**PROJECT INFORMATION FORM**

**Please complete a unique Project Information Form for each project in the application. There are no character limits on specific questions, but the Project Information Form may not exceed 10 pages.**

1. Project Name: **Scott Valley Drought Resilience and Water Supply Enhancement**
2. Local Project Sponsor (if different from the grantee): **N/A**
3. Please Provide the Latitude and longitude of the project site. For Linear projects or those covering a large area, report the coordinates for a central point. If this information is confidential, it must be clearly labeled “confidential”. You can find the latitude and longitude easily using google maps.

Latitude: **41°28'55.1"N** Longitude: **122°51'28.6"W**

1. Please briefly describe the proposed project.

The Scott Valley Drought Resilience and Water Supply Enhancement project (Project) is intended to address the human and environmental impacts due to one of the most severe droughts on record. Scott Valley is located within Siskiyou County, one of the areas for which Governor Newsom declared a drought emergency in May 2021. As dry conditions continue in 2022, action is needed to address the ongoing impacts of drought conditions on water supply, which is critical for human, economic, and ecological health in Scott Valley. This project will also serve to increase preparedness for future drought conditions and improve drought resiliency in Scott Valley.

This project focuses on the implementation and monitoring of groundwater recharge projects. Work under this project will expand on the existing recharge conducted in Scott Valley under the SVID Recharge Pilot Project. This project uses SVID infrastructure to spread and store water diverted during high river flows in winter months to increase groundwater elevations and support baseflow in the Scott River during critical dry periods in the summer and fall. This will include recharge implementation, monitoring to quantify benefits, data compilation and analysis, water rights permitting, and stakeholder outreach.

*Existing Recharge and Monitoring in Scott Valley*

Funding was secured for the SVID Pilot Project from the National Fish and Wildlife Foundation (NFWF) in September of 2020. Under this Pilot Project, water was diverted from February to March 2021. In March 2022, a temporary permit to appropriate water from the Scott River was approved by the State Water Resources Control Board, allowing a maximum of 5,400 acre-feet per year to be diverted from January 1- March 31st. This project serves as the basis for future implementation of groundwater recharge in Scott Valley as a tool to enhance water supply and streamflow and improve resilience to drought. Monitoring associated with 2021 recharge included isotope analysis of water from the Scott River, SVID, recharge water groundwater, and rain samples. Groundwater levels were monitored using a water level sounder in two locations. Additional monitoring infrastructure that has been installed since spring 2021 includes pressure transducers in ten existing wells and installations are ongoing.

*Task 1: Grant Administration*

This task includes conducting general grant administration including reporting, invoicing, and tracking the progress of the project in relation to the established timeline.

*Task 2: Project Design and Outreach*

This task will focus on developing a plan for strategic implementation of groundwater recharge in Scott Valley. This will include:

Subtask 2.1 will include planning and logistics for expanded recharge implementation. Although four sites have been identified in Scott Valley for recharge, additional planning and design is required. This includes prioritization of sites for groundwater recharge, infrastructure requirements, and access or landowner agreements.

Subtask 2.2 will focus on design of the monitoring network, and subsequent plan for data collection and analysis to quantify groundwater recharge benefits.

Subtask 2.3 will focus on public outreach and engagement for the initial SVID Pilot Project and the broader expansion of groundwater recharge implementation in Scott Valley. This includes discussions with key agencies including SVID and the State Water Board in addition to general outreach to Scott Valley residents.

*Task 3: Monitoring*

Subtask 3.1 Installation and maintenance of instream flow stations

At least two instream flow stations are planned for implementation. This task involves any equipment and personnel required for installation of these stations and any maintenance required.

Subtask 3.2 Monitoring wells and maintenance

At least five monitoring wells will be instrumented with pressure transducers, connected via telemetry to monitor continuous groundwater levels. Between five and ten of wells in the monitoring network will also be outfitted to measure electrical conductivity. Additionally, at least five shallow piezometers will be installed to form transects across Scott River. This task includes the labor and materials to instrument these wells and quarterly site visits, as well as any maintenance required.

Subtask 3.3 Maintenance of existing monitoring infrastructure

This task involves continued maintenance, site visits, and troubleshooting for the existing monitoring network associated with the SVID Recharge Pilot project.

*Task 3: Recharge*

**If flows in Scott River are sufficient January to March 2023, recharge is anticipated to be conducted. This project will divert surface water through the SVID conveyance system and apply water to selected sites during the non-irrigation season.**

Task 3.1 Installation of infrastructure required

This task involves installation and maintenance of any infrastructure required to conduct groundwater recharge. This may include pump stations, PVC, and fittings, and measuring weirs. Required infrastructure will be site-specific. Infrastructure for measuring the volume of water applied at each recharge site is necessary.

Task 3.2 Recharge Implementation

**This task involves monitoring instream flows to identify periods where diversion is possible, diverting water, and application of water onto selected sites. During the recharge implementation the infiltration estimates will be completed.**

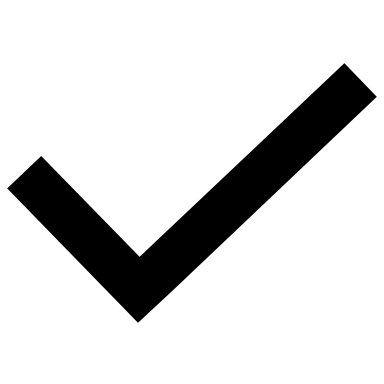
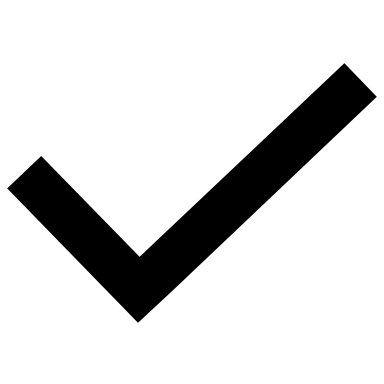
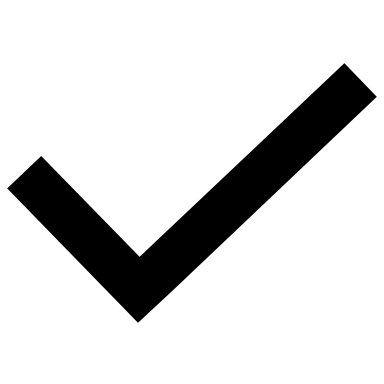
*Task 4: Water Rights*

Subtask 4.1 will include annual applications for temporary water rights permits for groundwater recharge from the State Water Board. This task is anticipated to continue until a permanent permit for groundwater recharge is obtained. The temporary permit for this year (approved March 2022) will be modified and submitted for approval for recharge implementation in winter 2023.

Subtask 4.2 will be completed in parallel to subtask 4.1. This task includes work towards obtaining a permanent permit for groundwater recharge. This may include conducting environmental impact studies to comply with CEQA, discussions with the State Water Board and provision of other information, as required by the permit application.

1. Does this project respond to an existing emergency to humans and/or wildlife? If so, please describe the emergency and how this project is addressing it.

**This project primarily responds to existing water supply and security concerns, threatening the economic and physical health of residents and ecoystem health. Existing impacts due to drought conditions are discussed in detail in response to Question #12. Through implementing groundwater recharge, this project addresses the depletions in streamflow in Scott River and associated ecological impacts. Additionally, this project addresses decreases or disruptions in water supply under drought conditions through augmenting groundwater resources.**

1. Each Project must meet one of the following purposes as it related to drought. Please select the appropriate purpose for your project.
   1. Address immediate impacts on human health and safety, including providing or improving availability of food, water, or shelter. 
   2. Address immediate impacts on fish and wildlife resources. 
   3. Provide water to persons or communities that lose or are threatened with the loss or contamination of water resources. 
2. Each project must enhance regional drought resilience and align with the goals and objectives of the relevant approved Integrated Regional Water Management Plan. You can find the relevant IRWM Region by using the map at the following link: <https://gis.water.ca.gov/app/dacs/>

**The North Coast IRWM outlines six goals and their supporting objectives. This project addresses multiple objectives including: ensuring water supply reliability, protecting groundwater resources from overdrafting and contamination and the objectives under the ecosystem and conservation enhancement goal particulalry with conservation and enhancement of aquatic ecoystems and salmonid populations.**

1. Describe the Primary Benefit of the Project

Quantified benefit: **2,400-4,500**

Units: acre-feet If other please enter:

Benefit Type: groundwater recharge If other please enter:

**The primary benefit of the project is an increase in groundwater recharge. This estimate is based on 500 to 600 acres of land used for groundwater recharge. This benefit is primarily constrained by water availability. The U.S. Forest Service (USFS) has a right to 426 cfs as daily mean flow or calculated average during the preceding 10 days from January through March as measured at the Fort Jones Gauge. Achieving sufficient flow to meet this water right and be able divert for groundwater recharge is a limiting factor for groundwater recharge benefit.**

1. Describe the Secondary Benefit of the Project

Quantified benefit: **25 miles**

Units: miles If other please enter:

Benefit Type: improved instream flow If other please enter:

**The secondary benefit of the project is increased instream flows during summer and fall dry periods due to increased recharge in the winter months. This improves conditions for fish passage, accessibility, and habitat. The length of Scott River that is expected to benefit from this increased instream flow is the stretch of river between Young’s Dam (river mile 46) to the USGS gauging station at Fort Jones (river mile 21), or around is 25 miles.**

1. Please briefly describe how the project will achieve the claimed benefits.

**Increased groundwater recharge was quantified assuming a total of four recharge projects, using an infiltration rate from a previous study in Scott Valley1. Since water availability is likely to be the limiting factor, it was assumed excess winter surface water runoff would be diverted for 60 days, instead of the full 90 days within the January to March period. The recharge benefit is a preliminary estimate and will change based on water availability, site characteristics and detailed designs. The augmentation to groundwater storage will help increase water supply reliability for Scott Valley residents, both for consumption by residents and to support economic activity, primarily through supporting agricultural water consumption needs.**

**This project will also indirectly support instream flows through critical summer and fall periods. This will be accomplished through increasing groundwater available to contribute to baseflow in the river during these critical periods. Supporting instream flows will improve habitat and accessibility for aquatic species, particularly for anadromous fish.**

1. Briefly describe how the community/ area benefiting from this project is being impacted by the current drought.

As stated in response to question #1, Governor Newsom identified Siskiyou County one of the areas in California experiencing an emergency due to drought conditions. According to NOAA's National Integrated Drought Information System (NIDIS[[1]](#footnote-1)), 100% of people in Siskiyou County are currently (as of March 7, 2022), affected by drought. The majority (81.73%) of the County is classified as "D2 - Severe Drought", defined as a condition where "grazing land is inadequate," "the fire season is longer,” and "trees are stressed; plants increase reproductive mechanisms; wildlife diseases increase." Furthermore, 18.27% of the County is classified as "D3 - Extreme Drought" where "livestock need expensive supplemental feed; cattle and horses are sold; little pasture remains; fruit trees bud early; producers begin irrigating in the winter," "fire season lasts year-round; fires occur in typically wet parts of the state; burn bans are implemented,” and "water is inadequate for agriculture, wildlife, and urban needs; reservoirs are extremely low; hydropower is restricted."

In response to emergency drought conditions and critically low flows in the Scott River watershed, the State Water Resources Control Board issued curtailment orders to water rights holders in the Scott River watershed in September 2021. These curtailment orders were implemented to leave more water instream for human and livestock use as well as for habitat and migratory conditions of anadromous fish including coho salmon, steelhead trout and fall-run Chinook salmon[[2]](#footnote-2).

Agricultural water users in Scott Valley are concerned about severe reductions in water available for the summer of 2022, and for longer-term economic implications in reductions to water availabiltiy[[3]](#footnote-3).

1. How will this project alleviate the impacts described in your answer to Question 11?

**This project will use winter flows to augment baseflow in the Scott River during critical summer and fall periods. This will primarily benefit aquatic environments and species that rely on them such as anadromous fish. Additionally, this project will increase groundwater supply and support urban and agricultural water needs. Increasing water supply and security in Scott Valley will not provide adequate water for consumption but will also help to alleviate some of the severe concerns over economic sustainability in the area, as discussed in response to Question #11.**

Please complete the following budget table for this project. (Identify funding sources in Question 15).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Budget Category** | **Grant Amount** | **All Other Cost** | **Total** |
| **(a)** | Project Administration |  |  |  |
| **(b)** | Land Purchase/ Easement |  |  |  |
| **(c)** | Planning/ Design/ Engineering/ Environmental Documentation |  |  |  |
| **(d)** | Construction/ Implementation |  |  |  |
|  | **TOTAL COSTS** |  |  |  |

[budget- incomplete\*\*]

1. Please describe why state funding is needed for this project. If state funding is not secured what will happen to the project?

**The DAC Mapping Tool (available: https://gis.water.ca.gov/app/dacs/) categorizes communities based on the median household income (MHI) as compared to the State average. The two major population centers in Scott Valley are Etna and Fort Jones, both of which qualify as a disadvantaged community. Etna is classified as a Disadvantaged Community (DAC), and Fort Jones is identified Severely Disadvantaged Community (SDAC). The entirety of Scott Valley is located within Census Tracts that are designated as DACs. Human and environmental impacts due to drought are significant in Scott Valley and the County does not have financial resources to respond to implement projects and actions to respond to these impacts. Without state funding these projects are likely to be downsized significantly, if they are undertaken at all.**

1. Will the applicant provide cost share (encouraged but not required) and/or will this project require any additional funding from other sources other than this solicitation? If so, please describe the funding source and indicate if the funding has been secured. If the funding has not been secured, please describe the plan to secure the necessary funding.

The applicant will use UC Cooperative extension funding to cost share for part of this project. Funding has already been secured from NFWF for the SVID Recharge Pilot Project. This funding will work in parallel to this project for recharge implementation, permitting, and expansion of the monitoring network.

1. Is land acquisition or landowner permission required for this project? If so, please briefly describe the status of the acquisition or agreement with the landowner. If the acquisition is not complete or permission not secured at the time of the application, please describe the plan to complete it.

**Landowner permission will be required to complete a number of tasks within this project including the field monitoring, isotope sampling, and implementation of recharge. Landowner permission has already been obtained for the SVID Recharge Pilot Project. Permission will be obtained for all landowners for areas targeted for implementation of recharge, and for areas where monitoring is planned to occur. This permission will be acquired following final site identification for monitoring and recharge implementation. Landowner permission will determine whether a targeted area for recharge or for monitoring will be used. Additionally, stakeholder outreach is an important part of this project and will be conducted throughout project implementation (see response to Question #4 for additional detail).**

1. Has planning and design for this project been completed? If not, please describe the status of planning and design.

**Planning and design for this project has not been completed. While the SVID Recharge Pilot Project is underway, additional planning is required for expanded recharge implementation and associated monitoring. Preliminary planning, including selection for a total of four sites for groundwater recharge, has been completed but a formalized, comprehensive groundwater recharge plan is still required. Additionally, a monitoring plan is needed, both for expanded monitoring for the SVID Recharge Pilot Project, and for any expanded recharge operations. Work towards final planning and design is discussed in response to Question #4.**

1. Are the CEQA (and NEPA if applicable) and permitting processes for this project complete? If not, please briefly describe the permits and CEQA (or NEPA) documents to be completed and projected schedule for completion.

The CEQA permitting process has not been completed for the Project. This process is anticipated to be a requirement in obtaining a permanent permit for groundwater recharge from the State Water Board and will be carried out throughout the entirety of the project implementation period. It is recognized that the CEQA permitting process is a significant effort and this is reflected in the budget and schedule, which has been allocated for this task up until the end of this project schedule in March 2026.

1. Please briefly describe the necessary construction/ implementation for this project.

Necessary construction for this project includes installation of additional monitoring equipment for the SVID Recharge Pilot Project and any expanded groundwater recharge projects, as described in response to Question #1. Implementation of this project includes project administration and permitting, monitoring, monitoring infrastructure implementation, and data compilation and analysis. Additional detail on tasks under this project can be found in response to Question #1.

1. Please complete the schedule below for the project. Projects must be complete by March 31, 2026, to allow time for final invoice processing and retention payment before State funds expire on June 30, 2026. Project administration should end at least three months after construction.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Categories** | **Start Date** | **End Date** |
|  | Project Administration | 6/30/2022 | 3/31/2026 |
|  | Land Purchase/Easement | N/A | N/A |
|  | Planning/ Design/ Engineering/ Environmental Documentation | 6/30/2022 | 3/31/2026 |
|  | Construction/ Implementation | 9/1/2022 | 3/31/2026 |

[ May need revision\*\*\*]

1. <https://www.drought.gov/states/california/county/Siskiyou> [↑](#footnote-ref-1)
2. <https://www.waterboards.ca.gov/press_room/press_releases/2021/pr09132021-scott-shasta-curtailments.pdf> [↑](#footnote-ref-2)
3. <https://www.agalert.com/story/?id=15580> [↑](#footnote-ref-3)