

COASTAL CONSERVANCY

Staff Recommendation

March 26, 2015

**MAD RIVER FLOODPLAIN RESTORATION AND PUBLIC ACCESS PROJECT**

Project No. 14-042-01

Project Manager: Michael Bowen

**RECOMMENDED ACTION:** Authorization to disburse up to \$200,000 to California Trout, Inc. to prepare designs and permit applications for the Mad River Floodplain Restoration and Public Access Project and to implement a pilot floodplain biofiltration project in Humboldt County.

**LOCATION:** McKinleyville, Mad River watershed in Humboldt County.

**PROGRAM CATEGORY:** Resource Enhancement and Public Access

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**EXHIBITS**

Exhibit 1: [Project Location](#)

Exhibit 2: [Project Photos](#)

Exhibit 3: [Project Letters](#)

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**RESOLUTION AND FINDINGS:**

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31251 - 31270 and 31400 - 31410 of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes the disbursement of up to two hundred thousand dollars (\$200,000) to California Trout, Inc. to prepare designs and permit applications for a Mad River Floodplain Restoration and Public Access Project and to implement a floodplain biofiltration project, subject to the following conditions:

1. Prior to the disbursement of funds, California Trout, Inc. shall submit for review and approval by the Executive Officer of the Conservancy:
  - a. A work program including a schedule and budget for the floodplain restoration and biofiltration projects.
  - b. All contractors to be retained for the projects.
  - c. Documentation that all funding required for the projects have been secured.

2. Prior to commencement of work on the projects, California Trout, Inc. shall provide for the Executive Officer's review and approval an agreement with the landowner sufficient to assure adequate access to the project sites to complete and monitor the projects."

Staff further recommends that the Conservancy adopt the following findings:

"Based on the accompanying staff report and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed projects are consistent with the current Project Selection Criteria and Guidelines.
2. The proposed authorization is consistent with the purposes and objectives of Chapters 6 and 9 of Division 21 of the Public Resources Code, regarding resource enhancement and public accessways, respectively.
3. California Trout, Inc. is a nonprofit organization existing under section 501(c)(3) of the Internal Revenue Service, and whose purposes are consistent with Division 21 of the Public Resources Code."

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### **PROJECT SUMMARY:**

Staff recommends disbursement of up to \$200,000 to California Trout, Inc. (CalTrout) to prepare designs and permit applications for an approximately 4-acre Mad River Floodplain Enhancement Project ("enhancement project"), to prepare designs and permit applications for an associated Public Access Project ("public access project") and to implement an adjacent four-acre Biofiltration Pilot Project ("biofiltration project"). The projects are both located along the north bank of the estuarine reach of the Mad River, southwest of the town of McKinleyville, Humboldt County (Exhibit 1).

The enhancement project entails the design and possible permitting of a 4.25-acre off-channel, floodplain and salmonid habitat restoration site at historic percolation ponds. The public access project entails the design and possible permitting of an access entry point and 0.7 mile trail to provide improved public access along the Mad River and within the area proposed for enhancement. Permitting activities for both of these components would occur only if the design component indicates that project implementation does not require additional CEQA documentation. The biofiltration project entails the permitting and implementation of a 4-acre riparian restoration/ biofiltration project, as well as monitoring the results of the pilot project. The project will test the feasibility of various methods of biofiltration, as described in greater detail below. The combined project goal for all three elements of this grant is to conduct a floodplain ecological restoration and public access project while also establishing a more ecologically appropriate wastewater disposal system.

Both project sites are owned by the McKinleyville Community Services District (MCSD). MCSD intends to decommission the existing effluent disposal system where it was built on the floodplain in 1984. The current infrastructure consists of a pasture-based disposal field for treated effluent, two floodplain-sited percolation ponds for treated effluent, a levee separating the disposal area from the river, fencing and other minor infrastructure (Exhibit 1).

### Floodplain Habitat Restoration Design

The ecosystem enhancement component of the project will provide designs and permits to restore remnant floodplain and riparian habitat by decommissioning a significant portion of the MCSD's existing effluent disposal infrastructure, notably the percolation ponds, and removing the levee separating the river from the floodplain. The aim is to restore natural riverine and riparian functions to the floodplain. By restoring the river-floodplain connection, the grantee seeks to improve habitat quality and quantity, particularly juvenile salmonid rearing opportunities during high flow periods. Reconnecting the river to the floodplain through the project area will provide off-channel refugia for salmonids during high flow events, areas that feature shallower depths and lower velocities than the main channel. Covered habitat such as pools, backwater and high-water channels will offer juvenile salmon protection from predation and slow-moving water will enable the conservation of energy in preparation for out-migration to the sea. This habitat also provides excellent conditions for a host of other species such as red-legged frogs, riparian bird species and migratory waterfowl. The design will include removal of levee and pipe infrastructure associated with the existing treated wastewater effluent percolation ponds. The project may also include development of environmental documentation necessary to undertake permitting and subsequent permitting decisions, subject to available funds.

### Public Access Design

As part of the enhancement project, the grantee seeks to improve coastal access by establishing an improved trail network that will connect to existing coastal trails and if feasible will provide an Americans with Disabilities Act-compliant overlook. The trails will provide river views and defined points of river access to improve recreational opportunities for anglers, boaters, bird watchers, and other user groups. MCSD will engage stakeholders to assist in developing a plan for maintenance that will reduce impacts from unplanned access routes. MCSD for their part has indicated their willingness to provide operations and maintenance of the improved access.

The public access component includes such features as designing and permitting a surface-hardened bluff overlook, a parking area, a trail to the off-channel habitat restoration area, small-craft "water trail" boat access and interpretive signage. The existing percolation ponds levee material will be assessed for soil qualities to determine its suitability and stability for reuse to build the trail.

The trail design would connect to the existing and well-used Hammond Coastal Trail (HCT) via School Road Trail (SRT) (Exhibit 2). This riverfront portion of the trail would serve as a spur trail that leaves and returns to the SRT. However, the design will provide proposed linkages for this portion of trail to the HCT at the nearby Hammond Bridge (between Fisher Road and Mad River Road. (Exhibit 2). Hopefully, the proposed project will eventually link the HCT to the improved Highway 101 pedestrian and bicycle crossing, located 4 miles upstream on the Mad River. That opportunity is currently precluded by private property, but MCSD has expressed an interest in a larger future trail network from SRT to the HCT and Highway 101 should acquisition of a key parcel of private property enable that expansion, an opportunity that MCSD anticipates in the next two years.

A prime location for an ADA accessible river overlook exists at the start of the trail, above an innovative bank-armoring project that was built in 2008 by the County of Humboldt. Although it is likely infeasible to achieve ADA-compliance on the rest of the trail, trail improvements will

assist modestly impaired hikers in reaching the River. The trail network would meander down from the bluff overview accessing riparian forest along the river, with the intent to emerge at the river. The trail would extend to the project restoration area. At least three points of access are planned to provide defined river access locations for small craft boaters, anglers, and water-contact recreation. Interpretive signs will be located along the trail and designed to educate the trail users on diverse topics

1. Pilot Biofiltration Project

This project will demonstrate via a pilot effort whether riparian floodplain habitat is a more effective bio-filtration wastewater reclamation system than existing pastureland. MCSD believes it can increase water and nutrient demand—and thereby meet discharge requirements for its treatment facility—by substituting riparian forest for existing pasture.

The North Coast Regional Water Quality Control Board regulates MCSD's treated wastewater discharge through a National Pollution Discharge Elimination System (NPDES) permit, which allows the community to discharge treated wastewater directly to the Mad River at the Hammond Road Bridge from October 1 to May 14, a typically high flow period, at a ratio of 1:100. MCSD is prohibited from discharging directly to the river when flows in the Mad River drop below 200 cfs, or during the discharge prohibition period of May 15 through September 30, at which time they discharge into the percolation ponds. During this time, MCSD also utilizes an existing pastureland reclamation system to apply wastewater by irrigation to 70 acres of Mad River floodplain pastureland, of which 35 acres are owned and operated by MCSD.

The existing landscape is primarily non-native agricultural grass species used to produce fodder crop. MCSD started growing black cottonwoods (*Populus balsamifera ssp. trichocarpa*) in a 1-acre plot in 2011 in order to assess the viability of this new and potentially improved biofiltration approach; however, this single-plot test area has not allowed them to properly assess the success of this approach. Since similar efforts have been attempted in Oregon with promising results, the MCSD proposes to develop four 1-acre project plots on existing floodplain pastureland. The project plots would include: (1) a small forest comprised of native black cottonwoods, (2) a forest comprised of native red alder, (3) a mixed native species forest, and; (4) existing pastureland to serve as the control. Based upon water uptake monitoring by MCSD, it will be determined whether the pilot project achieves enhanced bio-filtration.

If the pilot project proves effective, MCSD hopes to utilize their 35-acre floodplain pastureland as a managed and periodically harvested native species forest plantation to maximize the reclamation efficiency of the landscape. Final results of the project will be made available in a final report to be made available for others to utilize the data. The results of the pilot study will inform future riparian restoration and effluent discharge approaches along the Mad River Floodplain and elsewhere in northern California.

The proposed grantee, CalTrout has pioneered fishery enhancement work in California for 42 years. The organization has managed several Department of Fish and Wildlife Fishery restoration grants for comparable work. It currently manages several grants from the Coastal Conservancy and from CDFW for Eel River Delta restoration work at the mouth of the Eel River, Elk River habitat enhancement and various fish passage improvement projects. CalTrout has demonstrated the technical and procedural competence necessary to manage and complete the proposed work.

The landowner, MCSD, is a special district formed in 1970 that provides municipal water, wastewater services, parks and recreation to the community of McKinleyville, located in the lower Mad River watershed. MCSD has been treating wastewater for the community since 1984, operating the wastewater treatment facility and monitoring water quality at their points of discharge: in the Mad River and in the groundwater wells of their reclamation areas.

MCSD has also taken an active and avid interest in community improvement and public access projects in McKinleyville. Hiller Park, for example, is a park located north of the project site. Hiller Park is partially owned and maintained by MCSD. The project connects to other SCC-funded projects to the north, including a trail that connects to the Mill Creek restoration project and then on to Clam Beach (Exhibit 2). Hiller and its extension trails are considered to be a very important feature of the McKinleyville community.

**Site Description:**

The Mad River drains a 497-square mile basin on the north coast of California. The mouth is approximately six miles north of Humboldt Bay, near McKinleyville. The river provides habitat to a variety of Endangered Species Act (ESA)-listed and non-listed fish, including but not limited to coho and Chinook salmon, summer and winter-run steelhead, resident rainbow trout, coastal cutthroat trout, California roach, three-spine stickleback, riffle and prickly sculpins, Pacific lamprey, brook lamprey, and green sturgeon. There are at least seven species of documented non-native fish. Longfin smelt, starry flounder, and the increasingly rare eulachon or “candlefish” a small, migratory fish of great historic and cultural importance to native Americans of the area have also been documented in the Mad River estuary. The floodplains and the riparian corridor of the Mad River estuary provide habitat to wildlife, including, but not limited to deer, beaver, river otter, harbor seals, raptors, and song birds.

The project area is owned by the McKinleyville Community Services District (MCSD and is located along the east bank of the lower Mad River; it is bordered to the north by School Road, to the east by Fischer Road and to the south by private land (Exhibit 1).

The Mad River fault bisects MCSD’s property from east to west, paralleling the river, forming a marine terrace at School Road that dips down to the lower floodplain to the south (Exhibit 1). This feature was central to a recent bank stabilization effort by the County of Humboldt.

The County of Humboldt built an emergency bluff stabilization project with FEMA emergency funding in 2008. That project, located adjacent to the proposed trailhead, used bio-engineering techniques, planting willow benches on top of boulder stabilized slopes to create a vegetated stable bluff. Considered an innovative and successful project, the approach did not, however, enhance public access, though it leveled and stabilized the site thereby rendering it suitable for a public access opportunity that that is the subject of this proposal. The top of the bluff to the first willow bench is in places a steep drop ranging from 10-30 feet. However, the designated

approach to the river from the bluff affords a more gentle approach and an existing informal trail network suitable for enhancement. The proposed access plan will identify practical solutions to address features along the trail such as drainages, low-lying wetlands and poor river access, thereby improving and providing safe access to the MCSD property.

The MCSD property descends gently from that 30-foot bluff overlook down to a flat riparian floodplain along 0.7 miles of the river extending away from the river for almost a half mile. The majority of the approximately 120 acres owned by MCSD is fenced and being used for wastewater disposal through land application and infiltration. Along the river and outside the fence an existing though unofficial and informal “volunteer” trail leads through the riparian corridor leads to the southern border of MCSD property, where there are two ponds that occupy approximately 4.25 acres of floodplain. These ponds are diked to prevent surface water exchange between the ponds and the river, and fenced to prohibit public access. They currently serve as percolation ponds for MCSD’s treated wastewater disposal. That use is proposed to be discontinued, and their infrastructure is proposed for decommissioning.

The riparian area is dominated by dense willow and horsetail vegetation and serves as habitat for local wildlife. An existing informal trail through the riparian corridor is frequented by mountain bike enthusiasts (Exhibit 3).

Landward of the percolation ponds is the 70 acres of pastureland used by MCSD for wastewater effluent reclamation. The majority of that parcel is suitable for expanded biofiltration efforts should the pilot project prove effective. The 4-acres that will be used for the riparian forest biofiltration pilot project are directly west of the off-channel habitat (percolation pond) project, and would serve as riparian buffer in the future.

**Project History:** Historically, the Mad River floodplain was inundated during high flow events, forming a system of wetlands and ponds as is now the case three miles north of the project site near the current river mouth and below the Highway 101 Vista Point. Much of the floodplain was separated from the river by dikes and rocked riverbanks, particularly on agricultural land. The result is an estuarine mainstem river with limited habitat diversity such as off-channel ponds that historically provided riparian or intertidal rearing habitat.

Originally, the MCSD discharged their treated effluent to the Mad River October to May 15 each year. The percolation ponds were constructed on the floodplain ca. 1984 as part of the McKinleyville Wastewater Treatment Facility effort to dispose of treated effluent via gravel percolation, in lieu of direct discharge to the Mad River, consistent with their NPDES permit. However, a precedent setting case, *Northern California River Watch v. City of Healdsburg*, established in 2006 that percolation ponds adjacent to rivers are covered by the Clean Water Act if they are hydrologically connected to river. As a result of this finding, the North Coast Regional Water Quality Control Board (NCRWQCB) requested that the percolation ponds at the project site be discontinued for use within a “reasonable period of time.” MCSD has the option of simply pursuing regulated discharge of treated effluent to adjacent pastures, thereby complying with their discharge requirements during low flow periods. This minimal approach to handling treated wastewater would likely require little more than shifting some pasture area to biofiltration forests, consisting of native riparian species. However, MCSD has expressed a desire to take a more active reclamation and restoration approach to their percolation pond area.

The MCSD worked with a local engineering and geology consulting firm (SHN Consulting Engineering and Geologists) to prepare a 20-year facilities plan, that included a disposal study

and to address alternatives. The design engineer, responsible for a water reclamation evaluation of the irrigation fields and for the disposal study section of the facilities plan became aware of the opportunity to decommission the percolation ponds and the willingness of MCSD to pursue a salmonid habitat restoration project at the site of the percolation ponds. The engineer informed CalTrout staff of the opportunity and through this relationship with the support of MCSD, the Mad River Estuary Off-channel Habitat Restoration was proposed to the California Department of Fish and Wildlife (CDFW) for a portion of the enhancement funding.

The MCSD Board of Directors voted to include a trail in the project area into their Recreational Master Planning document in September 2014. MCSD voted to provide a letter of support for pursuit of grant funding to achieve both planned restoration and public access objectives. The objective of such funding would be to expand enhancement and access potential beyond that which would be required by the Regional Water Quality Control Board as part of their permit.

Based on MCSD's receptivity to public access as well as habitat enhancement, CalTrout sought the Coastal Conservancy's help to augment CDFW enhancement funds for the project and support the public access component. The Coastal Conservancy has a long history of investing in public access improvements in this area. The Coastal Conservancy has funded related local projects such as the McKinleyville Land Trust's Mad River Bluffs Trail and the Redwood Community Action Agency's Humboldt County Coastal Trail Implementation Strategy that includes conceptual desired trail concepts that could link to existing trails and roads.

## **PROJECT FINANCING**

<b>Coastal Conservancy</b>	<b>\$200,000</b>
California Department of Fish and Wildlife (FRGP)	\$74,762
<b>Project Total</b>	<b>\$274,762</b>

The anticipated source of Conservancy funds for this authorization is the Fiscal Year 2010/11 appropriation from the California Wildlife Protection Act of 1990 (Proposition 117), known as the Habitat Conservation Fund (HCF). Under State Fish and Game Code section 2786(e) & (f), HCF Funds may be used for the acquisition, restoration, or enhancement of aquatic habitat for spawning and rearing of salmonids and for the acquisition, restoration, or enhancement of riparian habitat. Both the enhancement and the biofiltration project are aimed at providing improved aquatic habitat for salmonids. The public access design portion of the project is incidental to this goal and will seek to reduce erosion to further protect salmon populations.

The Conservancy's appropriation of HCF funds derive from the Disaster Preparedness and Flood Prevention Bond Act of 2006 (Proposition 1E), and therefore the project financing must also meet the bond act purposes. Proposition 1E funds may be used for projects that set back existing flood control levees, relocate structures for the establishment of a flood protection corridor and provide incentives for maintaining agricultural uses that are in a flood plain which cannot reasonably be made safe from future flooding. (Public Res. Code §5096.825 (c), (d) & (e)). Each of these purposes is served either directly or indirectly by features of this proposed project.

In the immediate vicinity of the project, the Tye City area across the river from the proposed project, as well as the 2008 Bluff Project area described above, have already received FEMA funds to mitigate for historical flooding impacts and bluff erosion along Verwer Road. Future floods ranging from 25-100 year events would likely inundate the project area. Restoring the floodplain in the project area will reduce risk of flooding to adjacent agricultural areas now served by numerous failing berms and rip-rap structures.

The enhancement site specifically is located within the 100-year floodplain, currently floods during high flow events and is an ideal candidate for flood reduction risk and floodplain/riparian restoration. Since the proposed project would establish floodplain capacity to alleviate flooding locally and elsewhere along the river, particularly on prime agricultural lands, the project is consistent with the requirements of Proposition 1E funds. Monitoring will be conducted as part of the final report.

CalTrout has secured significant matching funds relative to the size of their organization and the ability of the local community to support the project financially. They also intend to contribute up to \$5,000 of project management towards the project. The project will be supported primarily by State funding from CDFW and the Conservancy. However, the project enjoys non-state contributions from a variety of sources. Most importantly, the MCSD is making the land available for the project at no cost. This is a substantial contribution that is neither required by regulation, nor needed as mitigation, and is probably worth tens to hundreds of thousands of dollars.

#### **CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:**

The proposed project is undertaken pursuant to Chapter 6 of Division 21 of the Public Resources Code, as follows:

Pursuant to Pub. Res. Code §31251, the Conservancy may award grants to local public agencies and nonprofit organizations for the purpose of enhancement of coastal resources which, because of human-induced events, or incompatible land uses, have suffered loss of natural and scenic values. Consistent with this section, the proposed authorization provides funds to CalTrout to enhance coastal fishery resources disturbed by incompatible land uses, such as levee construction and inappropriate floodplain development that diminishes historic habitat by separating a river from its floodplain.

Consistent with § 31252, the site of the proposed project is identified in the local coastal program for the *General Plan, Volume II, Humboldt Bay Area Plan of the Humboldt County Local Coastal Program* as an area requiring public action to resolve existing resource protection problems. Section 3.41 (A) of the *General Plan* identifies the Mad River and surrounding wetlands and waterways as an Environmentally Sensitive Habitat Area. The associated language of the LCP mirrors the Coastal Act and provides substantial encouragement for the enhancement of degraded habitat in such areas. Section 3.41 (H) outlines County policy relating to bank armoring along the Mad River, and indirectly illustrates the extent to which any available floodplain habitat along the lower Mad has been largely eliminated. Thus, improved flood alleviation and habitat enhancement via the recapture of floodplain is identified in the LCP as requiring public action to address resource protection issues.

Pursuant to §31253, the Conservancy may provide up to the total of the cost of any coastal resource enhancement project taking into consideration the total cost of the project, the fiscal resources of the grantee, the urgency of the project and other factors as determined by the Conservancy (see discussion below). Consistent with this section, the proposed contribution, intended for design and permitting of a significant coastal habitat enhancement project, represents a small component of the overall project cost. In determining the funding amount, the Conservancy has considered factors relevant to project eligibility, as detailed in the “Consistency with Conservancy’s Project Selection Criteria & Guidelines” section, below.

Pursuant to § 31400.3, “[t]he conservancy may provide such assistance as is required to aid public agencies and nonprofit organizations in establishing a system of public coastal accessways, and related functions necessary to meet the objectives of this division.” The proposed trail design would complement earlier Conservancy coastal trail investments in the immediate area.

Pursuant to §31409, the conservancy may award grants and provide assistance to public agencies and nonprofit organizations to establish and expand those inland trail systems that may be linked to the California Coastal Trail. The proposed trail linkage establishes an important inland link from the Mad River Estuary to areas upstream and downstream and is therefore consistent with this section.

**CONSISTENCY WITH CONSERVANCY’S 2013 STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):**

Consistent with **Goal 5, Objective C** of the Conservancy’s 2013-2018 Strategic Plan, the proposed project will develop plans to preserve and enhance coastal watersheds and floodplains.

Consistent with **Goal 5, Objective F** of the Conservancy’s 2013-2018 Strategic Plan, the proposed project will complete plans to improve water quality to benefit coastal and ocean resources by reestablishing a functional floodplain and deposition zone for the Mad River.

Consistent with **Goal 2, Objective E** of the Conservancy’s 2013-2018 Strategic Plan, the proposed project will design a new regional trail that will help expand much desired coastal and river access.

**CONSISTENCY WITH CONSERVANCY’S PROJECT SELECTION CRITERIA & GUIDELINES:**

The proposed project is consistent with the Conservancy’s Project Selection Criteria and Guidelines, last updated on October 2, 2014, in the following respects:

**Required Criteria**

1. **Promotion of the Conservancy’s statutory programs and purposes:** See the “Consistency with Conservancy’s Enabling Legislation” section above.
2. **Promotion and implementation of state plans and policies:** The proposed project is consistent with the following state plans and policies concerning restoration of riparian habitat and increasing natural production of the coastal salmon populations that depend upon that habitat for certain life history stages.
  - a. The proposed project is consistent with the themes for habitat restoration identified in the *Steelhead Restoration and Management Plan for California*.

- Specifically, that plan advises that “(h)abitat improvement projects should be focused on the many areas throughout the State where steelhead habitat is severely degraded and restoration work is sorely needed” (p. 74). Floodplain habitat is one of the most degraded, rare and yet necessary areas to support the growth and survival of juvenile salmonids.
- b. More recently, and more specifically, the proposed project is consistent with the California Fish and Game issued *Recovery Strategy For California Coho Salmon* in that the highest priority recommendation of that plan relating to the Mad River is to “[w]ork with landowners and other entities to protect existing large woody debris recruitment potential through the retention of mature coniferous trees in the riparian zone...” and “establish adequate streamside buffer areas.”
  - c. The project is consistent with federal National Marine Fisheries Service 2014, *Final Recovery Plan for the Southern Oregon/Northern California Coast Evolutionarily Significant Unit of Coho Salmon (Oncorhynchus kisutch)*. That report states that “lack of floodplain and channel structure, impaired estuary function, impaired water quality and altered sediment supply are the key limiting factors for coho salmon production in the Mad River basin. Top recover priorities in the basin should include improving channel structure and off-channel rearing habitat....” (p. 24-18).
  - d. Finally, the project is consistent with the California Water Action Plan, a collaborative effort of the California Natural Resources Agency, the California Environmental Protection Agency, and the California Department of Food and Agriculture. This plan was developed to meet three broad objectives: more reliable water supplies, the restoration of species and habitat, and a more resilient, sustainably manager water resources system. It lays out the state’s challenges, goals and actions needed to put California’s water resources on a safer, more sustainable path. The plan identifies ten overarching strategies to protect our resources, include two particular to this project that the Conservancy can help implement: 4) *Protect and restore important ecosystems (restore coastal watersheds and strategic coastal estuaries to restore ecological health and nature system connectivity to benefit local water systems and help defend against sea level rise, eliminate barriers to fish migration)* and 7) *Increase flood protection (encourage flood projects that plan for climate change and achieve multiple benefits)*
3. **Consistency with purposes of the funding source:** See the “Project Financing” section above.
  4. **Support of the public:** The proposed project enjoys the support of the landowner MCSD, U.S. Congressman Jared Huffman, State Senator Mike McGwire, Assemblyman Jim Wood, the County of Humboldt, the Humboldt Trails Council, and many resource agencies including the Department of Fish and Wildlife, NOAA Fisheries and others. (See Exhibit 4).

5. **Location:** The project site is within the coastal zone, and will benefit numerous coastal resources by providing coastal salmon populations with sufficient floodplain habitat to fulfill their life history patterns.
6. **Need:** Without grant funding, MCSD would decommission the percolation ponds without an engineered solution to restore estuarine salmonid rearing habitat and refugia and without a plan for public access.
7. **Greater-than-local interest:** The project offers an excellent opportunity to highlight the restoration opportunities afforded by transiting percolation ponds to resource restoration compatible land reclamation strategies; this effort would be beneficial to all wastewater treatment facilities in California that face similar upgrade requirements.

The network of trails in and around McKinleyville, at times opposed in their initial inception, is now the pride of the community. The trails, particularly the Hammond Coastal Trail, are frequently cited in real estate advertisements as an amenity. Visitors to the local airport are often directed to the nearby trail to enjoy the scenic beauty of the area as they travel to and from Humboldt County. The success of coastal and spur trails in this area is providing an important success that may help promote trail development elsewhere. The proposed pilot project also serves a greater than local interest in that it provides a potential example of low cost, high resource value “green infrastructure” to apply elsewhere.

8. **Sea level rise vulnerability:** The floodplain enhancement component of the project will experience sea level rise, but by removing infrastructure from the floodplain the project will help the habitat and community adapt well to sea level rise. All project elements, particularly the trail component, will be designed so as to withstand projected sea level rise levels that would impair access in the area. The restored habitat areas face no imminent threat from increasingly saline conditions and would in fact provide increased estuarine habitat benefits under a sea level rise scenario.

#### **Additional Criteria**

9. **Urgency:** Management at the MCSD has demonstrated a new, innovative and progressive desire to improve their land base for the benefit of the County as a whole. The project opportunity will be lost if Conservancy funding is unavailable to match the other funding sources.
10. **Resolution of more than one issue:** The project improves flood water management, waste management and public access issues that currently exist at the site. Levees and infrastructure in the floodplain impair habitat potential on the lower Mad River. The project proposes to remedy that situation.

Private grazing operations, residential neighborhoods, a steep bluff, and irrigated wastewater disposal on MCSD land limit public access opportunities on the lower north bank of the Mad River. There are no planned and managed access points that provide recreational opportunities and reduce impacts from unmanaged recreational use. There is an unmanaged trail network that runs south within the riparian zone with lateral spur trails branching off toward the river. However, the existing trail is periodically cleared by residents who cut into the riparian vegetation extensively, block or open views of the river, and dig holes to produce dirt ramps and banks for off-road cycling recreation. There is no formal parking area at the entrance to the site on School Road; there is no formal small craft launch, and no information

nor interpretive signs or kiosks exist on-site. The proposed project would lead to resolution of these issues.

11. **Leverage:** See the “Project Financing” section above.
12. **Conflict resolution:** MCSD has committed to eliminating the pond percolation disposal system in favor of land application with the intent to avoid a mandated order from the wastewater discharge regulating agency, the Regional and State Water Boards. However, no mandate would compel MCSD to fully restore the floodplain where the ponds are sited. Instead, MCSD would likely change their point of discharge to the fields they own, utilizing the treated wastewater for irrigation purposes. In other words, without grant funding, MCSD would decommission the percolation ponds without an engineered solution to restore estuarine salmonid rearing habitat and refugia.
13. **Readiness:** CalTrout has demonstrated its ability and desire to commence and complete the project timely.
14. **Realization of prior Conservancy goals:** “See “Project History” above.”
15. **Cooperation:** Active engagement with agency personnel and local technical and experiential knowledge will guide the integration of the design elements. When implemented, the project will provide critical juvenile salmonid rearing habitat and off-channel refugia as well as enhanced coastal access.
16. **Vulnerability from climate change impacts other than sea level rise:** By chance Humboldt County is one of the rare areas where major habitat disruptions resulting from climate change are not anticipated. Relative to other areas of the state and nation, the proposed project is not as vulnerable to climate change effects.

**CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:**

*General Plan, Volume II, Humboldt Bay Area Plan of the Humboldt County Local Coastal Program* (certified October 14, 1982). Section 3.5(C) includes an access inventory that makes recommendations for increased public pedestrian access in many locations. Section 3.5(B)(5) lays out a route for the coastal trail.

Similarly, though less specifically, The Humboldt County General Plan, Volume 2, McKinleyville Area Plan of the Humboldt County Local Coastal Program, calls for “maximum access” in section 3.50. Providing pedestrian access to this riverfront supports and encourages visitation to a the rural and scenic parts of Humboldt County.

Planning, designing and developing a Mad River Trail extension from the Mad River Bridge north towards Blue Lake and to the MCSD property will augment an already popular network of trails centered on the Hammond Trail, and will enhance the local trail network. The proposed project is thus consistent with and will facilitate the implementation of the relevant portions of the Humboldt County General Plan.

The Humboldt County General Plan, Volume 2, McKinleyville Area Plan of the Humboldt County Local Coastal Program, was certified January 13, 1983, and includes revisions and updates through 1987. Section 3.41 (A) identifies the Mad River and surrounding wetlands and waterways as Environmentally Sensitive Habitat Area. The associated language of the LCP mirrors the Coastal Act and provides substantial encouragement for the enhancement of

degraded habitat in such areas. Section 3.41 (H) outlines County policy relating to bank armoring along the Mad River, and indirectly illustrates the extent to which any available floodplain habitat along the lower Mad has been largely eliminated. Thus, improved flood alleviation and habitat enhancement via the recapture of floodplain is wholly consistent with the LCP.

**COMPLIANCE WITH CEQA:**

Staff has reviewed the proposed projects and determined that the projects are exempt from the California Environmental Quality Act (CEQA) pursuant to the CEQA Guidelines, Title 14 of the California Code of Regulations, §§ 15262, 15306 and 15333, as follows.

Preparation of the designs and permits involves only data gathering, planning, and feasibility analyses for possible future agency actions and is thus statutorily exempt from the provisions of the CEQA pursuant to CEQA Guidelines section 15262. The planning and design effort does not have a legally binding effect on future activities or authorizations, which would be subject to further CEQA review. Further, the Mad River Floodplain and Public Access Restoration Project will encompass consideration of environmental factors in connection with possible development of permit application materials. Authorization for enhancement project is also categorically exempt under section 15306 as an information gathering and resource evaluation activity which will not result in a serious or major disturbance to an environmental resource.

Implementation of the pilot biofiltration project is exempt under section 15333 because this project is essentially a small habitat restoration project that cumulatively does not exceed five acres in size and will assure the maintenance, restoration, enhancement or protection of habitat for fish, plants or wildlife. The project meets the additional conditions of this categorical exemption in that there would be no significant adverse impact on endangered, rare, or threatened species or their habitat as described in the section 15065.

Staff will file a Notice of Exemption upon approval.