



NORTH COAST RESOURCE PARTNERSHIP 2018/19 IRWM Project Application

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

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

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

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

Project Name: Pudding Creek Water Main Relocation

A. ORGANIZATION INFORMATION

- 1. Organization Name: City of Fort Bragg**
- 2. Contact Name/Title**
Name: Scott Perkins
Title: Special Projects Manager
Email: sperkins@fortbragg.com
Phone Number (include area code): 707-961-2823 x137
- 3. Organization Address (City, County, State, Zip Code):**
416 North Franklin Street
Fort Bragg (Mendocino County), California 95437

4. Organization Type

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

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

Name: Tabatha Miller
Title: City Manager
Email: tmiller@fortbragg.com
Phone Number (include area code): 707-961-2823 x102

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

Briefly describe these previous projects.

The City of Fort Bragg has implemented a number of water infrastructure projects funded with Prop 1 and similar funding sources. The most recent projects include installing a new 1.5 million gallon water storage tank with CDBG funds, the Summer's Lane Reservoir project (a 45 acre-foot water storage reservoir funded with IRWM Prop 1 funds), and the green alleys project a Prop 84 funded grant to reconstruct three alleys using Low Impact Development (LID) to improve storm water quality.

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

1. Pudding Creek Water Main Relocation
2. Storm Water Trash Capture

8. Organization Information Notes:

City of Fort Bragg qualifies as a Severely Disadvantaged Community.

B. ELIGIBILITY

1. North Coast Resource Partnership and North Coast IRWM Objectives

GOAL 1: INTRAREGIONAL COOPERATION & ADAPTIVE MANAGEMENT

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

GOAL 2: ECONOMIC VITALITY

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

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

GOAL 3: ECOSYSTEM CONSERVATION AND ENHANCEMENT

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

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

GOAL 4: BENEFICIAL USES OF WATER

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

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

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

GOAL 5: CLIMATE ADAPTATION & ENERGY INDEPENDENCE

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

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

GOAL 6: PUBLIC SAFETY

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

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

yes no

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

N/A

3. Other Eligibility Requirements and Documentation

CALIFORNIA GROUNDWATER MANAGEMENT SUSTAINABILITY COMPLIANCE

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

yes no

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

yes no

CASGEM COMPLIANCE

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

yes no

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

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

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

URBAN WATER MANAGEMENT PLAN

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

AGRICULTURAL WATER MANAGEMENT PLAN

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

SURFACE WATER DIVERSION REPORTS

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

STORM WATER MANAGEMENT PLAN

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

C. GENERAL PROJECT INFORMATION

1. Project Name: Pudding Creek Water Main Relocation

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

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

3. Project Abstract

Project would relocate an existing 10-inch water main from a privately-owned dam at risk of failure due to erosion, flooding and seismic activity to the Pudding Creek Bridge, where Caltrans is placing a sleeve/hanger for the water main as part of a bridge widening project. The water main is the only access to municipal water for several businesses and a +/- 70-unit senior mobile home park. The existing main would be removed allowing for the eventual removal of Pudding Creek Dam (by others).

4. Project Description

Purpose: Protect the health, safety and fire protection needs of businesses and residents north of Pudding Creek (PC) by improving water supply reliability in the Fort Bragg DAC.

Problem Statement: The 10-inch water main that crosses PC over the PC Dam is at risk of failure due to ongoing erosion of the dam. The water main is the only way potable water is distributed to approx. 5 visitor-serving businesses, the Waste Management solid waste handling site, the Caltrans maintenance yard, and an approx. 70-unit senior-living mobile home park. Failure of the dam supporting the water main would suspend distribution to this part of town indefinitely. The dam is not owned by the City, and the City is therefore unable to stabilize the dam.

Project Setting and Background: The water main currently crosses PC over a dam owned by Georgia Pacific (GP). During a 2016 storm, the dam was overtopped due to debris blocking two dam bays, resulting in exposure of three of the water main's piers. Severe erosion washed away up to ten feet of the dam's width. A washout occurred under the water main leaving a 1,000-lb. concrete pier hanging in the air supported

only by the water main. Further erosion under the water main resulted in two additional piers being exposed to imminent failure. GP and the City installed temporary measures to support the dam and protect the water main, but support under the water main is only marginally restored. The water main is still at risk of failure/loss of support with a minor erosion event. Since the City does not own the dam, further repairs to the dam are beyond its purview.

Project Implementation: This project would relocate approximately 1,000' of the water main that crosses PC Dam to the Caltrans SR1 bridge over PC. Caltrans is widening the SR1 bridge 2020/21. The Caltrans project includes a hanger/sleeve in anticipation of the water line's relocation. Approx. 600' of water pipe would be laid at the edge of existing streets. No new rights-of-way or easements need be acquired. The remaining 400' would be placed in a sleeve incorporated on the edge of the bridge. The timing of Caltrans' bridge widening has created a cost efficiency opportunity for the relocation of the water line.

Benefits: Water supply reliability to the north end of Fort Bragg would be greatly improved, affecting the population described above. The water main's relocation would add resiliency to the City's water supply, since the water main's present location on the dam is susceptible to failure in future storm or seismic events.

5. Specific Project Goals/Objectives

Goal 1: Maintain Water Distribution Reliability for SDAC Fort Bragg

Goal 1 Objective: Remove water main from vulnerable Pudding Creek Dam and relocate it on stable Pudding Creek Bridge.

Goal 1 Objective:

Goal 1 Objective:

Goal 1 Objective:

Goal 2: Begin improving fire suppression capabilities north of Pudding Creek

Goal 2 Objective: Relocate water main as first step in creating "looped" system to maintain optimum water pressure for fire suppression.

Goal 2 Objective:

Goal 2 Objective:

Goal 2 Objective:

Goal 3: Contribute to long-term restoration of Pudding Creek basin

Goal 3 Objective: Remove City infrastructure in preparation of future removal of Pudding Creek Dam (by others) from waterway

Goal 3 Objective:

Goal 3 Objective:

Additional Goals & Objectives (List)

Goal 4: Improve Climate Change Resiliency

Goal 4 Objective: Relocate infrastructure from dam, which has increasing vulnerability to changing precipitation patterns with increased storms over short periods of time, which can overwhelm the dam and will cause continuing erosion.

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

G1O1: Allows the City of Fort Bragg to implement a project identified as important to our water supply resiliency by the CIP. G2O4: Fort Bragg is a SDAC, and the water line serves a low-income residential neighborhood and 5 hotels that provide many local jobs. G3O6/O7: Relocating the water line would

allow for the eventual removal of the Pudding Creek Dam beginning restoration of the Pudding Creek basin. G4O8: Project would relocate water main from a vulnerable dam to a stable bridge and the co-location would reduce infrastructure crossings of Pudding Creek. G4O9: Relocation is a first step in establishment of a pressurized loop water delivery system north of town, improving water quality and fire suppression capacity in the SDAC. G5O11/O13: The existing water line spans a dam under seasonal threat of winter storms of increasing intensity due to climate change effects, and its relocation would alleviate these climatological impacts.

7. Describe the need for the project.

In late 2016, Pudding Creek (PC) overtopped the PC Dam due to storm floods. A 10" city water main is on top of the dam and provides service north of PC, including a solid waste handling site, five hotels (approx. 250 rooms) and a senior mobile home park with approx. 70 residents. Debris blocked the floodgates during the storm and waters backed up overtopping the dam and earthen berms. The dam was at risk of catastrophic failure and the water main was at risk of damage and/or breakage. This risk is not fully mitigated. Rather than being centered on a 35' wide berm, the water line is perched on top of a deeply eroded slope. The City cannot repair the dam because it is owned by a private party—Georgia Pacific (GP). The interim measures stabilizing the dam are temporary prior to GP's intent to remove the dam as soon as feasibly possible. The City needs to relocate the water line to the Caltrans right-of-way over PC Bridge (SR1) to continue reliable water service to the north part of town.

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

Pudding Creek is included on the 303(d) list of impaired waterbodies for temperature and water impairments, resulting from flow alterations, regulations and hydromodifications. The proposed project will help facilitate addressing the impairments by allowing future dam removal.

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

If so, please describe?
N/A

10. Describe the population served by this project.

Project would improve water reliability for the residents and businesses north of Pudding Creek, and reduce the cost burden for the approximately 2,800 rate payers in the Fort Bragg SDAC. The watermain is the only way potable water is distributed to approximately five visitor-serving businesses, the Waste Management solid waste handling site, the Caltrans maintenance yard, and an approximately 70-unit senior-living mobile home park.

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

- Entirely
- Partially
- No

List the Disadvantaged Community(s) (DAC)

The City of Fort Bragg is a "place" designated as a Severely Disadvantaged Community, per the NCRP Interacitive Map, defined as a community with median household incomes (\$37,250) less than 60% of the State's median (\$38,270).

Presently, potable water is distributed to residents and businesses north of Pudding Creek via a water main that spans a vulnerable dam threatened by future seismic and flood activity. An approximately 70-unit senior mobile home park that provides critical housing for low-income residents is served by this water main, and the dam's failure would cut off municipal water supply to these residents indefinitely. Relocating the water main from the dam to the Pudding Creek Bridge would provide water distribution reliability and resiliency to these residents.

The disadvantaged community has experienced marked increases in their water bills over the last few years. Since 2014, water usage rates (charge per 100 cubic feet used) has increased approximately 27%. Similarly, the fixed minimum monthly service fee has similarly increased approximately 27% since 2014. With the recent construction of the City's water storage tank and Summers Lane Reservoir, and with the need to relocate the water main off of the Pudding Creek Dam, rate payers in the Fort Bragg disadvantaged community require this assistance in ensuring water supply resiliency. Although this project is in the City's CIP, it is presently unfunded and raising rates further would impact the finances of the residents in the severely disadvantaged community.

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

- Entirely
- Partially
- No

List the Severely Disadvantaged Community(s)

The City of Fort Bragg is a "place" designated as a Severely Disadvantaged Community, per the NCRP Interactive Map, defined as a community with median household incomes less than 60% of the State's median.

Presently, potable water is distributed to residents and businesses north of Pudding Creek via a water main that spans a vulnerable dam threatened by future seismic and flood activity. An approximately 70-unit senior mobile home park that provides critical housing for low-income residents is served by this water main, and the dam's failure would cut off municipal water supply to these residents indefinitely. Relocating the water main from the dam to the Pudding Creek Bridge would provide water distribution reliability and resiliency to these residents.

The disadvantaged community has experienced marked increases in their water bills over the last few years. Since 2014, water usage rates (charge per 100 cubic feet used) has increased approximately 27%. Similarly, the fixed minimum monthly service fee has similarly increased approximately 27% since 2014. With the recent construction of the City's water storage tank and Summers Lane Reservoir, and with the need to relocate the water main off of the Pudding Creek Dam, rate payers in the Fort Bragg disadvantaged community require this assistance in ensuring water supply resiliency. Although this project is in the City's CIP, it is presently unfunded and raising rates further would impact the finances of the residents in the severely disadvantaged community.

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

- Entirely
- Partially
- No

List the Tribal Community(s)

N/A

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

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

The City of Fort Bragg is a "place" designated as a Severely Disadvantaged Community. The existing water line is placed atop the Pudding Creek Dam, which is at risk of failure due to ongoing erosion caused by high river flows during rain events. Failure of the dam supporting the water main would suspend water distribution to residents and businesses north of Pudding Creek indefinitely. Relocation of the water main would ensure ongoing reliability of municipal water distribution to this portion of the SDAC.

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

If yes, please explain.

The existing water line spans a dam impacted by seasonal storms of increasing intensity due to climate change effects. Specifically, past storms have caused erosion that threatens the stability of the dam that supports the water main. Water line relocation to the stable Pudding Creek Bridge would alleviate these climatological impacts.

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

Fort Bragg's municipal water system is an independent system that serves the approximately 7,000 residents of Fort Bragg. Failure of the Pudding Creek Dam would impact the Fort Bragg population north of Pudding Creek, possibly cutting off water to this community. Relocating the water line to the Pudding Creek Bridge would mitigate this risk, and reduce the potential for the City to require emergency assistance from outside agencies due to water line failure.

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

Relocating the water line would allow for the removal of the PC Dam, beginning restoration of the PC basin. GP, owners of the dam, have wishes to remove the dam but cannot until the water line is relocated. The PC basin is a "Critical Coastal Area" per the California Coastal Commission, outfalls to the "MacKerricher State Marine Conservation Area," and is listed as Steelhead Critical Habitat and Critical Habitat for the Tidewater Goby.

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

The City Council included the project in both the 17/18 and 18/19 Capital Improvement Program as a future water infrastructure need without funding identified. The Capital Improvement Program is adopted during public hearings of the City Council, where public comment is invited. Should the project be selected as a priority project, the City will supply a resolution documenting Council support.

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

Caltrans - Caltrans has agreed to place a sleeve/hanger on the east side of Pudding Creek Bridge as part of the design for the future bridge widening. The sleeve/hanger is included in their project description for environmental review and permitting, and is scheduled by Caltrans for 2020/21. The installation of the sleeve/hanger includes all permitting and environmental analysis. The City will be able to utilize

these studies and environmental analysis for the bridge to more easily permit the subsequent relocation of the water line.

Georgia Pacific - The dam supporting the water line is owned by GP. Once the water line is removed, GP will be able to remove the dam infrastructure from Pudding Creek, beginning restoration of the watershed.

20. **Is this project part or a phase of a larger project?** yes no
Are there similar efforts being made by other groups? yes no

If so, please describe?

While stabilizing the water line by relocating it to the Pudding Creek Bridge will strengthen the City's water supply resiliency, it will also begin the process of restoring the Pudding Creek basin. GP has planned the removal of the dam infrastructure, which requires the City to relocate the water line in advance.

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

The project has been identified in the City's Capital Improvement Program as a future project for the past two years, where it was discussed at public City Council meetings prior to adoption.

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

P2: Increase Regional Self-Reliance - The project would stabilize a vulnerable piece of infrastructure delivering water to a portion of the Fort Bragg SDAC. Water line failure would suspend service to numerous homes and businesses. P4: Protect and Restore Important Ecosystems - Waterline relocation would facilitate GP's removal of the Pudding Creek Dam, beginning restoration of the Pudding Creek basin. Pudding Creek is habitat to both coho and steelhead salmon. P7: Provide Safe Water for All Communities - The water line serves a portion of the Fort Bragg SDAC. Failure of the vulnerable dam would impact the water supply to this portion of town indefinitely. Citizens would be without safe water in the event of water line damage. P8: Increase Flood Protection - The dam was damaged due to flooding, and until relocation, the water line is at risk to future flood events.

23. **Project Information Notes:**

D. PROJECT LOCATION

1. **Describe the location of the project**

Geographical Information

The City of Fort Bragg is located on the Mendocino Coast, separated by the SR 101 corridor by the Mendocino Range and the Jackson Demonstration State Forest. The City is approximately 2.8 square miles. The project is located on the north end of the town. The water line spans Pudding Creek Dam, approximately 650 east of Pudding Creek Bridge over SR1, and approximately 3,000 feet upstream (east) of Pudding Creek's outlet to the Pacific. The dam is at 39 27' 16.1" x 123 48' 11.6".

2. Site Address (if relevant):

N/A

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

Yes If yes, please describe

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

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

The City holds a deeded easement, ten feet in width, to access the water main crossing Pudding Creek Dam. The relocated water line would be in the Caltrans right-of-way. The City will work with Caltrans to secure access via encroachment permits, MOUs, and/or easements as necessary. Caltrans has written the water line sleeve/hanger into their project description for permitting of the bridge widening, indicating their support for the relocation.

4. Project Location Notes:

N/A

E. PROJECT TASKS, BUDGET AND SCHEDULE

1. Projected Project Start Date: 9/1/19

Anticipated Project End Date: 12/31/21

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

Yes

State Clearinghouse Number:

NA, Project is exempt from CEQA

NA, Not a Project under CEQA

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

No

3. Please complete the CEQA Information Table below

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

CEQA STEP	COMPLETE? (y/n)	ESTIMATED DATE TO COMPLETE
Initial Study	N	11/30/19
Notice & invitation to consult sent to Tribes per AB52	N	11/30/19
Notice of Preparation	N	1/1/20
Draft EIR/MND/ND	N	8/1/20
Public Review	N	9/1/20
Final EIR/MND/ND	N	10/1/20
Adoption of Final EIR/MND/ND	N	10/31/20

CEQA STEP	COMPLETE? (y/n)	ESTIMATED DATE TO COMPLETE
Notice of Determination	N	11/30/20
N/A - not a CEQA Project		

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

The timeline could be shortened depending on the environmental document selected. If an MND is required as opposed to an EIR, the timeline would be quicker. The lead agency for CEQA will likely be the Coastal Commission, and will be reviewed concurrently with the CDP application. Some timeframes will be subject to Coastal Commission action.

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

- Yes
 NA, Project benefits entirely to DAC, EDA, Tribe, or is a Tribal local sponsor
 No

5. PERMIT ACQUISITION PLAN

Type of Permit	Permitting Agency	Date Acquired or Anticipated
Coastal Development Permit	Coastal Commission	10/31/20
Caltrans Encroachment Permit	Caltrans	12/31/20

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

Permits will need to be approved after project design and concurrent with environmental permitting. If an MND is required as opposed to an EIR, the timeline would be quicker.

6. Describe the financial need for the project.

The project is identified in the City's adopted CIP, but is as yet unfunded. The water line is vulnerable to erosion, flooding and/or seismic damage, which could occur at any time. Other water projects of critical need (Summers Lane Reservoir and Water Tank) have been recently completed with rate-payer assistance. Raising rates to cover this water line relocation is infeasible. Since the water line is facing ongoing risk, funding is needed to ensure ongoing water delivery to the SDAC.

7. Is the project budget scalable? yes no

Describe how a scaled budget would impact the overall project.

The project itself is not scalable, but if the project were funded at a 75% level, the City would seek additional grants/loans to cover the remaining costs, or at a last resort, commit funding from the City's Water Enterprise Fund.

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

The costs in the project budget were derived by an engineer estimating the relocation costs following the 2016 storm event that overtopped the Pudding Creek Dam. These figures were used to work with

CalOES to explore potential funding assistance for the water main relocation (this funding did not materialize).

Unit costs for water line were derived using present-day costs of the materials (10-inch water pipe).

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

The water main needs to be moved off of the privately-owned and damaged Pudding Creek Dam. The only nearby stream crossing is Pudding Creek Bridge, and Caltrans planned widening includes infrastructure to support the relocated water line. Since the City does not own the dam, repairing the dam to support the water line is not a feasible alternative. Additionally, repairing the water line in place does not allow for the ultimate removal of the dam, which would restore this area of Pudding Creek.

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

City staff time associated with Direct Project Administration are not subject to the IRWM request. The budget worksheet included with this application shows this as an approximately \$20,000 value.

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

Caltrans is widening the Pudding Creek Bridge in 2020/21, and includes the installation of a sleeve/hanger on the east side for the eventual relocation of the water line. The value of this water line installation is presently unknown. The City will also benefit from the use of environmental studies and permits associated with the bridge widening, which will offset costs of the City commissioning its own studies. This value is also presently unknown.

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

Cost Share Waiver Justification: Describe what percentage of the proposed project area encompasses a DAC/EDA, how the community meets the definition of a DAC/EDA, and the water-related need of the DAC/EDA that the project addresses. In order to receive a cost share waiver, the applicant must demonstrate that the project will provide benefits that address a water-related need of a DAC/EDA. The City of Fort Bragg is a "place" designated as a Severely Disadvantaged Community. The existing water line is placed atop the Pudding Creek Dam, which is at risk of failure due to ongoing erosion caused by high river flows during rain events. Failure of the dam supporting the water main would suspend water distribution to residents and businesses north of Pudding Creek indefinitely, including an approximately 70-unit senior living mobile home park. Relocation of the water main would ensure ongoing reliability of municipal water distribution to this portion of the SDAC.

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

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

14. Project Tasks, Budget and Schedule Notes:

F. PROJECT BENEFITS & JUSTIFICATION

1. **Does the proposed project provide physical benefits to multiple IRWM regions or funding area(s)?**
 yes no
 If Yes, provide a description of the impacts to the various regions.
 N/A

2. **Provide a narrative for project justification. Include any other information that supports the justification for this project, including how the project can achieve the claimed level of benefits. List any studies, plans, designs or engineering reports completed for the project. *Please see the instructions for more information about submitting these documents with the final application.***
 The existing water line is at ongoing risk of failure due to erosion, flooding and/or seismic activity associated with the dam below it. The relocated water line on the Pudding Creek Bridge would mitigate these risks, and achieve the benefit of reliably delivering municipal water north of Pudding Creek in the manner that residents in this neighborhood currently enjoy.

3. **Does the project address a contaminant listed in AB 1249 (nitrate, arsenic, perchlorate, or hexavalent chromium)?** yes no
 If yes, provide a description of how the project helps address the contamination.
 N/A

4. **Does the project provide safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes consistent with AB 685?** yes no
 If Yes, please describe.
 AB 685 declares that every human being has the right to safe, clean, affordable and accessible water adequate for human consumption. This project would ensure the ongoing reliability of safe, clean, affordable and accessible water delivery to a portion of the Fort Bragg DAC, including an approximately 46 unit senior mobile home park. The water line will continue to be at ongoing risk of failure due to flood, erosion and/or seismic activity until it is relocated.

5. **Does the project employ new or innovative technologies or practices, including decision support tools that support the integration of multiple jurisdictions, including, but not limited to, water supply, flood control, land use, and sanitation?** yes no
 If Yes, please describe.
 N/A

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

PROJECT BENEFITS TABLE

Potential Benefits Description	Physical Amt of Benefit	Physical Units	Est. Economic Value per year	Economic Units
Water Supply				
Increased water supply reliability	+/-70	household customers	\$1890	\$27/household
Water Quality				
Other Ecosystem Service Benefits				
Habitat restoration (indirect)	1	acre	\$120	\$120/acre/year
Jobs maintained	+/-6	jobs		employed citizens
Social health/safety	+/-177	citizens	\$16,461	Potable water
Other Benefits				
Climate change resiliency				

7. Project Justification & Technical Basis Notes:

1. Approximately 70 households would be without water indefinitely if the water line fails due to dam erosion, flooding or seismic event. The economic value is calculated based on guidance in the Project Application Instructions.
2. If the water line is relocated, GP can remove the dam infrastructure supporting it, restoring approximately one acre of riparian habitat.
3. Approximately 60 jobs are associated with businesses north of Pudding Creek, which would be lost or suspended due to water line failure. The majority of the jobs are associated with hotels, which would not be able to operate without the water line.
4. Approximately 70 households would be without a reliable source of drinking water should the water line fail due to its current location. At 2.53 people per house in Fort Bragg (per Census), and at a value of

\$93/person based on FEMA Standard Values for Loss of Service for Utilities, economic impact is approximately \$16,461.

5. Climate change resiliency is a benefit of the project, due to the dam's vulnerability to flooding, but is difficult to quantify economically.

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

Project Name: Pudding Creek Water Main Relocation
Organization Name: City of Fort Bragg

Task #	Major Tasks	Task Description	Major Deliverables	Current Stage of Completion	IRWM Task Budget	Non-State Match	Total Task Budget	Start Date	Completion Date
A Category (a): Direct Project Administration									
1	Administration	In cooperation with the County of Humboldt sign a sub-grantee agreement for work to be completed on this project. Develop invoices with support documentation. Provide audited financial statements and other deliverables as required	Invoices, audited financial statements and other deliverables as required	0%	\$0.00	\$5,000.00	\$0.00	On award	Ongoing
2	Monitoring Plan	Develop Monitoring Plan to include goals and measurable objectives	Final Monitoring Plan	0%	\$0.00	\$5,000.00	\$0.00	On award	Ongoing
3	Labor Compliance Program	Execute service agreement with Labor Compliance Program company	Submission of Labor Compliance Program	0%	\$0.00	\$25,000.00	\$0.00	On award	Ongoing
4	Reporting	Develop monthly reports describing work completed, challenges, and strategies for reaching remaining project objectives. Develop Final Report	Quarterly and Final Reports	0%	\$0.00	\$5,000.00	\$0.00	On award	Ongoing
B Category (b): Land Purchase/Easement									
1				0%	\$0.00	\$0.00	\$0.00		
C Category (c): Planning/Design/Engineering/Environmental Documentation									
1	Final Design /Plans	Develop specs, invite bids, hire designer, develop final plans	Design/construction plans	0%	\$160,000.00	\$0.00	\$160,000.00	3/1/20	7/1/20
2	Environmental Documentation: CEQA *	CEQA documentation to be performed by lead agency (Coastal Commission) associated with Coastal Development Permitting. City will submit environmental studies as needed. Some studies already completed by Caltrans for associated bridge widening.	Adopted CEQA document (likely MND)	33%	\$30,000.00	\$0.00	\$30,000.00	6/1/20	1/31/21
3	Permit Development - Coastal Development Permit	Coastal Development Permit is required and would be issued by Coastal Commission. City would submit application and associated environmental studies as required. Some studies already completed by Caltrans for associated bridge widening.	Coastal Development Permit	15%	\$15,000.00	\$0.00	\$15,000.00	6/1/20	1/31/21
4	Permit Development - Caltrans Encroachment Permit	City will apply for an encroachment permit with Caltrans for work to be performed in State right-of-way.	Encroachment Permit	0%	\$5,000.00	\$0.00	\$5,000.00	11/1/20	1/31/21
5				0%	\$0.00	\$0.00	\$0.00		
6				0%	\$0.00	\$0.00	\$0.00		
7				0%	\$0.00	\$0.00	\$0.00		
8				0%	\$0.00	\$0.00	\$0.00		
D Category (d): Construction/Implementation									
1	Construction/Implementation Contracting	Project management and inspection		0%	\$231,000.00	\$0.00	\$231,000.00	2021/2022	2021/2022
2	Mobilization and Site Preparation	Mobilizing construction crews and preparing sites for construction.	Mobilized labor and prepared job site	0%	\$50,000.00	\$0.00	\$50,000.00	2021/2022	2021/2022
3	Project Construction/Implementation: Erosion and stormwater control, field engineering, traffic control	Install required erosion and stormwater controls, perform field engineering such as surveying and staking, and traffic control planning and implementation for work over Pudding Creek Bridge.	E&S controls in place, project staked and marked, traffic plan complete and implemented.	0%	\$100,000.00	\$0.00	\$100,000.00	2021/2022	2021/2022
4	Project Construction/Implementation: Materials and installation of infrastructure	Underground piping and bridge piping of new line, and demolition of existing water line spanning Pudding Creek.	Underground pipe (approximately 600') and bridge pipe (approximately 400'), and removal of existing water line over dam.	0%	\$800,000.00	\$0.00	\$800,000.00	2021/2022	2021/2022
5	Contingency	Contingency	Contingency	0%	\$278,000.00	\$0.00	\$278,000.00	N/A	N/A
6				0%	\$0.00	\$0.00	\$0.00	2021/2022	2021/2022
7	Project Signage			0%	\$0.00	\$0.00	\$0.00	2021/2022	2021/2022

