



## NORTH COAST RESOURCE PARTNERSHIP 2018/19 IRWM Project Application

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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](mailto:kgledhill@westcoastwatershed.com)

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

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

**Project Name:** - City of Dorris - Water System Infrastructure Project

### A. ORGANIZATION INFORMATION

- 1. Organization Name:** City of Dorris
- 2. Contact Name/Title**  
Name: Carol McKay  
Title: City Administrator  
Email: [cityadmin@cot.net](mailto:cityadmin@cot.net)  
Phone Number (include area code): 530-397-3511
- 3. Organization Address (City, County, State, Zip Code):**  
307 S. Main St., Dorris, Sisikyou, CA 96023
- 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:

Title:

Email:

Phone Number (include area code):

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

Briefly describe these previous projects.

The City of Dorris has implemented a number of similar projects with different funding agencies. The most recent water system improvement project was construction of a 1,000,000-gallon welded steel water reservoir that was funded through the CDBG program and completed in the fall of 2018. In addition, the City makes ongoing improvements to its water distribution system whenever funding allows.

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

Water System Infrastructure Project

**8. Organization Information Notes:**

The City of Dorris is located in the far north east part of the region. The City is located in an arid area with an annual rainfall of approximately 12 inches. They have utilized ground water for their water supply for many years. They have suffered economic distress associated with the decline in logging in the area. Currently their primary economy is based on agriculture and one small molding mill still in operation.

## **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: The Butte Valley Groundwater Basin is designated as a medium-priority basin

- c) If Yes, please specify the name of the organization that is the designated monitoring entity: Siskiyou County Natural Resources Department
- 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: N/A
- 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
- e) 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: N/A
- 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: Water System Infrastructure Project

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

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

### 3. Project Abstract

The project will help the City of Dorris provide a safe reliable source of drinking water through replacement of a dilapidated water treatment facility and to promote water conservation and sustainability of the City's water supply through installation of water meters. In addition, the use of solar panels to power its water pumps will help the City to be more self-sustaining, reduce its carbon impact, and significantly reduce its O&M costs.

### 4. Project Description

The project includes the installation of water meters for all non-residential customers in the City of Dorris (approximately 60 connections). The City currently has a grant application before the State Water Resources Control Board for the installation of water meters for its residential customers (approximately 415 connections). When all connections are metered as required by state law, the City will be able to establish a more fair and equitable usage-based rate structure that encourages water conservation and long-term health of the City's water supply. Meters are expected to result in immediate efficiencies through earlier leak detection, greater consumer awareness, and decreased demand, all of which will improve the community's resilience to the projected effects of climate change.

The project also includes the replacement construction of the dilapidated water treatment facility for Well No. 6, the City's only approved permanent water source. (The backup source exceeds state drinking water standards for arsenic.) Improvements include a new well building, telemetry and chlorination

equipment, a new well seal, solar panels, and a backup generator. These improvements have been identified as priority needs/corrections by the State Water Resources Control Board in its letter regarding "Inspection of Public Water System, City of Dorris Public Water System, PWS #4710001, Dorris, Siskiyou County" dated February 20, 2018 (see Exhibit A) and/or are being recommended by the City Engineer in his follow-up report to the Dorris City Council regarding the "Water System Infrastructure Project - Engineering Report" dated February 27, 2019 (see Exhibit B).

## **5. Specific Project Goals/Objectives**

Goal 1: Installation of water meters for all non-residential connections on the City's system

Goal 1 Objective: Fair and equitable user fees

Goal 1 Objective: A more self-sustaining water system

Goal 1 Objective: Better and more timely water conservation as well as greater consumer awareness

Goal 1 Objective: A healthy, sustainable groundwater basin

Goal 2: Replacement of the existing water treatment facility for Well No. 6

Goal 2 Objective: A safe drinking water source for consumers and a safe work place for employees

Goal 2 Objective: A new well seal meeting State requirements that safeguards the consumer and aquifer

Goal 2 Objective: Appropriate interior space and design to protect equipment from water damage

Goal 2 Objective: Prevention of future corrective regulatory actions

Goal 3: Installation of solar panels and a backup generator

Goal 3 Objective: A less expensive, self-sustaining, source of power for groundwater pumping

Goal 3 Objective: A backup source of power for water service during emergency power failures

Goal 3 Objective: Reduced GHG emissions associated with the City's water infrastructure

Additional Goals & Objectives (List)

A safe, low-maintenance, dependable water supply for a severely disadvantaged community

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

Goal 1, Obj. 1 - The City's General Plan calls for the protection of the City's water resources.

Goal 1, Obj. 2 - The City regularly holds noticed public meetings to discuss its water infrastructure needs.

Goal 2, Obj. 4 - Dorris is a severely disadvantaged community.

Goal 3, Objective 6 - The project will result in the conservation of groundwater so that other sources remain available for the recovery of special status species.

Goal 4, Obj. 8 - The project will ensure water supply reliability and quality for a DAC.

Goal 4, Obj. 9 - The project will improve water infrastructure to protect public health in a DAC.

Goal 4, Obj. 10 - The project will protect groundwater resources from over-drafting and contamination.

Goal 5, Obj. 11 - The project will increase climate resilience for the City's water supply.

Goal 5, Obj. 12 - The project will result in more efficient water use, reduced GHG emissions, and greater energy independence.

## **7. Describe the need for the project.**

Dorris is a severely disadvantaged community with approximately 415 residential connections and approximately 60 non-residential connections. Without all connections metered as required by law, the City cannot implement reasonable and appropriate water conservation measures, placing its infrastructure and water supply at increased risk of being overburdened. Further, without grant assistance the City would be unable to maintain a water system that is safe and reliable for its

customers. The existing control building for Well No. 6 (i.e., the City's only approved water supply) is dilapidated, poses a potential risk to consumer, worker, and aquifer safety, and is insufficient to protect the treatment and control equipment. In addition, the City's back up well cannot be used due to arsenic levels that exceed EPA standards. Pumping costs are also extremely high, with solar power expected to save the City \$40,000 annually. A generator will provide for system reliability during emergencies.

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

N/A

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

If so, please describe?

**10. Describe the population served by this project.**

The population of Dorris, CA was 907 people in 2017 and the City currently has around 475 water service connections. Dorris is a rural farming community that has been devastated by the collapse of logging in the region and the lack of replacement industry. According to the most recent American Community Survey (2013-2017), the median household income in Dorris is well below the state average of \$67,169 at \$30,214.

**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)**

City of Dorris, CA

**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)**

City of Dorris, CA

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

- ☐ Entirely
- ☐ Partially
- ☒ No

**List the Tribal Community(s)**

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 Dorris, a severely disadvantaged community, currently lacks water meters for its non-residential customers, making leak detection, a fair and equitable rate structure, and consumer awareness of water conservation needs challenging. It is anticipated that this has resulted in water waste and undue pressure on the City's water supply and water infrastructure. With a warming climate, sustainability of the region's groundwater basin becomes increasingly important for the community and the environment. The City also is in critical need of a new water treatment facility for its only approved water supply. During a prior leak at the facility, nearby telemetry equipment was destroyed and the building's foundation was scoured, potentially compromising the well seal. The City lacks a safe and reliable back-up water source.

**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.

According to The North Coast Regional Climate Adaptation Report, the region is likely to experience increasingly warmer temperatures, increasing drought stress, and greater variability in its precipitation in the coming years. The project will enable the City to promote water conservation measures through community-wide metering and an equitable rate structure, resulting in increased efficiencies, decreased demand, and a more sustainable groundwater basin.

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

Installation of water meters is anticipated to result in the long-term conservation and sustainability of groundwater resources critical to the community so that the City has continued access to a secure source of water in the region and so that water resources outside the Butte Valley remain available for the recovery of special status species. Replacement of the Well No. 6 water treatment facility, including installation of solar panels, will also provide significant progress toward achieving self-reliance, as O&M savings can be reinvested in the community.

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

According to the Klamath Basin Audubon Society, the refuges along the border of Oregon and California (only a few miles from Dorris) host upwards of 80% of the migrating waterfowl that use the Pacific Flyway. Should the City's water supply become overdrafted, the City would likely require surface water from the nearby Klamath Basin. By encouraging groundwater sustainability and regional self-reliance, water from other sources will remain available for the recovery of special status species.

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

The project is supported by the local Groundwater Sustainability Agency (i.e., the Siskiyou County Flood Control and Water Conservation District (see Exhibit C) and by the State Office of Drinking Water.

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

N/A

**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?



The City has a construction application in with the State Water Resources Control Board for installation of water meters for all residential connections. Non-residential meters are included in this grant application because funding through the SWRCB cannot be used for non-residential connections. The ability to meter all customers is key to the City's ability to establish an equitable rate structure and implement water conservation measures.

**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 City has been coordinating with the County's Natural Resources Department, which is placing a letter of support on the GSA's (also the County BOS) agenda for approval on March 19, 2019. The letter will be submitted to the NCRP immediately upon receipt. No Tribes have yet been notified, however, as part of the CEQA process, all tribal contacts on the Native American Heritage Commission's contact list for the region will be notified regarding the project.

**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?**

Installation of water meters addresses the Statewide Priorities "Make Conservation a California Way of Life" and "Manage and Prepare for Dry Periods" by increasing awareness of water use and promoting water conservation measures. The project also addresses "Increase Regional Self-Reliance and Integrated Water Management Across All Levels of Government" in that it would ensure a severely disadvantaged community a secure water source at the local level. The project addresses the NCRP Tribal Priority "Respect of Tribal Governmental structures, and the sovereign and political independence of Tribal Nations and its members" in that all Tribal representatives on the NAHC's contact list for the region will be contacted regarding tribal cultural resources during the project's CEQA review process, not because the Tribes have requested notifications pursuant to AB 52 (they have not), but out of regard for the Tribes and a desire to work with them to avoid potential impacts to tribal resources.

**23. Project Information Notes:**

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**D. PROJECT LOCATION**

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

Geographical Information

**The City of Dorris at 41.9674°N, 121.9181°W is located in the Butte Valley in a high desert farming region in the northeast portion of California, just south of the Oregon border.**

**2. Site Address (if relevant):**

The water treatment facility is located on APNs 051-182-050 and 051-182-080 in Dorris, CA. The non-residential meters would be distributed throughout the community.

**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 is owner in fee of the property where the treatment plant, generator, and solar panels would be located.

**4. Project Location Notes:**

Meters will be added to all non-residential connections in the City of Dorris. The water treatment facility will be located at the Well No. 6 location on city-owned property.

## E. PROJECT TASKS, BUDGET AND SCHEDULE

**1. Projected Project Start Date: 3/15/20**

**Anticipated Project End Date: 8/31/21**

**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	4/15/20
Notice & invitation to consult sent to Tribes per AB52	n	3/15/20
Notice of Preparation	n	4/15/20
Draft EIR/MND/ND	n	4/15/20
Public Review	n	5/15/20
Final EIR/MND/ND	n	5/22/20
Adoption of Final EIR/MND/ND	n	5/22/20
Notice of Determination	n	5/24/20
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 project directly benefits a severely disadvantaged community that requires financial assistance to complete the necessary environmental review. With the award of funding, the City expects to be able to complete the CEQA process within a few months.

**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
Caltrans Encroachment Permit	Caltrans	10/1/20
DWR Review	Department of Water Resources	10/1/20

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

Permit(s) will be applied for and obtained following engineering design of the project. There are no issues that are likely to delay acquisition of permits, but the City has not yet applied for permits due to the expense and funding uncertainty.

**6. Describe the financial need for the project.**

The City of Dorris is a severely disadvantaged community with a very small Capital Reserve Account and a water system that has considerable needs and inadequate funding for needed improvements. Neither the City nor the rate payers have the ability to address the improvement costs.

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

**Describe how a scaled budget would impact the overall project.**

The project currently has many different components that can be implemented independent of one another. The project is very budget scalable. The following is a list of independent project components included by priority: 1) Well Building 2) Non-residential meters 3) Backup Generator 4) Chlorination Unit 5) Well Telemetry 6) Solar Panels The funding of any one of these components would help the City have a more safe and reliable water system for their users.

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

Cost estimates for the non-residential meters, well building, backup generator and solar panel component was derived using recent bid summaries and report information from similar projects and applying a 4% construction inflation per year which has been pretty consistent for Siskiyou County public works projects throughout the last 30 year period. The well chlorination and telemetry was estimated utilizing supplier bids for similar equipment.

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

There are no alternatives to the project costs that have been identified as there are no feasible project alternatives. The engineering design will ensure that the most cost-effective and reliable improvements are constructed.

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

N/A

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

N/A

**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. According to the DAC Mapping Tool, the entire City of Dorris (i.e., project area) is designated as a severely disadvantaged community. This was verified with the results of the most recent American Community Survey (2013-2017), which indicates that the household median income in the City is approximately 45% of the median household income in the State of California.

The project includes critical improvements to the community's only approved permanent water source and would allow the City to establish a fair and equitable rate structure to encourage long-term water conservation and sustainability of the community's water supply. Without the project, this would not be possible and the community would be remain at risk of contaminating its water source and overburdening its groundwater basin and water infrastructure.

**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:**

We have broken the project into two separate tasks as follows: Task 1 - Well/ Treatment Building, Well Telemetry, Chlorination Unit, Solar Array & Backup Generator Task 2 - nonresidential meter installation The City is asking for the total amount of Tasks 1 & 2 which is \$2,079,500, however the project is scalable down to Task 2 only in the amount of \$412,500. Task items could be removed easily from Task 1 to fit budget steps amounts between \$2,079,500 to \$412,500.

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**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 City of Dorris is really in need of this project in order to provide a safe dependable source of water to their users. As stated earlier, the State Inspection Report and Engineering Report has outlined that the well/treatment building is inadequate and the well seal and foundation condition has been compromised due to a leak that occurred. The well building was never intended to house the items that have been housed in it. However this was the only space available for the updated equipment required to operate the system. The City has used it's limited funding to still keep it functioning, but it is costing them extra money to cripple the system along as it is currently operating. Metering of the system is not only a State requirement for fair charges for water to it's users, but also a water conservation measure that will, in turn, possitively affect the City ground water aquifer.
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.  
By replacing the Well No. 6 seal and the rest of the water treatment facility, Dorris residents would continue to have access to affordable water that is safe for consumption, cooking, and sanitary purposes. Without the project, the community's water source would remain at risk. By installing meters, the right to water would also be more easily addressed over the long term.
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
<b>Water Supply</b>				
The project would achieve increased water supply reliability by providing a safe	20%	Outages	\$120 / yr/service	\$59,000/ year

Potential Benefits Description	Physical Amt of Benefit	Physical Units	Est. Economic Value per year	Economic Units
equipment room and new updated controls for the well pump.				
The project would help avoid water supply projects because the installation of meters is expected to reduce water consumption and help with water conservation	1	Well Project/20 yrs	\$50,000/year	\$50000/year
The project will avoid electrical costs by water conservation, reduced chlorination room cooling costs and the solar array installation.	100%	Electrical Cost	\$40,000	\$40,000/year
				r
<b>Water Quality</b>				
The project has the potential to reduce bacteria/contaminants by correcting existing the well seal under the building and installation of an up-to-date chlorination unit.	15%	Public health	unkown	unknown
<b>Other Ecosystem Service Benefits</b>				
The project will help provide a more sustainable groundwater basin through water conservation from water meters.	unknown	reliable water source		
<b>Other Benefits</b>				
A fair and equitable rate structure that encourages water conservation awareness. Currently Dorris's average water use is much higher than the national average due to the flat rate structure.	50%	Electrical Costs	\$20,000	\$20,000/year
Sustainable access to groundwater in the Butte Valley rather than possibly needing access to surface water from the Klamath Basin, resulting in more water for the recovery of special status species	unknown	Species Habitat		

Potential Benefits Description	Physical Amt of Benefit	Physical Units	Est. Economic Value per year	Economic Units
Reduced GHG emissions associated with the City's water infrastructure and significantly reduced annual pumping costs, which directly benefits a severely disadvantaged community.	180	Tons reduced CO2	180 tons x \$15/year	\$2,700/year
A much safer workspace for City employees because it will allow them to work on pump control equipment and chlorination equipment in a space that is adequate in size and designed for it's purpose.	unknown	injuries		

#### 7. Project Justification & Technical Basis Notes:

Please refer to all attachments, including:

Exhibit A - 2017 City of Dorris Water System Inspection Report, State Water Resources Control Board

Exhibit B - 2019 City of Dorris Engineer's Report, E&S Engineers & Surveyors, Inc.

Exhibit C - 2019 Letter of Support from Local Groundwater Sustainability Agency

Exhibit D - Photos of Existing Water Treatment Facility

Exhibit E - Preliminary Drawings

Exhibit F - Preliminary Task 1-2, Schedule, Budget

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

Project Name: Water System Infrastructure Project - Task 1 - Well Building & Appurtenances  
 Organization Name: City of Dorris

Task #	Major Tasks	Task Description	Major Deliverables	Current Stage of Completion (%)	IRWM Task Budget	Non-State Match	Total Task Budget	Start Date	Completion Date
<b>A</b>	<b>Category (a): Direct Project Administration</b>								
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%	\$3,000.00	\$0.00	\$3,000.00	3/15/20	8/31/21
2	Monitoring Plan	Develop Monitoring Plan to include goals and measurable objectives	Final Monitoring Plan	0%	\$1,500.00	\$0.00	\$1,500.00	3/15/20	8/31/21
3	Labor Compliance Program	Execute service agreement with Labor Compliance Program company	Submission of Labor Compliance Program	0%	\$2,500.00	\$0.00	\$2,500.00	3/15/20	8/31/21
4	Reporting	Develop monthly reports describing work completed, challenges, and strategies for reaching remaining project objectives. Develop Final Report	Quarterly and Final Reports	0%	\$2,000.00	\$0.00	\$2,000.00	3/15/20	8/31/21
<b>B</b>	<b>Category (b): Land Purchase/Easement</b>								
1				0%	\$0.00	\$0.00	\$0.00		
<b>C</b>	<b>Category (c): Planning/Design/Engineering/Environmental Documentation</b>								
1	Final Design /Plans	Develop Bid Documents for construction project	Bid Documents for well building, backup generator, solar array, telemetry, chlorination unit.	0%	\$145,000.00	\$0.00	\$145,000.00	4/1/20	9/30/21
2	Environmental Documentation: CEQA *	Project is expected to require a Mitigated Neg. Dec. Prepare initial study and public review process for CEQA documentation. Notice of Determination filed with the Siskiyou County Clerk & State Clearinghouse. AB 52 Compliance.	Final CEQA Document for project	0%	\$25,000.00	\$0.00	\$25,000.00	3/15/20	5/24/20
3	DDW Review & Authorization	Submit plans for State Office of Drinking Water Review	State Office of Drinking Water Review and acceptance	0%	\$2,500.00	\$0.00	\$2,500.00	9/1/20	9/30/20
4	City of Dorris Plan Review & Building Permit	City of Dorris - Building Permit	Building Permit for solar instillation and Well/Treatment Building		\$2,500.00		\$2,500.00	9/1/20	9/30/20
5	Permit Development *: [PLEASE COMPLETE]			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		
<b>D</b>	<b>Category (d): Construction/Implementation</b>								
1	Construction/Implementation Contracting	Develop advertisement for bids and contract documents; conduct pre-bid contractors meeting; perform evaluation of bids; award contract	Bid Opening & Award of Bid to low bid contractor	0%	\$4,500.00	\$0.00	\$4,500.00	11/15/20	12/20/20
2	Mobilization and Site Preparation	Prepare Site and mobilize project:1. Initiate project site preparation; 2. Order project equipment and supplies; 3. Assure project permits are in place; 4. Conduct pre-project site photo-monitoring	Contractor Mobilized and ready for construction	0%	\$70,000.00	\$0.00	\$70,000.00	2/1/21	3/1/21
3	Project Construction	Construction of project components, including Well Building, Solar Array, Controls and Backup Generator: 1. Initiate project construction. Keep daily records of construction activities, inspection, and progress; 2. Conduct project construction photo-monitoring; 3. Construct project components	New Well, treatment and controls building, solar array & backup generator.	0%	\$1,353,000.00	\$0.00	\$1,353,000.00	2/1/21	8/15/21
4	Project Construction			0%	\$0.00	\$0.00	\$0.00		
5				0%	\$0.00	\$0.00	\$0.00		
6				0%	\$0.00	\$0.00	\$0.00		
7	Project Signage	Install sign with funding & project information.	Public awareness of project	0%	\$500.00	\$0.00	\$500.00	2/1/21	8/15/21



Project Name: Water System Infrastructure Project - Task 1 - Well Building & Appurtenances  
 Organization Name: City of Dorris

Task #	Major Tasks	Task Description	Major Deliverables	Current Stage of Completion (%)	IRWM Task Budget	Non-State Match	Total Task Budget	Start Date	Completion Date
8	Project Close Out, Inspection & Demobilization	Inspect project components and establish that work is complete. Verify that all project components have been installed and are functioning as specified will be conducted as part of construction inspection and project closeout. Conduct project completion photo monitoring. Prepare record drawings.	As-Built and Record Drawings; Project completion site photos	0%	\$5,000.00	\$0.00	\$5,000.00	2/1/21	8/31/21
9	Project Performance Monitoring	The performance of the project will be monitored in accordance to the Monitoring Plan using the following measurement tools and methods: Verification that the project has been completed and water usage data is aquired through meter readings.		0%	\$0.00	\$0.00	\$0.00		
10	Construction Administration	Complete tasks necessary to administer construction contract. Keep weekly records of construction activities, inspection, and progress. Conduct project construction photo-monitoring.	Construction Management Logs; Completed construction administration tasks documented in monthly progress reports	0%	\$50,000.00	\$0.00	\$50,000.00	2/1/21	8/31/21
<b>Total North Coast Resource Partnership 2018/19 IRWM Grant Request</b>					<b>\$1,667,000.00</b>	<b>\$0.00</b>	<b>\$1,667,000.00</b>		
<b>Is Requested Budget scalable by 25%? If yes, indicate scaled totals; if no delete budget amount provided.</b>					<b>\$1,250,250.00</b>	<b>\$0.00</b>	<b>\$1,250,250.00</b>		
<b>Is Requested Budget scalable by 50%? If yes, indicate scaled totals; if no delete budget amount provided.</b>					<b>\$833,500.00</b>	<b>\$0.00</b>	<b>\$833,500.00</b>		

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

Project Name:

Water System Infrastructure Project - Task 2 - Nonresidential Meters

Organization Name:

City of Dorris

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%	\$2,000.00	\$0.00	\$2,000.00	3/15/20	8/31/21
2	Monitoring Plan	Develop Monitoring Plan to include goals and measurable objectives	Final Monitoring Plan	0%	\$1,000.00	\$0.00	\$1,000.00	3/15/20	8/31/21
3	Labor Compliance Program	Execute service agreement with Labor Compliance Program company	Submission of Labor Compliance Program	0%	\$1,500.00	\$0.00	\$1,500.00	3/15/20	8/31/21
4	Reporting	Develop monthly reports describing work completed, challenges, and strategies for reaching remaining project objectives. Develop Final Report	Quarterly and Final Reports	0%	\$1,000.00	\$0.00	\$1,000.00	3/15/20	8/31/21
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 Bid Documents for construction project	Bid Documents for nonresidential meters	0%	\$34,000.00	\$0.00	\$34,000.00	4/1/20	7/15/21
2	Environmental Documentation: CEQA *	Project is expected to require a Mitigated Neg. Dec. Prepare initial study and public review process for CEQA documentation. Notice of Determination filed with the Siskiyou County Clerk & State Clearinghouse. AB 52 Compliance.	Final CEQA Document for project	0%	\$25,000.00	\$0.00	\$25,000.00	3/15/20	5/24/20
3	Caltrans Encroachment Permit	Prepare applications and supporting documentation for Caltrans encroachment permit.	Caltrans Encroachment Permit for services in Highway 97 R/W.	0%	\$2,500.00	\$0.00	\$2,500.00	7/1/20	8/1/20
4	Permit Development *: [PLEASE COMPLETE]						\$0.00		
5	Permit Development *: [PLEASE COMPLETE]			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	Develop advertisement for bids and contract documents; conduct pre-bid contractors meeting; perform evaluation of bids; award contract	Bid Opening & Award of Bid to low bid contractor	0%	\$2,500.00	\$0.00	\$2,500.00	8/1/20	9/1/20
2	Mobilization and Site Preparation	Prepare Site and mobilize project:1. Initiate project site preparation; 2. Order project equipment and supplies; 3. Assure project permits are in place; 4. Conduct pre-project site photo-monitoring	Installed non-residential meters	0%	\$20,000.00	\$0.00	\$20,000.00	11/1/20	12/1/20
3	Project Construction	Construction of project components, including nonresidential meters and backflow prevention devices: 1. Initiate project construction. Keep daily records of construction activities, inspection, and progress; 2. Conduct project construction photo-monitoring; 3. Construct project components	Installed non-residential meters	0%	\$300,000.00	\$0.00	\$300,000.00	11/1/20	5/1/21
4	Project Construction			0%	\$0.00	\$0.00	\$0.00		
5				0%	\$0.00	\$0.00	\$0.00		

Project Name:

Water System Infrastructure Project - Task 2 - Nonresidential Meters

Organization Name:

City of Dorris

Task #	Major Tasks	Task Description	Major Deliverables	Current Stage of Completion	IRWM Task Budget	Non-State Match	Total Task Budget	Start Date	Completion Date
6				0%	\$0.00	\$0.00	\$0.00		
7	Project Signage	Install sign with funding & project information.	Public awareness of project	0%	\$500.00	\$0.00	\$500.00	11/1/20	5/1/21
8	Project Close Out, Inspection & Demobilization	Inspect project components and establish that work is complete. Verify that all project components have been installed and are functioning as specified will be conducted as part of construction inspection and project closeout. Conduct project completion photo monitoring. Prepare record drawings.	As-Built and Record Drawings; Project completion site photos	0%	\$2,500.00	\$0.00	\$2,500.00	4/1/21	5/15/21
9	Project Performance Monitoring	The performance of the project will be monitored in accordance to the Monitoring Plan using the following measurement tools and methods: Verification that the project has been completed and water usage data is aquired through meter readings.		0%	\$0.00	\$0.00	\$0.00		
10	Construction Administration	Complete tasks necessary to administer construction contract. Keep weekly records of construction activities, inspection, and progress. Conduct project construction photo-monitoring.	Construction Management Logs; Completed construction administration tasks documented in monthly progress reports	0%	\$20,000.00	\$0.00	\$20,000.00	11/1/20	5/15/21
	Total North Coast Resource Partnership 2018/19 IRWM Grant Request				\$412,500.00	\$0.00	\$412,500.00		
	Is Requested Budget scalable by 25%? If yes, indicate scaled totals; if no delete budget amount provided.				\$0.00	\$0.00	\$0.00		
	Is Requested Budget scalable by 50%? If yes, indicate scaled totals; if no delete budget amount provided.				\$0.00	\$0.00	\$0.00		

# Exhibit A

## State Water Resources Control Board

Division of Drinking Water

February 20, 2018

City of Dorris  
P.O. Box 768  
Dorris, CA 96023

Attention: Carol McKay, City Administrator

Subject: Inspection of Public Water System, City of Dorris Public Water System,  
PWS #4710001, Dorris, Siskiyou County

On November 28, 2017, accompanied by Antonio Gutierrez and Vito Andreatta, I conducted an inspection of the City of Dorris (City) public water system. Please find the enclosed *Inspection Report, Water System Deficiency Record, the 1974 Well 6 Well Log, the 1983 Well 6 Data Sheet, a Last Sample Date and Monitoring Schedule* for each raw water source, the updated *Distribution Monitoring Schedule*, and selected inspection photographs for your review and use.

During the inspection and subsequent file review, the following system deficiencies, issues, or concerns were noted:

1. Conduct Repairs of Tank 1: If not already conducted, please repair the fine screen on the apex vent of Tank 1 (0.77 MG) using a stainless steel screen with 1/8-inch (or smaller) openings. Please inspect this screen at least twice per year to assess integrity and to prevent animal intrusion into the tank.
2. Investigate Original Well 6 Construction Documents: It is understood that Well 6 is the only approved active permanent water source for the City of Dorris and thus is of very high importance. As was discussed in the 2015 *Inspection Report* from this office, there is a very significant gap that has opened under the concrete foundation slab on the west exterior of the Well 6 Building. Since surface water could run toward Well 6, and the original construction integrity of the annular seal of Well 6 is not certain, this office requests an evaluation of the current condition of the annular seal and surface surrounding the casing of Well 6.

To aid in this investigation, please find the enclosed 1974 *Well 6 Well Log* (required by the California Department of Water Resources), and the enclosed 1983 *Well 6 Data Sheet* (by California Department of Health Services) describing the construction of Well 6. Both documents state that Well 6 was constructed by Enloe Well Drilling in 1971 to a total depth of 1,236 feet and casing installed to a total depth of 840 feet. The 1983 *Well 6 Data Sheet* states that a gravel pack was not installed, the first casing perforations began at 750 feet and an annular seal was installed to 750 feet. (This claimed annular seal depth greatly exceeds the 50 foot annular seal required in the current *California Well Standards* and needs further explanation). The 1983 *Well 6 Data Sheet* makes reference to "Plans" for construction of Well 6, but this office could not locate the Well 6 construction plans.

Therefore, this office requests that the City of Dorris conduct research into the original construction of the annular seal of Well 6. Please attempt to locate the original Well 6 construction plans or any other similar documents (from the archives of the City or the well driller) that may have more information on the Well 6 annular seal construction.

3. Investigate Well 6 Annular Seal, Surface Seal and Gap under Well 6 Building: As discussed in the 2015 inspection from this office, and as observed in the 2017 inspection, the Well 6 building is in poor condition. Among the deficiencies is the very significant gap that has opened under the concrete foundation slab (and the surface seal of Well 6) on the west exterior of Well 6 Building. The gap may (or may not) have been caused by the surface erosion from the well flush discharge pipe that discharges to the concrete pad and drain on the west exterior of Well 6 Building. The presence of this significant opening under the concrete foundation slab may allow surface water to drain under the slab in the direction of the Well 6 (see photos from 2017 Inspection). The interior concrete slab also shows cracks in the Well 6 surface seal. Due to the proximity of Well 6, it was requested in November 2015 by this office that this opening under the foundation of Well 6 building be sealed as soon as possible, and the area around the building graded such that all surface water drains away from the building. As of the 2017 inspection, the investigation and repairs of the Well 6 Building have not been initiated. Since this office does not know the reason for the erosion of the soil under Well 6 Building, and does not know the original construction of the annular seal, this office requests that the City assess the current condition of the surface seal (inside and outside of the building) and the annular seal under the building if possible. Please evaluate if the soil conditions around Well 6 may have "settled" or if the annular seal is breached or collapsed.
4. Send Workplan for Emergency Repair of Gap Under Well 6 Building: The City must design and complete emergency repairs to seal the gap under Well 6 Building. Therefore, this office requests that the City prepare a brief workplan for the emergency repair and sealing of the gap under Well 6 Building. By June 1, 2018, please send to this office a workplan that includes a time schedule for emergency repair of the Well 6 Building, or a plan and schedule for the reconstruction or replacement of the entire Well 6 Building.

5. Update Emergency Disinfection Plan: This office could not locate an *Emergency Disinfection Plan* (EDP) for your water system. Please draft and send to this office an *Emergency Disinfection Plan* that details how the system will chlorinate water in the event that emergency chlorination is necessary. Additionally, please include in the EDP the requirement to notify this office in the event of any precautionary or emergency chlorination of the water supply.
6. Send CCC Hazard Survey; Conduct Annual Testing of Backflow Prevention Devices: In the 2016 EAR, Byron Gibbons is listed as the Cross-Connection Control (CCC) Program Coordinator for the City and 10 Backflow Prevention Devices (BPDs) were listed, but no BPDs were tested in 2017. Please confirm that Byron Gibbons is the CCC Program Coordinator and send a copy of the most recent *Cross-Connection Hazard Survey* of the water system (listed as 6/2015 in 2016 EAR) for the City. Please also ensure that all BPDs are tested every year as required in the regulations.
7. Monitor Well 6 Raw Water Every Three Months for Coliform Bacteria: As specified in the City of Dorris *Bacteriological Sample Siting Plan* (BSSP) dated February 9, 2016, the City must monitor the raw water in Well 6 every three months (March, June, September and December). According to records in this office, this raw water coliform monitoring was not performed on a regular basis in 2017. Please resume monitoring every three months for coliform bacteria using density (MPN) analysis from Well 6 raw water.
8. Modify Monthly Monitoring Reports: After review of the 2017 *Monthly Monitoring Reports*, it appears that a "2" is always displayed under the column entitled "Residuals". Please make changes to the *Monthly Monitoring Report* format to specify if this number is a calculated chlorine dose, or a measurement of the chlorine residual in a certain location.
9. Update Emergency Notification Plan: Please complete the enclosed *Emergency Notification Plan* and send a copy to this office.
10. Conduct Raw Water Chemical Monitoring: Please find the enclosed raw water Chemical Monitoring Schedules (Last Sample Date and Monitoring Schedule) for raw water chemical testing of Well 6 (main active source) and Well 4 (which is listed as a Standby source). Please note that all raw active sources must be tested for 1,2,3-Trichloropropane (1,2,3-TCP) using Analytical Method SRL 524M in the first calendar-quarter 2018, and the Standby source must be sampled by the end of 2020. Please review these schedules and notify this office if you identify any inaccuracies. After your review of these schedules, please conduct raw water chemical monitoring for 1,2,3-TCP and other chemicals listed in these Chemical Monitoring Schedules. For your information, updated Chemical Monitoring Schedules can be found at: <https://sdwis.waterboards.ca.gov/PDWW/>.

11. Conduct Distribution System Chemical Monitoring: Please find the enclosed *Distribution Monitoring Schedule* for testing of Lead, Copper, Disinfection Byproducts (DBPs) and Asbestos in the distribution system.

Please also review the most recent DBPs results that are in this office (2011, 2015 and 2016) listed in the distribution Monitoring Schedule. Please send any recent DBPs monitoring data (since 2011) that is not listed in the *Distribution Monitoring Schedule*. Please note that a Dual Sample Set (DSS) for Disinfection Byproducts (TTHMs and HAA5) is required twice per year (January and August) at 235 North Pine Street as specified in the *Stage 2 DBP Monitoring Plan* dated 9-2013. If after a year (two Dual Sample Sets) with results below TTHM 40 ppb and HAA5 30 ppb, then the City can go to reduced monitoring to one DSS per year.

The most recent sampling for Lead and Copper was conducted in 2017, and the next sampling is due in summer 2020. Please conduct monitoring for Lead and Copper in summer 2020, monitoring for DBPs twice per year, once for asbestos in 2018 in the farthest part of the distribution system with asbestos-cement pipe, and future monitoring in compliance with the *Distribution Monitoring Schedule*.

12. Design Long-Term Repair or Replacement of Well 6 Building: As discussed in the 2015 *Inspection Report*, this office highly recommends that the City hire a qualified Civil Engineer licensed in the State of California to evaluate the repair or replacement of the entire Well 6 Building with the following design considerations:

- a. Repair the gap under Well 6 Building
- b. Repair the well surface seal inside the building
- c. Separate chlorination from proximity to SCADA controls
- d. Increase building size to allow better interior access
- e. Install storage for emergency electric generator
- f. Install storage and secondary containment for generator fuel, and
- g. Install site security measures

Since the replacement of Well 6 Building may be costly and a long-term project, the City may postpone the full design at this time but must perform emergency repairs of the gap under the Well 6 Building slab as soon as possible.

13. Update Schedule of Water Service Meter Installation Project: The City has received funding to install service connection water meters. This office reviewed the Plans and Technical Specifications for this project dated October 26, 2016, and responded in a letter dated January 12, 2017. Since that time, it appears that the project is stalled. Please update this office on the schedule for this project.



14. Install Emergency Backup Generator: As discussed in the 2015 *Inspection Report*, this office highly recommends that an emergency generator be installed at the site of Well 6. An emergency power source to run Well 6 will help ensure that wholesome and potable drinking water is delivered reliably to the customers of the City of Dorris during emergencies. If a liquid fuel will be used for the generator then a fuel spill containment structure must be installed.
15. Develop Additional Wells for Permanent Water Sources: As discussed above, the City is very reliant on Well 6 as their only Permanent (not Standby) raw water source. The current California Waterworks Standards specify that a *new* (not existing) Community public water system using only groundwater requires a minimum of two approved water sources. Since the Well 6 Building has deficiencies and the age of Well 6 is almost 50 years, this office highly recommends that the City evaluate the development of other groundwater wells (such as Well 4, Well 5 or a new City well yet to be installed) and plan for installation or development of additional Permanent water sources.
16. Destroy Abandoned Wells in Accordance with Siskiyou County: As recommended in the 2015 *Inspection Report*, this office recommends the proper destruction of at least three abandoned historic wells that were operated by the City (see photos from 2017 *Inspection*). These abandoned wells can serve as possible conduits to allow contamination down into the City's municipal supply water aquifer. Therefore, this office repeats the request to destroy these three abandoned wells in compliance with Siskiyou County requirements for well destruction.

**By June 1, 2018**, please send a brief letter report in which you describe the actions or proposed actions to address the above issues. **If your water system needs more time to respond to any of these issues, please contact this office.**

If you have any questions or if we can be of assistance, please contact me at (530) 224-4887 or Barry Sutter at (530) 224-4875.

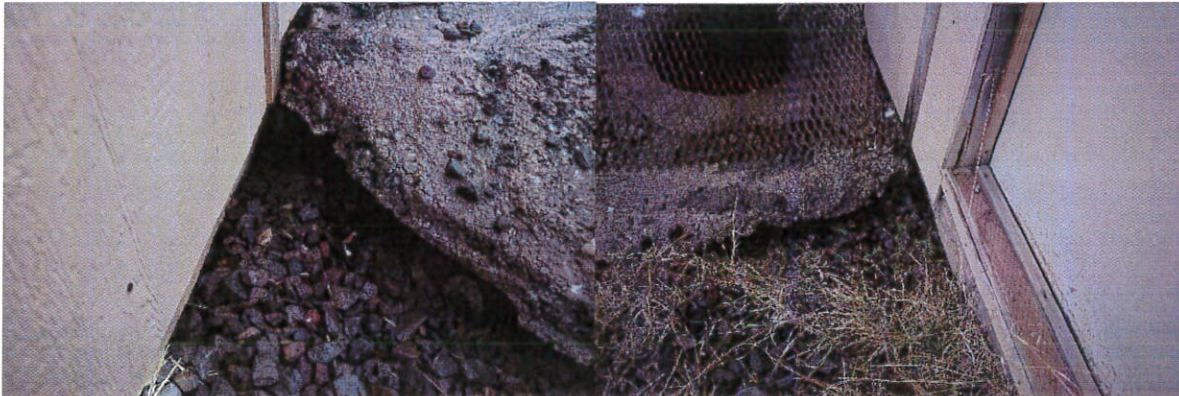


Craig M. Bunas, P. E.  
Associate Sanitary Engineer  
DIVISION OF DRINKING WATER  
FIELD OPERATIONS BRANCH

Enclosures

cc w/ encl.: Antonio Gutierrez, Chief Water Distribution Operator, Dorris  
Morgan Eastlick, E&S Engineers and Surveyors, Yreka

City of Dorris Public Water System (PWS #4710001)  
Inspection 11/28/2017 Selected Photographs  
Page 1 of 2



Well 6 Building Slab Gap North

Well 6 Building Slab Gap South



Well 6 Crack in Slab

Well 6 Crack in Surface Seal



Tank Screen Gap Apex Vent

Old Well at Shop

# Exhibit B





## **E & S Engineers & Surveyors, Inc.**

Civil Engineering & Land Surveying

brayengineer.com

329 West Miner Street  
Yreka CA 96097  
530.842.6813  
530-842.6645 (Fax)  
[brayengr@sbcglobal.net](mailto:brayengr@sbcglobal.net)

February 27, 2019

City of Dorris  
PO Box 768  
Dorris, CA 96023

### **Re: Water System Infrastructure Project – Engineering Report**

Dear Council Members;

I have reviewed the Water System Supply components and I have the following report of items requiring action:

#### ***Treatment Plant Building:***

I have made review of the existing wood framed treatment plant and well control building.

The building was constructed in the early 1970's by City personnel following the construction of Well No. 6, which is currently the City's primary water source. The building currently encloses the well head piping, electrical controls, chlorine injection equipment and telemetry controls for the system.

Through the years the piping has been repaired, the pump has been maintained and the telemetry has been replaced. All of these maintenance projects and time have had a negative effect on the building. The building also is too small for all of the equipment that is being used in it. There is not enough space to safely operate all of the treatment equipment.

In one instance the well head piping began to leak and sprayed the telemetry equipment destroying it. This event also caused erosion under the building undermining the foundation of the building and potentially negatively impacting the well seal. The State inspector's water system report has documented concerns regarding potential well seal failure due to the washout incident.

The telemetry and chlorine equipment should both be housed in separate rooms from the well head and pump equipment to help protect the treatment and controls from being damaged when leaks occur. In addition there should be a safe space for the operator to operate and maintain the system.

The existing telemetry is functioning fairly well with only a few minor problems, however it is aging and new technology would likely improve the systems functions and maintenance costs. New technology would help the staff by monitoring of the system remotely and not having them make a trip to assess the emergency call as it is currently operating.

The existing hypochlorite generation equipment is nearing 20 years old and will be needing replacement in the near future. It is a State requirement that the groundwater supply is treated prior to use. If the chlorine generator were to fail the City would violate this requirement and could face penalties.

### ***Back-up Generator:***

The City water system is dependent on power to run a pump for their water supply. Currently the well pump does not have a back-up generator for emergency power outages. In the event of a power outage, the City has to rely on the storage reservoirs for fire protection water for public health and safety. The maximum amount of storage available is 1,750,000 gallons if the outage were to occur when the reservoirs were full. A back-up generator would help the system to be more reliable during emergencies.

### ***Solar Power Generation:***

The City water system is dependent on a well and power to supply water to its users. The annual power bill for the well pump for 2018 was approximately \$40,000 which accounted for approximately 25% of their operation & maintenance costs for the system. The addition of a solar power generation system would significantly reduce O & M costs and help the City to be more self-sustaining.

### ***Commercial Water Meters:***

The City is currently an unmetered system which charges a flat rate for water users. Flat rate systems are not fair to users due to the fact that actual water production costs are based on the amount of water produced. The City currently has a grant application into the State SRL program to install water meters on the system. The State will not pay for commercial or City water meters under this grant funding. This has placed the City in a situation where they are unable to afford meters for their own connections and potentially imposing a meter installation fee for commercial users in a community that is already struggling financially. The City clearly needs water meters to ensure fair rates for their users and water conservation measures for their water system. There is currently no way for the City to effectively implement water conservation efforts without a metered system.

### **City of Dorris – Proposed Water Infrastructure Project Summary**

#### **Project components:**

- 1) Installation of Commercial & City water meters w/ backflow prevention devices
- 2) Construction of new Water Treatment Plant Building w/ well enclosure
- 3) Installation of Solar Power for well pump operations
- 4) Installation of new up to date Well Telemetry
- 5) Installation of new up to date Hypochlorite Generation Unit
- 6) Installation of new Well Back-up Generator

If you have any questions regarding this brief summary report please don't hesitate to contact us.

Respectfully submitted,

  
Morgan D. Eastlick, RCE 62963



# Exhibit C





# COUNTY OF SISKIYOU

## Flood Control & Water Conservation District

P.O. Box 750 • 1312 Fairlane Road, Yreka, CA 96097 Phone:  
(530) 842-8012, Fax Number: (530) 842-8013

March 19, 2019

North Coast Resource Partnership  
P.O. Box 262  
Healdsburg, CA, 95448

### **Subject: City of Dorris IRWM Grant Proposal**

To Whom It May Concern:

The Siskiyou County Flood Control and Water Conservation District (District), acting as the Groundwater Sustainability Agency for the Butte Valley Groundwater Basin, supports the City of Dorris's grant application submitted to the Integrated Regional Water Management (IRWM) North Coast Resource Partnership 2018/2019 grant program.

The Dorris community is in dire need of facility upgrades to the City's public water supply, to address some important needs which include:

- Installing water meters on non-residential connections to comply with state law so water purchase rates can be assessed accurately and fairly. The City has applied to a state SRL program for funding of installing residential meters however that source will not include non-residential connections. The City unfortunately does not have the funding to install meters themselves and wishes to add meters to both residential and non-residential users.
- The City's supply well building is has suffered significant wear and is also too small for the necessary treatment equipment. The well house is required to be constructed to keep the telemetry and chlorine equipment separate, should a leak develop which would cause damage to the telemetry equipment and electrical controls. An upgrade to the facility is necessary to prevent continued erosion of the building and protect the enclosed equipment and well casing from further damage.

Dorris lies in the Butte Valley basin and therefore has to comply within the District's Sustainable Groundwater Management Act (SGMA) requirements and the Groundwater Sustainability Plan (GSP) that will be submitted in January of 2022. Addressing these two needs will provide improvements to water quality protection and help preserve the underlying aquifer. The City has a strong desire to reduce extraction from the aquifer in order to play their role in maintaining groundwater sustainability for the basin. Siskiyou County and the District are supportive of the City's desires to improve their water use efficiencies and protect water quality for their users. Dorris is showing great leadership in pursuing funding to improve their infrastructure. The District applauds the effort and fully supports the City on this project.

If you have any questions, please free to contact Matt Parker, Natural Resource Specialist, at [mparker@co.siskiyou.ca.us](mailto:mparker@co.siskiyou.ca.us) or 530-842-8019.

AYES:

NOES:

ABSENT:

ABSTAIN:



# COUNTY OF SISKIYOU

## **Flood Control & Water Conservation District**

P.O. Box 750 • 1312 Fairlane Road, Yreka, CA 96097 Phone:  
(530) 842-8012, Fax Number: (530) 842-8013

Sincerely,

**DRAFT**

Brandon Criss, Chair

Flood Control and Water Conservation District



# Exhibit D

## Well/Treatment Plant Building – Existing Condition



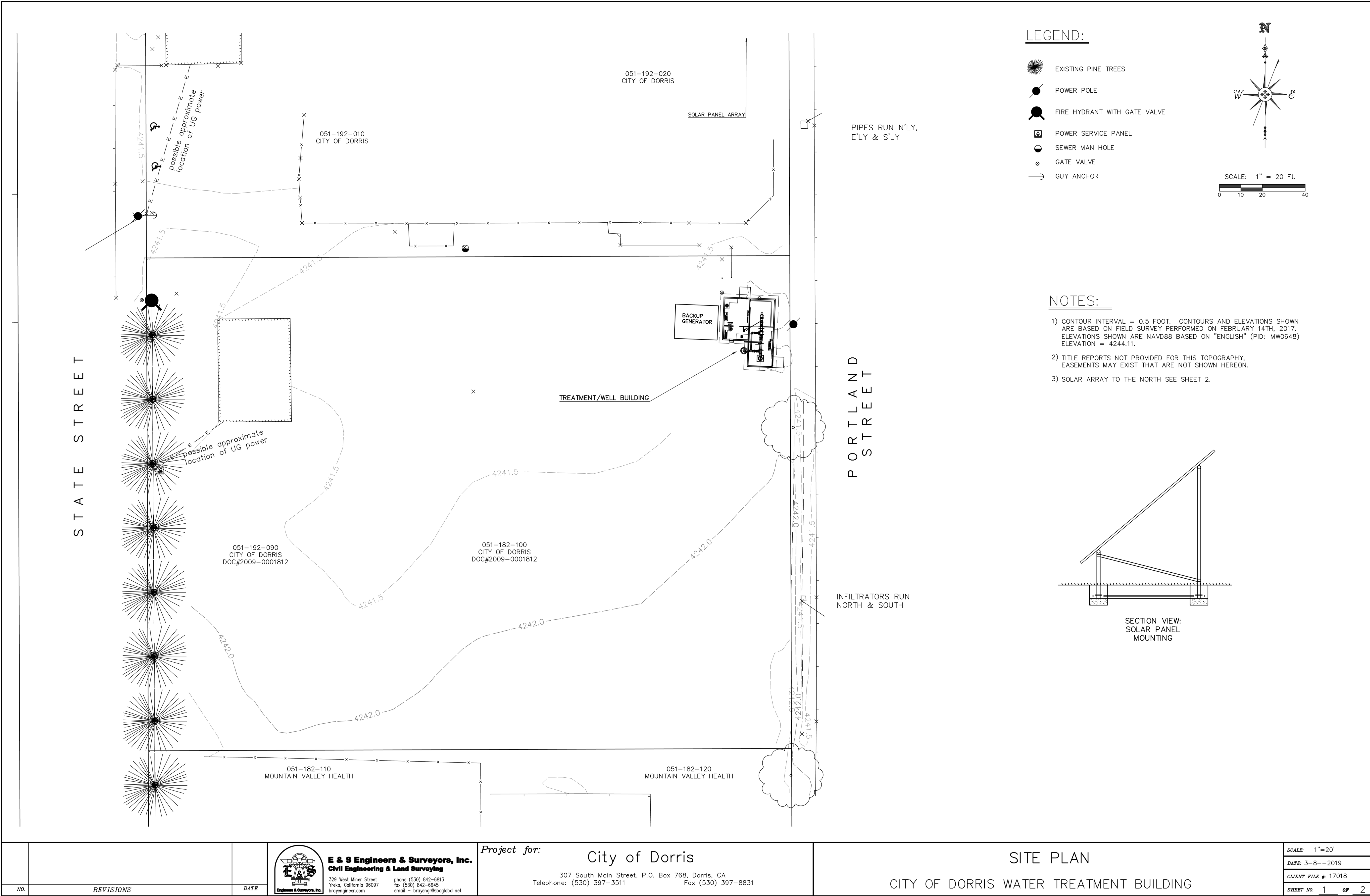






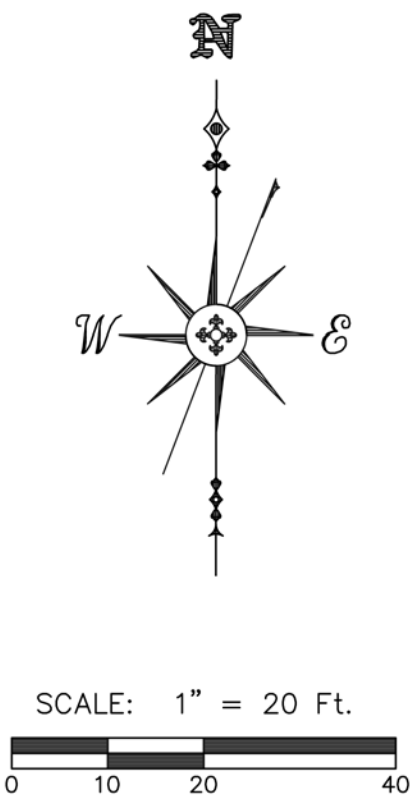


# Exhibit E



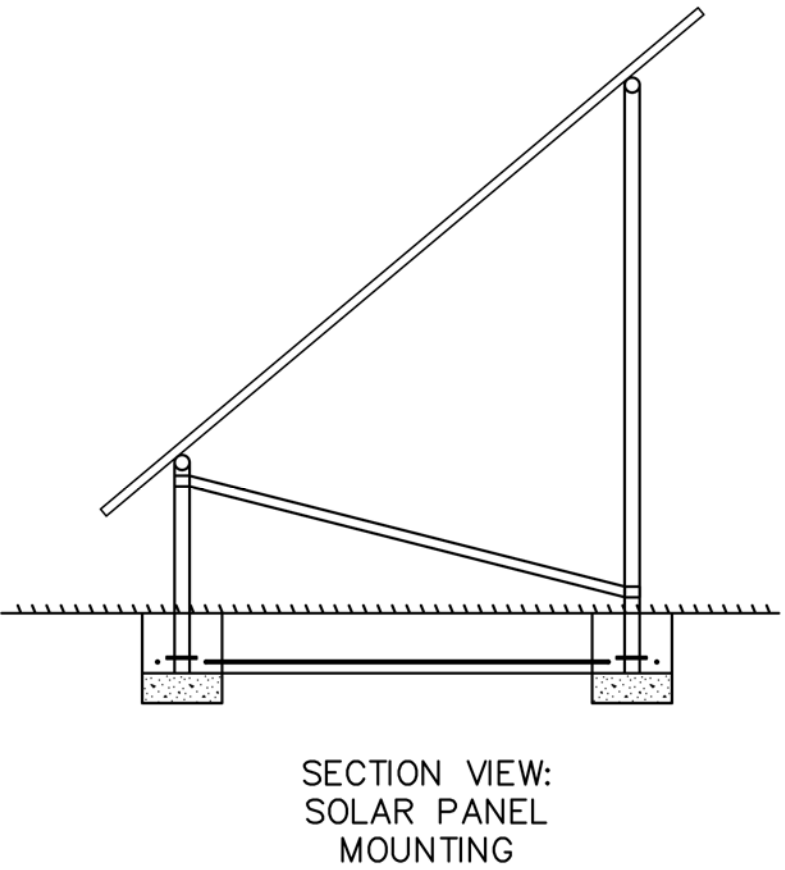
LEGEND:

- EXISTING PINE TREES
- POWER POLE
- FIRE HYDRANT WITH GATE VALVE
- POWER SERVICE PANEL
- SEWER MAN HOLE
- GATE VALVE
- GUY ANCHOR



NOTES:

- 1) CONTOUR INTERVAL = 0.5 FOOT. CONTOURS AND ELEVATIONS SHOWN ARE BASED ON FIELD SURVEY PERFORMED ON FEBRUARY 14TH, 2017. ELEVATIONS SHOWN ARE NAVD88 BASED ON "ENGLISH" (PID: MW0648) ELEVATION = 4244.11.
- 2) TITLE REPORTS NOT PROVIDED FOR THIS TOPOGRAPHY, EASEMENTS MAY EXIST THAT ARE NOT SHOWN HEREON.
- 3) SOLAR ARRAY TO THE NORTH SEE SHEET 2.



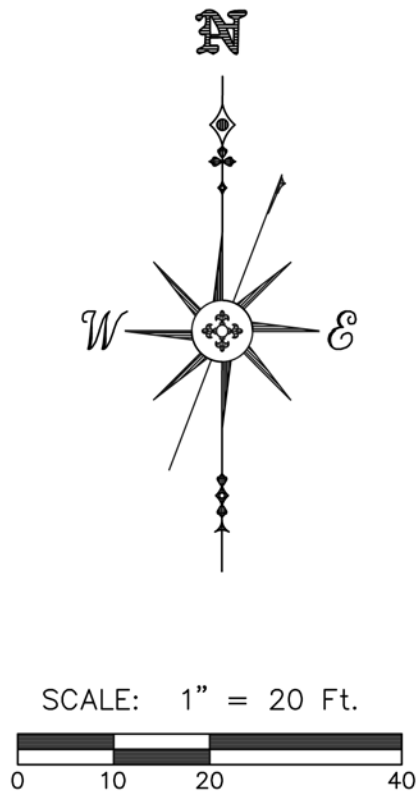
			 <b>E &amp; S Engineers &amp; Surveyors, Inc.</b> <b>Civil Engineering &amp; Land Surveying</b> 329 West Miner Street Yreka, California 96097 brayengineer.com phone (530) 842-6813 fax (530) 842-6645 email - brayengr@bcglobal.net	<i>Project for:</i> <b>City of Dorris</b>  307 South Main Street, P.O. Box 768, Dorris, CA Telephone: (530) 397-3511                      Fax (530) 397-8831	<div>SITE PLAN</div> <div>CITY OF DORRIS WATER TREATMENT BUILDING</div>	SCALE:    1"=20'		
DATE: 3-8--2019								
CLIENT FILE #: 17018								
SHEET NO. <u>1</u> OF <u>2</u>								
NO.	REVISIONS	DATE						





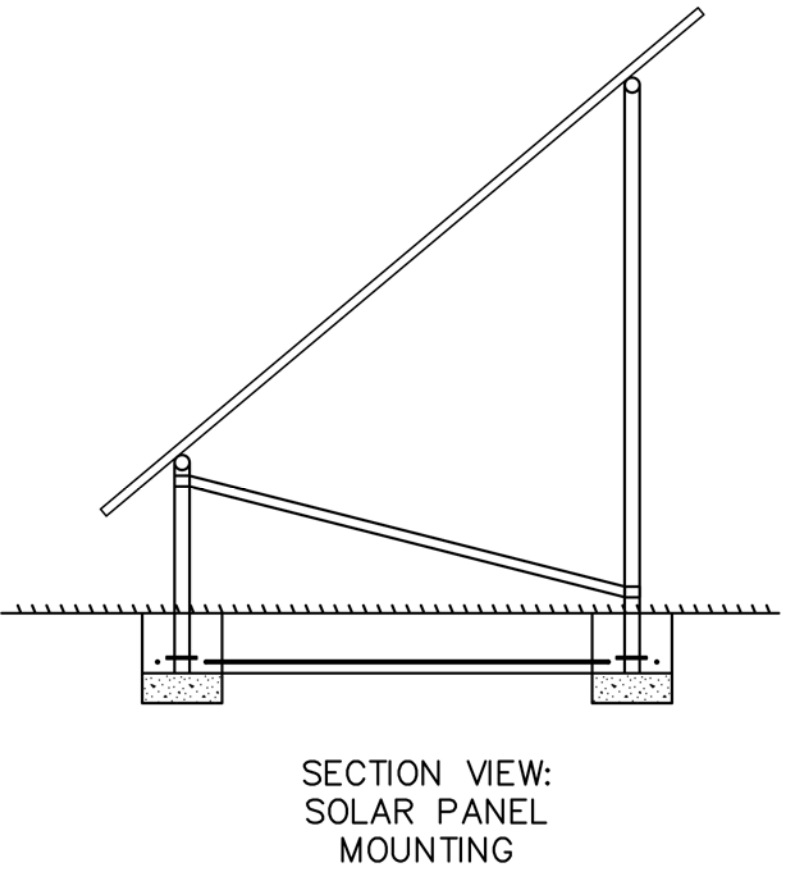
LEGEND:

- EXISTING PINE TREES
- POWER POLE
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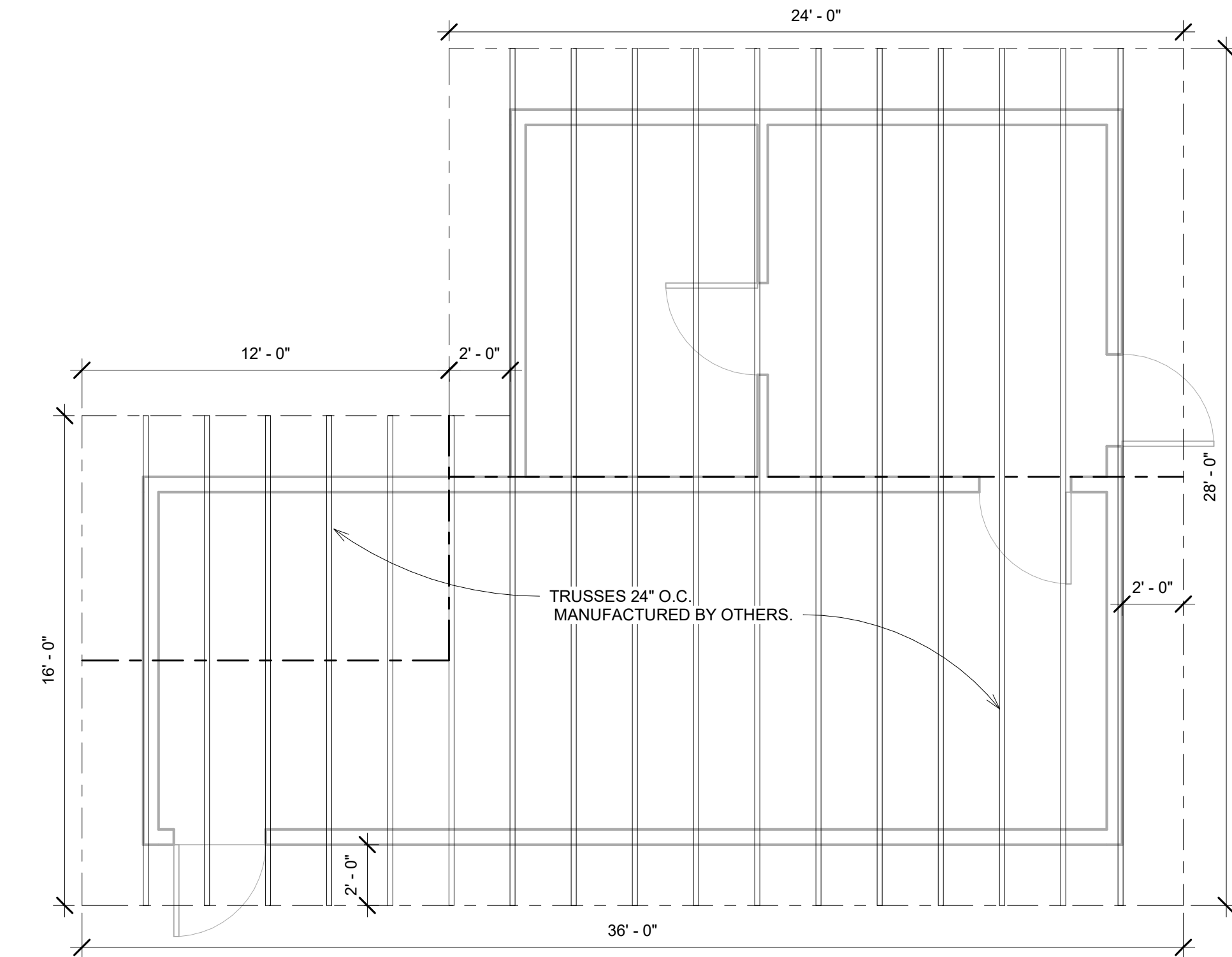




The floor plan shows a rectangular room with overall dimensions of 29' - 6" by 14' - 6". The layout includes the following components and dimensions:

- Top Wall:** 20' - 0" wide.
- Left Wall:** 12' - 0" wide.
- Right Wall:** 9' - 6" high.
- Bottom Wall:** 29' - 6" wide.
- Equipment and Features:**
  - Top Left:** HYPOCHLORITE GENERATOR, COOLER, COOLED AREA, BRINE TANK, and 3068 DOOR.
  - Top Right:** SOFTENER COOLING UNIT, SOFTENERS, and 3068 DOOR.
  - Center:** HYPO TANK, INJECTOR PUMP, and TELEMETRY EQUIPMENT.
  - Bottom Left:** WELL, T (Tank), T (Tank), C/V (Control Valve), and 3068 DOOR.
  - Bottom Center:** PUMP CONTROLS & ELECTRICAL PANEL, PUMP READY indicator, and 3068 DOOR.
  - Bottom Right:** #1 and #2 storage areas.
- Dimensions and Clearances:**
  - Clearance from top wall to equipment: 12' - 0".
  - Clearance from right wall to equipment: 9' - 6".
  - Clearance from bottom wall to equipment: 2' - 6".
  - Clearance from bottom wall to equipment: 29' - 6".
  - Clearance from right wall to equipment: 14' - 6".
  - Clearance from bottom wall to equipment: 2' - 8".
- Orientation:** A north arrow points towards the top right, labeled with '9' and '1'.

8 ROOF FRAMING PLAN  
1/4" = 1'-0"



STANDING SEAM  
METAL ROOF  
15 # FELTS  
5/8" ROOF SHEATHING

MANUFACTURED TRUSSES @  
24" O.C. ENGINEERING BY OTHERS.

12 4

Level 2  
8' - 0"

2" x 6" FRAMING  
HARDI-PANEL SIDING  
OVER 7/16" O.S.B. W/ 8d  
NAILS 12" O.C. IN THE FIELD  
R-21 INSULATION

R38 INSULATION

6" NOMINAL CONCRETE SLAB

FINISH FLOOR  
0' - 0"

The diagram illustrates a cross-section of a road and its drainage system. The road surface is at the top, followed by a layer of gravel. Below the gravel is a concrete curb on the left and a concrete drainage ditch on the right. The ditch is filled with a layer of gravel. The bottom of the ditch is a concrete base. The diagram is labeled with 'Road' and 'Ditch'.

A line drawing of a house with a gabled roof and horizontal siding. The house is positioned in the foreground, with a fence and trees in the background. The drawing is simple and uses black outlines on a white background.

**PRELIMINARY**



NO.		DATE	 <p>E &amp; S Engineers &amp; Surveyors, Inc. Civil Engineering &amp; Land Surveying</p> <p>329 West Miner Street    phone (530) 842-6813 Yreka, California 96097    fax (530) 842-6645 brayengineer.com    email - brayengr@sbcglobal.net</p>	<p>PROJECT FOR:</p> <p><b>DORRIS TREATMENT/ WELL BUILDING</b></p> <p>DORRIS, CA</p>	<p><b>ELEVATIONS/ FLOOR PLAN</b></p> <p>40 PSF SNOW LOAD - 90 MPH, 110 MPH 3-SEC GUSTS WIND - EXPOSURE C</p>	SCALE: AS SHOWN
						DATE: 3/8/2019 2:53:23 PM
						CLIENT FILE #: 19018
						SHEET NO. <u>1</u> OF <u>1</u>