

COASTAL CONSERVANCY

Staff Recommendation  
November 30, 2017

**NAPA RIVER WATERSHED URBAN STREAM ENHANCEMENT PROJECT**

Project No. 17-020-01  
Project Manager: Jessica Davenport

**RECOMMENDED ACTION:** Authorization to disburse up to \$231,000 to the County of Napa to enhance urban streambanks through implementation of streambank stabilization measures, removal of non-native invasive plants, and involvement of youth from disadvantaged communities in native riparian planting in the County of Napa.

**LOCATION:** On selected reaches of Tulocay Creek, Camille Creek and Napa Creek in the City of Napa, County of Napa

**PROGRAM CATEGORY:** San Francisco Bay Area Conservancy

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**EXHIBITS**

- Exhibit 1: [Project Location, Site Maps and Design Plans](#)  
Exhibit 2: [Project Photographs](#)  
Exhibit 3: [Initial Study/Negative Declaration for the Stream Maintenance Program](#)  
Exhibit 4: [Project Letters](#)
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**RESOLUTION AND FINDINGS:**

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31160-31165 of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes disbursement of an amount not to exceed two hundred thirty-one thousand (\$231,000) to the County of Napa to enhance urban streambanks through implementation of streambank stabilization measures, removal of non-native invasive plants, and involvement of youth from disadvantaged communities in native riparian planting in the County of Napa (the project), subject to the following conditions:

1. No Conservancy funds shall be disbursed for the project until the Executive Officer of the Conservancy has reviewed and approved in writing:
  - a. A final work plan, including a budget and schedule.

- b. The name and qualifications of any contractors that the County of Napa intends to retain to carry out the project.
  - c. A signage plan that acknowledges Conservancy funding.
  - d. A written agreement between the County of Napa and the landowners allowing the project to be implemented, maintained, and monitored.
2. The County of Napa shall provide evidence that all necessary permits and approvals have been obtained.”

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 authorization is consistent with Chapter 4.5 of Division 21 of the Public Resources Code, Sections 31160-31165, regarding the San Francisco Bay Area Conservancy Program.
2. The proposed project is consistent with the current Conservancy Project Selection Criteria and Guidelines.
3. The Conservancy has independently reviewed and considered the *Stream Maintenance Program – Initial Study/Negative Declaration (IS/ND)* adopted by the Napa County Flood Control and Water Conservation District on February 7, 2012 pursuant to the California Environmental Quality Act and attached to the accompanying staff recommendation as Exhibit 3. The Conservancy finds that the Napa River Watershed Urban Stream Enhancement Project (the project) proposed in the accompanying staff recommendation is within the scope of the Stream Maintenance Program analyzed in the IS/ND and that the project will not have a significant effect on the environment.”

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## **PROJECT SUMMARY:**

Staff recommends that the Conservancy authorize a grant of up to \$231,000 to the County of Napa to enhance urban streambanks through implementation of streambank stabilization measures, removal of non-native invasive plants, and involvement of youth from disadvantaged communities in native riparian planting on three priority streams in the Napa River watershed in the City of Napa.

The goals of the streambank enhancements are to reduce sediment delivery associated with ongoing bank erosion, improve ecological function, and enhance the public’s interaction with and understanding of streams. Tulocay, Camille and Napa Creeks, located in the City of Napa, were targeted for enhancement because:

- They have reaches characterized by streambank erosion and/or rapid colonization of non-native invasive species.
- They have a high degree of public visibility or access and present an opportunity for restoration activities to involve and engage local residents and stakeholders, including

residents of disadvantaged communities. For example, at Phillips Elementary School, on Camille Creek, there is not currently a program that encourages watershed stewardship or connects students to the stream immediately adjacent to campus.

- Projects there can complement the District's ongoing management activities in adjacent reaches and create a larger contiguous region of improved habitat conditions.
- They include sites where channel morphology is somewhat less confined than in other urbanized settings where residential development has imposed static boundaries on channel margins.

The current degradation of these stream reaches provides a unique restoration opportunity that aims to stabilize failing streambanks using biotechnical techniques, eradicate invasive species, and enhance native vegetation communities. The Napa County Flood Control and Water Conservation District (District), a special district in Napa County, intends to partner with the Napa County Resource Conservation District (Napa RCD) to involve local youth in riparian planting efforts. The District and Napa RCD see the biotechnical bank repair, streambank enhancements and public riparian plantings as an opportunity to demonstrate how urban streams can be managed to enhance wildlife habitat and improve ecosystem function. The project sites are within or adjacent to disadvantaged communities (see Exhibit 1) and will benefit these communities by providing opportunities for environmental education and engagement. In addition, the District will partner with the Conservation Corps North Bay for vegetation management related projects, including mechanical removal of invasive plants.

The Napa River Watershed Urban Stream Enhancement Project focuses on the following three project reaches within the city of Napa (see Exhibit 1).

1. Tulocay Creek Biotechnical Streambank Repair

This biotechnical streambank stabilization project will span 120 feet of the northern bank of Tulocay Creek. It sits within a District easement along Tulocay Creek which is managed as part of the District's Stream Maintenance Program. The District is in the process of developing an engineered biotechnical streambank design for the project and plans are at approximately 65% design level. The biotechnical repair will consist of minor grading to establish a stable slope, installation of plant-based biotechnical streambank elements, installation of toe protection features, and addition of native riparian plants in an 0.2-acre area associated with the bank repair site. Conservancy funding will allow 0.3 acres of planting in upstream and downstream reaches of the Tulocay Creek watershed for a total of 0.5 acres of riparian enhancement. The project on Tulocay Creek will establish stable streambank conditions and prevent the need for a hardening of the bank (e.g., using rip-rap) that could be necessary if the bank continues to erode into the adjacent parcel.

2. Camille Creek Habitat Enhancements

Project reaches on Camille Creek run through Shurtleff Park, Phillips Elementary School, and Chamberlain High School. The project elements include repairing erosion sites, removing invasive trees, covering the dirt foot path and establishing a vegetative filter strip along the channel side of the walking path to reduce the inputs of sediment, dog waste and trash. In addition, plantings within the reach will improve conditions and connect to upstream

and downstream reaches of higher quality habitat. Napa RCD will coordinate with local teachers to involve students from nearby schools in watershed stewardship activities and the restoration planting components at the public schools and parks. The benefits will include water quality improvements, creation of public green space, and riparian habitat enhancements.

### 3. Napa Creek Streambank Enhancements

Based on the District's annual stream survey of Napa Creek, it will conduct habitat enhancement projects at a set of high priority sites. Site selection will take into consideration potential for bank failure, quality of existing riparian habitat resources and feasibility of the proposed treatments. Projects will involve manual removal and off-site disposal of invasive plant material and any trash and debris discovered in the area. Disturbed areas will be treated with appropriate erosion prevention best management practices (BMPs) such as installation of erosion control fabric, wattles, and coir logs. These sites will be revegetated with native plants selected for the specific site conditions. Emphasis will be placed on species that contribute to bank stability as well as increased shade on the channel from a diverse riparian canopy.

At each of the above project sites, approximately half of the plant material for the riparian enhancement projects will be harvested or propagated locally at facilities operated by the District. These plants are grown from locally collected populations of native species including Valley oak (*Quercus lobata*), Red willow, (*Salix laevigata*), California rose (*Rosa californica*), and Santa Barbara sedge (*Carex barbarae*).

The County is qualified to undertake this project because the staff has implemented projects to protect, enhance, or restore the Napa River, its floodplain, and watershed since the 1990s. The County has extensive experience working collaboratively with landowners, stakeholders, project partners and consultants to successfully complete similar projects, including urban stream enhancement associated with the District's Stream Maintenance Program. See "Project History" section below for details.

#### **Site Description:**

##### Tulocay Creek Watershed (Including Camille Creek)

Tulocay Creek is a tributary of the Napa River that drains a 12.75 square mile watershed on the east side of the Napa River. It has several named tributaries including Camille Creek, Kreuse Creek, Spencer Creek, and Murphy Creek. Approximately 1.5 miles of Tulocay Creek runs through a highly urbanized area where bank erosion in confined reaches is an ongoing maintenance issue. The District's easements span approximately 0.75 miles along Tulocay Creek. Native vegetation communities onsite consist of live oak and valley oak woodland, Fremont cottonwood and red willow forest, and emergent aquatic vegetation types including cattails, rushes, and sedges.

The project reach within Tulocay Creek is an important migratory corridor that connects the Napa River to high-value habitat in the upper watersheds of Tulocay and Camille Creeks. Upstream of the project reaches, the dominant land uses are rural and open space and include the 850-acre Skyline Wilderness Park. Downstream, the creek joins the Napa River Flood Protection Project at the restored floodplain terraces south of downtown Napa. There is a robust beaver

population within this reach of Tulocay Creek with a large beaver dam at the downstream extent of the project reach and a beaver den along the southern bank. These features have persisted for the past four years and are providing habitat for an array of wildlife species including minks, western pond turtles, waterfowl, and fish. In recent years, local community members have been visiting the site to view and document the presence of wildlife within this reach of Tulocay Creek.

The project reach on Camille Creek includes Phillips Elementary School, Chamberlain High School and Shurtleff Park. The vegetation along this stretch of the stream is dominated by non-native plants and several sections with eroding banks. The adjacent park is heavily visited by dog walkers, which presents a problem of dog waste and litter entering the channel and degradation of streambanks from foot traffic.

### Napa Creek Watershed

Napa Creek is on the west side of the Napa River and drains a 15.2 square-mile watershed. The primary named tributaries within the watershed include Redwood Creek, Browns Valley Creek, and Pickle Creek. Approximately 6.1 miles of the Napa Creek watershed runs through urban areas where channel confinement and historic bank hardening techniques (e.g. concrete and metal debris, tires) significantly affect ecosystem quality. The project area includes the urbanized sections of Napa Creek, Browns Valley Creek and Redwood Creeks immediately upstream of the Napa Flood Project. Native vegetation communities consist of live oak and valley oak woodland, Fremont cottonwood and red willow forest, and minor components of coast redwood forest.

The proposed project area on Napa Creek would link improvements made to adjacent areas within the Napa Flood Protection Project with the high quality habitat in the upstream reaches of the Napa Creek watershed. Mature riparian forest trees exist that contribute to urban wildlife habitat by providing shade for the anadromous fish that utilize the stream (Chinook salmon, Steelhead trout) as well as food and cover for many species of birds (e.g. red shouldered hawks, Western bluebirds) and mammals (e.g. deer, coyotes). Throughout the reach, invasive plants such as English Ivy (*Hedera helix*), Cape Ivy (*Delairea odorata*), and Himalayan blackberry (*Rubus armeniacus*) are threatening mature native trees and displacing native shrubs and understory. In recent years, the combined effects of destabilized banks and stress from rapidly expanding invasive plants have caused an increased number of mature trees to fall into the channel. In many cases, this leaves a gap in the riparian canopy without successful recruitment of native trees and understory to stabilize the bank and restore shade on the channel.

**Project History:** The Conservancy has had a long history of involvement in the restoration of the Napa River watershed. In 1996, the Conservancy funded technical studies for the river's lower reach (between the City of Napa and the river mouth), which resulted in development of a multi-objective flood management plan that follows the "living river" principle. This plan replaced a US Army Corps of Engineers trapezoidal concrete channel design that had no benefit to natural resources, and little benefit to the community other than flood control. The Conservancy has since funded two property acquisitions to implement flood management and habitat improvements recommended in the plan, as well as a historical ecology assessment of the Napa Valley.

The Conservancy has funded several watershed assessments within the Napa River watershed that have led to projects on private lands to reduce erosion and sedimentation and improve

instream and adjacent habitat. These include two projects in the Napa wine country, the Rutherford Restoration Project and the Oakville to Oak Knoll Project, located upstream of the proposed project. The Conservancy has also funded a study of high-priority fish passage barriers in the Napa River basin, and has funded projects including the Zinfandel Bridge Fish Passage Project and the Greenwood Avenue Culvert and Fish Passage Project. Additionally, since the 1990s, the Conservancy has been involved with the acquisition and large-scale restoration of the Napa-Sonoma marshes at the mouth of the river.

The proposed project reaches are within highly urbanized stream reaches within the City of Napa and lower in the watershed than previously funded riparian restoration project sites. These project reaches provide a critical link to support an array of wildlife and are an area of focus within the District Stream Maintenance Program.

**PROJECT FINANCING**

<b>Coastal Conservancy</b>	<b>\$231,000</b>
Napa County Flood Control and Water Conservation District	<u>\$105,000</u>
<b>Project Total</b>	<b>\$336,000</b>

The expected source of Conservancy funds for this project is the fiscal year 2016/17 appropriation to the Conservancy from the Water Quality, Supply, and Infrastructure Improvement Act of 2014 (Proposition 1, Water Code Section 79700 et seq.). Funds appropriated to the Conservancy derive from Chapter 6 (commencing with Section 79730) and may be used “for multi-benefit water quality, water supply, and watershed protection and restoration projects for the watersheds of the state” (Section 79731). Section 79732 identifies specific purposes of Chapter 6, which include: protect and restore aquatic, wetland, and migratory bird ecosystems, including fish and wildlife corridors; protect and restore rural and urban watershed health to improve watershed storage capacity, forest health, protection of life and property, storm water resource management, and greenhouse gas reduction; protect and restore coastal watersheds, including, but not limited to bays, marine estuaries, and nearshore ecosystems; and assist in the recovery of endangered, threatened or migratory species by improving watershed health, instream flows, fish passage and coastal or inland wetland restoration.

The proposed project helps achieve the above-identified Chapter 6 purposes and provides multiple benefits. By restoring floodplain and channel form and function, the project will restore historic access to spawning and rearing habitat and improve water quality by reducing erosion.

The proposed project was selected through a competitive grant process under the Conservancy’s Proposition 1 Grant Program Guidelines adopted in June 2015 (“Prop 1 Guidelines”). (See Section 79706(a)). The proposed project meets each of the evaluation criteria in the Prop 1 Guidelines as described in further detail in this “Project Financing” section, the “Project Summary” section and in the “Consistency with Conservancy’s Project Selection Criteria & Guidelines” section of this report.

The County of Napa has fully funded design and permitting-related tasks and provides matching funds for implementation of restoration projects through its watershed assessment funding. The watershed assessment is a local revenue source that does not expire.

**CONSISTENCY WITH CONSERVANCY’S ENABLING LEGISLATION:**

The proposed project is consistent with Chapter 4.5 of Division 21 of the Public Resources Code, Sections 31160-31165, which authorizes the Conservancy to award grants in the nine-county San Francisco Bay Area to help achieve stated goals.

Consistent with Section 31162(b), the proposed project will help “to protect, restore, and enhance natural habitats and connecting corridors, watersheds, scenic areas, and other open-space resources of regional importance.” The County of Napa intends to restore habitat and beneficial uses, including spawning and rearing habitat for Chinook salmon and steelhead trout.

Consistent with Section 31162(d), the proposed project will promote, assist, and enhance projects that provide open space and natural areas that are accessible to urban populations for recreational and educational purposes.

Consistent with Section 31163(c), the project is 1) supported by adopted regional plans, including the Regional Water Quality Control Board’s Napa River Sediment TMDL and the *San Francisco Estuary Watershed Evaluation: Identifying Promising Locations for Steelhead Restoration in Tributaries of the San Francisco Estuary* (CEMAR, 2007); 2) is regionally significant in terms of the riparian and riverine habitat restoration potential; 3) can be implemented in a timely way, as the funding for the restoration has been secured; 4) provides an opportunity to restore a significant property that could be lost if grant funding is not used; and 5) includes local matching funds from County of Napa’s watershed assessment fund.

**CONSISTENCY WITH CONSERVANCY’S 2013 STRATEGIC PLAN GOAL(S) & OBJECTIVE(S), AS REVISED JUNE 25, 2015:**

Consistent with **Goal 11, Objective 11F** of the Conservancy’s 2013-2018 Strategic Plan, the project will enhance riparian and riverine habitat and other watershed functions and processes for the benefit of wildlife and water quality. Consistent with **Objective 11H**, the project will eradicate non-native invasive species that threaten important habitats in the San Francisco Bay Area.

**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. **Consistency with purposes of the funding source:** See the “Project Financing” section above.
3. **Promotion and implementation of state plans and policies:** The proposed acquisition project serves to promote and implement several state plans and policies, including:
  - *California Water Action Plan.* The project promotes Goal 4, “Protect and Restore Important Ecosystems,” by supporting stream enhancements to protect and augment the riparian tree canopy and provide cold, clean water conditions in tributaries to the Napa River and San Pablo Bay.
  - *California @ 50 Million: The Environmental Goals and Policy Report.* The project is consistent with goal, “Preserve and Steward the State’s Lands and Natural Resources,” through its protection of existing high-priority stream corridors.
  - *California Wildlife Action Plan.* The project is consistent with Goal 2-Enhance Ecosystem Conditions, and Goal 3-Enhance Ecosystem Function and Process because it will restore riparian habitat and channel form and function.
  - *Bay Area Integrated Watershed Management Program.* The project is consistent with the goals of protecting water quality, enhancing habitat and improving the overall health of the bay because it will reduce sediment loading and replace invasive plant species with native species. Specific objectives addressed by this project are numerous and include the following list: 1.2, 1.3, 1.7, 1.8, 1.13, 3.1, 3.2, 3.3, 3.4, 3.6, 3.7, 4.1, 4.3, 5.1, 5.2, 5.3, 5.4.
  - *Regional Water Quality Control Board’s Napa River Sediment Total Maximum Daily Load (TMDL).* The Tulocay Creek Bank Stabilization Project’s goals are consistent with goal of reducing sediment loading by controlling erosion.
4. **Support of the public:** Implementation of the project is a collaborative effort between the County of Napa, Napa County Flood Control and Water Conservation District, and the Napa County Resource Conservation District. The project is supported by Friends of the Napa River, the Napa County Office of Education, and residents of the City of Napa.
5. **Location:** The project is located in the County of Napa, within the jurisdiction of the nine-county San Francisco Bay Area Conservancy Program.
6. **Need:** Conservancy funds are needed to supplement local watershed assessment funds, which are levied primarily to support ongoing stream maintenance within Napa County. District funds are limited to covering regular stream maintenance activities, such as clearing overgrown vegetation and removing downed trees. Implementing the long-term improvements in this proposed project requires additional funding.
7. **Greater-than-local interest:** The Napa River has been identified by the Center for Ecosystem Management and Restoration as one of eight “anchor watersheds” with the highest restoration potential for steelhead trout in the San Francisco Bay Area.
8. **Sea level rise vulnerability:** This project is not vulnerable to sea level rise because the sites are approximately 3 meters above the level of tidal influence. Sea level rise projections indicate that the sites will remain outside the future levels of tidal influence over the 20-year project term, as well.



**Additional Criteria**

10. **Resolution of more than one issue:** In addition to stabilizing the river banks, thus preventing additional erosion and associated water quality and property damage, the project will provide educational and environmental stewardship opportunities for urban youth.
11. **Leverage:** See the “Project Financing” section above.
13. **Innovation:** The project will utilize innovative biotechnical streambank stabilization techniques as described in the District’s Stream Maintenance Manual. It will also employ innovative invasive treatment methods designed to minimize impacts to non-target species. Long-term monitoring of RCD-led plantings will include citizen science through the use of Arc GIS Online to facilitate community oak monitoring at the Camille Creek site, which borders a city park.
14. **Readiness:** The grantee has completed CEQA documentation, local funds are available to supplement Conservancy funds, and the grantee expects to have all necessary permits in time to start construction in 2018.
15. **Realization of prior Conservancy goals:** See “Project History” above.
17. **Cooperation:** This is a collaborative effort among the City of Napa, the County of Napa, Napa County Flood Control and Water Conservation District, Napa County Resource Conservation District, and others.
18. **Vulnerability from climate change impacts other than sea level rise:** The implementation of projects in the Tulocay and Napa Creek watersheds will expand the riparian corridor and enhance native species diversity (grasses, sedges, shrubs and trees) that will be more resilient under a range of future conditions. This is anticipated to improve terrestrial and aquatic habitats, as well as over-all ecosystem function.
19. **Minimization of greenhouse gas emissions:** Through the installation of native riparian vegetation, the project areas will have the potential to sequester carbon at a higher rate than current site conditions allow.

**COMPLIANCE WITH CEQA:**

Pursuant to the California Environmental Quality Act (CEQA), the Napa County Flood Control and Water Conservation District, as lead agency, prepared the “*Stream Maintenance Program – Initial Study/Negative Declaration*” (IS/ND) (Exhibit 3). The IS/ND evaluated impacts of the proposed county-wide Stream Maintenance Program in the areas of aesthetics; agricultural resources; air quality; biological resources; cultural resources; geology, soils and seismicity; greenhouse gas emission; hazards and hazardous materials; hydrology and water quality; land use and planning; mineral resources; noise; population and housing; public services; recreation; transportation/traffic; utilities and service systems; and cumulative impacts. It found that the Napa County Stream Maintenance Program would not have a significant effect on the environment. On February 7, 2012, the Napa County Flood Control and Water Conservation District adopted the IS/ND and approved the Stream Maintenance Program.

The proposed project is within the scope of the Stream Maintenance Program analyzed in the IS/ND. The project involves controlling erosion, managing non-native invasive plants, and

planting native riparian plants. In the IS/ND, the impacts of these activities were determined to have no significant adverse impacts on the environment when conducted using best management practices (BMPs). General BMPs used to avoid or minimize impacts to special status fish and bird species include implementing the project during work windows to avoid sensitive life stages, such as fish spawning and bird nesting periods; minimizing the area of disturbance; and minimizing disturbance to the channel bed and banks during sediment removal. BMPs for managing non-native invasive plants include taking steps to minimizing local erosion and conducting removal of specific invasive species according to approved guidelines. The BMP for restoring channel features will minimize impacts to fish passage by restoring channel bed conditions following maintenance activities. The BMP for seeding sites following maintenance activities will minimize impacts to special status plant species by stabilizing exposed soils and preventing erosion such that suitable habitat is appropriately restored. The proposed project is within the scope of with the Stream Maintenance Program and will be implemented using the appropriate BMPs. Therefore, staff recommends that the Conservancy find that the proposed project will not have a significant effect on the environment. Upon approval, staff will file a Notice of Determination.