



NORTH COAST RESOURCE PARTNERSHIP

2018/19 IRWM Project Application

The North Coast Resource Partnership (NCRP) 2018/19 Project Application Instructions and additional information can be found at the NCRP 2018/19 Project Solicitation webpage (<https://northcoastresourcepartnership.org/proposition-1-irwm-round-1-implementation-funding-solicitation/>). Please fill out grey text boxes and select all the check boxes that apply to the project. Application responses should be clear, brief and succinct.

Project Applications will be accepted until 5:00 pm, ~~March 8, 2019~~ March 15, 2019. It is important to save the application file with a distinct file name that references the project name. When the application is complete, please email to kgledhill@westcoastwatershed.com

If you have questions, need additional information or proposal development assistance please contact:

- Katherine Gledhill at kgledhill@westcoastwatershed.com or 707.795.1235
- Tribal Projects: Sherri Norris, NCRP Tribal Coordinator at sherri@cieaweb.org or 510.848.2043

Project Name: Upgrading Critical Infrastructure to Support Resource Recovery in the Blue Creek Sanctuary

A. ORGANIZATION INFORMATION

1. Organization Name: Yurok Tribe

2. Contact Name/Title

Name: Richard Nelson

Title: Yurok Watershed Restoration Director

Email: rich@yuroktribe.nsn.us

Phone Number (include area code): 707 496 6814

3. Organization Address (City, County, State, Zip Code):

PO Box 1027/190 Klamath Boulevard, Klamath, Del Norte County, CA, 95548

4. Organization Type

- ☐ Public agency
☐ Non-profit organization
☐ Public utility
☒ Federally recognized Indian Tribe
☐ California State Indian Tribe listed on the Native American Heritage Commission's California Tribal Consultation List
☐ Mutual water company
☐ Other:

5. Authorized Representative (if different from the contact name)

Name: Joseph L. James
Title: Chairmen, Yurok Tribe
Email: jjames@yuroktribe.nsn.us
Phone Number (include area code): 707 482 1350

6. Has the organization implemented similar projects in the past? ☒ yes ☐ no

Briefly describe these previous projects.

The Yurok Tribe is currently implementing two NCRP Proposition 84 grants that include the following water resource components: road & stream crossing decommissioning, installation of fish habitat structures, riparian habitat enhancement, and design/installation of drinking water systems for Yurok Tribal members living on the Lower Klamath River. The Yurok Tribe Watershed Restoration Program (YTWRP) have been conducting road construction, maintenance, and decommissioning since 1998.

7. List all projects the organization is submitting to the North Coast Resource Partnership for the 2018/19 Project Solicitation in order of priority.

The Yurok Tribe is only submitting this project for consideration for Round 1 funding. We have prioritized the project tasks to be scalable as requested in this application.

8. Organization Information Notes:

B. ELIGIBILITY

1. North Coast Resource Partnership and North Coast IRWM Objectives

GOAL 1: INTRAREGIONAL COOPERATION & ADAPTIVE MANAGEMENT

- ☒ Objective 1 - Respect local autonomy and local knowledge in Plan and project development and implementation
☒ Objective 2 - Provide an ongoing framework for inclusive, efficient intraregional cooperation and effective, accountable NCIRWMP project implementation
☒ Objective 3 - Integrate Traditional Ecological Knowledge in collaboration with Tribes to incorporate these practices into North Coast Projects and Plans

GOAL 2: ECONOMIC VITALITY

☒ Objective 4 - Ensure that economically disadvantaged communities are supported and that project implementation enhances the economic vitality of disadvantaged communities by improving built and natural infrastructure systems and promoting adequate housing

☒ Objective 5 - Conserve and improve the economic benefits of North Coast Region working landscapes and natural areas

GOAL 3: ECOSYSTEM CONSERVATION AND ENHANCEMENT

☒ Objective 6 – Conserve, enhance, and restore watersheds and aquatic ecosystems, including functions, habitats, and elements that support biological diversity

☒ Objective 7 - Enhance salmonid populations by conserving, enhancing, and restoring required habitats and watershed processes

GOAL 4: BENEFICIAL USES OF WATER

☐ Objective 8 - Ensure water supply reliability and quality for municipal, domestic, agricultural, Tribal, and recreational uses while minimizing impacts to sensitive resources

☐ Objective 9 - Improve drinking water quality and water related infrastructure to protect public health, with a focus on economically disadvantaged communities

☐ Objective 10 - Protect groundwater resources from over-drafting and contamination

GOAL 5: CLIMATE ADAPTATION & ENERGY INDEPENDENCE

☒ Objective 11 - Address climate change effects, impacts, vulnerabilities, and strategies for local and regional sectors to improve air and water quality and promote public health

☐ Objective 12 - Promote local energy independence, water/ energy use efficiency, GHG emission reduction, and jobs creation

GOAL 6: PUBLIC SAFETY

☐ Objective 13 - Improve flood protection and reduce flood risk in support of public safety

2. Does the project have a minimum 15-year useful life?

☒ yes ☐ no

If no, explain how it is consistent with Government Code 16727.

3. Other Eligibility Requirements and Documentation

CALIFORNIA GROUNDWATER MANAGEMENT SUSTAINABILITY COMPLIANCE

a) Does the project that directly affect groundwater levels or quality?

☐ yes ☒ no

b) If Yes, will the organization be able to provide compliance documentation outlined in the instructions, to include in the NCRP Regional Project Application should the project be selected as a Priority Project?

☐ yes ☐ no

CASGEM COMPLIANCE

a) Does the project overlie a medium or high groundwater basin as prioritized by DWR?

☐ yes ☒ no

b) If Yes, list the groundwater basin and CASGEM priority:

c) If Yes, please specify the name of the organization that is the designated monitoring entity:

- d) If there is no monitoring entity, please indicate whether the project is wholly located in an economically disadvantaged community.
☒ yes ☐ no

URBAN WATER MANAGEMENT PLAN

- a) Is the organization required to file an Urban Water Management Plan (UWMP)?
☐ yes ☒ no
- b) If Yes, list the date the UWMP was approved by DWR:
- c) Is the UWMP in compliance with AB 1420 requirements?
☐ yes ☐ no
- d) Does the urban water supplier meet the water meter requirements of CWC 525?
☐ yes ☐ no
- c) If Yes, will the organization be able to provide compliance documentation outlined in the instructions, to include in the NCRP Regional Project Application should the project be selected as a Priority Project?
☐ yes ☐ no

AGRICULTURAL WATER MANAGEMENT PLAN

- a) Is the organization – or any organization that will receive funding from the project – required to file an Agricultural Water Management Plan (AWMP)?
☐ yes ☒ no
- b) If Yes, list date the AWMP was approved by DWR:
- c) Does the agricultural water supplier(s) meet the requirements in CWC Part 2.55 Division 6?
☐ yes ☐ no

SURFACE WATER DIVERSION REPORTS

- a) Is the organization required to file surface water diversion reports per the requirements in CWC Part 5.1 Division 2?
☐ yes ☒ no
- d) If Yes, will the organization be able to provide SWRCB verification documentation outlined in the instructions, to include in the NCRP Regional Project Application should the project be selected as a Priority Project?
☐ yes ☐ no

STORM WATER MANAGEMENT PLAN

- a) Is the project a stormwater and/or dry weather runoff capture project?
☐ yes ☒ no
- b) If yes, does the project benefit a Disadvantaged Community with a population of 20,000 or less?
☐ yes ☐ no
- e) If No, will the organization be able to provide documentation that the project is included in a Stormwater Resource Plan that has been incorporated into the North Coast IRWM Plan, should the project be selected as a Priority Project?
☐ yes ☒ no

C. GENERAL PROJECT INFORMATION

1. Project Name: Upgrading Critical Infrastructure to Support Resource Recovery in the Blue Creek Sanctuary

2. Eligible Project Type under 2018/19 IRWM Grant Solicitation

- ☐ Water reuse and recycling for non-potable reuse and direct and indirect potable reuse
- ☐ Water-use efficiency and water conservation
- ☐ Local and regional surface and underground water storage, including groundwater aquifer cleanup or recharge projects
- ☐ Regional water conveyance facilities that improve integration of separate water systems
- ☒ Watershed protection, restoration, and management projects, including projects that reduce the risk of wildfire or improve water supply reliability
- ☐ Stormwater resource management projects to reduce, manage, treat, or capture rainwater or stormwater
- ☐ Stormwater resource management projects that provide multiple benefits such as water quality, water supply, flood control, or open space
- ☐ Decision support tools that evaluate the benefits and costs of multi-benefit stormwater projects
- ☐ Stormwater resource management projects to implement a stormwater resource plan
- ☐ Conjunctive use of surface and groundwater storage facilities
- ☐ Decision support tools to model regional water management strategies to account for climate change and other changes in regional demand and supply projections
- ☒ Improvement of water quality, including drinking water treatment and distribution, groundwater and aquifer remediation, matching water quality to water use, wastewater treatment, water pollution prevention, and management of urban and agricultural runoff
- ☐ Regional projects or programs as defined by the IRWM Planning Act (Water Code §10537)
- ☐ Other:

3. Project Abstract

The Yurok Tribe is proposing to conduct a number of high priority road and associated stream crossing improvements within the Blue Creek Sanctuary to protect and enhance water quality, increase watershed resiliency to climate change impacts, promote increased community safety (i.e. improve a primary flood & fire evacuation route, improve our ability to manage wildland fires), and help ensure effective Tribal management of vitally important water, wildlife, and forest resources in the Sanctuary.

4. Project Description

Commercial timberland management on the North Coast has devastated the landscape, leaving a network of unmaintained legacy logging roads and infrastructure, with severe impacts to forest health, water quality, fish and wildlife habitat, and ecosystem function. As an economically disadvantaged community, dependent upon fishing for its health and economic livelihood, we continue to recover from the impacts of decades of damaging commercial timber harvest practices on tribal lands. This project is needed to address critical road infrastructure needs within the Yurok Tribe's recently established Blue Creek Salmon Sanctuary ("Sanctuary") and the Yurok Community Forest (YCF).

In 2015, Western Rivers Conservancy and the Yurok Tribe collaborated to purchase 47,064-acres of former commercial timberlands to protect and restore the culturally important Blue Creek watershed. This project is an essential component to support implementation of the Yurok Tribe's restoration, and strategy. The Sanctuary and YCF provide many resource, social, and economic benefits, including: watershed

rehabilitation, old growth forest ecosystem recovery, ESA/CESA listed-species recovery, wildland fire prevention, GHG reduction (air quality improvement), water quality protection, and climate change resiliency. The Sanctuary will serve the habitat and movement needs of a diversity of fish and wildlife species, including CESA and ESA -listed species. In addition, the YCF will provide economic opportunities for Tribal members through conservation and restoration projects, and sustainable forest management; and support community-wellness through improved access to traditional foods, and medicines, and cultural materials.

Major components of this project, include: road upgrades, resurfacing, drainage improvements, mass wasting prevention, safety improvements, sediment reduction, and erosion control measures. The project will be implemented by the Yurok Watershed Restoration Department over a ~3-year period, utilizing techniques described in the Pacific Watershed Associates, Handbook of Forest, Ranch, and Rural Roads; and incorporating best management practices and experience gained from over 15 years of successful watershed restoration and road decommissioning and maintenance experience.

This project provides a unique opportunity for the NCRP to support the State's largest Tribe to achieve mutual goals of private land stewardship, and resource conservation. Given the size and the richness of the project area, the results will have far-reaching, conservation benefits for the entire Klamath watershed, and the North Coast region.

5. Specific Project Goals/Objectives

Goal 1: Improve & Protect Water Quality within the Blue Creek Sanctuary for Native Fish and Wildlife

Goal 1 Objective: Reduce road related sediment runoff and hydrologic impacts to Blue Creek by regrading and resurfacing 14 miles of primary access roads.

Goal 1 Objective: Reduce potential for catastrophic road/stream crossing failure resulting from severe storm events by replacing 12 undersized culverts with structures capable of passing 100 year floods.

Goal 1 Objective: Improve our ability to access remote locations within the watershed to identify, design, and implement innovative water quality restoration to improve cold water refugia for fish.

Goal 1 Objective:

Goal 2: Increase Ecosystem & Community Resiliency to Climate Change Impacts

Goal 2 Objective: Implement significant improvements to primary access roads as described in Goal 1 to help safeguard against climate change impacts such as extreme storm events.

Goal 2 Objective: Improve our ability to manage for wildland fire impacts (implement fuel reduction projects, strategically construct/maintain fire lines, prescribe burning to promote fire resistant forests)

Goal 2 Objective: Improve our ability to restore forest health, promote a return to old growth forests, and increase carbon sequestration capabilities to help mitigate climate change impacts.

Goal 2 Objective: Improve vital evacuation routes to help protect our community from flooding & fire.

Goal 3: Support Innovative & Effective Recovery of Imperiled Species & Sensitive Habitats

Goal 3 Objective: Improve our ability to identify, design, and implement innovative native salmonid and lamprey restoration in Blue Creek, including coordinating with USFS to restore habitats in the upper watershed.

Goal 3 Objective: Improve our ability to manage for old growth forest conditions to support multiple imperiled bird species and the rare Humboldt Marten whom all depend on mature forest habitats for their survival.

Goal 3 Objective: Improve our ability to re-introduce the California condor (prey-go-neesh) whom is considered a sacred being to the Yurok people and represents renewal in its purest forms.

Additional Goals & Objectives (List)

Goal 4: Continue facilitating intraregional cooperation and adaptive management.

Goal 4 Objectives: Continue strengthening collaborative restoration partnerships within the Klamath Basin & with non-Klamath stakeholders to ensure knowledge transfer (effective approaches, lessons learned); Continue engaging political entities, tribes, and state/federal resource agencies to ensure innovative and effective salmonid recovery actions are encouraged/supported throughout the state; Assess project effectiveness and use information gained to guide and/or improve future resource protection and Tribal member water security projects in an adaptive management approach.

6. Describe how the project addresses the North Coast Resource Partnership and North Coast IRWM Plan Goals and Objectives selected.

This project respects the local autonomy of the Yurok people and Tribal government; however, we strive to build strong resource partnerships. The Tribe participates in the Tribal Water Consortium and has adopted NCIRWMP's Phase III plan. The Tribe is dedicated to incorporating Traditional Ecological Knowledge into resource management and sharing information to promote more widespread use. This project will directly benefit disadvantaged communities by providing quality employment in the near term with project implementation and longer-term by improving our ability to conduct much needed restoration in the Sanctuary. Reducing road related impacts will provide direct water quality benefits and help protect biological diversity, including native salmonids. Replacing under-sized culverts directly addresses climate change vulnerabilities and proposed upgrades will improve the Tribe's ability to manage fire, re-build fire resilient forests, and increase safety along vital evacuation routes.

7. Describe the need for the project.

The Klamath River is the life blood of the Yurok and central to tribe's culture and livelihood is the health of the river and harvest of anadromous fish. Lower Klamath habitats have been significantly impacted and fish stocks continue to decline due to land use activities occurring since the mid-1800s. Declining fish numbers and watershed impairments have significantly impacted tribal members' ability to sustain their livelihoods. Re-acquisition of tribal lands and the resulting increased resource protection, restoration, and stewardship are key to the recovery of native fish and long-term sustainability of the local communities. Management of lower Blue Creek as a Salmon and Forest Sanctuary is a huge step towards species and ecosystem recovery and ability to build climate change resiliency. Unfortunately, the road networks inherited are in dire need of repairs and currently limit the Tribe's ability to conduct much needed restoration and address climate change vulnerabilities.

8. List the impaired water bodies (303d listing) that the project benefits:

Klamath River, Blue Creek

9. Will this project mitigate an existing or potential Cease and Desist Order or other regulatory compliance enforcement action? ☐ yes ☒ no

If so, please describe?

10. Describe the population served by this project.

The population served includes Yurok tribal members and other people living along the Lower Klamath River in small communities such as Klamath and Weitchpec. This is an Economically Distressed Area and the population is defined as a Severely Economically Disadvantaged Community. The project aims to provide immediate and long-term economic benefits to the Yurok Tribe and local communities through employment opportunities and economic stimulus related to water resource improvements.

11. Does the project provide direct water-related benefits to a project area comprised of Disadvantaged Communities or Economically Distressed Communities?

- ☒ Entirely
- ☐ Partially
- ☐ No

List the Disadvantaged Community(s) (DAC)

Yurok Reservation and rural communities living along the Lower Klamath.

12. Does the project provide direct water-related benefits to a project area comprised of Severely Disadvantaged Communities (SDAC)?

- ☒ Entirely
- ☐ Partially
- ☐ No

List the Severely Disadvantaged Community(s)

Yurok Reservation and rural communities living along the Lower Klamath.

13. Does the project provide direct water-related benefits to a Tribe or Tribes?

- ☒ Entirely
- ☐ Partially
- ☐ No

List the Tribal Community(s)

Yurok Tribe

If yes, please provide evidence of support from each Tribe listed as receiving these benefits.

14. If the project provides benefits to a DAC, EDA or Tribe, explain the water-related need of the DAC, EDA or Tribe and how the project will address the described need.

The Yurok Tribe and the SDAC communities served by this project rely on healthy water resources for their subsistence and long-term sustainability. These communities rely heavily on the harvest of native fish and domestic use of surface and/or ground water and thus these are the primary water related needs. The area is remote and economic opportunities are best suited for resource management and outdoor recreation which are also tied to water resource health. The proposed project focuses on stimulating economic vitality through implementation of infrastructure improvements in the Blue Creek Sanctuary to support restoration and protection of water resources and sensitive habitats, recovery of imperiled species, forest health improvements, and community resiliency to climate change impacts. These actions will result in various economic related benefits for the tribe and the SDAC (i.e. substantial employment opportunities, added revenue from eco-tourist & outdoor recreational clientele).

15. Does the project address and/or adapt to the effects of climate change? Does the project address the climate change vulnerabilities in the North Coast region? ☒ yes ☐ no

If yes, please explain.

Road upgrades will reduce sediment delivery and directly benefit native salmonids. Stream crossing upgrades will dramatically increase resiliency to climate change impacts (allow conveyance of 100 year flows) and reduce potential for catastrophic road failures. Upgrades support projects focused on improving forest health, watershed resiliency, fire protection, and benefit imperiled species. Improved forest management practices have sequestered 3.1 million tonnes of CO2 equivalents.

16. Describe how the project contributes to regional water self-reliance.

The proposed project is a critical step towards re-building tribal self-reliance within this region. Having stable, climate change ready roads in the Sanctuary will increase the Tribe's ability to protect and restore one of the most diverse and culturally significant North Coast watersheds, revitalize use of Traditional Ecological Knowledge, sustainably gather culturally significant materials and access sacred areas, and re-build this community into one focused on resource stewardship to help restore community health and bring much needed economic vitality via water resource improvements (healthy fisheries) and increased recreation. Tribal management of the Sanctuary will increase our ability to adapt to a changing climate and re-build ecosystem resiliency through use of innovative approaches and climate change mitigations (carbon sequestration, prescribed burns to reduce fire risks & promote fire resistant forests, increasing floodplain connectivity to increase ground water recharge).

17. Describe how the project benefits salmonids, other endangered/threatened species and sensitive habitats.

Road upgrades will reduce sediment delivery to streams and thus directly benefit native salmonids. Stream crossing upgrades will dramatically increase resiliency to climate change impacts such as high intensity storms (allow conveyance of 100 year flows) and reduce potential for catastrophic road failures. Road upgrades will support projects focused on improving forest health, watershed resiliency, and wildland fire protection which will benefit multiple imperiled species and sensitive habitats.

18. Describe local and/or political support for this project.

CalFire has jurisdiction over fire suppression in the Sanctuary, and CalFire and USFS support upgrading roads because it improves their ability to respond to wildfire ignitions. CDFW supports the Tribe's restoration efforts, including fixing failing roads, decommissioning legacy roads, and removing unnecessary water crossings. The conservation objectives and restoration activities made possible by upgrading the road system are supported by a wide range of partners and agencies named below.

19. List all collaborating partners and agencies and nature of collaboration.

WCB provided funds to help create the Sanctuary to restore old growth and habitat for Humboldt marten. SCC provided funds to help create the Sanctuary because Blue Creek is key to wild salmon recovery in the Klamath. CDFW & CalFire are collaborating with the Tribe to streamline environmental compliance for restoration projects. USDA Forest Service is collaborating with the Tribe to develop a Humboldt marten study and create 10 denning sites. Redwood NP and USFWS have been collaborating with the Tribe to reintroduce California condors to the region. NRCS has been working with the Tribe on hazardous fuels reduction and precommercial thinning projects. Achieving the above restoration goals requires a functioning, well-maintained road system.

20. Is this project part or a phase of a larger project? ☒ yes ☐ no

Are there similar efforts being made by other groups? ☒ yes ☐ no

If so, please describe?

This project is part of a larger-scale effort to manage the Blue Creek Sanctuary for the sole benefit and protection of water, fish, wildlife, and forests as outlined in the Blue Creek Sanctuary and Yurok Community Forest Conservation Management Plan (Yurok & WRC 2015). Within the Sanctuary, the Yurok Tribe currently collaborates with Western Rivers Conservancy and various resource agencies to address priority water resource planning, management, protection, and habitat restoration needs.

21. Describe the kind of notification, outreach and collaboration that has been done with the County(ies) and/or Tribes within the proposed project impact area, including the source and receiving

watersheds, if applicable.

The project area and all receiving water bodies are located entirely within the Yurok Tribe's Reservation or ancestral territory and thus no other Tribes were contacted directly. Outreach has focused on collaboration with all of the Yurok Tribe's Natural Resource Programs, Western Rivers Conservancy (WRC), and the Yurok Tribal Council. Additionally, Blue Creek Sanctuary management actions, such as those proposed herein, have broad support from various state and federal resource agencies.

22. Describe how the project provides a benefit that meets at least one of the Statewide Priorities as defined in the 2018 IRWM Grant Program Guidelines and Tribal priorities as defined by the NCRP?

The project addresses multiple statewide priorities and additionally supports direct management of the Blue Creek Sanctuary. Re-acquisition and designation of lower Blue Creek as a forest and wildlife sanctuary greatly strengthens the Tribe's ability to make conservation the way of life once again for the Tribe and SDAC; increase regional self-reliance and strengthen integrated water resource partnerships, including across tribal, federal, & state governments; protect and restore ecologically and culturally significant ecosystems; prepare and protect against prolonged dry periods; protect valuable infrastructure (access routes) against extreme storm/flood events; support fund generation for land management via carbon sequestration credits and other ecologically beneficial finance opportunities; support self-determination and better protection of cultural resources; incorporate TEK into resource management; and shift dramatically towards resource protection and community sustainability.

23. Project Information Notes:

D. PROJECT LOCATION

1. Describe the location of the project

Geographical Information

The project is located in Humboldt County along ~14 miles of primary access roads within the Blue Creek Sanctuary: B10 & B900. Coordinates listed below are for the project extents and ~mid-way point (Blue Creek Bridge) GIS shape files for the project area available upon request.

Decimal Degrees, NAD83

Start Point (B10 Road): Longitude -123.939, Latitude 41.511

B10 (Blue Creek Bridge): Longitude: -123.909 & Latitude: 41.441

End Point: Longitude (B900/B10X Junction): -123.852 & Latitude: 41.438

2. Site Address (if relevant):

N/A

3. Does the applicant have legal access rights, easements, or other access capabilities to the property to implement the project?

☒ Yes If yes, please describe

☐ No If No, please provide a clear and concise narrative with a schedule, to obtain necessary access.

☐ NA If NA, please describe why physical access to a property is not needed.

The Yurok Tribe and Western Rivers Conservancy (WRC) have full management authority within the Blue Creek Sanctuary as stated in their Land Management Agreement. WRC has approved and is in full support of the proposed project. Additionally, the Yurok Tribe has legal access rights to the project area via existing agreements with the adjacent landowner (Green Diamond Resource Company). Access will also be granted to agents of the Yurok Tribe and/or WRC (i.e. DWR, NCRP, Humboldt County staff).

4. Project Location Notes:

E. PROJECT TASKS, BUDGET AND SCHEDULE

1. Projected Project Start Date: 2/15/20

Anticipated Project End Date: 10/15/22

2. Will CEQA be completed within 6 months of Final Award?

☐ Yes

State Clearinghouse Number:

☐ NA, Project is exempt from CEQA

☐ NA, Not a Project under CEQA

☒ NA, Project benefits entirely to DAC, EDA or Tribe, or is a Tribal local sponsor. [Projects providing a water-related benefit entirely to DACs, EDAs, or Tribes, or projects implemented by Tribes are exempt from this requirement].

☐ No

3. Please complete the CEQA Information Table below

Indicate which CEQA steps are currently complete and for those that are not complete, provide the estimated date for completion.

CEQA STEP	COMPLETE? (y/n)	ESTIMATED DATE TO COMPLETE
Initial Study	No	6/1/20
Notice & invitation to consult sent to Tribes per AB52	N/A	
Notice of Preparation		
Draft EIR/MND/ND		
Public Review		
Final EIR/MND/ND		
Adoption of Final EIR/MND/ND		
Notice of Determination		
N/A - not a CEQA Project		

If additional explanation or justification of the timeline is needed or why the project does not require CEQA, please describe.

This is a tribal project which entirely benefits a SDAC and thus we are requesting additional time and some funding to complete CEQA and related project permitting. We are currently working with WRC and California Department of Fish and Wildlife (CDFW) to explore project specific and more comprehensive (~programmatic

CEQA/CESA) permitting pathways for the Blue Creek Sanctuary. The Yurok Tribe anticipates completing CEQA and permitting in time to allow for a 2021 construction season.

4. Will all permits necessary to begin construction be acquired within 6 months of Final Award?

☐ Yes

☒ NA, Project benefits entirely to DAC, EDA, Tribe, or is a Tribal local sponsor

☐ No

5. PERMIT ACQUISITION PLAN

Type of Permit	Permitting Agency	Date Acquired or Anticipated
Water Quality Permit	Yurok Environmental Program	12/1/20
Lake & Streambed Alteration	CA Dept. of Fish & Game	2/1/21
Cultural Resources	Yurok Tribe	10/1/20
CESA & Fedral ESA Consultation	USFWS, NOAA, CDFW	1/1/21

For permits not acquired: describe actions taken to date and issues that may delay acquisition of permit.

We have reached out to the Yurok Tribal Heritage Preservation Officer for Cultural Resource consultation and with the Yurok Tribe Environmental Program who has water quality authority within the Sanctuary. As described above, we are coordinating with CDFW on CEQA/CESA requirements. If necessary, we will also coordinate with federal resource agencies for federal ESA needs. We do not anticipate any delays in obtaining these project authorizations in time to allow for a 2021 construction season.

6. Describe the financial need for the project.

The Yurok Tribe is economically disadvantaged, with insufficient funding to meet the basic social needs of its members. As a dependent-domestic nation, the Yurok Tribe has no tax base, limited economic opportunities, and is reliant on federal funding to support tribal government and public services. The Tribe is dependent upon state and federal grants to meet our resource management, restoration, and recovery needs.

7. Is the project budget scalable? ☒ yes ☐ no

Describe how a scaled budget would impact the overall project.

If scaled, the project would not deliver the same level of required upgrades to critical infrastructure supporting resource recovery in the Sanctuary. A reduction in scale, will reduce the effectiveness of sediment reduction, and mass wasting prevention treatments, and result in segmented road segments.

8. Describe the basis for the costs used to derive the project budget according to each budget category.

Yurok project leads have a proven track record of developing cost-effective budgets and a highly qualified Watershed Restoration and Roads program. All wages and equipment rates have been based on the current federal wage scale and all expenses included will go directly towards implementing the proposed project. Contractor wages were estimated at prevailing wage rates due to DWR requirements.

9. Provide a narrative on cost considerations including alternative project costs.

Alternative costs could include subcontracting to local contractors, including non-Indian and Indian-owned contractors. In addition to 15-20% profit margin over costs, alternative subcontracting to non-tribal

contractors would require legal review costs, a 0.5% Tribal Employment Rights Ordinance (TERO) fee, and is subject to a 20% inflation due DWR prevailing wage requirements. The proposed in-house approach has been well established as the most cost effective.

10. List the sources of non-state matching funds, amounts and indicate their status.

The Yurok Tribe is actively seeking funding partners to help support the project but to-date does not have any substantial non-state contributions identified or secured. As permitted in this solicitation, we will be requesting a cost-share waiver for this project but will continue seeking funding partners.

11. List the sources and amount of state matching funds.

The Yurok Tribe is actively seeking funding partners to help support the project but to-date does not have any substantial state contributions identified or secured. As permitted in this solicitation, we will be requesting a cost-share waiver for this project but will continue seeking funding partners.

12. Cost Share Waiver Requested (DAC or EDA)? ☒ yes ☐ no

Cost Share Waiver Justification: Describe what percentage of the proposed project area encompasses a DAC/EDA, how the community meets the definition of a DAC/EDA, and the water-related need of the DAC/EDA that the project addresses. In order to receive a cost share waiver, the applicant must demonstrate that the project will provide benefits that address a water-related need of a DAC/EDA. This is a Yurok Tribe project and will entirely benefit a SDAC and EDA. Water-related needs addressed include improving water quality for native fish and wildlife by improving primary access roads. This in turn will greatly improve the Tribe's ability to conduct much needed watershed restoration and species recovery actions, climate change adaptation measures, and implement forest health and wildland fire safety projects to help safeguard our community. The roads proposed for upgrades also serve as vital evacuation routes for various emergency situations. The project will also result in short and long-term employment opportunities for tribal members. A goal for the Sanctuary is to help restore imperiled salmonid populations which is an essential water-related need. A restored fishery would support employment and bring in significant local revenue annually via ecotourism & sport/commercial fishing. Although we're requesting a waiver, we will continue seeking funding partners.

13. Major Tasks, Schedule and Budget for NCRP 2018 IRWM Project Solicitation

Please complete MS Excel table available at <https://northcoastresourcepartnership.org/proposition-1-irwm-round-1-implementation-funding-solicitation/>; see instructions for submitting the required excel document with the application materials.

14. Project Tasks, Budget and Schedule Notes:

F. PROJECT BENEFITS & JUSTIFICATION

- 1. Does the proposed project provide physical benefits to multiple IRWM regions or funding area(s)?**
☐ yes ☒ no

If Yes, provide a description of the impacts to the various regions.

Although the project won't directly benefit other IRWM regions, re-acquisition and management of the Blue Creek Sanctuary could serve as model for innovative, tribally led water resource restoration and protection for other IRWM regions and numerous California tribes.

- 2. Provide a narrative for project justification. Include any other information that supports the justification for this project, including how the project can achieve the claimed level of benefits. List any studies, plans, designs or engineering reports completed for the project. *Please see the instructions for more information about submitting these documents with the final application.***

The Yurok Tribe Watershed Restoration Program (YTWRP) has over 20 years experience conducting watershed assessments and road construction, maintenance, and decommissioning experience. Lead YTWRP staff conducted an assessment of the proposed road network and associated stream crossings to identify and prioritize improvement needs. This data was cross referenced with a past assessment to improve our understanding of past versus current conditions, document any changes, and update the road inventory database. Additional detailed surveys were conducted and coordination among various Yurok Natural Resources staff was conducted to refine priorities and develop cost estimates. YTWRP will employ standard road upgrade and stream crossing replacement methods such as those as outlined in the Pacific Watershed & Associates' Handbook of Forest, Ranch, and Rural Roads will be followed. Given the sensitive nature of the environmental setting and the Sanctuary management goals, extra care will be spent during the cultural and environmental regulatory compliance period to ensure all the most innovative and comprehensive protective measures are built into project implementation. A design document for the proposed work will be submitted along with the Tribe's application materials and will provide NCRP, Humboldt County, and DWR with any updates to this plan following award notification.

Improving rural roads as proposed herein have a demonstrated positive benefit to water quality and resource protection; therefore, we are confident direct project benefits will be met. Implementing the proposed upgrades will directly improve the Tribe's ability to manage the Blue Creek Sanctuary to meet goals and objectives described in this application. Extensive planning and coordination went into the development of the Blue Creek Management Plan and thus there is strong support for prescribed actions and confidence that anticipated water quality, species recovery, and forest health goals will be achieved. The Tribe is comprised of well qualified and dedicated natural resource and restoration staff and the Tribe continues to build resource recovery partnerships to help ensure we meet our goals.

- 3. Does the project address a contaminant listed in AB 1249 (nitrate, arsenic, perchlorate, or hexavalent chromium)?** ☐ yes ☒ no

If yes, provide a description of how the project helps address the contamination.

- 4. Does the project provide safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes consistent with AB 685?** ☐ yes ☒ no

If Yes, please describe.

- 5. Does the project employ new or innovative technologies or practices, including decision support tools that support the integration of multiple jurisdictions, including, but not limited to, water supply, flood control, land use, and sanitation?** ☐ yes ☒ no

If Yes, please describe.

Innovation is incorporated into every aspect of Sanctuary management. The Tribe will be conducting progressive forest health projects (i.e. traditional prescribed burning) in the Sanctuary to promote a return to old growth conditions to greatly increase our ability to sequester carbon and recover species. Additionally, Yurok Fisheries is leading the charge in California in terms of implementing innovative restoration (i.e. wetland creation, installation of beaver dam analogues, & wood loading).

6. For each of the Potential Benefits that the project claims complete the following table to describe an estimate of the benefits expected to result from the proposed project. [See the NCRP Project Application Instructions, Potential Project Benefits Worksheet and background information to help complete the table. The NCRP Project Application, Attachment B includes additional guidance, source materials and examples from North Coast projects.]

PROJECT BENEFITS TABLE

Potential Benefits Description	Physical Amt of Benefit	Physical Units	Est. Economic Value per year	Economic Units
Water Supply				
Water Quality				
Reduced Sediment Delivery	~50	Cubic Yards/Year		
Avoided Culvert Failures	12	# of Culverts	\$175,000	USD
Other Ecosystem Service Benefits				
Carbon Sequestration	5 Tonnes CO2	Per Acre	\$975,000	USD
Resored Fisheries				
Late seral forest structure	160	Acre/Year		
Other Benefits				
Jobs Created/Maintained	12	# of Jobs	\$220,418	Wages
Humboldt marten denning sites	10	Dens		
Avoided Costs of Road Maintenance	14	Miles of Road		
Enhanced Fire Management Capabilities				
Reduced Risk of Catastrophic Wildfire				
Enhancement of Beneficial & Tribal Cultural Uses	14,790	Acres		

7. Project Justification & Technical Basis Notes:

Major Tasks, Schedule and Budget for North Coast Resource Partnership 2018/19 IRWM Project Solicitation

Project Name: Upgrading Critical Infrastructure to Support Resource Recovery in the Blue Creek Sanctuary
Organization Name: Yurok Tribe

Task #	Major Tasks	Task Description	Major Deliverables	Current Stage of Completion	IRWM Task Budget	Non-State Match	Total Task Budget	Start Date	Completion Date
A	Category (a): Direct Project Administration								
1	Administration	In cooperation with the County of Humboldt sign a sub-grantee agreement for work to be completed on this project. Develop invoices with support documentation. Provide audited financial statements and other deliverables as required	Invoices, audited financial statements and other deliverables as required	0%	\$11,500.00	\$0.00	\$11,500.00	3/1/20	12/31/22
2	Monitoring Plan	Develop Monitoring Plan to include goals and measurable objectives	Final Monitoring Plan	0%	\$2,500.00	\$0.00	\$2,500.00	3/1/20	12/31/22
3	Labor Compliance Program	Execute service agreement with Labor Compliance Program company	Submission of Labor Compliance Program	0%	\$4,000.00	\$0.00	\$4,000.00	3/1/20	12/31/22
4	Reporting	Develop monthly reports describing work completed, challenges, and strategies for reaching remaining project objectives. Develop Final Report	Quarterly and Final Reports	0%	\$9,959.00	\$0.00	\$9,959.00	3/1/20	12/31/22
B	Category (b): Land Purchase/Easement								
1				0%	\$0.00	\$0.00	\$0.00		
C	Category (c): Planning/Design/Engineering/Environmental Documentation								
1	Final Design /Plans								
2	Environmental Documentation: CEQA	Prepare project information necessary to complete CEQA requirements: Based on past projects we should be able to get CEQA coverage for this project.	Notice of Determination: Negative Declaration; Letter stating to the best of the Tribe's knowledge there were no legal challenges to this document. Approved CEQA documentation.	0%	\$35,000.00	\$0.00	\$35,000.00	3/1/20	6/15/21
3	Permit Development	1600 Lake & Streambed Alteration Permit Application	1600 LSA permit	0%	\$5,313.00	\$0.00	\$5,313.00	3/1/20	6/15/21
4	Permit Development:	Yurok Tribe Cultural Resources Permit Application	Yurok Tribe Cultural Resources permit	0%	\$3,000.00	\$693.00	\$3,693.00	3/1/20	6/15/21
5	Permit Development:	Yurok Tribe Environmental Quality Permit Application	Yurok Tribe Environmental Quality Permit	0%	\$500.00	\$845.00	\$1,345.00	3/1/20	6/15/21
6	Rock Contracting Procurement	Follow the Yurok Tribe's procurement and contracting policies, complete bid and selection process for qualified contractors	Documentation of contractor ffg	0%	\$2,498.40	\$0.00	\$2,498.40	3/1/20	6/15/21
D	Category (d): Construction/Implementation								
1	Construction/Implementation Contracting	Follow the Yurok Tribe's procurement and contracting policies, complete bid and selection process for qualified contractors.	Documentation of contractor selection process; selection of qualified contractors & reporting	0%	\$379,194.00	\$0.00	\$379,194.00	1/1/21	6/15/21
2	Mobilization and Site Preparation	Prepare sites and mobilize project components; order project equipment and supplies; assure project permits are in place; conduct pre-project site monitoring tasks. Purchase culverts	Summary of site preparation activities in monthly reports	0%	\$61,722.15	\$0.00	\$61,722.15	4/1/21	6/15/21
3	Project Construction/Implementation: Resource Recovery	Replace 12 culverts and upgrade them to the 100 year storm event; rock approximately 14 miles of road that will help reduce storm surface erosion on unrocked roads; demobilization and erosion prevention (post project BMPs).	Summary of recovery activities in monthly progress report; Photo documentation; complete construction	0%	\$393,565.74	\$0.00	\$393,565.74	6/15/21	10/15/21
4	Project Close Out, Inspection & Demobilization	Make sure all erosion implementation practices have been completed; demobilize equipment; make sure sub-contractor has completed all tasks; weatherize construction site	Project completion and site photos	0%	\$16,847.12	\$0.00	\$16,847.12	10/15/21	12/31/21
5	Project Performance Monitoring	The performance of the project will be monitored in accordance to the Monitoring Plan using the following measurement tools and methods: standard metrics will be used, miles of road rocked, and number of stream crossings upgraded for climate resiliency and one hundred year storm event	Performance Monitoring Plan reports	0%	\$11,669.06	\$0.00	\$11,669.06	6/15/21	10/15/21
Total North Coast Resource Partnership 2018/19 IRWM Grant Request					\$937,268.47	\$1,538.00	\$938,806.47		
Is Requested Budget scalable by 25%? If yes, indicate scaled totals; if no delete budget amount provided.					\$702,951.35	\$1,153.50	\$704,104.85		
Is Requested Budget scalable by 50%? If yes, indicate scaled totals; if no delete budget amount provided.					\$468,634.24	\$769.00	\$469,403.24		

Budget Detail for North Coast Resource Partnership 2018/19 IRWM Project Solicitation

Project Name: Upgrading Critical Infrastructure to Support Resource Recovery in the Blue Creek Sanctuary
 Organization Name: Yurok Tribe

Budget Detail

Row (a) Direct Project Administration Costs					
Project Management Type	Personnel by Discipline	Number of Hours	Hourly Wage	% of Cost (if applicable) *	Total Admin Cost
project coordinator	Coordinator	440	\$ 26.48		\$11,651.20
Director	Director	220	\$ 35.98		\$7,915.60
forman	Forman	200	\$ 41.96		\$8,392.00
Total					\$27,959
* What is the percentage based on (including total amounts)? The anticipated cost		n/a			
* How was the percentage of cost determined?		n/a			

Row (b) Land Purchase/Easement

Row (c) Planning/Design/Engineering & Environmental Documentation					
Personnel (Discipline)	Major Task Name	Number of Hours	Hourly Wage	Total Cost	
Tribal Heritage Preservation officer	culture permit	20	34.67	\$693	
enviromental technican	yurok enviromental permit	30	28.17	\$845	
Total				\$1,539	

Task 1: Culvert Replacement

Row (d) Construction/Implementation				
Personnel (Discipline)	Work Task and Sub-Task (from Work Task Table)	Number of Hours	Hourly Wage	Total Cost
Foreman	project oversite	240	\$ 41.96	\$ 10,070.40
Laborer 1	compaction and culvert instalation	340	\$ 28.04	\$ 9,533.60
Laborer 2	compaction and culvert instalation	340	\$ 28.04	\$ 9,533.60
Equipment Operator Excavator	removing fill and culvert, culvert install	340	\$ 45.76	\$ 15,558.40
Equipment Operator Dozer	fill management, culvert install	340	\$ 44.38	\$ 15,089.20
Tractor Truck Operator	moving equipment	32	\$ 30.58	\$ 978.56
Project Coordinator	photos, documentation, repoting	160	\$ 26.48	\$ 4,236.80
Director	logistics, timecards	40	\$ 35.98	\$ 1,439.20
Sub Total Wages				\$ 66,439.76
Personnel Benefits @34%				\$ 22,589.52
				\$ 89,029.28
Materials and Equipment	Work Task and Sub-Task (from Work Task Table)	Number of Units	Unit Cost	
Culvert	culverts for culvert replacement	12	\$ 3,013.00	\$ 36,156.00
Field Supplies	supplies to help with culverts	1	\$ 2,500.00	\$ 2,500.00
Fuel	fuel for equipment	3400	\$ 3.50	\$ 11,900.00
Excavator	removing fill and culvert	250	\$ 78.00	\$ 19,500.00
Dozer	dirt management	130	\$ 66.39	\$ 8,630.70
Lowboy	moving equipment	32	\$ 89.00	\$ 2,848.00
GSA Pickup Truck 1 Lease	lease on pickup	2	\$ 364.00	\$ 728.00
GSA Pickup Truck 2 Lease	lease on pickup	2	\$ 364.00	\$ 728.00
GSA Pickup Truck 1 Mileage	transportation to site, field supplies, culverts	2840	\$ 0.42	\$ 1,192.80
GSA Pickup Truck 2 Mileage	transportation to site, field supplies, culverts	2840	\$ 0.42	\$ 1,192.80
				\$ 85,376.30
				\$ 174,405.58

Budget Detail for North Coast Resource Partnership 2018/19 IRWM Project Solicitation

Project Name: Upgrading Critical Infrastructure to Support Resource Recovery in the Blue Creek Sanctuary
 Organization Name: Yurok Tribe

Sub Total Task 1				\$ 174,405.58
------------------	--	--	--	---------------

Task 2: Rock Processing

Row (d) Construction/Implementation				
Personnel (Discipline)	Work Task and Sub-Task (from Work Task Table)	Number of Hours	Hourly Wage	Total Cost
Director	Sub contract facilitation	40	\$ 35.98	\$ 1,439.20
Project Coordinator	Sub contract facilitation	40	\$ 26.48	\$ 1,059.20
Foreman	pit clearing & over burden removal	40	\$ 41.96	\$ 1,678.40
Laborer	pit clearing & over burden removal	40	\$ 28.04	\$ 1,121.60
Operator Dozer	pit clearing & over burden removal	40	\$ 44.38	\$ 1,775.20
Operator Excavator	pit clearing & over burden removal	40	\$ 45.76	\$ 1,830.40
Tractor Truck Operator	pit clearing & over burden removal	16	\$ 30.58	\$ 489.28
Sub Total Personnel				\$ 8,904.00
Personnel Benefits @34%				\$ 3,027.36
Personnel Total				\$ 11,931.36
Materials and Equipment	Work Task and Sub-Task (from Work Task Table)	Number of Units	Unit Cost	
Sub Contract				
Mobilization	contractor mob & demob	1	\$ 17,900.00	\$ 17,900.00
Rock Processing (in Cubic Yards)	contractor rock processing	22,012	\$ 16.30	\$ 358,795.60
Total Sub Contract to Process Rock				\$ 376,695.60
Lowboy	mobilization of Equipment	16	\$ 89.00	\$ 1,424.00
Excavator	pit clearing & over burden removal	40	\$ 78.00	\$ 3,120.00
Dozer	pit clearing & over burden removal	40	\$ 66.39	\$ 2,655.60
Fuel	fuel for equipment	1200	\$ 3.15	\$ 3,780.00
Subtotal Materials & Equipment				\$ 10,979.60
				\$ 399,606.56
Sub Total Task 2				\$ 399,606.56

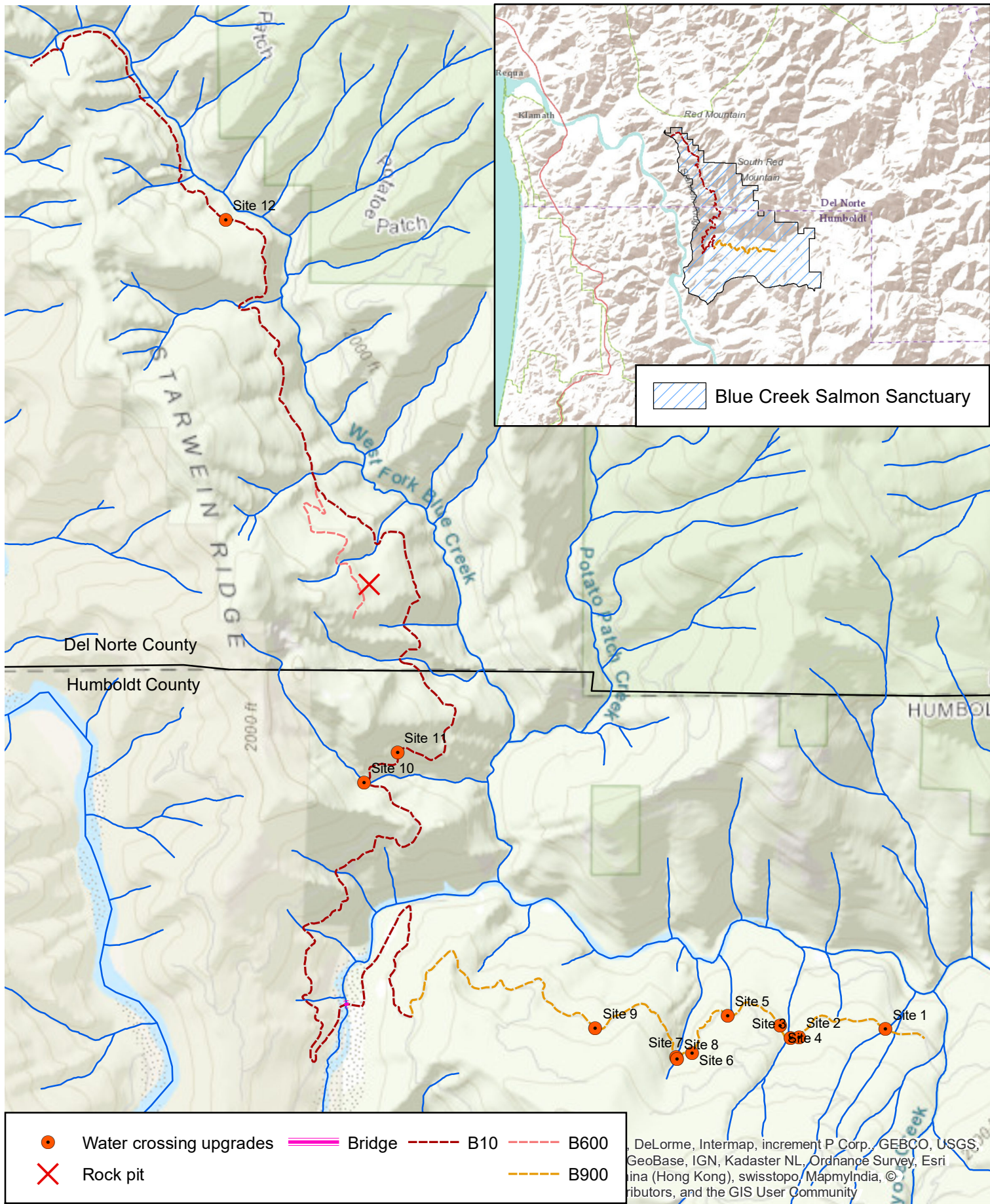
Task 3: Rock Application

Row (d) Construction/Implementation				
Personnel (Discipline)	Work Task and Sub-Task (from Work Task Table)	Number of Hours	Hourly Wage	Total Cost
Foreman	project oversight, monitoring	100	\$ 41.96	\$ 4,196.00
Tractor Truck Driver #1	drive truck, spread rock	240	\$ 30.58	\$ 7,339.20
Tractor Truck Driver #2	drive truck, spread rock	240	\$ 30.58	\$ 7,339.20
Articulated Truck Driver #1	drive truck, spread rock	240	\$ 33.20	\$ 7,968.00
Articulated Truck Driver #2	drive truck, spread rock	240	\$ 33.20	\$ 7,968.00
Dozer Operator	spread rock that has been dropped	240	\$ 44.38	\$ 10,651.20
Excavator Operator	loading rock into trucks	240	\$ 45.76	\$ 10,982.40
lowboy operator	demob	32	\$ 30.58	\$ 978.56
Laborer	helping spread the rock, on the ground coordination	240	\$ 28.04	\$ 6,729.60
Project Coordinator	helping with oversight and monitoring	80	\$ 26.48	\$ 2,118.40
Director	project oversight, logistics, time cards	24	\$ 35.98	\$ 863.52
Sub Total Personnel				\$ 67,134.08
Personnel Benefits @34%				\$ 22,825.59
				\$ 89,959.67
Materials and Equipment	Work Task and Sub-Task (from Work Task Table)	Number of Units	Unit Cost	
Ranco End Dump #1	Hauling rock	240	\$ 89.00	\$ 21,360.00
Ranco End Dump #2	Hauling rock	240	\$ 89.00	\$ 21,360.00
Articulated Dump Truck #1	Hauling rock	240	\$ 81.00	\$ 19,440.00
Articulated Dump Truck #2	Hauling rock	240	\$ 81.00	\$ 19,440.00
Excavator	loading rock	240	\$ 78.00	\$ 18,720.00
Dozer	spreading rock	240	\$ 66.39	\$ 15,933.60

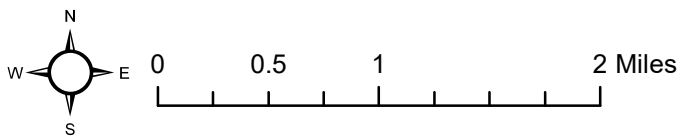
Budget Detail for North Coast Resource Partnership 2018/19 IRWM Project Solicitation

Project Name: Upgrading Critical Infrastructure to Support Resource Recovery in the Blue Creek Sanctuary
Organization Name: Yurok Tribe

Equipment Fuel	fuel for equipment	8200	3.15	\$ 25,830.00
GSA Vehicle- Lease	crew vehicle	1	\$ 364.00	\$ 364.00
GSA Mileage	for for vehicle	0.42	3000	\$ 1,260.00
Lowboy	demob	32	\$89.00	\$ 2,848.00
				\$ 146,555.60
subtotal				
Sub Total Task 3				\$ 236,515.27
sub total all task				\$ 840,024.71
IDC				\$ 98,781.76
Total				\$ 938,806.47



Location of Proposed Project



Conceptual Plan: Upgrading Critical Infrastructure in the Blue Creek Salmon Sanctuary

Prepared by: The Yurok Tribal Fisheries Program and the Yurok Watershed Department

Project Contacts: Sarah Beesley, Fisheries Biologist
Richard Nelson, Watershed Program Director
Yurok Tribal Fisheries Program
PO Box 1027, Klamath, California 95548
Email: sbeesley@yuroktribe.nsn.us
richard@yuroktribe.nsn.us
Phone: (707)954 – 0376
Fax: (707)482-0310

Background

The Yurok Tribe and Western Rivers Conservancy partnered to acquire a total of 47,097 acres from Green Diamond Resource Company (GDRC) to establish the Blue Creek Sanctuary and Yurok Community Forest. These lands are located along the eastern side of the Wild and Scenic Klamath River, one of the West's most iconic landscapes and a lifeline for fish, wildlife and people. The Sanctuary and Community Forest are entirely within the Tribe's ancestral territory and the Blue Creek Watershed contains the most sacred of religious sites known to Yurok. The ultimate goals of this acquisition is to protect and restore the area to a healthy ecosystem rich in biodiversity and resilient to resource threats such as drought and climate change and to re-establish the traditional Yurok role in the management and stewardship of their ancestral territory to fulfill the aims of the Yurok Constitution.

Road use and maintenance affects all aspects of property management including: habitat protection and enhancement, fuels and fire hazard reduction, second-growth vegetation management, public safety, and research and monitoring. The primary goals for road management are to significantly reduce potential impacts of the existing road network and other infrastructure on terrestrial and aquatic ecosystems; and to manage site infrastructure (including roads, trails, and any improvements) in a manner compatible with ecosystem protection and restoration.

This proposed project **Upgrading Critical Infrastructure in the Blue Creek Salmon Sanctuary** seeks to implement Yurok road management goals by upgrading the road surfaces on approximately 14 miles of road, cleaning and repairing drainage ditches and repairing 12 water crossings on two mainline roads within the Blue Creek Salmon Sanctuary. Major components of this project include: road upgrades, resurfacing, drainage improvements, mass wasting prevention, safety improvements, sediment reduction, and erosion control measures. The project will be implemented by the Yurok Watershed Restoration Department over a 3-year period, utilizing techniques described in the Pacific Watershed Associates, Handbook of Forest, Ranch, and Rural Roads, and incorporating best management practices and experience gained from over 20 years of successful watershed restoration and road decommissioning and maintenance experience.

Project Design (see attached map)

Over the past several years the mainline road system within the Sanctuary has deteriorated significantly primarily due to uncertainty around the then pending land transaction. In February 2018 the Yurok Tribe acquired over 9,400 acres of land within the Sanctuary and the northwestern portion of the YCF, and inherited the road system in its current condition. Because protecting and restoring the superior aquatic resources associated with Blue Creek are one of the Tribe's primary management goals, maintaining and upgrading the critical infrastructure in the Blue Creek Sanctuary has become highest management priority in the near-term.

Project implementation consists of several tasks.

Task 1 involves applying 0.67 inches of new rock to 14 miles of mainline roads. New rock will be quarried from an existing rock quarry on the B600. Task 1 also includes grading the entire 14 miles of road and pulling existing road material back from the ditches and edges of the road into the center of the road.

Task 2 involves cleaning and pulling all drainage ditches and clearing relief drains. This work will be accomplished in conjunction with grading.

Task 3 includes removing 12 undersized and/or deteriorated culverts, 3 on the B10 and 9 on the B900, which Watershed identified during a culvert assessment in September 2018. New culverts will be sized to accommodate intense precipitation events associated with 100-year storms events, and will be installed according the best management practices described in the *Handbook for Forest, Ranch & rural Roads* published by Pacific Watershed Associates.

Best Management Practices

All proposed work will adhere to the best management practices described in the *Handbook for Forest, Ranch & rural Roads* published by Pacific Watershed Associates.

TABLE 9. Typical minimum standards for low-volume roads¹

Design standard	Collector or mainline road	Rural access or secondary road
Design speed (mph)	40–55	20–30
Road subgrade (ft)	16–20 ft wide (optional 2–3 ft ditch)	12–16 ft wide (optional 2 ft ditch)
Running surface width (ft)	12–16 ft	12 ft
Road grade (%)	12% max.	15% max.
Curve radius (ft)	80 ft min.	50 ft min.
Road shape	Outsloped, insloped, crowned (5%)	Outsloped, insloped, crowned (5%)
Road drainage types	Ditch, ditch relief culverts, rolling dips	Ditch, ditch relief culverts, rolling dips, water bars
Road surface material	Gravel, chip-seal, pavement	Native or gravel

¹based on Keller and Sherar (2003) and Oregon Department of Forestry (2000)

Schedule

We anticipate the project will shortly after funds are received, if awarded. Below is a proposed schedule of activities.

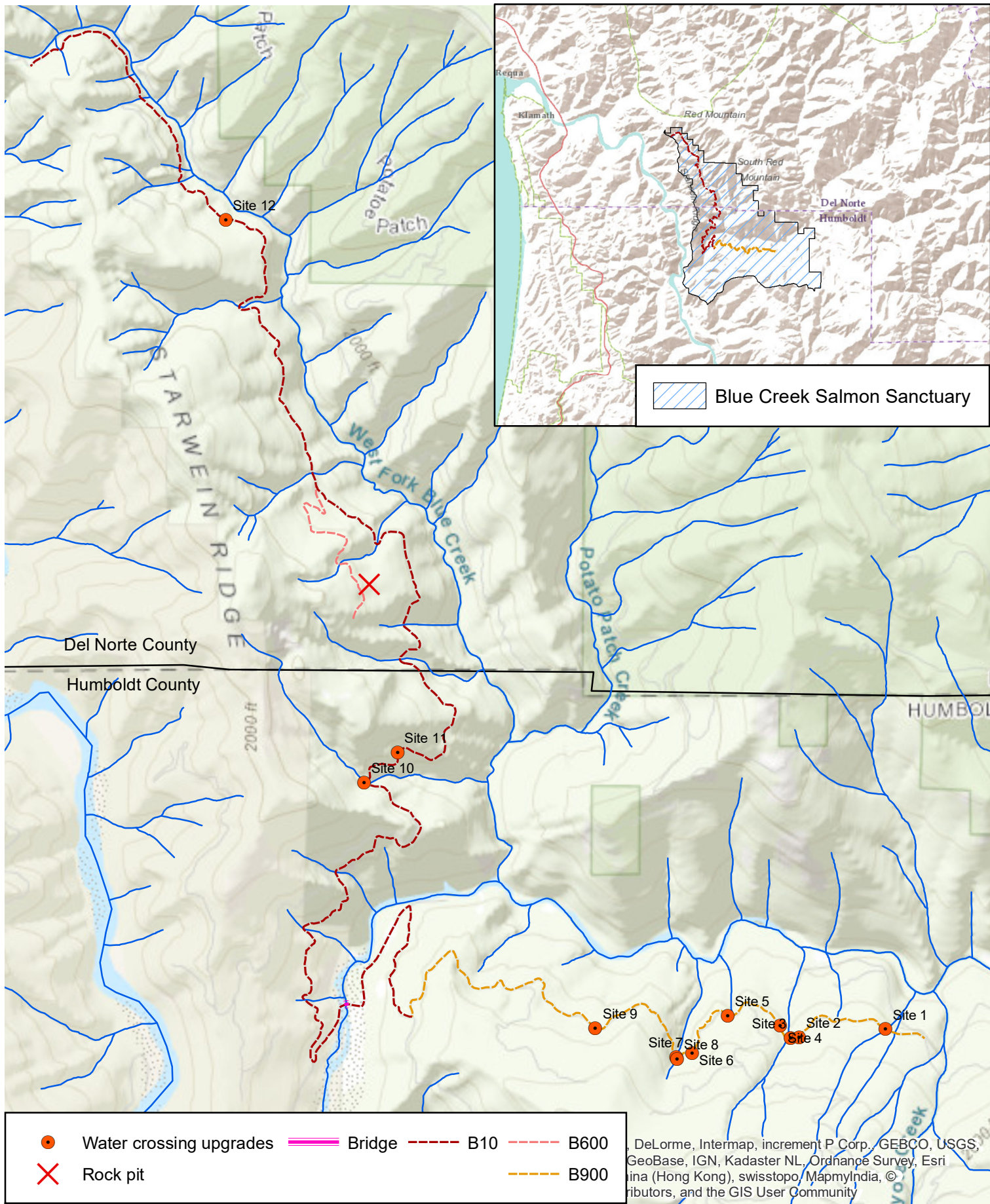
- **Spring 2020:** funds award, project commences
- **Spring/early summer 2020:** T&E surveys
- **Summer – fall 2020:** Planning and site design, permitting
- **November 2020 – May 2021:** winter season, construction activities prohibited
- **March – June 2021:** final T&E surveys and permitting
- **June 15 – October 31, 2021:** project implementation
- **November 2021 – December 31, 2021:** final reporting, project wrap up



Picture 1: Recently installed culvert on B100 – example of upgraded water crossing



Picture 2: Emergency repair of failed logging road in Sanctuary



Location of Proposed Project

