Nevada Irrigation District

Staff Report

For the Maintenance & Resource Management Committee Meeting September 22, 2020

TO: Maintenance and Resource Management Committee

FROM: Neysa King, Environmental Resources Administrator
Greg Jones, Interim General Manager

DATE: September 14, 2020

SUBJECT: **District projects submitted for inclusion in the updated Cosumnes, American, Bear and Yuba (CABY) Integrated Regional Water Management Plan**

ADMINISTRATION

RECOMMENDATION

Review and discuss the projects submitted August 2020 on behalf of NID for inclusion in the updated CABY Integrated Regional Water Management Plan (IRWMP) and consider revisions to the project list.

BACKGROUND

NID staff have been involved in regional planning and deliberations of CABY since its inception and are actively participating in the Regional Water Management Group (RWMG) that is the CABY governing body today. The RWMG has nearly completed the update of the CABY IRWMP, which includes updating the CABY project list. In general, the CABY priorities include projects that concentrate on water quality, water quantity, and environmental quality. For more information, please see the CABY website at: www.cabyregion.org In Section 12.1, the Public Draft of the Revised CABY IRWM Plan summarizes projects in the following way:

> *Even in an environment of limited funding resources, CABY's diverse stakeholders have collaborated to develop projects within all programmatic areas that embrace the principles of integrated regional water management. Projects address the region's most immediate threats to those that are far-reaching, from aging infrastructure, renewable energy, water storage, and water use efficiency, to legacy mining contamination, meadows restoration, and forest health improvements. In all, these projects effectively meet the State IRWMP Standards and are in close alignment with CABY's IRWMP objectives.*

The CABY Project List is a clearing house for ideas and projects that are aligned with the CABY Plan, and will be the database that is culled through by the RWMG when an IRWM funding opportunity arises. The Project List at this stage does not constitute a recommendation for funding from the RWMG. Based on the specifics of a DWR future call for grant proposals, projects may be selected and the subset will be forwarded as a grant application package to DWR. Projects not on the Project List are not eligible for inclusion in an IRWM proposal for grant funding.

Projects may, from time to time, be added to or removed from the Project List when the RWMG elects to update the project list. The prior project list was last updated in 2009, however funding specific project solicitations have been facilitated by CABY for more recent Prop 84 and Prop 1 funding opportunities.

At this time, staff is requesting direction from the Committee regarding the projects that have been submitted on behalf of NID. The 27 projects submitted on behalf of NID were culled from all District Departments based on the criteria agreed to within the IRWM planning process.

During a recent review of the Project List by the RWMG last week, the Centennial Water Supply Project was requested for removal by the 3 non-water agency members of the RWMG. The staff representing Placer County Water Agency and El Dorado Irrigation District supported water storage and infrastructure improvements. A follow-up meeting of the RWMG is being planned.

PRIMARY ISSUE OF CONSIDERATION

At this time, staff maintains that the Centennial Water Supply Project is consistent with NID's intentions for possible future IRWMP funding consideration, and with the goals, objectives of the CABY Plan for long-term water supply provision to communities in our region. Staff reviewed the CABY Plan as requested by members of the RWMG to identify where alignment was indicated.

Staff found the following alignment with the recently updated IRWMP:

CH 7: Water Supply (taken from the revised CABY IRWM Plan- Public Review Draft)

7.3 Future Outlook Considering Water Supplies and Demands

7-23/7-24 "It should also be noted that additional water supply need is projected in areas outside of water agency Service Areas, but within their Spheres of Influence, that may be provided by the agencies in the future… Within the NID service area, small water systems interconnections are being investigated to replace diminishing water supplies.

In an effort to meet the projected water demands both inside and outside purveyor service areas, a few of the water purveyors are exploring new water storage opportunities. In El Dorado County, EDCWA continues to pursue a Central Valley Project Water Supply

Contract under PL 101-514 (Fazio) and has been successful in negotiating annual storage and delivery of up to 40,000 AF as part of the FERC re-licensing of SMUD's Upper American River Project.

A new storage reservoir on Alder Creek is also being investigated by EDCWA. Each of these projects are also identified in EID's 2013 Integrate Water Resources Master Plan. In Nevada County, NID is exploring opportunities to construct a water storage reservoir in the Bear River Watershed. The following issues that face the region can potentially impact water demands and water supplies and are under active investigation:

- *Climate change and associated hydrologic impacts*
- *Changing forest management practices and policies*
- *Aging infrastructure*
- *Improved integration of water infrastructure systems*
- *Urban conversion of current land uses*
- *Protection of water rights*
- *Water quality*
- *Watershed and ecosystem protection*
- *Integration with statewide water planning efforts*
- *State policies and regulations*
- *Surface and groundwater storage opportunities*
- *Water use efficiencies*
- *Inter- and intra-regional cooperation*
- *Conversion of open space to agricultural uses and changes in existing crop mix and patterns*

Finally, water demand in the CABY region is met not only by ensuring adequate water supply, but also by ensuring adequate water supply infrastructure to meet storage, treatment, and distribution needs of water users. EDCWA's Water Resources Development and Management Plan and EID's Integrated Resources Master Plan (2013) each identify the need for additional surface water storage to meet the long-term water supply needs in dry years in El Dorado County. NID is embarking on a long term water planning process to address current and future water supply needs to meet growth and climate change impacts. The IRWMP promotes projects that address specific infrastructure needs as well as overall water reliability for the region."

Today, staff is requesting guidance from the Committee regarding the projects in Attachment 1. Specifically, should NID continue to advance these projects, or should NID remove any of these projects from the IRWMP Project List?
These projects were gathered from each of the Departments at NID and include projects from a conceptual stage to those ready for implementation, some with CEQA completed, some exempt from CEQA – all consistent with the call for projects to incorporate into the CABY IRWMP. This project list for the CABY Plan is intended to be as inclusive as possible to represent all of the CABY regional issues and needs.

BUDGET IMPACT None

Attachment 1
Nevada Irrigation Projects Proposed for the Updated CABY IRWM Plan 2020

DESCRIPTIVE PROJECT NAME:	Carbon Forest Development Program	Centennial Water Supply Project	Dam and Spillway Improvement and Repair Program	English Meadow Restoration and Floodplain Connectivity Project
Project Sponsor: Agency/Organization:	Nevada Irrigation District	Nevada Irrigation District	Nevada Irrigation District	Nevada Irrigation District
Primary Contact Person First Name	Keane	Doug	Keane	Neysa
Last Name	Sommers	Rodrick	Sommers	King
Phone:	530-271-6733	530-273-6185	530-273-8571	530-271-6733
Email:	sommers@nidwater.com	roderick@nidwater.com	sommers@nidwater.com	kingn@nidwater.com
Will your agency/org adopt the 2018 Plan?	Yes	Yes	Yes	Yes
PROJECT TYPE:	Forest Health	Facility Construction / Infrastructure	Facility Construction / Infrastructure	Restoration
CABY Programmatic Area Addressed (See Ch. 9 of plan)	Climate Change	Climate Change, Drought, Hydropower, Infrastructure, Recreation, Water Storage, Water Supply	Hydropower, Infrastructure, Water Storage	Aquatic Biota, Climate Change, Drought, Fire and Fuels, Fisheries, Groundwater, Habitat Alteration, Headwaters Protection, Instream Flow, Meadows, Sediment Management, Water Storage, Water Supply, Water Quality
Which Resource Management Strategies does your project address? (see Ch. 10 of plan)	Forest Management	Surface Storage - Regional/Local	Surface Storage - Regional/Local	Ecosystem Restoration, Forest management, Groundwater, Watershed Management
BRIEF DESCRIPTION OF PROJECT: WHAT, WHERE, WHEN, HOW (750 character limit)	This program aims to create and maintain carbon forests in the Bear River and Yuba River watersheds. Carbon forests are stands of trees which are treated to promote growth and monitored to accurately track the amount of carbon sequestration that occurs within the stand. By mechanically thinning understory vegetation in these areas, carbon sequestration rates will be accelerated within the residual stand; then they may be tracked and monitored to quantify carbon sequestration rates. Projects will occur between 2021 and 2025	This project proposes the construction of a new reservoir between Rollins Reservoir and Combie Reservoir in the Bear River Canyon to address potential water shortages resulting from climate change. Projects will occur between 2021 and 2025	Repairs, stabilization, concrete lining, and equipment replacement on dams and spillways at Scotts Flat, Combie, Bowman, French Lake, Jackson Meadows, Jackson Lake, Rollins and Sawmill Reservoirs. Projects will occur between 2021 and 2025	English Meadow is a high elevation montane meadow environment located 30 miles northwest of Lake Tahoe upstream of NID-owned Jackson Meadows Reservoir, a key water storage facility in the NID system. Due to historic inundation of the meadow for use in hydraulic mining, English Meadow has become degraded and the river incised, which has caused a habitat shift as well as disconnection of the floodplain and river channel. This project proposes to construct woody debris jams in the mainstem to slow the velocity of the stream, reconnect the floodplain and channel, reduce erosion, and create pool and riffle habitats throughout the meadow. In addition, lodgepole pine encroachment due to excavated drainage ditches is causing xeric trend in meadow soils that will be remedied by removal of the upland vegetation and the filling of the drainage ditches as well as headcuts caused by the stream incision. The final treatment proposed by this project will mechanically thin the slopes of the meadow; removing dense fire fuels, improving forest health, carbon sequestration, groundwater availability, and snowpack accumulation. Projects will occur between 2021 and 2025

COLLABORATORS/ PARTNERS: List all partners who have already agreed to collaborate.	N/A	N/A	N/A	Sierra Nevada Conservancy, Plumas Corporation, Sacramento State University, Beedy Environmental Consulting, Sean Barry (Herpetologist), g2 Archaeology
What is the technical feasibility of this Project? List background documents that support this assessment.	Mechanical thinning projects are commonplace within the districts forest management programs. A Registered Professional Forester is available to guide treatments and quantify carbon sequestration rates accurately.	Nevada Irrigation District employs a full department of qualified engineers, operations personnel, and maintenance staff that will administer the work described by this project. Using methods from previous reservoir construction projects conducted by NID in the past, the new reservoir will be constructed by qualified contractors.	Nevada Irrigation District employs a full department of qualified engineers, operations personnel, and maintenance staff that will perform the work described.	NID has assessed baseline conditions within the meadow with a team of experts across many fields relevant to meadow restoration since 2016. In addition, a stream gauge was installed, groundwater elevation wells, and HOBO temperature gauges were installed to monitor pre-treatment and post-treatment stage height, temperature, and groundwater elevations throughout the year. Data collected has been submitted in reports to NID and informed our recent proposal to the Wildlife Conservation Board to implement the proposed project.
Does the Project provide direct water-related benefits to a DAC/EDA/SDAC?	Yes	Yes	Yes	Yes
Does this Project benefit a community with identified Environmental Justice issues?	unknown	unknown	unknown	unknown
How does the Project help the CABY Region adapt to climate change?	Enhancing carbon sequestration rates on forested properties will help to reduce the amount of atmospheric carbon.	As climate change continues to shift the timing and availability of water as well as increase average temperatures, water storage efficiency upgrades and continued provision of clean water supply to customers will help communities in the CABY region adapt to climate change.	Maintaining the functionality of surface storage reservoirs will ensure that NID will continue to provide water resources to communities while also maintaining surface storage of water. As climate change continues to shift the timing and availability of water as well as increase average temperatures, water storage efficiency upgrades and continued provision of clean water supply to customers will help communities in the CABY region adapt to climate change	Wet meadows are rare features in the Sierra Nevada that host wetland and riparian vegetation which sequester carbon at accelerated rates. Improving the functionality of the meadow will expand wetland habitat and improve carbon sequestration throughout the area. In addition, restoration of English Meadow has the potential to store 460 acre-feet of groundwater within the meadow aquifer upon successful reconnection of the floodplain to river channel; increasing water availability for downstream water users, while also preventing excess erosion which would deposit capacity-reducing sediment into Jackson Meadows. By thinning the slopes of dense fire fuels and increasing the soil moisture in the meadow, this watershed feature will become more fire and climate change resilient.
Will the project reduce GHG emissions?	Yes	No	no	Yes
Is the project sponsor a Native American tribal community?	No	No	no	No
Does the Project provide specific benefits to a critical water issue of a Native American tribal community?	No	No	no	No

Design complete	Yes	No	No	Yes
Engineering complete	unknown	No	No	Yes
CEQA/NEPA complete	unknown	No	No	No
Performance Standards identified	Yes	Yes	Yes	Yes
Monitoring Plan complete	unknown	No	No	No
Study/Assessment	unknown	No	No	Yes
Land Tenure/Site Control	Yes	Yes	Yes	Yes
List Permits Required	unknown	Unknown	Unknown	Mitigated Negative Declaration, CDFW 1600 Lake and Streambed Alteration, Federal CWA Section 404 Permit, Section 401 Certification, CAL FIRE 1038 Exemption 10% Dead, Diseased and Dying Permit.
Total Project Budget: If not known at this time, please give reasonable estimate.	$300,000.00	$200 million - $300 million (see 2017 Engineering Report)	$10,000,000.00	$1,500,000.00
Percent Match Available: Indicate source and certainty.	Unknown	Unknown	Unknown	22% NID General Fund, high level of certainty
Project Location (Lat) e.g. 39.xxxxxx	39.156178	39.227472	39.227472	39.457781
Project Location (Long) e.g. -120.xxxxxx	-120.919122	-121.051659	-121.051659	-120.522395
Should this project be considered for funding in the 2019 DWR grant round? (DWR will require that your project has CEQA complete and is aligned with Proposal Solicitation: https://water.ca.gov/Work-With-Us/Grants-And-Loans/IRWM-Grant-Programs/Proposition-1/Implementation-Grants)	Yes	Yes	Yes	Yes
DESCRIPTIVE PROJECT NAME:	**Hemphill Diversion Fish Passage Project**	**Hydroelectric Power House Efficiency Upgrade Program**	**Irrigation District Safety Training Tower and Rescue Equipment Project**	**Peninsula Campground Sewer System Replacement Project**
Project Sponsor: Agency/Organization:	Nevada Irrigation District	Nevada Irrigation District	Nevada Irrigation District	Nevada Irrigation District
Primary Contact Person First Name	Doug	Keane	Don	Monica
Last Name	Rodrick	Sommers	Bird	Reyes
Phone:	530-273-6185	530-273-8571	530-273-6185	530-265-8861
Email:	roderick@nidwater.com	sommers@nidwater.com	bird@nidwater.com	reyes@nidwater.com
Will your agency/org adopt the 2018 Plan?	Yes	Yes	Yes	Yes

PROJECT TYPE:	Restoration	Facility Construction / Infrastructure	Best Management Practices	Facility Construction / Infrastructure
CABY Programmatic Area Addressed (See Ch. 9 of plan)	Aquatic Biota, Fisheries, Habitat Alteration,	N/A	Infrastructure, Water Operations Management	Contamination, Infrastructure, Recreation, Wastewater management
Which Resource Management Strategies does your project address? (see Ch. 10 of plan)	Ecosystem Restoration,	Surface Storage	Watershed Management	Pollution Prevention,
BRIEF DESCRIPTION OF PROJECT: WHAT, WHERE, WHEN, HOW (750 character limit)	Construction of a fish passage around the Hemphill Diversion structure which diverts water from the Auburn Ravine for agricultural uses. Construction of the passage will allow salmonid fish species to run upstream past the diversion to improve upstream fisheries and ecosystem health. Projects will occur between 2021 and 2025	Necessary upgrades to hydroelectric powerhouses to better utilize water resources to generate low-carbon electricity. NID's Hydroelectric Department owns and operates 7 powerhouses in the Bear and Yuba watersheds that together produce 82.2 megawatts of low-carbon electricity at capacity. Increasing the efficiency of hydroelectric generation equipment is an important task to ensure water resources are utilized to their greatest extent.	NID owns and operates an elaborate water system that includes hundreds of miles of historic water storage and water conveyance canals, state of the art hydropower facilities, elevated flumes, confined spaces, tanks, trenches and pipes. It is imperative that District staff is adequately trained on the operation, maintenance, repair and rescue realities associated with this water system, and proper training necessitates expanded access to fall protection, confined space and rescue training. To accomplish this objective, NID is seeking funding to purchase a safety training tower and fall protection and rescue equipment (harnesses, ropes, etc.). Additionally, NID needs proper supplied air for confined space rescue, and associated Self Contained Breathing Apparatus (SCBA) packs, with associated air quality monitoring units.	Replacement of the sewer system at NID-owned Peninsula Campground to accommodate the number of recreational visitors utilizing the campground. Peninsula Campground is adjacent to Rollins Reservoir, a key feature in NID's water conveyance infrastructure. Projects will occur between 2021 and 2025
COLLABORATORS/ PARTNERS: List all partners who have already agreed to collaborate.	Unknown	N/A	N/A	N/A
What is the technical feasibility of this Project? List background documents that support this assessment.	Nevada Irrigation District employs a full department of qualified engineers, operations personnel, and maintenance staff that will perform the work described. NID has recently constructed a similar fish passage project on the Auburn Ravine, upstream of the proposed project area.	Qualified Hydroelectric Staff constantly maintain and operate powerhouses to state and federal standards, and are capable of upgrading equipment as necessary.	NID Currently employs qualified staff who administer safety training relevant to the various workplace risks associated with operation of the NID water system.	Nevada Irrigation District employs a full department of qualified engineers, operations personnel, and maintenance staff that will perform the work described. Replacement of aging infrastructure is an annual task successfully completed over many years.
Does the Project provide direct water-related benefits to a DAC/EDA/SDAC?	No	No	Yes	Yes

Does this Project benefit a community with identified Environmental Justice issues?	unknown	unknown	Unknown	
How does the Project help the CABY Region adapt to climate change?	Ecosystem health and functionality is an important feature of landscapes which are resilient to climate change effects. Improving habitat connectivity for salmonids can improve stream habitat for aquatic and terrestrial plant and animal species. Reintroduction of salmonids to previously inhabited reaches of streams and rivers can have positive effects on riparian vegetation which mitigate erosion and absorb atmospheric carbon dioxide.	Production of hydroelectricity produce other means of electricity generation such as s far less carbon dioxide than alternative electricity generation methods such as fuel combustion. Increasing the efficiency of hydroelectric infrastructure will produce more green energy and decrease the regions dependency on carbon producing energy generation.	Maintaining the functionality of the water delivery and treatment system throughout the year ensures the continued provision of necessary water resources to communities throughout the CABY region. The dependability of water supply will play a key role in the future as climate change shifts the region to a drier and hotter climate	Maintaining the integrity of wastewater infrastructure prevents potential contamination of nearby water storage reservoirs with harmful waste by preventing failure. Preventing human waste contamination of waterways maintains the quality of water resources utilized by customers. While this doesn't address water availability shortcomings as a result of climate change, it does maintain quality, and prevents the reservoir from becoming unusable by customers due to excess contamination.
Will the project reduce GHG emissions?	Yes	Yes	No	No
Is the project sponsor a Native American tribal community?	unknown	No	No	NO
Does the Project provide specific benefits to a critical water issue of a Native American tribal community?	unknown	No	No	NO
Design complete	No	unknown	N/A	N/A
Engineering complete	No	unknown	N/A	N/A
CEQA/NEPA complete	Yes	Unknown	N/A	N/A
Performance Standards identified	Yes	Yes	Yes	Yes
Monitoring Plan complete	No	unknown	N/A	No
Study/Assessment	No	unknown	No	No
Land Tenure/Site Control	Yes	yes	Yes	Yes
List Permits Required	Unknown	Unknown	N/A	Unknown
Total Project Budget: If not known at this time, please give reasonable estimate.	$600,000.00	$10,000,000.00	$125,000.00	$300,000.00
Percent Match Available: Indicate source and certainty.	Unknown	Unknown	Unknown	Unknown
Project Location (Lat) e.g. 39.xxxxxx	39.896542	39.216698	39.216698	39.154496
Project Location (Long) e.g. -120.xxxxxx	-121.252048	-121.061607	-121.061607	-120.946817

Should this project be considered for funding in the 2019 DWR grant round? (DWR will require that your project has CEQA complete and is aligned with Proposal Solicitation: https://water.ca.gov/Work-With-Us/Grants-And-Loans/IRWM-Grant-Programs/Proposition-1/Implementation-Grants)	Yes	Yes	Yes	Yes
DESCRIPTIVE PROJECT NAME:	**Pipeline Extension, Construction, Replacement, and Bypass Program**	**Pressure Reducing Station (Valve) Replacement Program**	**Quagga/Zebra Mussel Monitoring and Watercraft Decontamination Program**	**Raw Water Encasement, Replacement, Piping, Repair and Efficiency Improvement Program.**
Project Sponsor: Agency/Organization:	Nevada Irrigation District	Nevada Irrigation District	Nevada Irrigation District	Nevada Irrigation District
Primary Contact Person First Name	Doug	Doug	Neysa	Doug
Last Name	Rodrick	Roderick	King	Roderick
Phone:	530-273-6187	530-273-6185	530-271-6733	530-273-6186
Email:	roderick@nidwater.com	roderick@nidwater.com	kingn@nidwater.com	roderick@nidwater.com
Will your agency/org adopt the 2018 Plan?	Yes	yes	Yes	yes
PROJECT TYPE:	Facility Construction / Infrastructure	Facility Construction / Infrastructure	Monitoring	Facility Construction / Infrastructure
CABY Programmatic Area Addressed (See Ch. 9 of plan)	Infrastructure, Water Operations Management, Water Supply,	Infrastructure, Water Operations Management, Water Supply,	Aquatic Biota, contamination, Invasive Species, Water Quality	Infrastructure, Water Operations Management, Water Supply,
Which Resource Management Strategies does your project address? (see Ch. 10 of plan)	Conveyance - Regional/Local, Drinking Water Treatment and Distribution	Conveyance Regional/Local, Drinking water treatment and Distribution,	Pollution Prevention,	Conveyance-regional/local,

BRIEF DESCRIPTION OF PROJECT: WHAT, WHERE, WHEN, HOW (750 character limit)	Projects within the Pipeline Extension, Construction, Replacement, and Bypass Program center on tying existing communities in Nevada Placer and Yuba Counties into the NID water system. Projects will occur between 2021 and 2025	Replacement of deteriorated pressure reducing stations (valves) throughout Nevada, Placer, Sierra and Yuba Counties. The Pressure Reducing Station (Valve) Replacement Program is comprised of various individual replacement projects within NID's Service Area that will take place from 2021 to 2025.	NID continues to monitor Scotts Flat, Rollins, and Combie Reservoirs for the presence and likelihood of presence of Quagga and Zebra Mussels via water quality testing, water sample collection and inspection, and the deployment of artificial substrate features to detect veliger (larval) colonies. Quagga and Zebra Mussels are invasive to the western United States and are extremely harmful to water quality, ecosystem health, and the functionality of equipment and infrastructure, as they reproduce at very high rates and create shoals that can impede or stop the flow of water through pipes, penstocks, and other similar infrastructure. In order to expand upon the monitoring program, NID is investigating the possibility of developing a decontamination area in which watercraft can be inspected and decontaminated prior to entering a reservoir. Contaminated watercraft are the most prominent source of Quagga and Zebra Mussel infestation.	Encasement of existing earthen canals to prevent infiltration loss, replacement of aging pipelines and canals, and repair of raw water conveyance infrastructure throughout Nevada, Placer, Sierra and Yuba Counties. The Raw Water Encasement, Replacement, Piping, Repair and Efficiency Improvement Program is comprised of various individual replacement projects within NID's Service Area that will take place from 2021 to 2025.
COLLABORATORS/ PARTNERS: List all partners who have already agreed to collaborate.	N/A	N/A	CDFW	N/A
What is the technical feasibility of this Project? List background documents that support this assessment.	Nevada Irrigation District employs a full department of qualified engineers, operations personnel, and maintenance staff that will perform the work described. Replacement of ageing raw water infrastructure is an annual task successfully completed over many years	Nevada Irrigation District employs a full department of qualified engineers, operations personnel, and maintenance staff that will perform the work described. Replacement of ageing treated water infrastructure is an annual task successfully completed over many years.	NID employees all necessary staff to inspect and decontaminate watercraft prior to allowing access to the reservoir.	Nevada Irrigation District employs a full department of qualified engineers, operations personnel, and maintenance staff that will perform the work described. Replacement of ageing treated water infrastructure is an annual task successfully completed over many years.
Does the Project provide direct water-related benefits to a DAC/EDA/SDAC?	Yes	Yes	Yes	Yes
Does this Project benefit a community with identified Environmental Justice issues?	unknown	unknown	unknown	unknown

How does the Project help the CABY Region adapt to climate change?	Increasing the efficiency of water conveyance infrastructure will ensure that NID will continue to provide water resources to communities in the region. As climate change continues to shift the timing and availability of water as well as increase average temperatures, water conveyance efficiency upgrades and continued provision of clean water supply to customers will help communities in the CABY region adapt to climate change	Ensuring that treated water conveyance infrastructure is functional and modernized reduces system loss and increases water use efficiency. As climate change continues to shift the timing and availability of water as well as increase average temperatures, water conveyance efficiency upgrades and continued provision of clean water supply to customers will help communities in the CABY region adapt to climate change	Preventing the introduction of detrimental invasive species to waterways helps to ensure the maintained quality of water resources utilized by the community. Because QZ mussels have the potential to limit the efficiency, or disrupt all together, hydroelectric generation equipment, treated water pipelines, and raw water canals, preventing the introduction of these species will prevent decreased water availability due to necessary repair or decontamination, and will prevent the hindrance of low-carbon hydroelectric power production.	Ensuring that raw water infrastructure is maintained, repaired and upgraded where possible ensures the efficient conveyance of water resources regionally. As climate change continues to shift the timing and availability of water as well as increase average temperatures, water conveyance efficiency upgrades and continued provision of clean water supply to customers will help communities in the CABY region adapt to climate change
Will the project reduce GHG emissions?	No	No	No	No
Is the project sponsor a Native American tribal community?	No	No	No	no
Does the Project provide specific benefits to a critical water issue of a Native American tribal community?	No	No	No	no
Design complete	Yes	Yes	No	Yes
Engineering complete	Yes	Yes	No	Yes
CEQA/NEPA complete	Yes	N/A	No	Yes
Performance Standards identified	Yes	Yes	Yes	yes
Monitoring Plan complete	No	No	Yes	No
Study/Assessment	No	No	No	No
Land Tenure/Site Control	Yes	Yes	Yes	Yes
List Permits Required	Unknown	Unknown		Unknown
Total Project Budget: If not known at this time, please give reasonable estimate.	$5,000,000.00	$1,000,000.00	$300,000.00	$11,000,000.00
Percent Match Available: Indicate source and certainty.	Unknown	Unknown	Unknown	Unknown
Project Location (Lat) e.g. 39.xxxxxx	39.227472	39.216698	39.283372	39.216698
Project Location (Long) e.g. -120.xxxxxx	-121.051659	-121.061607	-120.925661	-121.061607

Should this project be considered for funding in the 2019 DWR grant round? (DWR will require that your project has CEQA complete and is aligned with Proposal Solicitation: https://water.ca.gov/Work-With-Us/Grants-And-Loans/IRWM-Grant-Programs/Proposition-1/Implementation-Grants)	Yes	Yes	Yes	Yes
DESCRIPTIVE PROJECT NAME:	**Recreation Facilities Hazard Tree Removal Program**	**Reservoir Sediment Removal Program**	**Rollins #2 Powerhouse Project**	**Scotts Flat Trail Construction Project**
Project Sponsor: Agency/Organization:	Nevada Irrigation District	Nevada Irrigation District	Nevada Irrigation District	Nevada Irrigation District
Primary Contact Person First Name	Neysa	Doug	Keane	Greg
Last Name	King	Rodrick	Sommers	Jones
Phone:	530-271-6733	530-273-6185	530-273-8571	530-271-6826
Email:	kingn@nidwater.com	roderick@nidwater.com	sommers@nidwater.com	jonesg@nidwater.com
Will your agency/org adopt the 2018 Plan?	Yes	Yes	Yes	Yes
PROJECT TYPE:	Forest Health	Best management Practices, Facility Construction/Infrastructure	Facility Construction / Infrastructure	Facility Construction / Infrastructure
CABY Programmatic Area Addressed (See Ch. 9 of plan)	Fire and Fuels, Recreation,	Contamination, Water Storage, Climate Change	Hydropower	Recreation,
Which Resource Management Strategies does your project address? (see Ch. 10 of plan)	Forest Management, Watershed Management	Surface Storage - Regional/Local	NA	N/A
BRIEF DESCRIPTION OF PROJECT: WHAT, WHERE, WHEN, HOW (750 character limit)	Dead, dying, and diseased trees pose a threat to recreation safety and forest health as they are a hazardous fire fuel and have the ability to strike recreation visitors, buildings, and infrastructure in the event of failure. Due to climate change related drought, pests, overstocked forests, and natural mortality, the Sierra Nevada Region is experiencing a substantial amount of tree mortality. Removal of large, dead trees is essential to maintaining the safety of recreational facilities and additionally	Maintenance of existing reservoirs which accumulate sediment through natural processes. Removal of accumulated sediment from reservoirs recovers lost capacity and utilizes existing surface storage reservoirs. Sediment management programs will also be studied and assessed to determine alternative sediment management and storage practices. Projects will occur between 2021 and 2025	Construction of a second power generation feature on Rollins Reservoir. Projects will occur between 2021 and 2025	This projects proposes to create walking/biking trails around Scotts Flat Reservoir to provide recreational opportunities to communities within the CABY. Construction of these trails will involve brush and small tree removal, and possibly grading with equipment or hand tools. Projects will occur between 2021 and 2025

	benefits forest health by removing high-volume fire fuels from the landscape, thereby decreasing the severity of fire should it occur.			
COLLABORATORS/ PARTNERS: List all partners who have already agreed to collaborate.	N/A	N/A	N/A	N/A
What is the technical feasibility of this Project? List background documents that support this assessment.	NID staff and contractors annually remove hazardous trees from campgrounds and around facilities to address fire risk, human health and safety, and infrastructure defense.	Nevada Irrigation District has completed a pilot study to assess the feasibility of sediment removal from reservoirs to recover lost capacity and remove harmful contaminants like mercury. Multiple techniques were employed, and successes will inform future sediment removals.	NID staff and contractors are full capable of all actions necessary to construct a hydroelectric powerhouse at Rollins Reservoir	NID staff and contractors are full capable of all actions necessary to construct a trail system around Scotts Flat. Environmental and water quality concerns stemming from this project will be addressed.
Does the Project provide direct water-related benefits to a DAC/EDA/SDAC?	Yes	Yes	No	No
Does this Project benefit a community with identified Environmental Justice issues?	unknown	unknown	unknown	unknown
How does the Project help the CABY Region adapt to climate change?	Reducing the severity of wildfire should it occur will reduce the amount of carbon dioxide that would have been released as wood fuels burn. Removing dead, dying and diseased trees additionally benefits the surrounding forest by decreasing the likelihood of transmission between trees. Increasing the health of the forest surrounding a diseased tree maintains the ability of the forest to sequester carbon and reduce atmospheric CO2	Maintaining the functionality of surface storage reservoirs will ensure that NID will continue to provide water resources to communities while also maintaining surface storage of water to be available in the event of prolonged drought. As climate change continues to shift the timing and availability of water as well as increase average temperatures, water storage efficiency and continued provision of clean water supply to customers will help communities in the CABY region adapt to climate change.	Production of hydroelectricity emits far less carbon dioxide than alternative electricity generation methods such as fuel combustion. Increasing the efficiency of hydroelectric infrastructure will produce more green energy and decrease the regions dependency on carbon producing energy generation.	Providing carbon-free recreation will may decrease the amount of people participating in other forms of recreation that emit carbon dioxide.
Will the project reduce GHG emissions?	Yes	No	Yes	no
Is the project sponsor a Native American tribal community?	No	No	No	no

Does the Project provide specific benefits to a critical water issue of a Native American tribal community?	No	No	No	no
Design complete	Yes	Yes	unknown	no
Engineering complete	Yes	Yes	unknown	no
CEQA/NEPA complete	Yes	Yes	Unknown	no
Performance Standards identified	Yes	Yes	Yes	yes
Monitoring Plan complete	No	No	unknown	no
Study/Assessment	No	No	No	no
Land Tenure/Site Control	Yes	Yes	Yes	yes
List Permits Required	CAL FIRE Exemptions as necessary and depending on the volume of trees to be removed	Unknown	unknown	unknown
Total Project Budget: If not known at this time, please give reasonable estimate.	$500,000.00	$8,000,000.00	$500,000.00	$300,000.00
Percent Match Available: Indicate source and certainty.	Unknown	Unknown	Unknown	Unknown
Project Location (Lat) e.g. 39.xxxxxx	39.216698	39.227472	39.135754	39.27529
Project Location (Long) e.g. -120.xxxxxx	-121.061607	-121.051659	-120.951874	-120.918657
Should this project be considered for funding in the 2019 DWR grant round? (DWR will require that your project has CEQA complete and is aligned with Proposal Solicitation: https://water.ca.gov/Work-With-Us/Grants-And-Loans/IRWM-Grant-Programs/Proposition-1/Implementation-Grants)	Yes	Yes	Yes	Yes
DESCRIPTIVE PROJECT NAME:	**Shotgun and Middle Meadows Baseline Assessment Project**	**Shotgun and Middle Meadows Forest Resilience and Meadow Restoration Project**	**Treated Water Pipeline Replacement Program**	**Water Quality protection, and Emergency Response Project**
Project Sponsor: Agency/Organization:	Nevada Irrigation District	Nevada Irrigation District	Nevada Irrigation District	Nevada Irrigation District
Primary Contact Person First Name	Neysa	Neysa	Doug	Don
Last Name	King	King	Roderick	Bird
Phone:	530-271-6733	530-271-6733	530-273-6185	530-273-6185
Email:	kingn@nidwater.com	kingn@nidwater.com	roderick@nidwater.com	bird@nidwater.com

Will your agency/org adopt the 2018 Plan?	Yes	Yes	Yes	Yes
PROJECT TYPE:	Planning or Assessment	Restoration	Facility Construction / Infrastructure	Best Management Practices
CABY Programmatic Area Addressed (See Ch. 9 of plan)	Aquatic Biota, Climate Change, Drought, Habitat Alteration, Headwaters Protection, Meadows, Water Storage, Water Supply, Water Quality	Aquatic Biota, Climate Change, Drought, Habitat Alteration, Headwaters Protection, Meadows, Water Storage, Water Supply, Water Quality	Infrastructure, Water Operations Management, Water Supply,	Contamination, Fisheries, Infrastructure, Recreation, Water Quality
Which Resource Management Strategies does your project address? (see Ch. 10 of plan)	Ecosystem Restoration, Forest management, Groundwater, Watershed Management	Ecosystem Restoration, Forest management, Groundwater, Watershed Management	Conveyance Regional/Local, Drinking water treatment and Distribution,	Pollution Prevention, Water-related Recreation
BRIEF DESCRIPTION OF PROJECT: WHAT, WHERE, WHEN, HOW (750 character limit)	Assessment of baseline conditions at Shotgun and Middle Meadows to determine the feasibility and potential benefits of a restoration project. Shotgun and Middle Meadows are located in the Sierra Nevada, in the Canyon Creek watershed within the South Yuba watershed. The meadow that will be assessed is bisected by the South Fork Canyon Creek as it flows from Middle Lake to Shotgun Lake. Assessments will collect data on the hydrology, biology, geology, and archeology to initially inform restoration engineering design.	This project will utilize data collected during the Shotgun and Middle Meadows Baseline Assessment Project to design and implement a meadow restoration project on the south fork of Canyon Creek in the Sierra Nevada. By reducing the amount of fire fuels surrounding the meadow, and by using best available science to design the in stream treatment, we will increase the resiliency of the forest to wildfire and pests, and improve connectivity between the stream and meadow aquifer. This project will have both forest health, habitat, and hydrological benefits.	Replacement of deteriorated treated water pipelines, relocation of existing pipelines, introduction of new pipelines and upgrading of existing pipelines throughout Nevada, Placer, Sierra and Yuba Counties. The Treated Water Pipeline Replacement Program is comprised of various individual replacement projects within NID's Service Area that will take place from 2021 to 2025.	In order to address water quality and safety concerns associated with automobile accidents, hazardous waste spills, wildfire emergencies, and sinking boats, NID will purchase an additional spill response trailer as well as an emergency rescue boat and floatation system to be stationed at key reservoir facilities. This new equipment will help to maintain water quality in the event of spills, and help maintain the safety of recreational visitors by providing a means of first response in the event of emergency.
COLLABORATORS/ PARTNERS: List all partners who have already agreed to collaborate.	N/A	N/A	N/A	N/A
What is the technical feasibility of this Project? List background documents that support this assessment.	NID has previously collected baseline data of this same kind at nearby English Meadow. Experts and partners consulted for that assessment may be available to conduct similar surveys.	NID has applied for a grant which is pending approval, to implement a large meadow restoration project in partnership and collaboration with experts and professionals in the fields of forest management and meadow restoration. Successes and shortcomings of this project will inform similar projects elsewhere.	Nevada Irrigation District employs a full department of qualified engineers, operations personnel, and maintenance staff that will perform the work described. Replacement of ageing treated water infrastructure is an annual task successfully completed over many years.	NID staff continually maintains the safety of reservoirs and has established protocol when it comes to hazardous waste
Does the Project provide direct water-related benefits to a DAC/EDA/SDAC?	Yes	Yes	Yes	Yes

Does this Project benefit a community with identified Environmental Justice issues?	unknown	unknown	unknown	Unknown
How does the Project help the CABY Region adapt to climate change?	Wet meadows are rare features in the Sierra Nevada that host wetland and riparian vegetation which sequester carbon at accelerated rates. Improving the functionality of the meadow will expand wetland habitat and improve carbon sequestration throughout the area. In addition, restoration of wet meadow environments has the potential to improve the storage of groundwater within the meadow aquifer upon successful enhancement of floodplain and river channel connectivity; increasing water availability for downstream water users, while also preventing excess erosion which would deposit capacity-reducing sediment downstream.	Wet meadows are rare features in the Sierra Nevada that host wetland and riparian vegetation which sequester carbon at accelerated rates. Improving the functionality of the meadow will expand wetland habitat and improve carbon sequestration throughout the area. In addition, restoration of wet meadow environments has the potential to improve the storage of groundwater within the meadow aquifer upon successful enhancement of floodplain and river channel connectivity; increasing water availability for downstream water users, while also preventing excess erosion which would deposit capacity-reducing sediment downstream.	Ensuring that treated water conveyance infrastructure is functional and modernized reduces system loss and increases water use efficiency. As climate change continues to shift the timing and availability of water as well as increase average temperatures, water conveyance efficiency upgrades and continued provision of clean water supply to customers will help communities in the CABY region adapt to climate change	Climate change exaggerated wildfire poses a serious threat to water quality in excessive and sediment-laden runoff flowing large burns. Maintaining water quality by mitigating pollution from other sources such as boats and cars will help to increase the regional quality of water resources as risks to water quality increase in the face of climate change.
Will the project reduce GHG emissions?	Yes	Yes	No	No
Is the project sponsor a Native American tribal community?	No	No	No	No
Does the Project provide specific benefits to a critical water issue of a Native American tribal community?	No	No	No	No
Design complete	No	No	Yes	yes
Engineering complete	No	No	Yes	N/A
CEQA/NEPA complete	N/A	No	Unknown	N/A
Performance Standards identified	Yes	Yes	Yes	Yes
Monitoring Plan complete	No	No	No	No
Study/Assessment	Yes	No	No	No
Land Tenure/Site Control	Yes	Yes	Yes	Yes
List Permits Required	NA	Will be determined upon design of project	Unknown	N/A

Total Project Budget: If not known at this time, please give reasonable estimate.	$500,000.00	$1,000,000.00	$8,000,000.00	$150,000.00
Percent Match Available: Indicate source and certainty.	Unknown	Unknown	Unknown	Unknown
Project Location (Lat) e.g. 39.xxxxxx	39.420902	39.420902	39.216698	39.216698
Project Location (Long) e.g. -120.xxxxxx	-120.60451	-120.60451	-121.061607	-121.061607
Should this project be considered for funding in the 2019 DWR grant round? (DWR will require that your project has CEQA complete and is aligned with Proposal Solicitation: https://water.ca.gov/Work-With-Us/Grants-And-Loans/IRWM-Grant-Programs/Proposition-1/Implementation-Grants)	Yes	Yes	Yes	Yes
DESCRIPTIVE PROJECT NAME:	**Water Storage Tank Inspection and Repair Program**	**Water Tank and Facilities Defensible Space Program**	**Watershed Education Program**	**Wildfire Plan and Fire Response Preparedness Project**
Project Sponsor: Agency/Organization:	Nevada Irrigation District	Nevada Irrigation District	Nevada Irrigation District	Nevada Irrigation District
Primary Contact Person First Name	Jacqueline	Jacqueline	Neysa	Don
Last Name	Longshore	Longshore	King	Bird
Phone:	530-271-6881	530-271-6881	530-271-6733	530-273-6185
Email:	longshore@nidwater.com	longshore@nidwater.com	kingn@nidwater.com	bird@nidwater.com
Will your agency/org adopt the 2018 Plan?	Yes	Yes	Yes	Yes
PROJECT TYPE:	Best Management Practices	Best Management Practices,	Education	Best Management Practices
CABY Programmatic Area Addressed (See Ch. 9 of plan)	Fire and Fuels, Infrastructure, Water Storage,	Fire and Fuels, Infrastructure, Water Storage,	Education	Climate Change, Disadvantaged Communities, Fire and Fuels, Infrastructure
Which Resource Management Strategies does your project address? (see Ch. 10 of plan)	Conveyance - Regional/Local, Drinking Water Treatment and Distribution	Forest management	Ecosystem Restoration, Education and Outreach, Forest Management, Watershed Management	Watershed Management

BRIEF DESCRIPTION OF PROJECT: WHAT, WHERE, WHEN, HOW (750 character limit)	This program entails the inspection on a 5 year schedule, and the maintenance on a 10-15 year schedule, of water storage tanks across NID's conveyance and service area. The District maintains 53 tanks across the system which reserve water for irrigation and act as additional storage for water treatment. These tanks must be regularly inspected and maintained to ensure their continued function as a key feature in water treatment and distribution, irrigation, and fire suppression in the form of pressurized water for fire hydrants.	Protection of important water conveyance, storage, treatment, and distribution infrastructure against wildfire is a key element to the operation of the NID water system. Many facilities including storage tanks that service communities such as Lake Wildwood and others are in direct threat of damage or destruction from wildfire due to the close proximity of fire fuels to the facility. To address this, NID hires contractors to create a minimum of 100 ft. of clear or thinned space around important facilities. Based on their priority to the system, defensible space may be considered 200 or 300 feet of managed fuels. Facilities are located across the service area and vary in their necessity for vegetation maintenance. Using handcrews or mastication, NID can remove dense underbrush and larger crowded trees from around important infrastructure to influence fire behavior and decrease burn severity.	The Watershed Education Program consists of presentation, field trips, summer camps, and other educational activities that aim to teach students about watershed science/management, forest health/management, and the role of water resource management agencies in watershed stewardship. Events in the past have included a field walk at Scotts Flat, a project showcase open house, and a summer camp at Scotts Flat. Field trips usually occur during summer or spring when weather permits. Projects will occur between 2021 and 2025	NID will develop a Fire Plan that prioritizes response actions in the case of a wildfire for human health and safety, water infrastructure, and watershed health. This plan will include fire modeling to increase defensible space at District facilities and risk assessment to prioritize treatment areas. Additionally, NID will purchase eight (8), 200-300 gallon slip-in water tanks and associated hoses to outfit District pickup trucks at each of 8 priority campgrounds. Eight C-Type Extinguishers will also be purchased for each of these facilities and located at key access points for assisting with fire response. 200 ft. of hose and nozzles will be purchased to accompany each slip-in water tank.
COLLABORATORS/ PARTNERS: List all partners who have already agreed to collaborate.	N/A	N/A	N/A	N/A
What is the technical feasibility of this Project? List background documents that support this assessment.	NID staff routinely inspect and maintain water tanks currently,	NID staff and contractors are fully capable of designing, contracting, and implementing fire fuels reduction projects adjacent to District infrastructure.	NID staff are able to coordinate and lead educational activities, and have in the past. In addition to actively engaging students, NID staff also create useful graphics, educational materials, and support financially and with content, the construction of watershed models.	NID employs qualified staff to develop a wildfire safety and fire plan as well as operate and maintain fire response equipment within the campgrounds
Does the Project provide direct water-related benefits to a DAC/EDA/SDAC?	Yes	Yes	No	Yes

Does this Project benefit a community with identified Environmental Justice issues?	unknown	unknown	unknown	Unknown
How does the Project help the CABY Region adapt to climate change?	Ensuring that water storage tanks are functional will aid in the prevention of wildfire, which is a significant source of atmospheric carbon that contributes to climate change. In addition, the tanks are gravity fed, and need to be filled via pump when the water level drops too low. A more active inspection schedule will ensure that the tanks remain filled via gravity feed rather than pumps, limiting the GHG produced by pumps.	The goal of these defensible space projects is to increase the resiliency of NID's water delivery system to catastrophic wildfire. In many cases, District facilities and water tanks provide pressurized water that is used for fire prevention in communities throughout the service area. Maintaining the availability and storage of water resources as well as protecting facilities from wildfire and hazardous dead/dying/diseased trees will ensure water availability in the future as climate change shifts fire regimes, increases average temperature, and decreases snowpack in the Sierra Nevada	N/A	Reducing the likelihood of wildfire ignition and spread within District-owned campgrounds will mitigate carbon emissions, and loss of property associated with wildfire. Climate change effects are projected to increase the severity and duration of fire season, and utilizing appropriate fire response equipment by NID will help to minimize these negative effects.
Will the project reduce GHG emissions?	Yes	Yes	No	Yes
Is the project sponsor a Native American tribal community?	No	No	No	No
Does the Project provide specific benefits to a critical water issue of a Native American tribal community?	No	No	No	No
Design complete	Yes	Yes	Yes	Yes
Engineering complete	Yes	N/A	Yes	N/A
CEQA/NEPA complete	N/A	N/A	Yes	N/A
Performance Standards identified	Yes	Yes	Yes	Yes
Monitoring Plan complete	Yes	N/A	No	N/A
Study/Assessment	No	No	No	No
Land Tenure/Site Control	Yes	Yes	Yes	Yes
List Permits Required	N/A	N/A	None	N/A

Total Project Budget: If not known at this time, please give reasonable estimate.	$700,000.00	$500,000.00	$100,000.00	$175,000.00
Percent Match Available: Indicate source and certainty.	Unknown	Unknown	Unknown	unknown
Project Location (Lat) e.g. 39.xxxxxx	39.216698	39.216698	39.216698	39.216698
Project Location (Long) e.g. -120.xxxxxx	-121.061607	-121.061607	-121.061607	-121.061607
Should this project be considered for funding in the 2019 DWR grant round? (DWR will require that your project has CEQA complete and is aligned with Proposal Solicitation: https://water.ca.gov/Work-With-Us/Grants-And-Loans/IRWM-Grant-Programs/Proposition-1/Implementation-Grants)	Yes	Yes	Yes	Yes

DESCRIPTIVE PROJECT NAME:	**Yuba and Bear River Watershed Fire Fuels Reduction Program**	**Yuba and Bear River Watershed Healthy Forests Selective Thinning Program**	**Nevada Irrigation District Water Efficiency and Conservation Program**
Project Sponsor: Agency/Organization:	Nevada Irrigation District	Nevada Irrigation District	Nevada Irrigation District
Primary Contact Person First Name	Neysa	Neysa	Kaycee
Last Name	King	King	Strong
Phone:	530-271-6733	530-271-6734	530-273-6185 x244
Email:	kingn@nidwater.com	kingn@nidwater.com	strongk@nidwater.com
Will your agency/org adopt the 2018 Plan?	Yes	Yes	Our agency/org will adopt the plan
PROJECT TYPE:	Forest Health	Forest Health	Best Management Practices
CABY Programmatic Area Addressed (See Ch. 9 of plan)	Climate Change, Drought, Fire and Fuels, Headwaters protection, Water Supply, Water Quality,	Climate Change, Drought, Fire and Fuels, Headwaters protection, Water Supply, Water Quality,	Agriculture, Climate Change, Conservation, Disadvantaged Communities, Drought, Education
Which Resource Management Strategies does your project address? (see Ch. 10 of plan)	Forest Management, Watershed Management	Forest Management, Watershed Management	Agricultural Water Use Efficiency, Education & Outreach, Urban Water Use Efficiency

BRIEF DESCRIPTION OF PROJECT: WHAT, WHERE, WHEN, HOW (750 character limit)	This program is comprised of various fire fuels reduction projects to be implemented on District-owned lands throughout the Yuba and Bear River Watersheds. Fire fuels reduction and forest management projects are an annual activity across the Districts nearly 6,000 acres of forested properties. By mechanically thinning the understory, fire fuels reduction projects reduce the severity of potential wildfire, and increase forest health and pest resistance within the residual stand. Fire fuels reduction projects typically are implemented using mastication or handcrew work or a combination of the two and treat remote forested properties or create defensible space around District infrastructure and neighboring structures. Program encompasses costs to treat entire 6000 acres.	This program aims to selectively thin, or harvest, dead, dying, diseased, and defective trees as well as select live trees to create appropriate spacing in the residual stand to resemble historic conditions and improve forest health, resilience, and ecosystem function. Removing overstocked and damaged trees decreases competition for resources, increases the health and vigor of the residual stand, improves pest resistance, increases carbon sequestration rates, increases snowpack capability, and increases water yield. Projects will be implemented by a Licensed Timber Operator who, under the supervision of a Registered Professional Forester, will utilize mechanical equipment and chainsaws to fell, load, and haul logs as well as treat remaining debris to have a lasting effect on fire risk and forest health. NID owns 6000 acres of forested properties on which selective thinning projects may, or may not occur depending on site condition. Program encompasses cost to treat all 6000 acres	The NID Water Efficiency and Conservation Program engages local residents and schools to bring best practices for water efficiency, conservation, system upgrades and leak detection to individuals and facilities within the NID service area. Program elements include mulch giveaways, leak detection meters, education, retrofitting bathrooms at the Nevada County Fairgrounds, participation and public education events, and rebates. This program is staffed by NID's Water Efficiency Technician and is an ongoing program for water efficiency and climate preparedness.
COLLABORATORS/PARTNERS: List all partners who have already agreed to collaborate.	N/A	N/A	Collaborating partners include Master Gardeners, Nevada and Placer County Resource Conservation Districts, U.C. Cooperative Extension, the Cities of Grass Valley and Nevada City, and Placer County Water Agency.
What is the technical feasibility of this Project? List background documents that support this assessment.	NID staff and contractors have implemented many fire fuels reduction and forest management projects in the past with success. In 2019 NID completed 300+ acres of fire fuels and forest management projects across its properties.	NID staff and contractors have implemented selective thinning projects in the past with success. Most recently, NID and contractors selectively thinned areas south of Scotts Flat Reservoir to complete a cross canyon fuel break at the Scotts Flat Dam and Gate 1 Campground.	This program is ongoing and grant funding will help to build the scope and scale of activities undertaken.

Does the Project provide direct water-related benefits to a DAC/EDA/SDAC?	Yes	Yes	Yes
Does this Project benefit a community with identified Environmental Justice issues?	unknown	unknown	Yes
How does the Project help the CABY Region adapt to climate change?	Reducing the severity of wildfire should it occur will reduce the amount of carbon dioxide that would have been released as wood fuels burn. In addition, trees remaining after a fire fuels reduction treatment grow faster, and sequester carbon at greater rates. Removing excess vegetation from the landscape also allows more water to flow through the ground and into reservoir where it can be utilized, which helps to address water shortages in the event of climate change related drought.	Improving the health, function, and fire resilience of Sierra Nevada Forests has many benefits to not only water resource availability, but carbon sequestration ability as well. Ensuring that landscapes efficiently provide water resources, mitigate fire, and sequester carbon address drought and atmospheric carbon issues associated with climate change.	This program improves public education about the impacts of climate change and drought on our region, and also support replacement of high water use fixtures and leak detection systems.
Will the project reduce GHG emissions?	Yes	Yes	Uncertain
Is the project sponsor a Native American tribal community?	No	No	No
Does the Project provide specific benefits to a critical water issue of a Native American tribal community?	No	No	No
Design complete	No	NO	Yes
Engineering complete	No	No	Yes
CEQA/NEPA complete	No	No	N/A
Performance Standards identified	Yes	Yes	Yes
Monitoring Plan complete	No	No	N/A
Study/Assessment	No	No	N/A
Land Tenure/Site Control	Yes	Yes	N/A
List Permits Required	CAL FIRE exemptions to guide prescription and allow the sale of timber if feasible and necessary.	CAL FIRE exemptions to guide prescription and allow the sale of timber if feasible and necessary.	None at this time.
Total Project Budget: If not known at this time, please give reasonable estimate.	$16,800,000.00	$9,000,000.00	$120,000 annually for 3 years.

Percent Match Available: Indicate source and certainty.	Unknown	Unknown	50% match (NID staff in-kind)
Project Location (Lat) e.g. 39.xxxxxx	39.216698	39.216698	39.216698
Project Location (Long) e.g. -120.xxxxxx	-121.061607	-121.061607	-121.061607
Should this project be considered for funding in the 2019 DWR grant round? (DWR will require that your project has CEQA complete and is aligned with Proposal Solicitation: https://water.ca.gov/Work-With-Us/Grants-And-Loans/IRWM-Grant-Programs/Proposition-1/Implementation-Grants)	Yes	Yes	Yes