CALIFORNIA DEPARTMENT OF FISH and WILDLIFE



## Application

### Instructions

***Print to PDF*** *will convert the application plus any PDF attachments into a single PDF file.* ***Release for Review*** *will change the status of the application to Under Review and move it on to the evaluation process.* ***Negotiation*** *will allow you to unlock one or more sections of the application and route the application back to the applicant for further editing.* ***Annotations*** *allow internal staff to add notes that are visible to internal staff only and possibly also reviewers if they have a special security privilege. The applicant cannot see these notes.* ***Versions*** *will display all component versions that were created as a result of the negotiation process.* ***Feedback*** *allows staff to enter feedback about the application to the applicant. The feedback text will appear at the bottom of the application and will be visible to anyone who has access to the application.* ***Withdraw*** *changes the status of the application to Withdrawn and removes the app from the evaluation process.*

### Application Details

Map | Print to PDF |

***04664 - FRGP 2020 Funding Opportunity - Final Application***

**1723367 - Mid-Klamath Tributary Fish Passage Improvement Project**
**FRGP - Fisheries Restoration Grant Program**

**Status:** Under Review  **Submitted Date:** 05/01/2020 1:05 PM

### *Applicant Information*

**Primary Contact:**

| | | | | |
|---|---|---|---|---|
| **Name:*** | Ms. (Salutation) | Amy (First Name) | (Middle Name) | Fingerle (Last Name) |
| **Title:** | Fisheries Program Coordinator | | | |
| **Email:*** | fisheries@srrc.org | | | |
| **Address:*** | PO BOX 1089 | | | |
| * | Sawyers Bar (City) | California (State/Province) | 96027 (Postal Code/Zip) | |
| **Phone:*** | 530-462-4665 (Phone) | | Ext. | |
| **What Program Area are you interested in?** | | | | |

**Authorized Official**

| | | | | |
|---|---|---|---|---|
| **Name:*** | Ms. (Salutation) | Kathleen (First Name) | Duffy (Middle Name) | McBroom (Last Name) |
| **Title:** | Board Secretary/Treasurer | | | |
| **Email:*** | duffy@srrc.org | | | |
| **Address:*** | PO BOX 1089 | | | |
| * | Sawyers Bar (City) | California (State/Province) | 96027 (Postal Code/Zip) | |
| **Phone:*** | 530-462-4665 (Phone) | | Ext. | |
| **What Program Area are you interested in?** | | | | |

**Organization Information**

| | |
|---|---|
| **Organization Name:*** | Salmon River Restoration Council |
| **Organization Type:** | Nonprofit Organization |
| **Tax ID:*** | 68-0343595 |

| | |
|---|---|
| **Organization Website:** | srrc.org |
| **Address:*** | PO Box 1089 |

| | | | |
|---|---|---|---|
| * | Sawyers Bar<br>City | California<br>State/Province | 96027<br>Postal Code/Zip |

| | |
|---|---|
| **Phone:*** | 530-462-4665 Ext. |
| **Fax:** | |
| **E-mail Address*** | srrc@srrc.org |

## ---FORM: Focus---

## Focus

| | |
|---|---|
| **Is this project eligible for FLAR funding?** | No |
| **Focus Watershed (FRGP)** | Salmon River |
| **Primary Species Benefited (FRGP)** | Coho |

Select two letter project code as described in Part II and Part III of the PSN. Only the project types allowed by the focus selected will be available in the drop-down list. You must choose a watershed before the project types show."

| | |
|---|---|
| **Project Type (FRGP)** | HB - Instream Barrier Modification for Fish Passage<br>Please select the correct Project Type. If your project type is unavailable, follow the instructions above. |

## ---FORM: Recovery/Restoration Plan and Associated Task---

## Recovery/Restoration Plan and Associated Task

**Recovery/Restoration Plan*** Recovery Plan for So. OR/No. CA Coast Coho Salmon (NOAA Final Sept 2014)
Due to the large amount of information included in the following drop-down lists, the system may take several minutes to load all options.

**Recovery/Restoration Plan Task*** SONCC-SalR.5.1.40.1: Restore and maintain habitat connectivity between the Salmon River and tributaries where low flow or sediment aggradation has been known to restrict coho salmon passage

**Describe How Project Accomplishes Listed Task:***

Specifically identify how the proposal's objectives will successfully address the task identified above.

This project was designed to address recovery plan task SONCC-SalR.5.1.40.1 by restoring and maintaining habitat connectivity into tributaries where low flow or sediment aggradation has been known to restrict coho salmon passage. Access to cold, clean tributaries of the Mid Klamath, Salmon, and Scott Rivers during low flow, high temperature summer and fall months is critical for migration, spawning, and rearing within the Klamath River system. The goal of this project is to ensure juvenile and adult fish passage into high-quality thermal and velocity refugia. Coho salmon are the focus species to be benefitted by this project. Chinook salmon and steelhead trout are non-focus species that will also benefit from increased habitat connectivity into tributaries.

This project will improve juvenile and adult salmonid fish passage to over 70 tributaries in the Middle Klamath, Salmon, and Lower Scott River subbasins through manual modification of seasonal barriers. Fish passage improvement at coldwater tributaries will improve the function and capacity of thermal refugia during drought conditions and connect habitats critical to juvenile and adult survival. To further improve the function and capacity of thermal refugia, where in-stream and overhead cover are often lacking, brush bundles and small woody debris will be installed to increase cover and enhance the structural complexity of these habitats.

Low-flow barriers into these anadromous streams and temporary dams built for fire suppression and or recreational purposes will be manually reconstructed to allow for adult and juvenile fish passage. Two surveyors will walk and snorkel the lower 1,000 feet of each tributary to assess fish presence and fish barriers. All identified fish passage barriers will be treated using rock bars and manual manipulation to create temporary fishways. In conjunction, refugia habitat will be improved at prioritized sites by increasing the amount of in-stream cover using brushy material gathered near the site and installed with biodegradable twine.

This field is limited to 5,000 characters.

## ---FORM: Project Information---

### Summary Information

**Were previous parts of this project funded by FRGP (e.g. design)?*** No

The Project Category describes the work in the proposed project, as determined by the PCSRF Data Dictionary. For assistance, please reference the Dictionary – category is noted at the top of the table – and the performance measures under each Project Type in the Guidelines.

**Project Category*** Habitat Protection and Restoration

**Project Objectives:***

Project Objectives must identify specific end goal(s) that will be accomplished at **each worksite** in the project. State the type of work associated with each worksite (e.g. large woody debris structures were placed to increase spawning habitat at worksite 1, road decommissioning occurred at worksite 2, etc.). Summarize objectives in a few sentences which can be included in the grant agreement if the proposal is funded. The specifics for how, when, where, and by whom these goals will be accomplished should be addressed in the **Project Description Form.** Maximum of 500 characters.

This project improves juvenile and adult salmonid fish passage to over 70 tributaries in the Middle Klamath, Salmon, and Lower Scott River subbasins through manual modification of fish barriers. The project includes habitat assessment, fish presence surveys, and the installation of brush bundles to enhance complexity of coldwater refugia sites.

This field is limited to 500 characters.

Provide a brief description of how this project is expected to benefit salmonids or salmonid habitat.

**Expected Benefits:*** The expected benefits to SONCC coho salmon and other salmonids are increased growth, survival, and reproductive success as a result of improved access for juveniles and adults into high-quality thermal refugia and spawning habitat during critical periods of rearing, migration, and reproduction.

This field is limited to 500 characters.

**Time Frame**

Provide estimated start date for the project. Projects typically start no earlier than March of the year following proposal submission.

**Start Date:*** 04/01/2021
(MMDDYYYY)

Provide the estimated end date for the project.

**End Date:*** 12/31/2022
(MMDDYYYY)

### Organization Information

Eligible entities for awards are limited to public agencies, Native American Indian Tribes, and non-profit organizations.

**Organization Type:*** Nonprofit Organization

Is the organization a certified non-profit organization?

**Certified Non-Profit Organization*** Yes

If yes, enter the state or federal non-profit organization number. If no or in progress, enter NA.

**Organization Number:*** 68-0343595

### Location Description

Provide a general description of the project location and the nature of the worksite(s) in relation to known landmarks, with reference to attached drawings and maps. Include the number of miles upstream of the mouth of the creek/river (mainstem) and number of miles upstream of confluence (tributary).

**Location Description:*** Tributaries in the Middle Klamath, Salmon, and Lower Scott subbasins. The confluence of the Salmon and the Klamath is 66 miles upriver of the mouth of the Klamath. The confluence of the Scott and the Klamath is 143 miles upriver of the mouth of the Klamath.

This field is limited to 2000 characters.

Provide the latitude for the center point of the project. If this is an Outreach Project without a clear location, provide the office headquarters' latitude.

**Latitude***

41.37770
5 significant digits are required.

Provide the longitude for the center point of the project. If this is an Outreach Project without a clear centerpoint, provide the office headquarters' longitude.

**Longitude***

-123.49240
The "-" sign is automatically entered by the system. Only enter the coordinate (e.g. 121.12345).
5 significant digits are required.

## *Additional Species Information*

**Additional Species Benefitted:** Select any of the following species which will benefit from the project or select Not Applicable if no other species will benefit.

**Amphibians/Reptiles***

Not Applicable

**Mammals***

Not Applicable

**Birds***

Not Applicable

**Other Species Design Considerations:** Describe specifically how the project was designed (or will be designed) to benefit speices other than salmonids, e.g. pacific lamprey, fairy shrimp, foothill yellow-legged frog, etc. Non-implementation projects can enter "Not Applicable."

**Other Species Design Considerations:***

This work accommodates Pacific lamprey passage into tributary habitat through the creation of low-velocity channels and step-pools, and also provides access for Pacific lamprey into and out of tributaries that are perched above the main channel or otherwise blocked by sediment aggradation during summer base flows.

This field is limited to 1000 characters.

## *Project Location Information**

| Are Your Proposed Locations across all FRGP Regions (Program-wide)? | County* | Stream* | Tributary To* | HUC 8* | HUC 10* | Senate* | Assembly* | Is Your Proposed Location in a Coastal Zone? | Is Your Proposed Location in the Trinity River Basin? | Is Your Proposed Location in the Klamath River Basin? |
|---|---|---|---|---|---|---|---|---|---|---|
| No | Siskiyou County | Salmon River | Klamath River | Salmon | North Fork Salmon River | 1st District | 1st District | No | No | Yes |
| No | Siskiyou County | Salmon River | Klamath River | Salmon | South Fork Salmon River | 1st District | 1st District | No | No | Yes |
| No | Siskiyou County | Salmon River | Klamath River | Salmon | Salmon River | 1st District | 1st District | No | No | Yes |
| No | Siskiyou County | Salmon River | Klamath River | Salmon | Wooley Creek | 1st District | 1st District | No | No | Yes |
| No | Siskiyou County | Scott River | Klamath River | Scott | Canyon Creek-Scott River | 1st District | 1st District | No | No | Yes |
| No | Siskiyou County | Klamath River | Pacific Ocean | Upper Klamath | Bogus Creek-Klamath River | 1st District | 1st District | No | No | Yes |
| No | Siskiyou County | Klamath River | Pacific Ocean | Upper Klamath | Cottonwood Creek | 1st District | 1st District | No | No | Yes |
| No | Siskiyou County | Klamath River | Pacific Ocean | Upper Klamath | Horse Creek-Klamath River | 1st District | 1st District | No | No | Yes |
| No | Siskiyou County | Klamath River | Pacific Ocean | Upper Klamath | Seiad Creek-Klamath River | 1st District | 1st District | No | No | Yes |
| No | Siskiyou County | Klamath River | Pacific Ocean | Lower Klamath | Thompson Creek-Klamath River | 1st District | 1st District | No | No | Yes |
| No | Siskiyou County | Klamath River | Pacific Ocean | Lower Klamath | Indian Creek | 1st District | 1st District | No | No | Yes |
| No | Siskiyou County | Klamath River | Pacific Ocean | Lower Klamath | Ukonom Creek-Klamath River | 1st District | 1st District | No | No | Yes |
| No | Siskiyou County | Klamath River | Pacific Ocean | Lower Klamath | Dillon Creek | 1st District | 1st District | No | No | Yes |
| No | Siskiyou County | Klamath River | Pacific Ocean | Lower Klamath | Rock Creek-Klamath River | 1st District | 1st District | No | No | Yes |
| No | Humboldt County | Klamath River | Pacific Ocean | Lower Klamath | Bluff Creek-Klamath River | 2nd District | 2nd District | No | No | Yes |

## *Worksite Information**

| Site Name | Latitude | Longitude | Description of Coordinates |
|---|---|---|---|
| Merrill Creek | 41.37933 | -123.47355 | Coordinates refer to the mouth of Merrill Creek (Salmon River tributary). |
| Wooley Creek | 41.45139 | -123.30944 | Coordinates refer to the mouth of Wooley Creek (Salmon River tributary). |
| Butler Creek | 41.33768 | -123.40782 | Coordinates refer to the mouth of Butler Creek (Salmon River tributary). |
| Nordheimer Creek | 41.29663 | -123.36278 | Coordinates refer to the mouth of Nordheimer Creek (Salmon River tributary). |
| Crapo Creek | 41.29228 | -123.36260 | Coordinates refer to the mouth of Crapo Creek (Salmon River tributary). |
| Knownothing Creek | 41.24331 | -123.29235 | Coordinates refer to the mouth of Knownothing Creek (South Fork Salmon River tributary). |
| Methodist Creek | 41.22246 | -123.25005 | Coordinates refer to the mouth of Methodist Creek (South Fork Salmon River tributary). |
| Indian Creek (South Fork Salmon River tributary) | 41.21112 | -123.23271 | Coordinates refer to the mouth of Indian Creek (South Fork Salmon River tributary). |
| Black Bear Creek | 41.20388 | -123.22487 | Coordinates refer to the mouth of Black Bear Creek (South Fork Salmon River tributary). |
| Plummer Creek | 41.14994 | -123.21356 | Coordinates refer to the mouth of Plummer Creek (South Fork Salmon River tributary). |
| St. Claire Creek | 41.14102 | -123.17269 | Coordinates refer to the mouth of St. Claire Creek (South Fork Salmon River tributary). |
| East Fork of the South Fork Salmon River | 41.15291 | -123.11135 | Coordinates refer to the mouth of the East Fork of the South Fork Salmon River. |
| Jones Gulch | 41.29893 | -123.22715 | Coordinates refer to the mouth of Jones Gulch (North Fork Salmon River tributary). |
| Cronan Gulch | 41.31296 | -123.19202 | Coordinates refer to the mouth of Cronan Gulch (North Fork Salmon River tributary). |
| Little North Fork | 41.31974 | -123.17763 | Coordinates refer to the mouth of Little North Fork (North Fork Salmon River tributary). |
| Kelly Gulch | 41.31536 | -123.16914 | Coordinates refer to the mouth of Kelly Gulch (North Fork Salmon River tributary). |
| Shiltos Creek | 41.30935 | -123.17087 | Coordinates refer to the mouth of Shiltos Creek (North Fork Salmon River Tributary). |
| Glasgow Gulch | 41.30697 | -123.16684 | Coordinates refer to the mouth of Glasgow Gulch (North Fork Salmon River tributary). |
| Jackass Gulch | 41.30241 | -123.15829 | Coordinates refer to the mouth of Jackass Gulch (North Fork Salmon River Tributary). |
| Whites Gulch | 41.29862 | -123.08380 | Coordinates refer to the mouth of Whites Gulch (North Fork Salmon River tributary). |
| North Russian Creek | 41.32341 | -123.06041 | Coordinates refer to the mouth of North Russian Creek (North Fork Salmon River tributary). |
| South Russian Creek | 41.32661 | -123.05688 | Coordinates refer to the mouth of South Russian Creek (North Fork Salmon River tributary). |
| Boulder Creek | 41.43772 | -123.15544 | Coordinates refer to the mouth of Boulder Creek (Scott River tributary). |
| Middle Creek | 41.66800 | -123.10940 | Coordinates refer to the mouth of Middle Creek (Scott River Tributary). |
| Tompkins Creek | 41.68111 | -123.09741 | Coordinates refer to the mouth of Tompkins Creek (Scott River tributary). |
| Mill Creek | 41.74305 | -123.00296 | Coordinates refer to the mouth of Mill Creek (Scott River tributary). |
| Aikens Creek | 41.22827 | -123.65121 | Coordinates refer to the mouth of Aikens Creek (Mid Klamath River tributary) |
| Beaver Creek | 41.86932 | -122.81735 | Coordinates refer to the mouth of Beaver Creek (Mid Klamath River tributary). |
| Bluff Creek | 41.24078 | -123.65258 | Coordinates refer to the mouth of Bluff Creek (Mid Klamath River tributary). |
| Boise Creek | 41.28261 | -123.57560 | Coordinates refer to the mouth of Boise Creek (Mid Klamath River tributary). |
| Cade Creek | 41.80737 | -123.34900 | Coordinates refer to the mouth of Cade Creek (Mid Klamath River tributary). |
| Camp Creek | 41.29234 | -123.56243 | Coordinates refer to the mouth of Camp Creek (Mid Klamath River tributary). |
| China Creek | 41.79875 | -123.31404 | Coordinates refer to the mouth of China Creek (Mid Klamath River tributary). |
| Clear Creek | 41.70986 | -123.44835 | Coordinates refer to the mouth of Clear Creek (Mid Klamath River tributary). |
| Coon Creek | 41.61264 | -123.49673 | Coordinates refer to the mouth of Coon Creek (Mid Klamath River tributary). |
| Cottonwood Creek | 41.88890 | -122.54357 | Coordinates refer to the mouth of Cottonwood Creek (Mid Klamath River tributary). |
| Bogus Creek | 41.92926 | -122.44329 | Coordinates refer to the mouth of Bogus Creek (Mid Klamath River tributary). |
| Crawford Creek (Orleans RD) | 41.29540 | -123.56542 | Coordinates refer to the mouth of Crawford Creek (Mid Klamath River tributary). |
| Crawford Creek (Happy Camp RD) | 41.64896 | -123.46389 | Coordinates refer to the mouth of Crawford Creek (Mid Klamath River tributary). |
| Dillon Creek | 41.57631 | -123.53923 | Coordinates refer to the mouth of Dillon Creek (Mid Klamath River tributary). |
| Elk Creek | 41.78134 | -123.37879 | Coordinates refer to the mouth of Elk Creek (Mid Klamath River tributary). |
| Fort Goff Creek | 41.86392 | -123.25750 | Coordinates refer to the mouth of Fort Goff Creek (Mid Klamath River tributary). |
| Grider Creek | 41.84180 | -123.20762 | Coordinates refer to the mouth of Grider Creek (Mid Klamath River tributary). |
| Hopkins Creek | 41.20361 | -123.66166 | Coordinates refer to the mouth of Hopkins Creek (Mid Klamath River tributary). |
| Horse Creek | 41.82355 | -123.00556 | Coordinates refer to the mouth of Horse Creek (Mid Klamath River tributary). |
| Independence Creek | 41.65811 | -123.45307 | Coordinates refer to the mouth of Independence Creek (Mid Klamath River tributary). |
| Indian Creek (Mid Klamath River tributary) | 41.78996 | -123.37879 | Coordinates refer to the mouth of Indian Creek (Mid Klamath River tributary). |
| Irving Creek | 41.46787 | -123.49032 | Coordinates refer to the mouth of Irving Creek (Mid Klamath River tributary). |
| King Creek | 41.61845 | -123.47220 | Coordinates refer to the mouth of King Creek (Mid Klamath River tributary). |
| Little Grider Creek | 41.78382 | -123.39467 | Coordinates refer to the mouth of Little Grider Creek (Mid Klamath River tributary). |
| Little Horse Creek | 41.78271 | -123.31674 | Coordinates refer to the mouth of Little Horse Creek (Mid Klamath River tributary). |
| Little Humbug Creek | 41.83556 | -122.84313 | Coordinates refer to the mouth of Little Humbug Creek (Mid Klamath River tributary). |
| Oak Flat Creek | 41.72952 | -123.43553 | Coordinates refer to the mouth of Oak Flat Creek (Mid Klamath River tributary). |
| O'Neil Creek | 41.81018 | -123.11436 | Coordinates refer to the mouth of O'Neil Creek (Mid Klamath River tributary). |
| Pearch Creek | 41.31202 | -123.52513 | Coordinates refer to the mouth of Pearch Creek (Mid Klamath River tributary). |
| Portuguese Creek (Happy Camp RD) | 41.85817 | -123.24727 | Coordinates refer to the mouth of Portuguese Creek (Mid Klamath River tributary). |
| Red Cap Creek | 41.25858 | -123.60460 | Coordinates refer to the mouth of Red Cap Creek (Mid Klamath River tributary). |
| Rock Creek | 41.51222 | -123.53059 | Coordinates refer to the mouth of Rock Creek (Mid Klamath River tributary). |
| Rodgers Creek | 41.44500 | -123.49032 | Coordinates refer to the mouth of Rodgers Creek (Mid Klamath River tributary). |
| Sandy Bar Creek | 41.48539 | -123.51823 | Coordinates refer to the mouth of Sandy Bar Creek (Mid Klamath River tributary). |
| Seiad Creek | 41.84298 | -123.21141 | Coordinates refer to the mouth of Seiad Creek (Mid Klamath River tributary). |
| Slate Creek | 41.25012 | -123.64327 | Coordinates refer to the mouth of Slate Creek (Mid Klamath River tributary). |
| Stanshaw Creek | 41.47686 | -123.51240 | Coordinates refer to the mouth of Stanshaw Creek (Mid Klamath River tributary). |
| Swillup Creek | 41.60816 | -123.50086 | Coordinates refer to the mouth of Swillup Creek (Mid Klamath River tributary). |
| Teep Teep Creek | 41.53323 | -123.52670 | Coordinates refer to the mouth of Teep Teep Creek (Mid Klamath River tributary). |
| Thompson Creek | 41.86360 | -123.30840 | Coordinates refer to the mouth of Thompson Creek (Mid Klamath River tributary). |
| Ti Creek | 41.52553 | -123.52909 | Coordinates refer to the mouth of Ti Creek (Mid Klamath River tributary). |
| Titus Creek | 41.67113 | -123.43043 | Coordinates refer to the mouth of Titus Creek (Mid Klamath River tributary). |
| Tom Martin Creek | 41.78413 | -123.04191 | Coordinates refer to the mouth of Tom Martin Creek (Mid Klamath River tributary). |
| Ukonom Creek | 41.83643 | -123.48455 | Coordinates refer to the mouth of Ukonom Creek (Mid Klamath River tributary). |
| Ulathorne Creek | 41.29175 | -123.57033 | Coordinates refer to the mouth of Ulathorne Creek (Mid Klamath River tributary). |

| | | | |
|---|---|---|---|
| Walker Creek | 41.83643 | -123.17165 | Coordinates refer to the mouth of Walker Creek (Mid Klamath River tributary). |
| Whitmore Creek | 41.33508 | -123.51173 | Coordinates refer to the mouth of Whitmore Creek (Mid Klamath River tributary). |
| Wilson Creek | 41.32971 | -123.52126 | Coordinates refer to the mouth of Wilson Creek (Mid Klamath River tributary). |

## *Licensed Professional(s)**

| First and Last Name | Affiliation (Organization) | License Type/Code (e.g. Engineer, Geologist, etc.) | License Number | Contact Phone # |
|---|---|---|---|---|
| NA | NA | NA | NA | 000-000-0000 |

## ---FORM: Watershed Information---

## Watershed Information

**Watershed Area:** The acres of watershed that the project will encompass. If the project is region-wide or program-wide (e.g. education), enter N/A.

**Watershed Area:***

1,152,000
Acres

**Land Use Statement:***

Describe current and anticipated future (next 10 years) land uses in the watershed.

Much of the Salmon, Scott, and Mid-Klamath watersheds are on public land administered by the Six Rivers and Klamath National Forests. The remainder is privately owned. National Forest land use is described in the Klamath National Forest Land and Resource Management Plan. Primary National Forest land use consists of Recreation, Forest Management, and Restoration. Private landholdings are used primarily for residences, homsteading, and agriculture.

This field is limited to 5,000 characters.

**Watershed Ownership:** Enter percentages by type of ownership for the entire watershed. Percentages may not sum to 100 if other types of ownership are present in the watershed. If the project is region-wide or program-wide, check N/A.

**Watershed Ownership:***

| 14.0% | 1.0% | 85.0% | |
|---|---|---|---|
| Private | State | Federal | N/A |

**Length of Anadromous Streams in Watershed:** If the project is region-wide or program-wide, check N/A.

**Length:***

| 2500.0 | | | |
|---|---|---|---|
| Miles | | | N/A |

**Description of Last Focus Species Observation***

Describe the last focus species observed in the project area. Where, when, and how many were observed?

During monitoring surveys associated with fish passage work, 120 YOY coho were observed by MKWC at O'Neil Creek on 8/22/19 and 47 YOY coho were observed by SRRC at Methodist Creek on 6/19/18. On 1/6/20, 1 coho redd was observed by SRRC in Knownothing Creek. These observations are unpublished. Additionally, 1 adult coho was observed on 11/16/18 in the mainstem Salmon River between Otter Bar and Nordheimer Creek (2018 Fall Chinook Salmon Spawning Ground Survey Report, USFS-KNF).

This field is limited to 500 characters

**Background Information:***

Provide brief background information, referencing historical land use, past practices, local conditions, watershed plans, studies, and other sources. Reference attached figures, tables, maps, and photos if necessary. Do not describe the project here; that will go in the Project Description.

Historical mining, excessive timber harvest, and road building activities have contributed to environmental degradation in the Middle Klamath subbasin. Throughout the 1850s, hydraulic and placer mining removed gravel and filtered out gold in sections of the mainstem Klamath River. Piles of gravel tailings remain along the mainstem river and tributaries as remnants of these historical practices, continuing to create stress and alter channel structure throughout the watershed. Timber harvest was prevalent in the late 1940s to the 1990s, but has since declined largely due to recent Forest Service policy on maintaining ecosystem health.

Today, most timber management on the Klamath and Six Rivers National Forests includes hazard tree removal, fuel reductions, salvage timber harvest, and promoting the development and maintenance of diverse stand structures and species composition. Existing roads used for past timber harvest remain in the watershed and many continue to contribute sediment to tributary and mainstem channels.

The Salmon River is one of the most biologically intact subbasins of the Klamath River. The Klamath National Forest identifies the Salmon River as the watershed with the best anadromous fisheries habitat in the Forest. The Salmon and Mid Klamath subbasins host all of the native anadromous fish runs present in the Klamath River watershed, including coho, spring and fall Chinook, summer and winter steelhead, Pacific lamprey, and green sturgeon. The large proportion of federal land within the Salmon River watershed and the comparatively high-quality water and habitat conditions make the Salmon River one of the best candidates for succeeding in maintaining and restoring anadromous fisheries in the Klamath basin.

Little is known about historical run sizes of coho salmon in the Salmon River; however, the Intrinsic Potential (IP) model of the Salmon River suggests that it has a moderate carrying capacity for coho. According to the 2004 Recovery Strategy for California Coho Salmon, the Salmon River historically has an estimated 105 miles of coho salmon habitat. More recent estimates suggest that Salmon River coho currently have access to

approximately 85 miles of habitat. The Salmon River likely supported a population of a few thousand coho salmon in the past. This number has dropped precipitously in the last two decades; presently, annual adult returns are likely less than 50 per year.

Problems facing coho salmon and other fish in the Salmon and Mid Klamath subbasins include invasive exotic species, barriers to fish passage, depleted large woody debris, high sediment loads from the extensive road system, large wildfires, limited riparian function, unstable spawning gravels, and temperature impairment.

One of the most important factors leading to the decline and continued low abundance of anadromous salmonids in the Salmon River is the legacy effect of historical placer mining on channel and floodplain habitat conditions throughout the mainstem and larger tributary reaches. Hydraulic and dredge placer mining in the Salmon River between about 1870 and 1950 led to profound and lasting changes, delivering an estimated 20.3 million cubic yards of sediment to the river. Placer mining denuded floodplains and adjacent river terraces and hillslopes, reduced riparian shade cover, and exposed the stream channel and surrounding areas to increased solar radiation. Aggradation by hydraulically mined sediment widened and shallowed alluvial reaches, filled pools, reduced the complexity and connectivity of floodplain habitats, and led to coarsening and armoring of the channel bed. Coarse sediment stored in the bankfull channel, denuded floodplains, and mine tailings on terraces along the river corridor continues to prevent riparian vegetation establishment, and due to the increased exposure to solar radiation and thermal mass, creates a significant heating effect. These impacts significantly reduce the amount and quality of spawning, oversummering, and over-wintering habitat and decrease the cumulative channel length that remains thermally suitable for salmonids during the summer, thereby constraining population productivity and increasing extinction risk.

Past upslope disturbances such as wildfires, road failures, and mining have increased the sediment load particularly at the mouths of anadromous tributaries in the Mid Klamath subbasin. The increased aggradation reduces stream depth and causes fish passage problems. The Salmon River Restoration Council (SRRC) and the Mid Klamath Watershed Council (MKWC) have identified streams throughout the subbasin that have chronic fish passage problems at or near their confluence with the mainstem Klamath, Salmon, and Lower Scott Rivers. The Mid Klamath Subbasin Fisheries Resource Recovery Plan calls for the identification and implementation of improved fish passage, as well as the assessment and evaluation of long-term restoration projects.

This field is limited to 5,000 characters.

## *Watershed Plans*

| Author | Year | Title | Organization | City | State |
|---|---|---|---|---|---|
| NMFS | 2014 | Final Recovery Plan for the Southern Oregon/Northern California ESU of Coho Salmon | National Marine Fisheries Service | Arcata | CA |
| Elder, D. et al. | 2002 | Salmon River Subbasin Restoration Strategy | US Forest Service ad Salmon River Restoration Council | Sawyers Bar | CA |

## ---FORM: Project Objectives---

## Project Description

**Project Description:***

Please follow the outline and number format for the Project Description.

**The Project Description must include:**
**A.** An overview of the project that sums up the project in a few sentences.
**B.** The goal of the project.
**C.** Why the project is necessary to restore, enhance, or protect anadromous salmonids (the need for the project).
**D.** An overview of each restoration objective being proposed and the strategy that will be implemented to complete the objectives to achieve the goal. Details should be covered in Project Set Up, Materials, and Description of Activities by Task below.
**E.** Any specific Project Type information required in "Part IV: Project Type Requirements" of the Guidlines. Follow the number format while describing the Part IV required information.

A. Since 2001, the Salmon River Restoration Council (SRRC) and the Mid Klamath Watershed Council (MKWC) have worked together to identify and manually treat barriers to anadromous fish passage on key tributaries in the Mid Klamath subbasin. The proposed project will improve juvenile and adult salmonid fish passage to over 70 tributaries in the Mid Klamath, Salmon, and Lower Scott River subbasins through manual modification of seasonal barriers. Fish passage improvement at coldwater tributaries will improve the function and capacity of thermal refugia during drought conditions and connect habitats critical to juvenile and adult survival. Additionally, simplified rearing habitats that lack complexity and cover will be enhanced through the addition of brush bundles and small woody debris.

B. The goal of this project is to improve access to and function of coldwater tributaries and thermal refugia within the range of SONCC coho salmon. This project was designed to ensure both juvenile and adult fish passage into high-quality thermal refugia during critical periods of rearing and migration.

C. Recent research in the Klamath Basin indicates that both summer and winter refugia associated with the lower reaches of Klamath tributaries are critical for the survival of juvenile salmonids, particularly juvenile coho. Fisheries surveys have identified consistently high numbers of juvenile salmonids in habitats that function both as summer and winter refugia. The size, distribution, accessibility, and quality of these habitats throughout the year are a major limiting factor for juvenile salmonids in the Klamath River. Fish passage problems in this area include human-influenced barriers, natural barriers, and a combination of both. The majority of human-caused barriers are the result of road crossings. California state and county roadways parallel the Klamath, Scott, and Salmon Rivers, crossing many fish-bearing tributaries and creating most of the complex, high-cost fish passage issues in the Mid Klamath subbasin.

Biologists from the Mid Klamath Watershed Council (MKWC), Karuk Tribal Fisheries Program (KTFP), Salmon River Restoration Council (SRRC), and United States Forest Service (USFS) have identified streams throughout the subbasin that have chronic fish passage problems at or near their confluence with the mainstem Klamath, Salmon, and Lower Scott Rivers. The Mid Klamath Subbasin Fisheries Resource Recovery Plan calls for the identification and implementation of improved fish passage, as well as the assessment and evaluation of long-term restoration projects.

This project is particularly important during drought conditions when coldwater habitat is sparse and access is critical. Maintaining access, improving habitat quality, and increasing capacity of thermal refugia is critical during drought years (e.g., 2014, 2015) when lack of access is the difference between life and death for both adult and juvenile salmonids. Recent research in the Klamath Basin indicates that both summer and winter refugia associated with the lower reaches of Klamath tributaries are critical for the survival of juvenile salmonids, particularly juvenile coho. Fisheries surveys have identified consistently high numbers of juvenile salmonids in habitats that function both as summer and winter refugia. The size, distribution, accessibility, and quality of these habitats throughout the year are a major limiting factor for juvenile salmonids in the Klamath River. Fish passage problems in this area include human-influenced barriers, natural barriers, and a combination of both. The majority of human-caused barriers are the result of road crossings. California state and county roadways parallel the Klamath, Scott, and Salmon Rivers, crossing many fish-bearing tributaries and creating most of the complex, high-cost fish passage issues in the Mid Klamath subbasin.

Natural barriers include aggraded stream mouths where streams either run subsurface or become too shallow for fish to navigate because of large alluvial deltas. This problem has been exacerbated by past upslope disturbances such as wildfires, road failures, and mining that have increased the sediment load particularly at the mouths of these tributaries. Many channels and stream mouths have been severely altered during past flooding (1955, 1964, 1997, and 2006), as described in the in the Klamath National Forest's 1998 report entitled "The Flood of 1997," which links flood-damaged stream channels to impacts from wildfire and road crossings. Chronic low flows in the mainstem Klamath and Scott have increased the impact of seasonal barriers at the mouths of tributaries.

Long-term solutions to fish passage issues include road decommissioning, restoration of historical fire regimes, increase of mainstem flows, and removal of permanent barriers caused by stream crossings. However, such projects are expensive and time consuming, or may be unfeasible to implement. Short-term solutions, including manual manipulations of the immediate stream mouth through construction of temporary fishways, provide immediate benefits to the fishery. This work is seasonal and is not expected to remain after annual winter flooding, but it is very cost-effective and provides immediate results to the fishery. In some instances, more permanent benefits from manual work have been documented. On Portuguese Creek, manual treatment of a boulder cascade at the mouth (formed during the 2006 flood event) allowed fall Chinook to access 1.5 miles of habitat above the barrier. Surveys in 2008 found high densities of juvenile Chinook throughout the lower reaches of this creek. During drought years this work is even more critical; extreme low river flows exacerbate access issues, decrease available thermal refugia, and greatly increase in-stream temperatures, leading to potentially lethal conditions within the river systems. During the peak of the 2014 and 2015 drought years, both adult and juvenile salmonids were amassed in all available coldwater refugia along the Salmon and Mid Klamath Rivers. Many fish that were unable to access thermal refugia, as well as those that were disturbed and subsequently fled back into the mainstem, died from the stress caused by high water temperatures.

Additionally, decades of work at creek mouths in the Mid Klamath and Salmon subbasins have revealed that in-stream and overhead cover are often lacking at these coldwater refugia sites. Thus, fish experiencing the physiological benefit associated with utilizing coldwater refugia

experience an increased risk of predation due to lack of shelter. The addition of brushy material (brush bundles) in these habitats can reduce the cost associated with their use. Brush bundles also provide food sources and feeding areas for juvenile salmonids, increasing their growth and survival.

D. Assessments will be completed on all identified tributaries prior to implementation and will include evaluation of low flow barriers, qualitative features, and potential long-term solutions to impacts of current and historical land use and management. Fish presence/absence surveys will also be conducted. During assessments, two surveyors will walk and snorkel the lower 1,000 feet of each tributary to assess fish presence and fish passage barriers (e.g., low flow barriers, temporary dams built for fire suppression or recreational purposes). All identified fish passage barriers will be documented, photographed, and treated, where feasible. No heavy equipment or machinery will be used during the treatment of these seasonal fish passage barriers. Rock bars and manual manipulation will be used to create temporary fishways, which are simple, hand-constructed channels with the appropriate velocity, depth, gradient, and width that will pass adult salmonids during fall spawning migration and juvenile salmonids seeking thermal refugia during summer rearing. During project implementation, refugia habitat will be further improved at prioritized sites by increasing the amount of in-stream cover using small woody debris and brushy material gathered near the site and installed with biodegradable twine.

E. Specific Project Type information:

A. 14.8 total miles of stream will be treated.
B. 22,200 feet of aquatic habitat will be disturbed.
C. 148,000 square feet of instream features will be installed within bankfull channel.
D. Log, debris, boulder, rock, and landslide blockages/barriers will be removed or altered at project worksites, where present. One or more blockages/barriers may exist at each worksite; each obstruction will be treated, if feasible.
E. On average, approximately two miles of stream, per worksite, will be made accessible upstream of each barrier removed.
F. Approximately 148 miles of habitat will be made available by the project. This was determined by averaging the miles of stream made accessible per worksite (two miles) and multiplying that number by the number of proposed worksites (74).
G. This project specifically targets tributaries that are known from previous survey work to provide excellent or good thermal and velocity refugia to juvenile and adult salmonids. These tributaries provide more suitable water temperature, water flow, and cover conditions for salmonids than are available in the river channel.
H. These measures do not apply to the proposed project. Barriers will be treated by small crews using rock bars to manually remove or restructure obstacles to fish passage.
I. National Marine Fisheries Service. 2014. Final recovery plan for the southern Oregon/northern California coast evolutionarily significant unit of coho salmon (Oncorhynchus kisutch). Arcata, CA.
J. Snorkel surveys for juvenile coho salmon presence will occur within the project area and will be conducted according to protocols specified in CDFW California Salmonid Stream Habitat Restoration Manual, Part IV. Fish Sampling Methods.
K. Fish relocation is not needed for this project.
L. The proposed project will meet CDFW and NOAA Fisheries passage criteria. Worksites at which barriers are remedied will provide unimpeded passage for adults and juveniles.
M. Worksites are located within the lower 1,000 feet of each tributary and include the confluence of each tributary with the Mid Klamath, Salmon, or Scott Rivers. Decades of survey work by the SRRC, MKWC, tribes, and various agencies have found there to be no barriers on the mainstem of these rivers downstream of the tributaries included in this project.
N. Although the primary goal of this project is to provide tributary access to salmonids, elements of our work contribute to the protection and conservation of Pacific lamprey. Specifically, to provide passage into tributaries for salmonids, we often construct low-velocity channels and/or step-pools. This work accommodates lamprey passage into suitable habitat by providing appropriate channel velocity and resting areas to migrating lamprey. Additionally, during assessment and monitoring surveys that are conducted before and after project implementation, we make frequent incidental observations of other species and localized issues. We thus maintain awareness of disease, mortality, pollution, poaching, unusual physical impacts to the streambed, and other impacts to aquatic organisms. With the input and cooperation of our local agency partners, we are able to take or solicit prompt and appropriate remedial action.

This field is limited to 20,000 characters.

**Project Set Up:***

Must describe who will be implementing the project and who will be completing each task; include specifically named subcontractors if known, or types of subcontractors needed for the project (e.g. construction, revegetation, surveys). Personnel must be listed by their titles or classifications and a description of their responsibilities and tasks must be included. **Any personnel not discussed in this section cannot be included in the Personnel Services section of the budget. If there will be more than one subcontractor, clearly differentiate which tasks each subcontractor will accomplish. Subcontractors not discussed in this section cannot be included in the Operating Expenses section of the budget.**

SRRC will subcontract with MKWC to implement treatments on Mid Klamath and Scott River tributaries, in coordination with the SRRC Fisheries Program. MKWC will play a critical role in implementing and monitoring fish passage treatments, entering data, hosting volunteer workdays, and providing outreach to landowners.

Personnel:

Restoration Director will participate in tasks 1, 5 & 6

Program Coordinator will participate in tasks 1, 2, 3, 4, 5 & 6

Crew Leader will participate in tasks 1, 2, 3 4, 5 & 6

Field Technicians will participate in tasks 2, 3, 4 & 6

Community Volunteers will participate in task 3

MKWC (subcontractor) will participate in tasks 1, 2, 3, 4, 5 & 6

This field is limited to 10,000 characters.

**Materials:***

All materials required for the project and included in the budget must be described.

Include:
- What is being used.
- How it is being used.
- Purpose of material.
- Why it is required for the project.
- Indicate if materials are purchased by the applicant or subcontractor.

The following materials will be purchased by the applicant:
- Waders. Waders will be used during fish passage treatment. These are required for safety and prevention of hypothermia.
- Felt-soled boots. Felt-soled boots will be worn during snorkel surveys and fish passage treatment. These are required for safety and to prevent slipping.
- Miscellaneous field supplies, including rock bars, gloves, measuring tape, clinometer, field notebooks, clipboards, and small whiteboards. Rock bars and gloves are required for safety and will be used to manually move rocks and debris to create temporary fishways. Measuring tape and a clinometer will be used for measurements of habitat conditions. Notebooks, clipboards, and whiteboards will be used to record data during fish presence assessments and project implementation and monitoring.
- Quat-265 disinfectant. This will be used to disinfect field gear in accordance with invasive species and aquatic pathogen prevention protocols.
- Office supplies, including printer ink, printer toner, copy paper, pens, pencils, markers, weatherproof paper, tape, paperclips, fasteners, and folders. These materials will be used for various tasks associated with the project, including for the printing of project reports and datasheets.
- Field laptop computer use. This SRRC-owned computer will be used to record and process data and photos, and to create maps.
- GIS software subscription. GIS software is used to create site and fish presence/absence maps.
- Garmin inReach (satellite communication and safety device) subscription. Since there is no cell phone coverage on the Salmon River, our field crews use inReach devices to communicate in case of emergency. As explained in the “Budget Justification” section, we are requesting funding for a two-year subscription for one device.

The following materials are part of the applicant’s in-kind contribution:
- Wetsuits and drysuits. Wetsuits and drysuits will be worn during snorkel surveys. These are required for safety and the prevention of hypothermia.
- Masks and snorkels. Masks and snorkels will be used during snorkel surveys to conduct fish presence assessments. These are required for safety and fish presence monitoring.
- Biodegradable twine. Twine will be used to tie together and install brushy materials at prioritized refugia sites in conjunction with barrier remediation efforts.
- Stadia rods. Stadia rods will be used during assessments to measure habitat conditions pre- and post-implementation. These are required for accurate measurements of habitat conditions.
- Waterproof cameras. Cameras will be used during assessments to document pre- and post-implementation habitat conditions. These are required for implementation monitoring.
- Garmin inReach (satellite communication and safety device) subscription. Since there is no cell phone coverage on the Salmon River, our field crews use inReach devices to communicate in case of emergency. As explained in the “Budget Justification” section, we are contributing the two-year subscription cost for a second device.

The following materials will be purchased by the subcontractor:
- Masks and snorkels. Masks and snorkels will be used during snorkel surveys to conduct fish presence assessments. These are required for safety and fish presence monitoring.
- Felt-soled boots. Felt-soled boots will be worn during snorkel surveys and fish passage treatment. These are required for safety and to prevent slipping.
- Office supplies, including printer ink, printer toner, copy paper, pens, pencils, markers, weatherproof paper, tape, paperclips, fasteners, and folders. These materials will be used for various tasks associated with the project, including for the printing of datasheets and maps.

This field is limited to 5,000 characters.

## *Protocols*

**Protocols to be Used in Project Development and Implementation:** In order to be included in the 2020 FHR CEQA process, the protocols from either CDFW’s California Salmonid Stream Habitat Restoration Manual 4th edition (Manual) or one of the resources in this **Reference List** must be used in project implementation. The Manual is available on the **FRGP Guidance Tools webpage.**

Applicants must indicate the protocol part number(s) from the relevant Manual and/or Reference List resource(s).
For example, protocols in the Restoration Manual include:

A. Habitat typing
B. Channel typing
C. Riparian / LWD survey
D. Spawner survey form (Page IV-11)
E. Electrofishing form (Page IV-16)
F. Part VII Implementation Methods
G. Part VIII Evaluation and Monitoring Methods
H. Part IX Fish Passage
I. Part X Upslope Assessment and Restoration Practices
J. Part XI Riparian Habitat Restoration
K. Part XII Fish Passage Design and Implementation

Select "Other Protocols or Not Applicable" if using a) resource(s) from the Reference List or b) protocols other than those found in the Manual.

**Protocols:** * CDFW California Salmonid Stream Habitat Restoration Manual

If you selected CDFW California Salmonid Stream Habitat Restoration Manual, enter the Manual Part Number(s).

**Manual Protocols:** III. Habitat Inventory Methods, IV. Fish Sampling Methods, VII. Project Implementation

**Other Protocols:**

If "Other Protocols or Not Applicable" was selected above, list the source and reference specific protocols. Explain why they were selected. Indicate if CDFW/NOAA engineers have accepted the protocols.

If using a resource from the Reference List, simply list the resource and provide the specific protocols being applied.

This field is limited to 5,000 characters.

If no protocols apply, please explain.

**No Protocols:**

This field is limited to 500 characters.

## *Primary Limiting Factors*

**Primary Limiting Factors to Salmonids Addressed by Proposed Project:** Choose the primary limiting factors that the project will address. You will be asked to elaborate on these in the Project Description. You may only select N/A if this project is MO or PL. If N/A is selected, describe in the "How Does The Project Address the Primary Limiting Factors" field below why the limiting factors are not applicable.

**Primary Limiting Factors:** *

Water Quantity (lack of flow, diversions, runoff), Water Quality (temperature, chemistry, turbidity), Riparian Dysfunction (lack of shade, excessive nutrients, roughness elements), Spawning Requirements (gravel, resting areas-pools), Rearing Requirements (velocity, lack of shelter, pools), Fish Passage (emigration and immigration)

**How Does the Project Address the Primary Limiting Factors:***

This project will address diminished water quantity for juvenile salmonid rearing and adult holding by improving access to coldwater habitat that will offer refuge for juvenile and spawning salmonids during low-flow conditions.

This project will remediate the impacts of high water temperature by improving access to coldwater tributaries for juvenile and adult salmonids.

This project will remediate riparian dysfunction by improving floodplain and channel functionality.

This project will address spawning requirements by improving access to tributaries with high-quality spawning habitat.

This project will address rearing requirements by improving access to coldwater habitat that will offer refuge for juvenile salmonids during periods of low flow and high water temperature, and by providing in-stream cover in these locations.

This project will remediate fish passage by reconnecting tributaries to mainstem river corridors during low-flow conditions.

This field is limited to 1,000 characters.

## *Description of Activities*

### Description of Activities 1

**Task***

Task 1 - Coordination

**Description of Activities***

Coordinate with the subcontractor (MKWC) to standardize protocol, discuss techniques, train field technicians, prioritize treatments, share data, and otherwise ensure achievement of project objectives and completion of project deliverables. Coordination will be ongoing throughout the project but will be particularly emphasized during annual pre-field season coordination meetings.

**Deliverables***

Maps of project areas with identification and type of fish barriers; site photo points taken before, during, and after treatment; videos of creek mouths, volunteer workdays, and fish barriers; data on fish presence, pre- and post-implementation habitat conditions, fish barriers, and improvements to fish passage; quarterly progress reports, annual progress reports, and a final report describing the project and summarizing findings and results.

**Start Date***

04/01/2021

**End Date***

12/31/2022

### Description of Activities 2

**Task***

Task 2 - Fish passage assessments

**Description of Activities***

Conduct an assessment of juvenile and adult fish passage on tributaries of the Mid Klamath, Salmon, and Lower Scott Rivers that are identified in this proposal. Assessments will include identification of barriers and recording of qualitative features. Collect data at tributary mouths and other barriers, including channel width, depth, and gradient. Assessment data will be incorporated into an existing data set from previous year's assessments and will be used to develop a strategic plan for modification of fish barrier sites.

**Deliverables***
Maps of project areas with identification and type of fish barriers; data on fish presence, pre- and post-implementation habitat conditions, fish barriers, and improvements to fish passage.

**Start Date***
06/01/2021

**End Date***
07/31/2022

### Description of Activities 3

**Task***
Task 3 - Barrier treatment and brush bundling

**Description of Activities***
Barriers will be modified to allow for juvenile and adult salmonid fish passage. Step-pool fishways will be used where appropriate. In some cases, creek mouths with large, shallow alluvial bars will be channelized to improve passage and minimize solar heating. Brush bundles will be installed to increase in-stream cover and habitat complexity. No heavy equipment will be used.

**Deliverables***
Maps of project areas with identification and type of fish barriers; data on fish presence, pre- and post-implementation habitat conditions, fish barriers, improvements to fish passage, and amount and type of in-stream cover added.

**Start Date***
06/01/2021

**End Date***
10/31/2022

### Description of Activities 4

**Task***
Task 4 - Photo documentation

**Description of Activities***
Site photo points will be taken before, during, and after treatment to document methods used at each site and provide a reference for future years. Video will also be taken at select sites.

**Deliverables***
Site photo points taken before, during, and after treatment; videos of creek mouths, volunteer workdays, and fish barriers.

**Start Date***
06/01/2021

**End Date***
10/31/2022

### Description of Activities 5

**Task***
Task 5 - Data sharing

**Description of Activities***
Data will be shared with all interested parties in order to increase understanding of fish passage issues at tributary mouths and to develop appropriately scaled projects to address identified issues.

**Deliverables***
Maps of project areas with identification and type of fish barriers; site photo points taken before, during, and after treatment; videos of creek mouths, volunteer workdays, and fish barriers; data on fish presence, pre- and post-implementation habitat conditions, fish barriers, and improvements to fish passage; quarterly progress reports, annual progress reports, and a final report describing the project and summarizing findings and results.

**Start Date***
06/01/2021

**End Date***
12/31/2022

### Description of Activities 6

**Task***
Task 6 - Public outreach, education, and volunteerism

**Description of Activities***
Outreach will be conducted to private landowners at tributary mouths identified as having fish passage impediments for access permission to perform assessment and modification work. Signs will be posted at locations where swimmer's dams or push-up dams are affecting fish passage to educate landowners and public using the river about the importance of maintaining fish passage into the tributaries. Volunteer workdays will be coordinated to incorporate community participation in barrier remediation.

**Deliverables***
Posting of educational signs about fish passage at swimmer?s dams at public swimming holes; agreements with landowners to access potential fish barriers on private land; community participation in at least five volunteer workdays to manually modify barriers to fish passage.

**Start Date***
06/01/2021

**End Date***
12/31/2022

## ---FORM: Qualifications and Experience---

## Qualifications and Experience of Applicant

Describe how the applicant or the organization is qualified to perform the proposed work.

**Applicant's Qualifications and Experience:***

The SRRC is a chief promoter of cooperative actions within the Salmon River, and is the largest employer in the watershed. SRRC has successfully completed over 326 grants, including over 40 funded by CDFW, that focus on addressing prioritized factors limiting salmonids and the restoration of the Salmon River watershed. SRRC fisheries crews have been conducting manual modification of creek mouths since 2006.

Amy Fingerle has coordinated the SRRC Fisheries Program since 2017. She has a BS in the Program in the Environment from the University of Michigan (2010) and an MS in Aquatic Biology from Holar University College (Iceland; 2015), where she studied the behavior of stream-dwelling Arctic charr. Amy has worked as a technician for the USGS and Oregon State University, and as a GS-9 fisheries biologist on the Modoc National Forest.

This field is limited to 1,000 characters.

## Applicant's Previous Projects

| Project Grant Number | Project Title | Status of Project | How This Past Project Relates to This Proposal |
|---|---|---|---|
| P1510515 | Salmon River Floodplain Restoration and Mine-Tailing Remediation Plan | Completed | N/A |
| P1610525 | Nordheimer Creek Habitat Enhancement Project Design | On-going | Tributary fish passage work takes place on Nordheimer Creek every year, and increases fish access in to the creek where this Habitat Enhancement project will take place. |
| P1510503 | South Fork Salmon River Tributary Salmonid Habitat Enhancement | Completed | Tributary fish passage work takes place on Knownothing and Methodist creeks, and helps facilitate fish passage into streams where this past project created new habitat features. |
| P1610526 | Kelly Gulch Fisheries and Riparian Habitat Enhancement Phase II | On-going | SRRC has been implementing Tributary Fish Passage work on Kelly Gulch for many years, and that work is now tied into the Habitat Enhancement project at Kelly Gulch. |
| P1610523 | Mid-Klamath Tributary Fish Passage Improvement Project (2017-2018) | Completed | The current project is a new funding request for continuation of the past project work. |
| P1796007 | Salmon River Floodplain Restoration Planning and National Environmental Policy Act Analysis Project | On-going | N/A |
| P1710524 | Kelly Gulch Fisheries and Riparian Habitat Enhancement Phase I & III | On-going | SRRC has been implementing Tributary Fish Passage work on Kelly Gulch for many years, and that work is now tied into the Habitat Enhancement project at Kelly Gulch. |
| P1710527 | Salmon River Public Involvement In Restoration | On-going | Tributary fish passage volunteer workdays are included as public outreach events in our Public Involvement project. |
| P1810516 | Mid-Klamath Tributary Fish Passage Improvement Project (2019-2020) | On-going | The current project is a new funding request for continuation of the past project work. |
| Q1996004 | Hotelling Gulch Aquatic Restoration | On-going | N/A |
| 00000000 | Windler Off-Channel Habitat Enhancement Design | Not Started | SRRC has been implementing Tributary Fish Passage work on Cronin Gulch for many years, and that work will now be tied into the Windler Habitat Enhancement project. |
| 00000000 | Salmon River Public Involvement in Restoration | Not Started | Tributary fish passage volunteer workdays are included as public outreach events in our Public Involvement project. |

## Professionals

## Subcontractors

**Subcontractors 1**

**Subcontractor's Name*** Will Harling

**Provide Direct Oversight?*** Yes

Qualifications and Experience

Will Harling is the Executive Director and Fisheries/Fire and Fuels Co-Director of the Mid Klamath Watershed Council (MKWC). Will has a B.S. in Environmental Biology from Humboldt

State University (1999), and was a founding member of MKWC in 2001 after working for USFS and other governmental and non-governmental agencies since 1993 in the field of natural resources, focusing on fisheries work. Will has managed dozens of fisheries and watershed restoration projects in the area and has a close working relationship with local, state, tribal, and federal agencies, as well as residents throughout the Middle Klamath subbasin.

MKWC has been contracted to implement fisheries restoration and monitoring projects since 2001. Since 2006, MKWC has received grant funding or has been contracted by the Karuk Tribe Department of Natural Resources to asses and manually modify creek mouths and instream fish barriers at selected Mid Klamath tributaries. The MKWC fisheries crew receives technical consultation from fisheries biologists from the Karuk Tribe, Six Rivers National Forest, and Klamath National Forest.

Work Samples

MKWC was subcontracted to perform implementation services, public outreach, and labor for the SRRC's completed and ongoing fish passage improvement projects that were funded by CDFW (#P1810516, 2019-2020; #P1610523, 2017-2018; #D1410505, 2015-2017). Additionally, MKWC was funded from 2012 to 2017 by a PacifiCorp grant ("Mid Klamath Creek Mouth Enhancement Project") to conduct creek mouth enhancement at tributaries ranging from Bogus Creek (Iron Gate Dam) to Hopkins Creek (Weitchpec).

**Was Work Funded by CDFW?*** Yes

## ---FORM: Landowner Access and Permit---

## Landowner Access*

| Landowner | Description of Access Agreement | How Will Access Be Secured For The Entire Project |
|---|---|---|
| United States Forest Service, Klamath National Forest | The United States Forest Service is the primary land manager in the Salmon River watershed. The Klamath National Forest (KNF) has granted access to CDFW and NOAA Fisheries resprensentative to perform evaluations for this project. KNF has also granted access to SRRC and project subcontractors (MKWC) to perform the work necessary to complete the project. | This is an ongoing project. A landowner access agreement is already in place for each landowner whose property is included in the project area. |
| Robert Will | Access to the mouth of Little North Fork, tributary to the North Fork Salmon River, has been granted by the landowner. | This is an ongoing project. A landowner access agreement is already in place for each landowner whose property is included in the project area. |
| Elizabeth Hanauer | Access to the mouth of Knownothing Creek, tributary to the South Fork Salmon River, has been granted by the landowner. | This is an ongoing project. A landowner access agreement is already in place for each landowner whose property is included in the project area. |
| Konrad Fisher | Access to the mouths of Stanshaw Creek and Sandy Bar Creek, tributaries to the Klamath River, has been granted by the landowner. | This is an ongoing project. A landowner access agreement is already in place for each landowner whose property is included in the project area. |

## Landowner Information

**Is the Applicant the Landowner?*** No

**Is Landowner Access Needed for this Project?*** Yes

## Permits

Select all government permits known to be needed to complete this project.
If permits are not applicable because your project does not involve on-the-ground work, please select 'N/A'.

**Government Permits:*** N/A

Of the permits selected above, list which permits will be secured by the applicant themselves.

**Which Permits Will The Applicant Secure?*** NA

This field is limited to 500 characters.
Enter NA if not applicable.

## CEQA

List the lead CEQA agency for this project as follows:

- If the applicant will complete their own CEQA, state 'Applicant';
- If applicant will go through another agency for CEQA, list that agency here;
- If applicant would like to be included in the FRGP CEQA process, state 'CDFW'; and
- If the project does not require CEQA, please explain.

**Provide the Lead CEQA Agency:*** This project is exempt from CEQA due to its small size.

This field is limited to 500 characters.

Indicate the total number of gallons of gasoline and/or diesel that will be used by the applicant and/or subcontractors during the project. This information is required for CEQA.
If the applicant will complete CEQA independently of CDFW or if no fuel will be used, enter zero.

**Fuel (Gallons):*** 400 Gasoline; 50 Diesel

Is the work mitigation pursuant to CEQA or other authority?

**Mitigation:*** No

## *Species*

**Listed Species:**

## ---FORM: Budget---

## Expenditure Forecast Table

| Grant Year (0 - 4) | Year 1: Expected Spending | Year 2: Expected Spending | Year 3: Expected Spending | Year 4: Expected Spending | Year 5 (Opt): Expected Spending | Total Annual Forecast: |
|---|---|---|---|---|---|---|
| 2 | $50,000.00 | $48,217.00 | $0.00 | $0.00 | $0.00 | $98,217.00 |

## Personnel Services

| Project Role | CDFW Requested Amount |
|---|---|
| Restoration Director | $2,800.00 |
| Program Coordinator | $14,000.00 |
| Crew Leader | $2,880.00 |
| Field Technicians | $14,000.00 |
| | **$33,680.00** |

## Staff Benefits

Enter the total staff benefits requested for this grant.

**Staff Benefits***
$11,114.00
CDFW Requested Amount

## General Operating Expenses

| General Operating Expense Item | CDFW Requested Amount |
|---|---|
| Office Supplies | $250.00 |
| Misc. Field Supplies | $1,000.00 |
| Waders and Boots | $1,200.00 |
| Quat-265 Disinfectant | $160.00 |
| GIS Software Subscription | $200.00 |
| Garmin In-Reach Satellite Safety Device Subscription | $300.00 |
| Field Laptop Computer Use | $960.00 |
| Mileage | $1,725.00 |
| | **$5,795.00** |

## Subcontractors

| Subcontractor Name or Role | CDFW Requested Amount |
|---|---|
| Mid Klamath Watershed Council | $40,069.00 |
| | **$40,069.00** |

## Indirect Costs

**Indirect Charge Rate (%)***
10.0

**Indirect Costs***
$7,559.00
CDFW Requested Amount

## Equipment & Electronics - Excluded Items

| Equipment and Other Items | CDFW Requested Amount |
| --- | --- |
| | $0.00 |

## *Totals*

| | |
| --- | --- |
| **Personnel Services + Staff Benefits** | $44,794.00<br>CDFW Requested Amount |
| **General Operating Expenses** | $5,795.00<br>CDFW Requested Amount |
| **Subcontractors** | $40,069.00<br>CDFW Requested Amount |
| **Indirect Costs** | $7,559.00<br>CDFW Requested Amount |
| **Equipment & Electronics - Excluded Items** | $0.00<br>CDFW Requested Amount |
| **CDFW Requested Amount** | $98,217.00 |

## ---FORM: Cost Share---

## Amount Requested from CDFW

This amount is imported from the Budget Subtotals form. Please select 'Edit' then 'Save' to update this field.

**Cash***: $98,217.00

## Applicant

Enter the amount of cash the Applicant is contributing towards completion of the project.

**Cash***: $0.00

**Status***: Unsecured

Enter the amount of In-kind services the Applicant is contributing towards completion of the project.

**In-kind***: $6,569.00

Brief summary of how cost share resources will be applied to project. Where applicable, link to tasks identified in the Description of Activities, e.g., Task 3 – project construction activities at site 1a.

**Brief Summary***: Our applicant in-kind includes volunteer time doing project implementation (Task 6), field supplies, boots and waders that SRRC already owns or will purchase with other funds (Task 2-4), volunteer mileage (Task 6), and implied administrative overhead.

This field is limited to 1,000 characters.

**Total**: $6,569.00

## Other State Agencies

| Agency Name | Cash* | Status* | Date Awarded /Anticipated Award Date* | Date Cash Expires* | In-kind* | Brief Summary* | Total |
|---|---|---|---|---|---|---|---|
| | | | | | | | **$0.00** |

## Federal Agencies

| Agency Name | Cash* | Status* | Date Awarded /Anticipated Award Date* | Date Cash Expires* | In-kind* | Brief Summary* | Total |
|---|---|---|---|---|---|---|---|
| | | | | | | | **$0.00** |

## Other Sources, Including Project Partners

| Agency Name | Cash* | Status* | Date Awarded /Anticipated Award Date* | Date Cash Expires* | In-kind* | Brief Summary* | Total |
|---|---|---|---|---|---|---|---|
| Mid Klamath Watershed Council | $15,000.00 | Unsecured | 11/30/2020 | 09/30/2023 | $800.00 | The cash cost share is a pending application to USFWS to support additional Mid-Klamath fish passage work (Task 2-4). The in-kind is dive and survey gear, camera and GPS units already owned by the Mid-Klamath Watershed Council, which will be used for project implementation. | $15,800.00 |
| | | | | | | | **$15,800.00** |

## Total Project

| Sources: | Cash* | In-Kind* | Total Project |
|---|---|---|---|
| Total Project Cost: | $113,217.00 | $7,369.00 | $120,586.00 |

## ---FORM: Budget Justification---

## Budget Justification

| Task Number/Name | Activity/Equipment/Subcontractor/Travel | Cost Per Unit | Amount of Cost Share (Non-CDFW Funds) | CDFW Amount Requested | Justification |
|---|---|---|---|---|---|
| Indirect Charges Justification | Administrative Overhead | $0.00 | $1,005.00 | $7,559.00 | The administrative overhead is charged at the 10% De Minimis Indirect Rate. The overhead on our Cost Share is charged at our organization's normal rate of 20%. It will cover costs associated with bookkeeping, grant management, insurance, rent and utilities. |
| Task 1-6 | Personnel Services | $0.00 | $2,543.00 | $44,794.00 | There are no unusual costs associated with the personnel services in this project. The Community Volunteer hourly pay rate is based on the 2020 federal rate. |
| Task 2-4 | Subcontractor | $0.00 | $15,800.00 | $40,069.00 | The Mid Klamath Watershed Council will conduct assessment and barrier treatment on the Mid-Klamath and Scott River tributaries. |
| Task 1-6 | Materials and Supplies | $0.00 | $2,200.00 | $2,540.00 | The $250 in office supplies will be used to cover the costs of items such as paper, toner, pens, notebooks, etc. that are used in the completion of all tasks. The $1000 in misc. field supplies will be used to cover the costs of items such as neoprene and work gloves, rock bars, masks and snorkels, clipboards etc. that are used in the completion of tasks 2-6. The $1200 in Waders in Boots will be used to purchase 4 sets to be used in the completion of tasks 2-4. The cost share of $2200 for field supplies and waders and boots represent equipment already owned by SRRC that will be used for this project. |
| Task 2-4, 6 | Quat-265 Disinfectant | $160.00 | $0.00 | $160.00 | The Quat-265 will be used to disinfect field gear that travels between the Mid-Klamath and Salmon Rivers. |
| Tasks 1-5 | Field Laptop Computer Use | $160.00 | $0.00 | $960.00 | The $960 for field laptop computer use is reimbursement for the use of an SRRC laptop that will be used to collect and process data, create maps, edit monitoring photos, etc. for the 3 month field season each year at $160/month. |
| Tasks 1-5 | GIS Software Subscription | $100.00 | $0.00 | $200.00 | This $200 covers the annual maintenance fee for the GIS software that is used to create the site maps, fish presence/absence maps, etc. necessary for Tasks 1-5 of the project. |
| Task 2-4 | Garmin In-Reach Satellite Safety Device Subscription | $150.00 | $300.00 | $300.00 | Since there is no cell phone coverage on the Salmon River, our crews use Garmin In-Reach devices to communicate in case of emergency. The $300 subscription cost covers 2 years for 1 device. We are contributing $300 in cost share for the subscription costs for a second device. |
| Task 1-6 | Mileage | $0.58 | $431.00 | $1,725.00 | This $1725 covers mileage to get to and from project sites and trainings. The $431 in cost share is from volunteer participation in project implementation. |

## ---FORM: Supplementary Documents---

## Supplementary Documents

| | |
|---|---|
| **1. Intermediate Plans.*** | No<br>(Project Types: FP, SC) |
| **2. Conceptual Plans.*** | No<br>(Project Types: HU) |
| **3. Intermediate or Conceptual Plans.*** | Yes<br>(Project Types: HB, HI, HS, WC, WD) |
| **Intermediate or Conceptual Plans Documentation** | **Conceptual Plan.pdf** |
| **4. Project Location Topographic Map.*** | Yes<br>(Project Types: EF, FP, HB, HI, HR, HS, HU, MO, PD, PL, RE, SC, WC, WD) |
| **Project Location Topographic Map Documentation** | **Fish_Passage_Topo_MapBook_2020_FINAL_lowres.pdf** |
| **5. Watershed (or County) Map.*** | No<br>(Project Types: EF, HU, MO, OR, PD, PI, PL, RE, TE, WD) |
| **6. Provisional Landowner Access Agreement/Provisional Resolution.*** | Yes<br>(Project Types: FP, HB, HI, HR, HS, HU, MO, PD, PL, RE, SC, TE, WC, WD) |
| **Provisional Landowner Access Agreement/Provisional Resolution Documentation** | **Landowner Access 2020.pdf** |
| **7. Applicable Detailed Budget Spreadsheet (Including Subcontractors) *** | Yes<br>(Project Type: All) |
| **Applicable Detailed Budget Spreadsheet (Excel)** | **2020 FRGP Application Budget Spreadsheet.xlsx** |
| **8. Federally Approved Indirect Rate Letter (NICRA)*** | Yes<br>(Project Type: All) |
| **Federally Approved Indirect Rate Letter (Excel)** | **Federal NICRA Supplemental Doc.pdf** |
| **9. Water Law Compliance Documents*** | Yes<br>(Project Types: FP, HB, PD, SC, WC, WD) |
| **Water Law Compliance Documentation** | **Water Right Compliance Explanation.pdf** |
| **10. Photographs*** | Yes<br>(Project Types: EF, FP, HB, HI, HR, HS, HU, PD, RE, SC, WC, WD) |
| **Photographs** | **SRRC_Photographs.pdf** |
| **11. Status Report*** | No<br>(Project Types: OR, PI) |
| **12. Fence Maintenance Plan*** | No<br>(Project Type: HR) |
| **13. Riparian Restoration Plan.*** | No<br>(Project Type: HR) |
| **14. Quality Assurance and Quality Control (QA/QC) Plan*** | No<br>(Project Type: MO) |
| **15. Existing Condition Sketch*** | No<br>(Project Type: PD) |
| **16. Five year Management Plan*** | No<br>(Project Type: RE) |
| **17. Evaluation Plan*** | No<br>(Project Type: EF, TE) |
| **18. Invasive Species Prevention Plan *** | Yes<br>(Project Type: All) |
| **Invasive Species Prevention Plan Documentation** | **Invasive Species Preventation Plan_2020.pdf** |
| **19. Reference Documents*** | No<br>(Project Type: MO, PL) |
| **20. Program Permit Requirements – Appendix E*** | Yes<br>(Project Types: EF, FP, HB, HI, HR, HS, HU, SC, WC, WD) |
| **Appendix E** | **SRRC_2020_Permit Requirements.xlsx** |

| | |
|---|---|
| **21. Instream Benefits and Impact Analysis*** | No<br>(Project Type: (PD, WC) |
| **22. Water Accounting and Consumptive Use Analysis*** | No<br>(Project Type: (PD, WC) |

## *Additional Attachments/Documentation*

| Description: | Additional Attachments/Documentation: |
|---|---|
| Subcontractor Budget Spreadsheet | **2020 FRGP Subcontractor Budget_MKWC.xlsx** |
| Subcontractor NICRA Letter | **MKWC-NICRA_18F20P.pdf** |

***---FORM: Internal Documentation---***

***Internal Notes/Comments***

| Date: | Note/Comment: |
|---|---|

***Outside Communication***

| Date of Communication: | Communication Type: | Describe Other: | From: | To: | Subject: | Message: | Attachments: |
|---|---|---|---|---|---|---|---|

***Attachments/Uploads***

| Date: | Description: | Attachment: |
|---|---|---|

**Return to Top**