine bearing ultrabasic rock. Dubakella series soils are slow to poorly-drained gravelly and heavy loams, skeletal, mesic and clayey (Brittan 1975). The hazard of erosion is described as moderate to high, depending on slope steepness. These ultrabasic soils are deficient in nitrogen, phosphorus, potassium and calcium, but relatively heavy in magnesium (and sometimes also nickel, chromium and cobalt), resulting in sparse vegetation and dwarfed plants, but with many endemics and a rich mix of native bulbs and other wildflowers. Serpentine-derived soils are associated with a number of special-status plant species locally and throughout California.

Boomer series soils dominate the BLM-administered land north of Deer Creek. Boomer series soils are underlain by weathered metabasic rock, typically metasedimentary rock, metavolcanics, or gabbrodiorite (a dense, heavy type of granite that is basic, rather than acidic like the granodiorites). They have a slight to high hazard of erosion depending on the slope; embankments have low to medium strength (if compacted) and may be susceptible to piping (Brittan 1975). A late successional stand of ponderosa pine forest occurs in the southwest portion of the project area, south of Deer Creek, on well drained, very stony loams underlain by weathered gabbrodiorite or gabbro-like rock in the Chaix series (thick solum variant) and Sites soil series (Brittan 1975). Gabbro soils are rich in iron and magnesium, and often contain other heavy metals such as chromium. Most plants do not grow well on either gabbro or serpentine, accounting for the richness in native, rare, and endemic species. The hazard of erosion is moderate to high (depending on slope gradient) and they are described as having a medium to

low strength for embankments, high to low susceptibility to piping, and a medium to low permeability if compacted.

Xerofluvents and river wash of very coarse hydraulic mine tailings, remnants of the old tertiary river gravel deposits, dominate the point bars and floodplains of Deer Creek (Brittan 1975). During the reconnaissance-level survey for wetlands, hydric (wetland) soils were observed on low terraces between the ordinary low and high water lines of Deer Creek, and on the northern boundary of the proposed restoration at Stocking Flat within an old abandoned channel. The wetlands would not be directly affected by the proposed restoration but occur in close proximity.

3.2 Hydrology

The proposed action would occur on land bisected from east to west by Deer Creek, a perennial tributary of the South Yuba River. Deer Creek occurs in the Slate Creek CALWATER basin. The ridges north and south of the Deer Creek canyon are cut by several ephemeral drainages. Characteristic of Sierran bedrock streams and rivers, flows in Deer Creek vary dramatically but typically range from highs of 100-200 cubic ft per second (cfs) to a low of less than 10 cfs in late September/early October. The Slate Creek CALWATER watershed, which encompasses the proposed pedestrian bridge, is approximately 6,865 acres in area. Urban areas make up 20 percent of the total watershed area. The Slate Creek watershed includes 6.1 miles of roads within the streamside zone, 5 dams (small residential landscape or agricultural ponds), 14.5 miles of canals, and the mean parcel size in the streamside zone is 22 acres.

Waters of the U.S. (features likely to come under the jurisdiction of Section 404 of the Clean Water Act) include Deer Creek, and its associated floodplain wetlands, and the unnamed ephemeral tributary streams that occur on the steep slopes south of Deer Creek. Wetlands in the project area are limited to the seasonal riverine wetlands on the lower floodplains of Deer Creek and Little Deer Creek; most of these occur between ordinary low and ordinary high water line, or in backwaters or secondary channels. Potential wetlands were also observed outside the northern boundary of the restoration area on a former channel or braid that was blocked by debris during the 1997 flood. A road was cut through this area by the former mining claim holder and the material pushed up against the edge of Deer Creek, blocking the beneficial function of regular or periodic flooding, natural disturbances and nutrient influxes; all of which contribute to the development of important and high quality riparian habitat such as that seen just upstream of the proposed Chinese Tribute Bridge on terraces subject to regular flooding. Features that are not likely to qualify as jurisdictional waters include the Champion-Newtown canal, which occurs entirely within uplands.

At the proposed Chinese Tribute Bridge, there is a narrow, higher gradient reach of Deer Creek characterized by large bedrock outcrops and a short cascade. The width of the channel here at ordinary high water is 36.5 ft with a depth up to 5 ft during high water. Riparian vegetation is limited to a few small willows on a narrow, gravelly terrace between ordinary high and ordinary low water. The drier banks are covered with Himalayan blackberry. Concrete abutments occur on both sides of the upper stream banks at the proposed bridge site, remnants of a bridge project that was started in the 1970s but never completed. The rock anchors and concrete pad for the proposed new bridge would be located well behind these older and degrading abutments on bedrock or near the road edge in disturbed upland habitats. The width of the channel on the upper stream banks where the bridge would be located measured 85 ft and an estimated height of 20 ft or more above ordinary high water and well above the 100-year floodplain. Just downstream of the proposed bridge site, the short cascade empties into a deep bedrock pool followed by a broad,

low gradient, meandering, depositional reach with a braided channel, riffles and runs, and a mid-channel bar, point bars, and bedload of cobbly-gravelly sediments deposited during the mining era. Historically the Deer Creek channel had aggraded with these sediments to a depth of as much as 30 ft in some areas; evidence of this is seen in the remnants of gravelly sediments still clinging to the channel wall on the south side. The width of the channel at the pool just downstream of the proposed bridge measured 60 ft at ordinary high with a depth of up to 12 feet.

South of Deer Creek, the trail would intersect an ephemeral drainage at three points in the eastern portion of the loop, and one small ephemeral near the western edge. The approach to these channels is rocky, stable, and gently sloping; no culvert or footbridge is proposed on these two ephemeral channels. No wetlands or riparian vegetation occurs on these channels. At ordinary high water, the ephemeral channels are approximately 12-18 inches wide and 1-2 inches deep with a well-armored channel bottom and banks of boulder and bedrock.

The fourth drainage crossing on the south side of the creek occurs in the western portion of the project area. Here the trail would pass through the understory of an intermittent canopy of late-successional ponderosa pine. This ephemeral channel is approximately 12 inches wide and 1-2 inches deep but incised to a depth of approximately 2-3 ft above ordinary high water line, with moderate to moderately-steep side slopes of rock and soil. A small footbridge is proposed here with supports approximately 3-4 ft in elevation above ordinary high water. No wetland or riparian vegetation occurs here and the channel is well shaded, with upper banks stabilized by the adjacent conifer forest.

Two major impacts on Deer Creek are the Nevada City water treatment plant (located two miles upstream of the project area) and Scott's Flat reservoir (located upstream of Nevada City). Reservoirs affect changes in the timing and amounts of stream flows, changes in water temperature, changes in stream channels, and invasions of non-native species (Meehan 1991).

3.3 Botany

The project area is located in the lower montane conifer-hardwood zone, in Deer Creek canyon, in the Yuba River watershed. On the dry south-facing ridge is a mature, closed-canopy canyon live oak woodland, small stands of mid-to-late successional ponderosa pine forest, and serpentine chaparral-woodland of interior live oak mixed foothill chaparral shrubs, and scattered emergent foothill pine. The currently inaccessible portion of the BLM parcel, south of Deer Creek, would be accessed by the proposed Chinese Tribute Bridge across a narrower, bedrock-constrained portion of Deer Creek, with riparian woodlands and forests of white alder and mixed willows on the lower gradient, depositional reaches of Deer Creek upstream and downstream of the proposed crossing. The proposed trail, south of Deer Creek, begins on existing old ditch grade in a narrow band of mature canyon live oak forest, continuing east through a serpentine chaparral of shin oak (also known as Brewer's oak), and then switchbacks west through a notable stand of late-successional ponderosa pine forest. Bryophyte, lichen, and fungi diversity is conspicuous on the mesic, north-facing slopes that dominate the BLM loop trail alignment. Detailed descriptions of the plant communities found along the alignment, including dominant species, ecological characteristics, wildlife habitat values, and a list of all plants observed, is provided in the Deer Creek Tribute Trail Biological Inventory (Appendix C).

No state or federally listed threatened or endangered plants were found and the surveys were conducted at a time of year adequate for detecting the four listed plants known from the region, if present. The pre-field research and earlier reconnaissance-level surveys identified at least marginally suitable habitat present in the project area serpentine to support three of the four

listed plants known from the region: Stebbins' morning-glory (*Calystegia stebbinsii*), Pine Hill flannelbush (*Fremontodendron decumbens*), and Layne's butterweed (*Packera layneae*). These were not found, however, during the April to mid-May, 2008 surveys. The Boomer series, Chaix variant series and Sites series gabbros were also surveyed for these three listed plants but none were found. Scadden Flat checkerbloom (*Sidalcea stipularis*), a state endangered species, was not found. Marginally suitable habitat is present around the small marshy edges of riparian habitat for Scadden Flat checkerbloom, a late-blooming species, but it was not found during the fall 2007 surveys.

Other special-status plants considered to have potential for occurrence based on the presence of suitable habitat and known occurrences in the project vicinity include: California Native Plant Society (CNPS) List 1B (rare and endangered) species Brandegee's clarkia (*Clarkia biloba* ssp. *brandegeae*) and Follett's monardella (*Monardella follettii*); CNPS List 2 (rare and endangered in California but more common elsewhere) species Norris' beard-moss (*Didymodon norrisii*); Butte County fritillary (*Fritillaria eastwoodiae*) and dubious pea (*Lathyrus sulphureus* var. *argillaceus*), both of which are CNPS List 3 (needs more information); and four CNPS List 4 (watch list) plants Humboldt lily (*Lilium humboldtii* ssp. *humboldtii*), Sanborn's onion and Congdon's onion (*Allium sanbornii* var. *sanbornii*, *A.s. congdonii*) and Bacigalupi's yampah (*Perideridia bacigalupii*).

Seven small, scattered occurrences of the Humboldt lily, totaling approximately 45 plants, were found (in the vegetative stage) along or near the BLM loop trail alignment during the early April to mid-May, 2008 surveys. Humboldt lily is a watch list species of limited distribution or infrequent occurrence throughout a broader area in California, scattered across approximately six counties in the foothill region of the Sierra Nevada. Like other watch list species, their vulnerability or susceptibility to threat appears low at this time, relative to plants described as rare, threatened, or endangered by CNPS, CDFG, and USFWS (CNPS 2001). Should the degree of endangerment or rarity of a CNPS List 4 plant change at some future time, it would be transferred to a more appropriate list.

No other special-status plants were found during the fall 2007 and early April to mid-May, 2008 surveys. A summary of the distribution, habitat preferences, and documented local occurrences for rare plant taxa considered with the highest potential for occurrence, and for which adequate surveys have not yet been conducted, is provided below. See Appendix E of the *Deer Creek Tribute Trail Biological Inventory* (Sanders and Chainey 2008[a]), (Appendix D) available on the BLM Folsom website for a complete list of all special-status plants evaluated for this assessment, including their habitat preferences and known distribution in the project vicinity. Most of the special-status plants known from the region were ruled out based on the absence of suitable habitat and/or were not found during the fall and spring surveys. An additional late-season (mid-to late June) survey would be conducted for three CNPS List 4 plants with high potential for occurrence in the project area serpentine and gabbro soils: Sanborn's onion, Congdon's onion, and Bacigalupi's yampah.

3.4 Wildlife and Fisheries

In Nevada County, foothill zone riverine ecosystems support about 74 vertebrate species including: 19 mammals, 35 birds, five reptiles, four amphibians, and 11 fish (Beedy & Brussard 2001). The aquatic invertebrate fauna are an essential basal element in the food chain, representing an extensive and diverse group of species, many of which are endemic to the Sierra.

Common invertebrates found in the county's rivers and creeks include: mayflies, alderflies, stoneflies, dragonflies, damselflies, water striders, and caddisflies. American dipper, the most characteristic of riverine birds, forage for aquatic insects, and are observed regularly in the project area. Belted kingfishers and common mergansers also forage for fish in streams. Many amphibians and reptiles also depend on riverine ecosystems, including special-status species such as foothill yellow-legged frog, and northwestern pond turtle. Northwestern pond turtle have been observed in lower Deer Creek and suitable habitat is present for foothill yellow-legged frogs; however, they were not observed during the spring 2008 surveys. A variety of other reptiles including common garter snakes, western terrestrial garter snakes, and western rattlesnakes occur in riverine ecosystems here. Emerging aquatic insects are a major food source for a variety of common bats (*Myotis* spp.) and special-status bats such as yuma myotis, western red bat (*Laiurus blossevillii*), long-eared myotis, and long-legged myotis. Fisheries within the project area contain rainbow trout (*Oncorhynchus mykiss*) and brown trout (*Salmo trutta*). Downstream from the project area, lower-elevation fish such as sacramento sucker (*Catostomus occidentalis*), red eared sunfish (*Lepomis microlophus*) and pikeminnow *Ptychocheilus lucius*) are present.

No state-or federal-listed species were found in the project area, but a number of special status species could occur in or near the project area. Special status species are considered sensitive or of special concern to the California Department of Fish and Game or BLM. These include yellow-breasted chat (*Icteria virens*), yellow warbler (*Dendroica petechia brewsteri*), and Cooper's hawk (*Accipiter cooperii*), which have been observed near the project area in riparian habitat along Deer Creek. Deer Creek supports western pond turtle (*Actinemys marmorata*), and offers suitable habitat for foothill yellow-legged frog (*Rana boylei*). The mature ponderosa pine stand on BLM-administered land has potential to support California spotted owl (*Strix occidentalis occidentalis*). Spotted owl surveys conducted on May 31, June 2, and June 9 indicated that this species is not nesting on the project area, but a pair of spotted owls occurs south of the project area on private land adjacent to the BLM parcel (Appendix G). A spotted owl nest was not found, but spotted owls were detected on each of the three survey dates.

An initial site assessment conducted for California red-legged frogs indicated that this species is unlikely to occur in or near the project area. The U.S. Fish and Wildlife Service concurred with the initial site assessment that the project area is unlikely to support California red-legged frogs and that protocol-level surveys are unnecessary.

3.5 Cultural Resources

The project area is located in the Nevada City mining district—historically among the most important gold-producing areas in California. Mining began in the district in 1849 on Deer Creek in the vicinity of present-day Nevada City, then called Deer Creek Diggings (and Deer Creek Dry Diggings). The name was changed to Nevada City shortly thereafter. Some accounts say the name Nevada City appeared with the opening of the post office later the same year. Other accounts say that the name was selected at a public meeting in March 1850. Regardless, miners were quick to begin prospecting and mining all along Deer Creek and other major streams in the area by the fall of 1849—when the gold rush excitement was perhaps at its peak. Stocking Flat was reportedly the location of a mining camp, including Stocking's store. The easily found surface placers were soon depleted and during the early 1850s several ditches and other mining works were built in the area to make mining more productive. The Deer Creek Ditch (a.k.a. the Newtown Ditch), on the north side of Deer Creek, was built by Dickenson, Newton, and others

in 1851. The Rough and Ready Ditch, on the south side of Deer Creek, was also built around this time to bring water to the rich placer deposits near the town of Rough and Ready. Other ditches are known to have been built in Deer Creek canyon to convey water to placer mining operations. Hydraulic and lode mining began in the Nevada City mining district by the mid-1850s. There are reports that the hydraulic method was invented in 1852 in Nevada County (as well as near Yankee Jims in Placer County). By 1865 the Champion and Providence lode mines, both located along Deer Creek, west of Nevada City, were among the largest producers in the district. Other lode mines were established in the area but were never as economically important. The Champion and Providence were mired in litigation until 1902 when the owners of the Champion bought the Providence. Mining activity in the district was in sharp decline by the early 1900s. Large-scale lode mining was resumed in the 1930s. The Lava Cap was the largest producer in the district during this time. By the end of World War II there was little production. Dredge mining occurred on Deer Creek during the early 1900s. The Deer Creek Ditch is still used by the Nevada Irrigation District (See Appendix F).

3.6 Social/Recreation

The project area is surrounded by low-density residential properties and is not accessible to the general public. The area sees little recreational use beyond occasional fishing on Deer Creek, accessed from adjacent private parcels. Homeless encampments are not present in the BLM parcel but do occur nearby.

3.7 Visual Resources

The project area is located on a BLM-administered parcel in the Deer Creek canyon, three miles downstream of Nevada City. Elevations here range from 2155 to 2680 feet above sea level. The project area is located in the unincorporated area of Nevada County, outside the Nevada City limits; adjacent land uses are predominantly low density rural-residential. The BLM parcel is bisected by Deer Creek. On the south side of the creek, the parcel is heavily forested. On the north side, there are roads, including a substantial gravel/paved road that parallels Deer Creek near its north bank. There is also recent topographic disturbance on Stocking Flat created by a previous mining claimant. The claimant put in a primitive road and left a pile of cobbly debris on the floodplain. BLM manages this parcel in accordance with visual resource management (VRM) class III standards. Despite the disturbance on the north side of Deer Creek, the parcel is very scenic, with outstanding views of Deer Creek canyon.

3.8 Fuels/Fire

North of Deer Creek, the closed-canopy and dense evergreen foliage of the canyon live oak woodland generally precludes a shrub or herb understory except at canopy openings and edges; however, the small segment of trail in serpentine chaparral-woodland is characterized by a dense and often decadent understory of white leaf manzanita, alternating with dense stands of small interior live oak and other evergreen, sclerophyllous chaparral shrubs. South of Deer Creek, the late-successional stand of ponderosa pine forest also has a sparse understory due to dense shading and competition from the tall, closed canopy forest, and consists of sparse sapling and pole stage conifers and oaks, and scattered deciduous shrubs; however, younger and more open portions of the forest have a denser ladder fuels and would be treated. Small patches of the noxious weed Scotch broom occur primarily at canopy edges. A segment of the loop trail intersects a dense, climax chaparral of shin oak (also known as Brewer's oak) on serpentine. This

is an uncommon plant community. The fire-resistant, winter-deciduous shrubs grow 3-8 ft tall. There are very few emergent trees, the leaf litter is sparse, and there are few if any dead or decadent shrubs except where the community intergrades with the adjacent conifer forest.

4.0 Environmental Effects

The following critical elements have been considered in this environmental assessment, and unless specifically mentioned later, have been determined to be unaffected by the proposed action: air quality, areas of critical concern (ACEC), prime/unique farmlands, hazardous waste, wild and scenic rivers, wilderness, and environmental justice.

4.1 Impacts of the Proposed Action

4.1.1 Soils

Soil erosion related to trail construction and restoration activities would be minimal, with implementation of the mitigation measures identified in the best management practices (Appendix A) and Slopes Management Plan (Appendix B). As part of the proposed action, FODC and their volunteers would repair any high erosion sites; thus benefiting soil conditions.

4.1.2 Hydrology

Best management practices (Appendix A) would be used to minimize negative impacts. FODC would monitor water quality before, during, and after the project work. All trail and bridge construction would be well above the 100-year floodplain. The Stocking Flat restoration would occur within the 100-year floodplain. This part of the project area is located 30 to 200 ft from the creek. The restoration is anticipated to allow for more frequent inundation of the floodplain, having both terrestrial and aquatic benefits. This would result in a beneficial impact by restoring proper hydrological function.

4.1.3 Botany

No federal- or state-listed plant species were found in the project area. Thus the proposed action would not result in the loss of listed plant species or cause a trend toward federal listing or loss of viability of any listed plant species.

The Humboldt lily is not currently protected under the state or federal endangered species laws. Construction of the trail would result in the loss of a small number of plants (<10); impacts to a small number of this CNPS List 4 plant would not be considered significant given the abundance of occurrences in the Grass Valley-Nevada City area. Nor does the occurrence in the project area represent the periphery of the species' range, or exhibit any unusual morphology. Project design features and other management measures have been incorporated into the proposed action to ensure that no accidental harm comes to the preserved plants during construction or any indirect effects.

Several management measures would be implemented during and after construction to protect, avoid, or minimize impacts to sensitive plant communities (serpentine shin oak chaparral, riparian habitat, and oak woodlands). These measures include delineating and fencing sensitive

plant communities as Environmentally Sensitive Areas (ESAs) during construction, avoiding doing fuel reduction/vegetation thinning work in the ESAs, and installing educational signs to teach the public about California's shin oak/serpentine plant communities. With implementation of the recommended management measures no negative impacts would occur to serpentine shin oak as a result of the proposed action. Trail construction and use would have a minor negative impact on the shin oak.

4.1.4 Wildlife and Fisheries

No federal- or state-listed wildlife species were found in the project area. The proposed action would not result in the loss of listed wildlife species or cause a trend toward federal listing or loss of viability of any listed wildlife species. However, the project area has potential to support California red-legged frog. With implementation of recommended management measures described in section 2.2 potential adverse effects would be avoided or minimized.

There is no California red-legged frog breeding habitat within 300 feet of the project area, but this frog could potentially use portions of the project area during the non-breeding season. To protect California red-legged frogs, the US Fish and Wildlife Service has asked BLM to not allow the proposed trail/bridge construction or the proposed Stocking Flat restoration work to occur from October 15 to April 15, which is when California red-legged frogs, if present, would mostly likely be using the project area. Impacts to California red-legged frogs are not expected. The proposed action would need to occur from April 15 to October 15.

Construction activities are would not affect other aquatic wildlife because no work is proposed within Deer Creek's active channel or its tributaries. However, the proposed action could result in temporary impacts to water quality in Deer Creek or its tributaries during trail construction or floodplain restoration. Impairment of water quality could adversely affect aquatic wildlife, including western pond turtles, and the eggs, young, and adults of foothill yellow-legged frogs. Implementation of recommended management measures described in section 2.2, including best management practices, establishment of environmentally sensitive areas, and presence of a BLM-approved biological monitor, would avoid or minimize potential adverse effects to water quality and aquatic wildlife. FODC would conduct water quality monitoring before, during, and after project implementation to identify any and all changes in water quality.

Vegetation clearing and removal of trees, noise and human disturbance associated with construction of the bridges and trails, and re-contouring the floodplain for the restoration project could directly or indirectly impact nesting raptors or migratory birds using the adjacent habitat. California yellow warblers, yellow-breasted chat, and California spotted owl are among the migratory birds that might be adversely affected by construction activities.

To protect nesting raptors (excluding the California spotted owl – see below), BLM would not allow the proposed trail/bridge construction or proposed Stocking Flat restoration work to occur within 300 feet of a raptor nest from March 1 to July 31; however, because of wildfire danger, the trail would need to be constructed during this period. To prevent impacts to nesting raptors, a biologist provided by Friends of Deer Creek would conduct a raptor nest survey just prior to the start of trail construction. If any nests are found within the project area, a 300-ft buffer would be established around the nest. No project work would take place within this buffer until the young have fledged or after July 31.

A California spotted owl pair was detected south of the BLM lands in the project area, but impacts are unlikely because, based on evidence gathered during surveys, there is no nest within 0.25 mile of trail construction. To protect California spotted owls, a 2009 preconstruction spotted owl survey will be conducted. If a nest is found within 0.25 mile of trail construction, a 0.25-mile buffer will be established around the nest within which there will be no project activities between February 1 and July 31. Impacts to spotted owls are not expected.

Implementation of the management measures described in section 2.2, which includes avoidance of sensitive areas and presence of a biological monitor during project implementation, would avoid potential adverse effects to nesting birds, including special status bird species.

Recreational use could adversely affect wildlife and fisheries by introducing increased levels of disturbance and by habitat fragmentation. Trails that bisect forested habitat create habitat edges, which can sometimes result in increased access for forest predators as well as nest parasites such as brown-headed cowbirds (*Molothrus ater*). During the breeding season, increased levels of disturbance from humans and their pets can disturb nesting efforts, particularly for ground nesting species such as California quail (*Calipepla californica*). The anticipated increase in recreational use would be unlikely to result in high levels of disturbance, or to substantially fragment existing habitat, or to have substantial adverse effects to wildlife.

4.1.5 Cultural Resources and Native American Traditional Religious Interests

A cultural resources study was conducted by a BLM archaeologist to help BLM comply with Section 106 of the National Historic Preservation Act. As part of the study, a BLM archaeologist conducted background research, Native American consultation, and field inventory. The BLM archaeologist recommended that no significant cultural resources would be affected by the proposed action. No Native American traditional cultural places or sacred sites were found within the project area (Appendix E). It appears that the proposed action would have no effect on places of significant Native American traditional cultural and religious use. The consultant archaeologist who did the cultural resources study for the greater Deer Creek Tribute Trail project (NCIC File #: NEV-08-08) found that no significant cultural resources would be affected.

4.1.6 Recreation and Social Resources

Current weekend use on the existing Champion Mine Road trail is estimated to be approximately 25 pedestrians and 10 bicyclists per day, with weekday use estimated at 15 walkers and 3 bicyclists per day. Use of the Newtown Ditch trail is considerably less than for Champion Mine Road, and was estimated to be 15 pedestrians and 5 bikes per day, with weekday use of approximately 8 pedestrians and 1 bike per day. These estimates are based on weekend and weekday surveys conducted in March 2008 and on interviews with residents adjacent to the trail. The field surveys and interviews were conducted by Simeon Caskey of Americorps. It is difficult to forecast the increase in trail use that would occur with completion of the proposed action, but even if the use doubled, this level of recreational use is minor and is unlikely to result in negative impacts to wildlife, vegetation, water quality, soils, and other environmental resources.

4.1.7 Visual Resources

The proposed action is not expected to have a negative impact on visual resources in the Deer Creek canyon. BLM manages public land in this area to Class III standards. The proposed action would meet BLM's VRM class III standards. The Chinese Tribute Bridge would be visible from upstream and downstream sites (Figure 3). This visibility is believed to be beneficial. The bridge would be built in a way that allows it to blend into the natural setting of Deer Creek canyon. The bridge would allow members of the public to see the outstanding visual resources within this portion of the canyon.

4.1.8 Fire/Fuels

The proposed action would increase foot traffic and recreational use. There would be the temptation for people to have campfires along Deer Creek, increasing risk of wildland fire. BLM law enforcement would patrol the area. The risk would be decreased by treating fuels along the proposed trail alignment, as proposed. No smoking and no campfires signs would be posted along the trail.

4.2 Impacts of the No Action Alternative

Without the proposed action, the public's ability to use BLM-administered land on Deer Creek for recreation would be limited. People might continue to trespass on adjacent private land in order to access the BLM-administered parcel. Portions of the proposed Tribute Trail on BLM-administered land are critical in the effort to link all lands associated with this community trail.

The restoration effort associated with the proposed action would help to restore environmental integrity to a portion of Deer Creek that has been highly altered due to placer mining and road building. Without this restoration effort, there is an increased potential for the proliferation of nonnative invasive weeds, continued alteration of habitat structure, and negative impacts to the creek's hydrology. If restoration is not implemented, the creek may continue to downcut within its channel, resulting in an increase in downstream flooding, and a decrease in stream productivity and habitat.

One impact of selecting the proposed action would be the cost of managing the proposed recreation facilities, including the bridge, trail, the trail's benches, interpretive panels, etc. These facilities, especially the bridge, would need to be inspected and maintained by BLM. Because they are "off the beaten path" they could be subject to vandalism. Also, there would be a temptation for people to have campfires in the area, increasing the risk of wildfire ignition.

4.3 Cumulative Impact

The proposed action would result in a net benefit to the human environment through improved recreational opportunities and ecological restoration. The proposed action would not result in an adverse cumulative effect on the human environment because of the proposed action design features for avoiding and minimizing direct and indirect environmental impacts that would be administratively and/or contractually required if the proposed action alternative is selected (see Section 2.2).

5.0 Tribes, Individuals, Organizations, or Agencies Consulted

California Department of Fish and Game
U.S. Fish and Wildlife Service
U.S. Army Corps of Engineers
Regional Water Quality Control Board
Nevada Irrigation District
Bureau of Land Management
Friends of Deer Creek
City of Nevada City
Natural Heritage Institute
Nevada County Land Trust
Chinese Quarter Society
Greater Champion Neighborhood Association
Save Our Historic Canals
Tsi-Akim Maidu Tribe
United Auburn Indian Community
Colfax-Todd Valley Consolidated Tribe
Carolyn Chainey-Davis-Botanist
Susan Sanders-Wildlife Biologist
Ann Wallace-Wildlife Biologist
Hank Meals-Archaeologist
Holdrege & Kull Consulting, Engineers and Geologist

5.1 EA Preparers

Joanne Hild
Executive Director of Friends of Deer Creek, Biologist

Amy Sturgill,
Education/Outreach Coordinator, Friends of Deer Creek, Geologist

5.2 Reviewed by BLM Interdisciplinary Team

James Baum 8/28/08
NEPA coordinator/Archaeologist Date

[Signature] 8/25/08
Recreation Date

Alber Franklin 8/26/08
Botany Date

Peggy Anston 8/25/08
Wildlife & Fisheries Date

5.3 Availability of Document and Comment Procedures

The EA, posted on Folsom Field Office's website (www.blm.gov/ca/folsom) under Information NEPA (or available upon request), would be available for a 15 day public review period. Comments should be sent to the BLM at 63 Natoma Street, Folsom, CA 95630 or emailed to us at cal180@ca.blm.gov.

References Cited

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2008 Section 106 compliance for the Deer Creek Tribute Trail and Restoration Project. United State Department of the Interior, BLM, Folsom Field Office. Folsom, CA.

Brittan, L.
1975 Soil Survey of Nevada County Area, California. United States Department of Agriculture (USDA), Soil Conservation Service (SCS) and Forest Service, in cooperation with University of California Agricultural Experiment Station. USDA, Washington, D.C.

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2008 Management Plan for Steep Slopes. Project No. 3535-01. Holdridge and Kull. Grass Valley, CA.

Sanders, S., and Chainey. C.
2008[a] Deer Creek Tribute Trail Biological Inventory, Nevada County. Susan Sanders Biological Consulting. Nevada City, CA.

Sanders, S., and Chainey. C.
2008[b] Deer Creek Tribute Trail Oak Management Plan, Nevada County. Susan Sanders Biological Consulting. Nevada City, CA.

Sanders, S., and Chainey. C.
2008[c] Deer Creek Tribute Trail Management Plan for Encroachment in Non-Disturbance Buffers, Nevada County. Susan Sanders Biological Consulting. Nevada City, CA.

Wallace, A.
2008 Deer Creek Tribute Trail Spotted Owl Survey. EcoBridges Environmental. Grass Valley, CA.

Personal Communications

Caskey, Simeon. Sierra Rivers Program Assistant, Americorps Member, California Field Office, American Rivers.

Conversations with Elizabeth Soderstrom and Steve Rothert, residents adjacent to the proposed Deer Creek Tribute Trail alignment, in February/March 2008 regarding current use of the trail by pedestrians and bicyclists.