



SMALL COMMUNITY DROUGHT RELIEF PROGRAM

Irish Beach Water District (IBWD) - Well
Activation & Tank Restoration Project



Irish Beach Water District - P.O. Box 67, Manchester, CA 95459 – 707-882-2892

IBWD@MCN.org

www.IBWD.org

Document History

Paper copies are valid only on the day they are printed. Contact the author if you are in any doubt about the accuracy of this document.

Revision History

This document has been revised by:

Revision Number	Revision Date	Summary of Changes	Author
v1.0	09-01-2021	Document Created	R.J. Dial
v1.1	10-19-2021	Updated by IBWD GM	Project Manager

Reference Documents

Please see the following documents for more information:

Document Name	Version	Author
Governor Newsom's 7/8/21 drought proclamation.	https://www.gov.ca.gov/wp-content/uploads/2021/07/7.8.21-Drought-SOE-Proc.pdf	State of California Executive Department
California Economically Distressed Area Mapping Tool	https://gis.water.ca.gov/app/eas/	State of California, Department of Water Resources

Distribution List

This document has been distributed to:

Name	Position	Company	Action
Judy Murray	Office Manager/Accountant	Irish Beach Water District	Author
R.J. Dial	Plant Operator	Irish Beach Water District	Author
Ken Terry	IBWD Board President	Irish Beach Water District	Reviewer
Charlie Acker	General Manager	Irish Beach Water District	Signatory
Alena Misaghi	Engineer	California Department of Water Resources	Evaluate Grant Proposal

Table of Contents

Attachment 1 – Organizational, Financial, and Legal Information	4
1. Application Cover Sheet	4
2. Applicant’s representatives	5
3. Summary of Project Costs	6
4. Authorizing Resolution	7
Attachment 2 – Project Proposal, Tasks, & Budget	8
1. Title of Project	8
2. Project Management	8
3. Scope of Work and Project Description	9
4. Project Objectives	10
5. Task Breakdown	11
6. Schedule	11
7. Budget	12
8. Deliverables	12
9. Attachments	14
9.1. Applicant’s Charter	14
9.2. Mendocino County Board of Supervisor’s Support	14
9.3. Irish Beach Water District Location Data	15
9.4. Irish Beach Water District Surface Water Images	18
9.5. Irish Beach Water District Tank #5 Image	22
9.6. Irish Beach Water District Well #2 Image	23
9.7. Irish Beach Water District Tank #2 Image	24
9.8. Irish Beach Water District Institutional Capacity Example	25

Attachment 1 – Organizational, Financial, and Legal Information

1. Application Coversheet

Application for Small Community Drought Relief Program pursuant to Budget Act of 2021.

The Irish Beach Water District of P.O. Box 67 (15401 Forest View Road), Manchester, CA 95459, of the County of Mendocino, State of California, does hereby apply to the California Department of Water Resources for a grant in the amount of \$419,542.

For the following project under the Small Community Drought Relief Program: IBWD Well Activation & Water Tank Restoration.

By /s/ Charlie Acker (see signature page file)

Date: October 19, 2021

Charles (Charlie) Acker

General Manager, Irish Beach Water District

Telephone:

1.1. Brief Proposal Description

The Irish Beach Water District (IBWD) serves a sparsely populated rural community in Mendocino County, which provides water resources to 204 households. The coast of Mendocino County faces increasingly dire drought conditions, and the town of Mendocino has become the epicentre of an acute drought crisis; however, residents across the County's rural landscape are at risk of losing reliable sources of water. The IBWD proposes to increase groundwater sources and improve its storage system to ensure the district has a reliable water supply for residents, as well as an affordable place for coastal Mendocino County communities to purchase water when surface water flow levels are sufficient.

The IBWD grant application includes three construction-ready infrastructure improvement projects, which will provide immediate and near-term water supply reliability benefits. California Department of Water Resources (DWR) grant funds will be used to complete three drought and water storage resiliency and preparedness tasks that have been on hold for lack of sufficient funds:

1. Replace a temporary polyurethane tank with a 11,000-gallon epoxy-coated steel tank to increase well staging capacity; and
2. equip and activate an existing proven well and connect it to the Water District system for immediate use; and
3. restore a damaged 60,000-gallon tank, so that it can be returned to service.

Approval of a grant for this IBWD infrastructure improvement project will provide California DWR with a rapid return on investment in a small rural water supplier, as well

as the opportunity to report successful completion of a project that will help a small community survive this and future droughts.

2. Applicant's Representatives

2.1. Project Name

Irish Beach Water District Well Activation & Water Tank Restoration

2.2. Contacts

Primary Project Contact

Name: Charles Acker

Title: IBWD General Manager

Address: P.O. Box 67 (15401 Forest View Road), Manchester, CA 95459-0067

Telephone:

E-mail:

Alternate Project Contact

Name: Judy Murray

Title: IBWD Office Manager & Accountant

Address: P.O. Box 67 (15401 Forest View Road), Manchester, CA 95459-0067

Telephone:

E-mail:

Alternate Project Contact

Name: R.J. Dial

Title: IBWD Plant Operator

Address: P.O. Box 67 (15401 Forest View Road), Manchester, CA 95459-0067

Telephone:

E-mail:

2.3. Organization Information

Type of Organization: The Irish Beach Water District (IBWD) is a Special District serving a small unincorporated community in Mendocino County. The community of Irish Beach is not supplied by an urban water supplier as defined in California Water Code (CWC) Sec 10617 and was included in Governor Newsom's drought proclamation on July 8, 2021 ⁽¹⁾.

The Water District was formed on February 8, 1967, and bylaws were established on July 11, 1972. Copies of these documents are included in Attachment 9.1.

The IBWD is governed by a Board of Directors elected for 4-year terms. The Directors elect officers in accordance with the Water District bylaws. The current Directors and Officers are:

Kenneth Terry, President

Term ends December 15, 2023

Joe Ellison, Vice President

Term ends November 3, 2021

Suzy Israel, Director

Term ends December 15, 2025

Brad Dyson, Director

Term ends December 15, 2023

Stephen Whitaker, Secretary

Term ends November 3, 2021

Notes:

⁽¹⁾ Governor Newsom's 7/8/21 drought proclamation includes Mendocino County <https://www.gov.ca.gov/wp-content/uploads/2021/07/7.8.21-Drought-SOE-Proc.pdf>

3. Summary of Project Costs

Provide a summary of the financing information about the proposed project, including cost share (if applicable).

		% of Total Cost
Total Cost of Project:	\$ 419,542	
Amount Requested:	\$ 419,542	100%
Amount of Cost Share ⁽¹⁾ :	\$ 0	0%
Amount of Federal Contribution:	\$ 0	0%
In-kind Contributions:	\$ 0	0%
Amount to be Funded by Other Sources: \$ 0		0%
(Describe below in table.)		

Sources of funds from partner agencies for this project, if applicable:

Amount	Name of Source	Status of Funds ⁽²⁾
\$		
Total: \$		

Is the project entirely benefiting a Disadvantaged Community (DAC) or Severely Disadvantaged Community (SDAC)? (Y/N): No

If the project is partially benefiting DAC or SDAC, provide percentage of grant funds to directly benefit a DAC or SDAC: Not applicable

Additional explanation, if necessary: Although the community of Irish Beach is not classified as a Disadvantaged Community, it is important to note that Mendocino is a rural County with less than 85% of the Median Household Income ⁽³⁾.

Notes:

⁽¹⁾ No cost share is required; however, grantees are required to show cost share (e.g., federal, local, or other funds) if an awarded project costs more than the grant amount.

⁽²⁾ Identify the current status of funds: available, planned/budgeted, awarded or pending.

⁽³⁾ California Economically Distressed Area Mapping Tool <https://gis.water.ca.gov/app/edas/>

4. Authorizing Resolution

RESOLUTION NO. 2021-05

A RESOLUTION OF THE BOARD OF THE IRISH BEACH WATER DISTRICT (IBWD)
 AUTHORIZING THE GRANT APPLICATION, ACCEPTANCE, AND EXECUTION
 FOR THE IBWD Well Activation & Water Tank Restoration

WHEREAS, the Irish Beach Water District proposes to implement IBWD Well Activation & Water Tank Restoration;

WHEREAS, IBWD Well Activation & Tank Restoration is being implemented in response to a drought scenario, as defined by Water Code section 13198(a) and is intended to: (1) address immediate impacts on human health and safety; (2) address immediate impacts on fish and wildlife resources; or, (3) provide water to persons or communities that lose or are threatened with the loss or contamination of water supplies;

WHEREAS, the Irish Beach Water District has the legal authority and is authorized to enter into a funding agreement with the State of California; and

WHEREAS, the Irish Beach Water District intends to apply for grant funding from the California Department of Water Resources for the IBWD Well Activation & Water Tank Restoration;

THEREFORE, BE IT RESOLVED by the Board of the Irish Beach Water District as follows:

1. That pursuant and subject to all of the terms and provisions of Budget Act of 2021 (Stats. 2021, ch. 69, § 112), the Irish Beach Water District General Manager, Charles Acker, or designee is hereby authorized and directed to prepare and file an application for funding with the Department of Water Resources, and take such other actions as necessary or appropriate to obtain grant funding.
2. The Irish Beach Water District General Manager, Charles Acker, or designee is hereby authorized and directed to execute the funding agreement with the Department of Water Resources and any amendments thereto.
3. The Irish Beach Water District General Manager, Charles Acker, or designee is hereby authorized and directed to submit any required documents, invoices, and reports required to obtain grant funding.

CERTIFICATION I hereby certify that the foregoing Resolution was duly and regularly adopted by the Board of the Irish Beach Water District at the meeting held on September 11, 2021, motion by Brad Dyson and seconded by Suzy Israel, motion passed by the following vote:

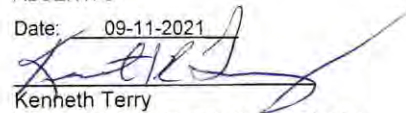
AYES: 5

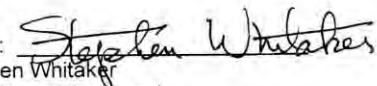
NOES: 0

ABSTAIN: 0

ABSENT: 0

Date: 09-11-2021


 Kenneth Terry
 President, Irish Beach Water District

Attest: 
 Stephen Whitaker
 Secretary of the Board

Attachment 2 – Project Proposal, Tasks, and Budget

1 Title of Project

Irish Beach Water District Well Activation & Water Tank Restoration

2 Project Management

2.1 Project Director: Judy Murray

Irish Beach Water District (IBWD) Office Manager and Accountant

Address: P.O. Box 67 (15401 Forest View Road), Manchester, CA 95459-0067

Telephone:

E-mail:

Ms. Murray served as the Treasurer of the IBWD Board of Directors for 13 years prior to becoming the IBWD Office Manager and Accountant in 2017. Judy prepares financial reports for State and County entities such as the State Controller, the Special District Risk Management Authority, and the County of Mendocino. She formulates the district's financial statements and works with independent auditors to resolve any audit findings. Ms. Murray develops and oversees the IBWD annual budget, approving invoices, and issues payment to both vendors and employees. She has more than 40 years of leadership experience in tax collection, accounting, and auditing services for public entities and has managed IBWD finances for 21 years.

2.2 Project Manager: Charles (Charlie) Acker

IBWD General Manager

Address: P.O. Box 67 (15401 Forest View Road), Manchester, CA 95459-0067

Telephone:

E-mail:

Mr. Acker has served as the IBWD General Manager since 1996 with 43 years of experience in water supply services. Charlie is a principal in Acker & Acker, servicing private water systems and wells throughout coastal Mendocino County. He has extensive experience in replacing water storage tanks, drilling and installing wells, as well as the skills necessary to maintain an aging water system while integrating upgrades and new equipment as funding permits. He has a background in engineering, licensing, and the permit process, as well as strong relationships with the State Water Resources Board (SWRB).

2.3 Other Cooperators

2.3.1 Matthew Emrick

IBWD Counsel

Address: 6520 Lonetree Blvd., Suite 1009, Rocklin, CA 95765

Telephone:

E-mail:

Mr. Emrick provides legal services specializing in surface and ground water rights, land use, and environmental law. He has served as legal counsel to the IBWD for 10 years, providing guidance on complex legal and regulatory issues. The IBWD Board of Directors will seek Mr. Emrick's counsel in relation to the funding agreement with the California DWR, as well any legal or regulatory issues related to completion of the projects funded by the State.

2.3.2 Ted Williams

Mendocino County Board of Supervisors

Address: 501 Low Gap Road, Room 1010, Ukiah, CA 95482

Telephone:

E-mail:

Mr. Williams is the Supervisor of Mendocino County's 5th District, which includes the community of Irish Beach. He has been instrumental in spearheading efforts to address the increasingly dire drought conditions affecting the coast of Mendocino County and supports the IBWD grant application. (see Mendocino County Board of Supervisors letter of support in Attachment 9.2.)

2.4 Institutional Capacity

The IBWD has been operating since 1967, and has experience in drilling and activating wells, replacing storage tanks as well as extensive operational experience in maintaining the infrastructure of an aging water system with limited financial resources. The IBWD staff have a background in engineering, experience with licencing and permit processes, and a proven relationship with the SWRB. Over the last twelve years the IBWD staff have managed contracts for the installation of two epoxy coated steel water storage tanks (88,000 gallon and 210,000 gallon), in addition to drilling and permitting two new wells. The IBWD Operations Manager has extensive experience coordinating the engineering services and structures provided by contractors with the labor of District staff to complete projects in a timely and cost-effective manner. (see Attachment 9.8 - Tank 1 Replacement)

3 Scope of Work and Project Description

The Irish Beach Water District was formed in 1967 as an Independent Special District to provide water and serve the small rural community of Irish Beach, North of the town of Manchester in the county of Mendocino. It currently provides water to 204 connections. Water is primarily from a long-standing SWRB permit to draw surface water from Irish Gulch, a hereto year-round creek (see Attachments 9.3.1 and 9.3.2 - Location Map, as well as 9.3.3 -

IBWD Map). Water is treated under a program overseen by the SWRB and stored in clear well water tanks that supply the distribution system.

Annual stream flows have been dropping over time owing to reduced annual rainfall, a trend that has been accelerating in recent years (see Attachment 9.4.1 - Annual Rainfall Irish Beach). Historically the stream has been able to provide water for the community in the summer/fall until the rainy season and full stream flows return. While summer/fall flows have been reducing over time, 2021 will be the first year that the stream will fall below the level necessary to draw and treat water (see Attachments 9.4.2 – Irish Gulch, 9.4.3 – Irish Creek Bed, and 9.4.4 - Irish Creek Flow Measurement).

As backup to the stream diversion, the district has a small well field in the mountains above the community. This water is used to supply water to the system during the winter/spring during storms and times of high-water runoff turbidity. These wells are supplemental and are not enough to supply the district on an ongoing basis. To address potential water shortages, the ratepayers approved, and the district drilled a well in a different aquifer than the existing well field. The well has been proven, but not yet equipped and connected to the system owing to lack of sufficient funds (see Attachment 9.6 – Image of IBWD Wellhead #2). **This is Task 2, equip and connect the well to the system using DWR grant funding.**

Water for the district is stored in five water tanks. These tanks were built in the 1968 to 1989 timeframe, and eventually exceeded their useful lifespan. The district has replaced two of the large tanks with modern epoxy-coated steel on concrete free standing water tanks. A newer (c1989) tank requires a new roof, and the district is working to repair that roof from its own >40-year reserves. Two additional tanks have failed, and the district has replaced them with smaller temporary poly tanks (see Attachments 9.5 – Image of IBWD Tank #2 and 9.7 – Image of IBWD Tank #5). **This constitutes Tasks 1 & 3, restore and install the needed water storage capacity to store water from the wells and supply to the community using DWR grant funding.**

Historically, the coastal communities of Elk and Irish Beach have supplied approximately 45,000 gallons of water per day to licensed water haulers serving homes and coastal communities that lack sufficient water resources. At the end of August 2021 drought conditions reduced surface water flow to a level that precluded sales to these coastal Mendocino County residents, which had a shockwave impact on water purchasers facing increasingly dire drought conditions and no affordable place to purchase water.

By equipping and activating the drilled well and restoring and installing the 70,000-gallon storage capacity lost by the failure of two water tanks, the district will be able to provide immediate and near-term water supply reliability, even in an era of potentially reduced rainfall.

4 Project Objectives

The overall project objective is to improve drought and water storage resiliency and preparedness for the 50-year-old rural community of Irish Beach, through its Water District,

even in the face of potential reduced stream flows and decreasing annual rainfall. This will be accomplished by:

4.1 Install a conventional 11,000 gallon “bolted steel on concrete foundation” water tank.

A temporary poly tank is currently used to replace a failed original ferro-cement and redwood tank. Installation of a new bolted steel tank will be used to store the water from an existing well and serve as a buffer to match pumping capacity to system water use during times when stream water is unavailable. (see Attachment 9.5 - image of Tank #5 and Attachment 9.3.4- Map of Project tasks for location)

4.2 Equip and connect an existing proven well to the Water District system (power & watermain).

Testing has shown this well will also require treatment (ozonation) for iron and manganese content. This additional well will increase available water supplies by approximately 13 acre-feet per year (AFY) and provide the necessary supplemental water when the stream diversion is unavailable. (see Attachment 9.6 - Image of Wellhead #2 and Attachment 9.3.4- Map of Project tasks for location)

4.3 Replace the containment roof on an existing (c1973) 60,000 gallon in-ground gunite water tank with an engineered metal roof.

The wooden roof on this tank reached the end of its useful life in 2020 and was removed. The loss of this tank could not have come at a more inopportune time. In the project, this is where the water from the Task 2 well will be treated, stored, and enter the Irish Beach Water District system. (see Attachment 9.7 - Image of Tank #2 and Attachment 9.3.4- Map of Project tasks for location)

5 Task Breakdown

The attached chart provides a description and proposed timeframe for completion of the tasks included in the project.



IBWD DWR Grant
Task Breakdown.xlsx

6 Schedule

Reliable sources of structures and materials, as well as engineering services have been identified, and the IBWD has confirmed that installation can be completed within the required timeframes despite the supply-chain disruptions created by the global pandemic.

Discussions with County Planning have been completed to verify that these projects are ready to be started. Moreover, the IBWD has experienced staff ready to complete the three tasks included in the project. The district's knowledge, skills and abilities are evidenced through recent completion of projects of similar scale and complexity. (see Attachment 9.8, photos of installation of IBWD Tank #1)

The attached Gantt chart provides a description and proposed timeframe for completion of the tasks included in the project.



IBWD DWR Grant
Project Schedule - Gantt

7 Budget

This application seeks California DWR grant funds totalling \$419,542, which will be used to complete three construction ready drought and water storage resiliency and preparedness tasks that have been on hold for lack of sufficient funds:

1. Replace a temporary tank and install a 11,000-gallon steel tank to prevent near-term failure. Task 1 requires \$120,540 in State funding.
2. Equip and activate an existing proven well and connect it to the Water District system for immediate use. Task 2 requires \$99,229 in State funding.
3. Restore a damaged 60,000-gallon tank, so that it can be returned to service. Task 3 requires \$199,773 in State funding.

The attached spreadsheet provides a detailed description and estimated costs for the three tasks included in the project. All labor costs, as well as material and services costs are chargeable to California DWR grant funding.



IBWD DWR Grant
Project Budget.xlsx

8 Deliverables

Funding IBWD infrastructure improvement projects will provide California DWR with a rapid return on investment in a small rural water supplier, as well as the opportunity to report successful completion of several tasks that will help a small community survive this and future droughts. Deliverables include the following:

8.1 Grant Agreement & Administration

The IBWD Board of Directors will provide administrative oversight through bi-monthly review of project status and expenditures.

8.1.1 Quarterly Progress Reports

Progress Reports will detail work completed during reporting period, scheduling concerns, as well as work anticipated for the next reporting period.

8.1.2 Invoices

Quarterly invoices will accompany the progress reports and will include eligible project costs identified by Program Cost Accounting (PCA) code, as well as supporting documentation organized by task.

8.1.3 Final Project Report

The Final Project Report will include a description of work completed on project and any deviations from the work plan, a summary of project costs, as well as information regarding the benefits derived from the project.

8.1.4 Post-performance Report

The Post-completion Report will focus on how the project is performing compared to its expected performance; whether the project is being operated and maintained; and providing intended benefits as proposed.

8.2 Tank 5 Replacement

Provide oversight of construction and installation of one bolted steel water storage tank.

- As-built drawings
- Still photographs of concrete, plumbing, electrical, and tank assembly work
- Water quality sampling report

8.3 Well 2 Activation

Equip and activate one well by a licensed professional engineer. Provide oversight of construction and installation of electrical service, stand-by generator, ozonator and filter, as well as chlorinator and tank.

- Well Permit WW21351 issued August 20, 2008
- Well Completion Report e0079321 issued September 16, 2008
- Well Evaluation Report, Pacific Geo-Science, issued December 05, 2008
- Still photographs of grading, concrete, plumbing, and electrical work
- Water quality sampling report (well chemical analysis)
- Notice of final inspection, Mendocino County Building Department
- Notice of SWRB permit for drinking water use
- Post treatment water quality sampling report

8.4 Tank 2 Renovation

Provide oversight of installation of an engineered metal roof to one existing water storage tank.

- As-built drawings
- Still photographs of pre-installation and post-installation water storage tank
- Water quality sampling report

9 Attachments

9.1 Applicant's Charter:

The Irish Beach Water District was formed on February 8, 1967, and bylaws were established on July 11, 1972. Copies of these documents are attached below:



67-2 Res Approving Formation of IBWD 8 Feb 1967.pdf



Resolution and By-Laws of IBWD 72-309.pdf

9.2 Mendocino County Board of Supervisor's Support:

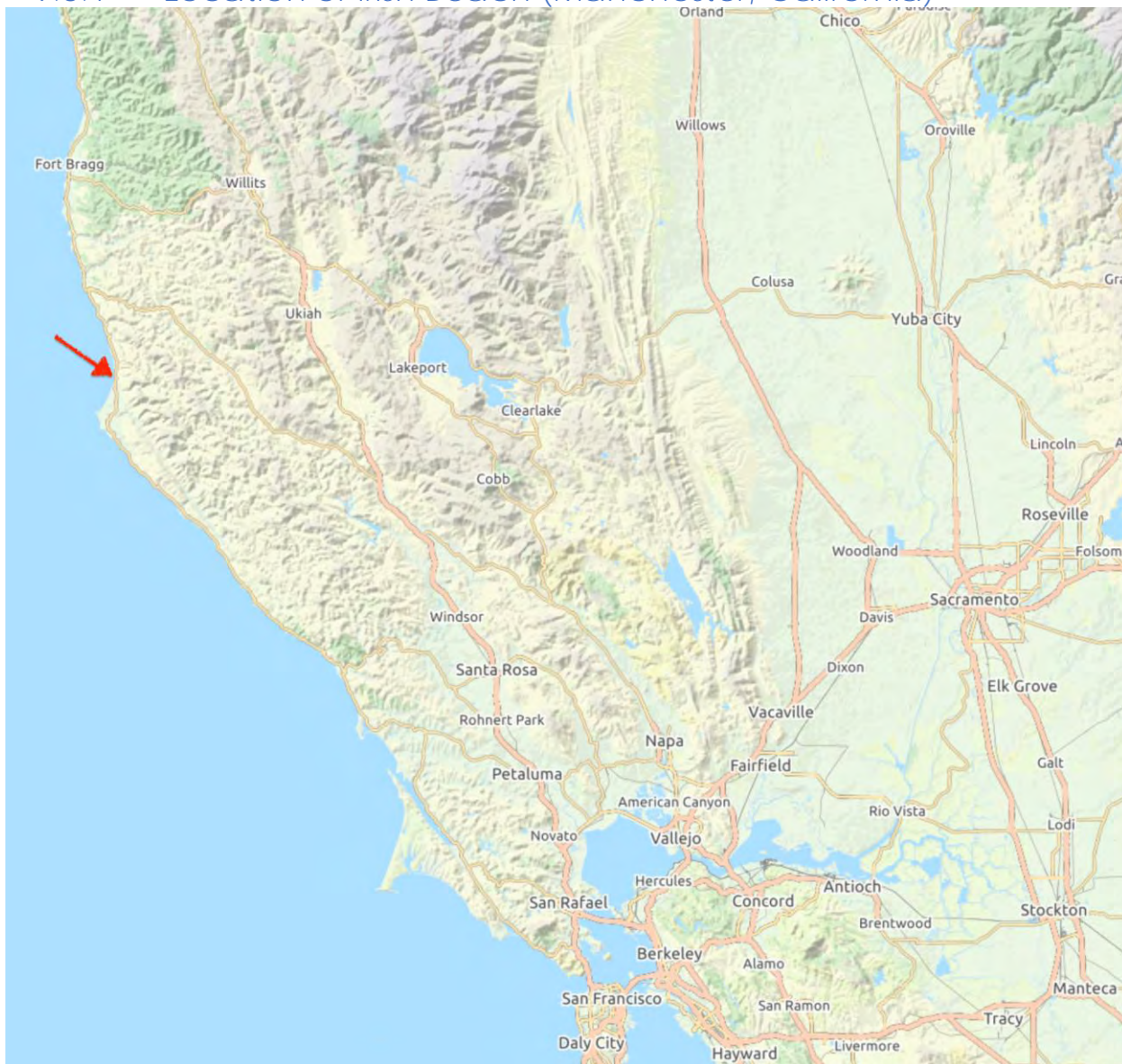
The Irish Beach Water District grant application has received the support of County Supervisor Ted Williams.



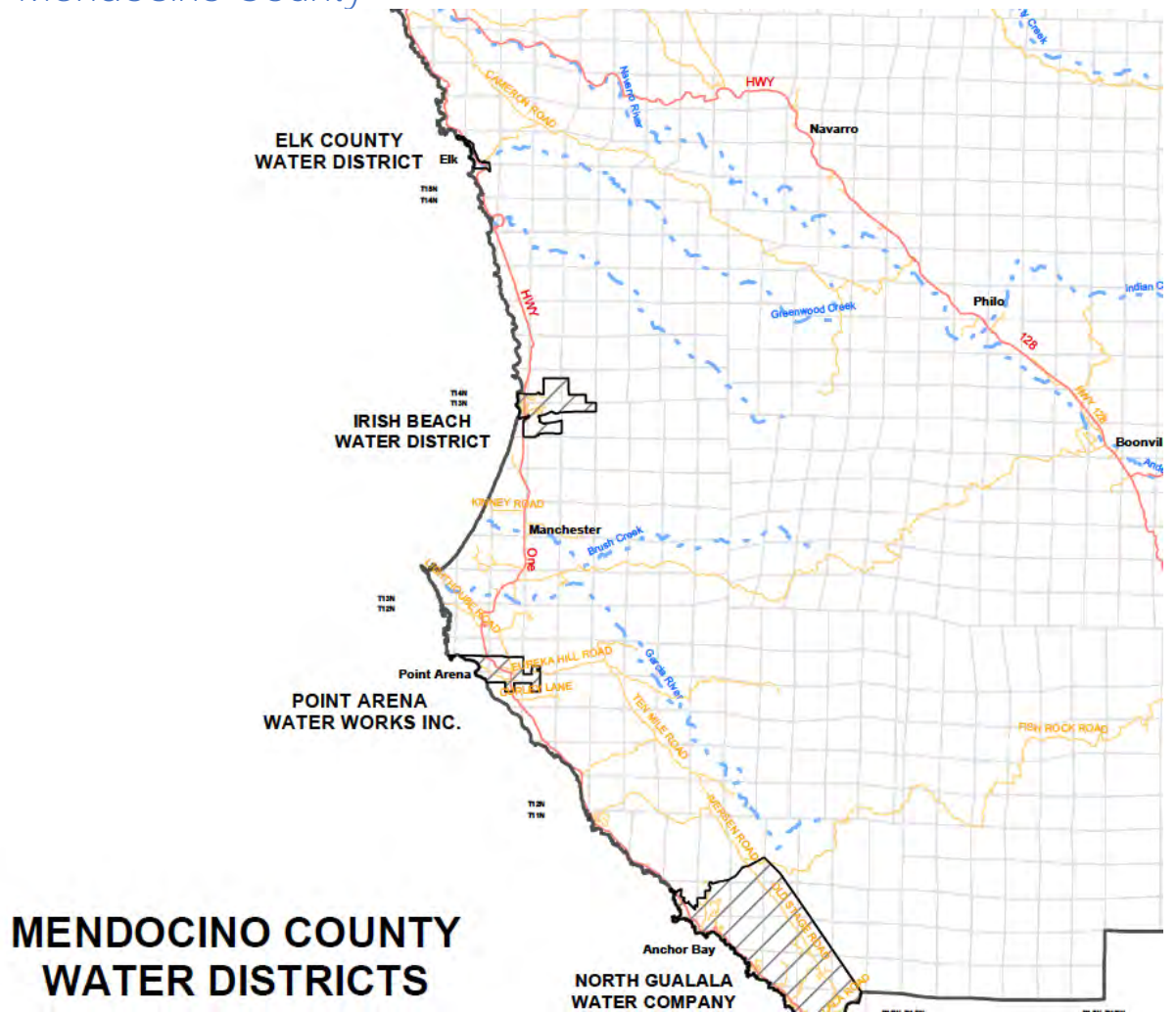
20211015_IBWD_Williams.pdf

9.3 IBWD Location Data

9.3.1 Location of Irish Beach (Manchester, California)

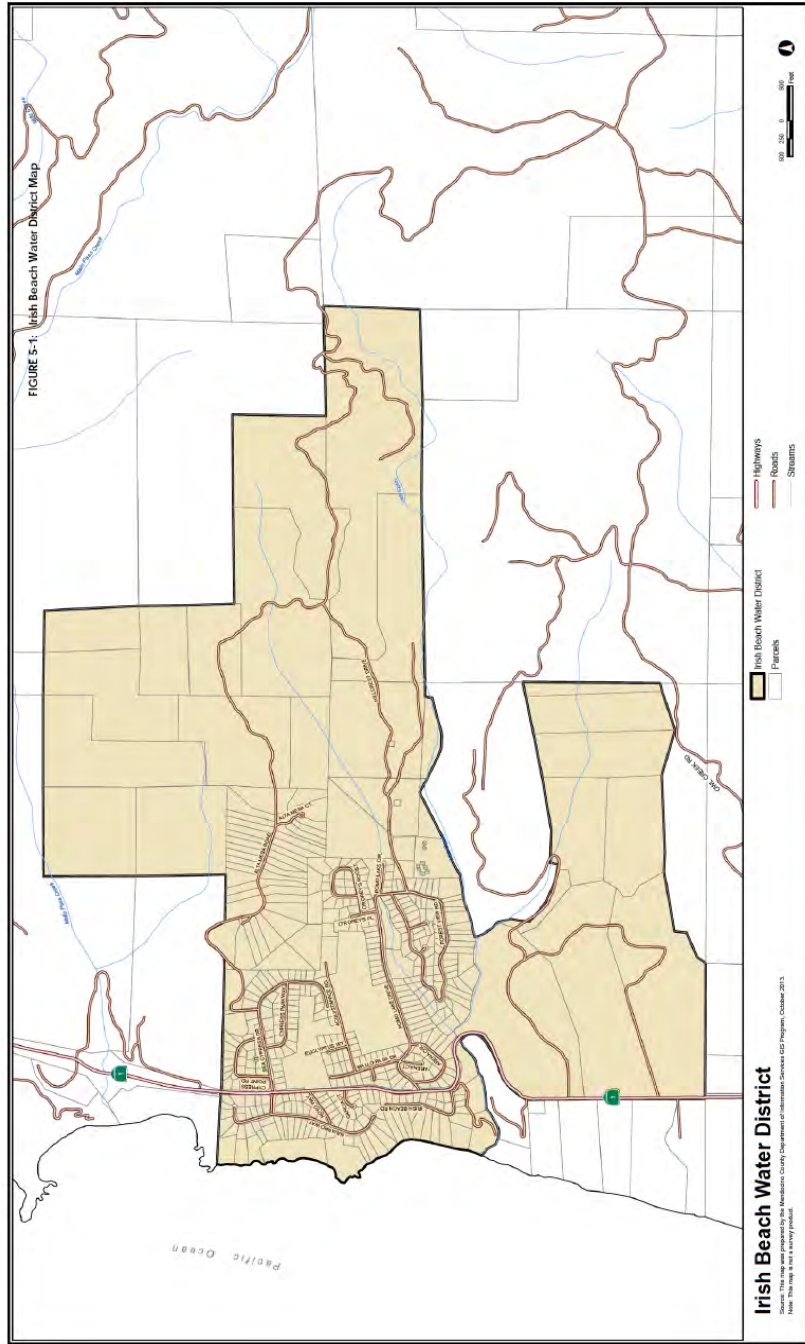


9.3.2 Location of Irish Beach Water District (IBWD) – Mendocino County

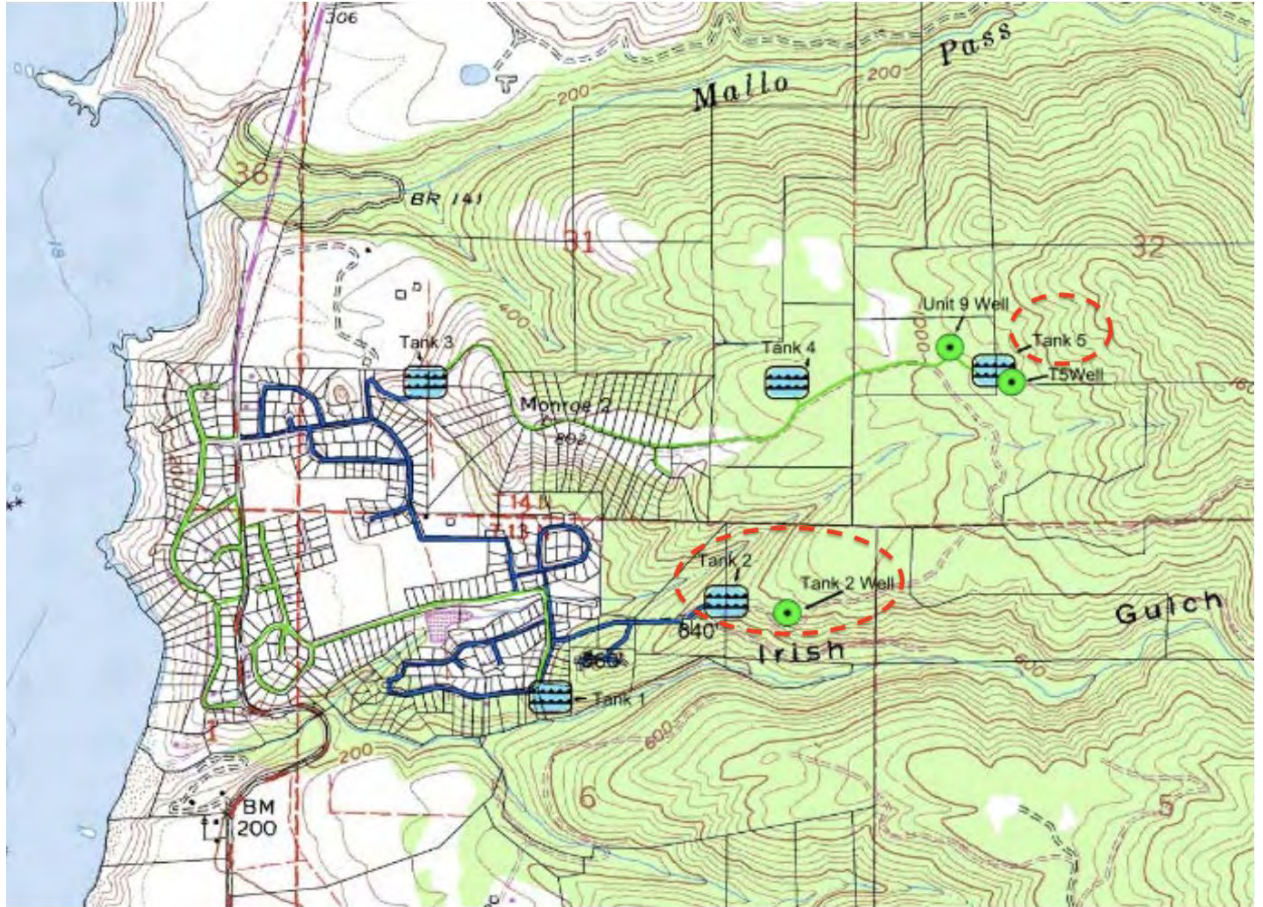


**MENDOCINO COUNTY
WATER DISTRICTS**

9.3.3 Irish Beach Water District Boundaries



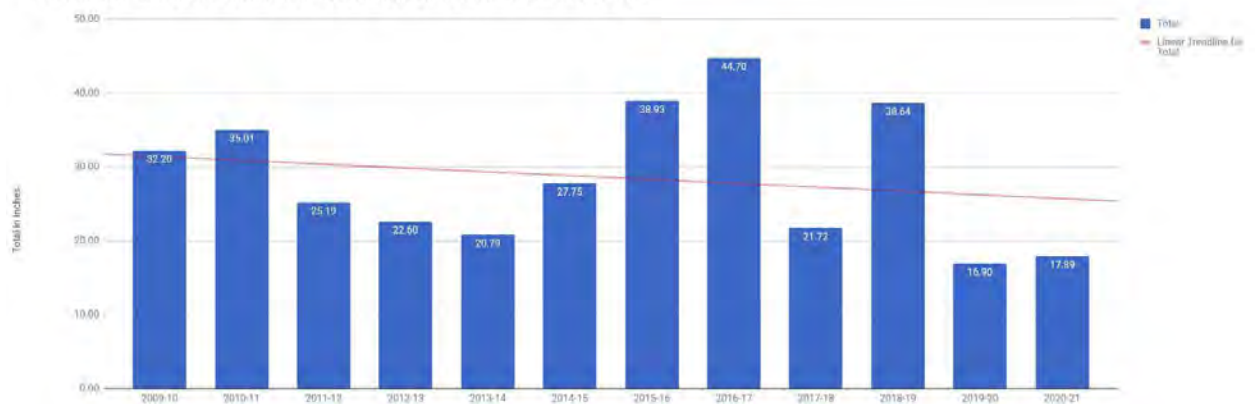
9.3.4 IBWD Well Activation & Tank Replacement Project - Task Locations



9.4 IBWD Surface Water Images

9.4.1 Annual Rainfall Irish Beach

Irish Beach California Rain Year Totals Jul 1 -- Jun 30. Avg for Rain Yrs Prior to 2020-2021 = 29.49".



Source: **Weather Station ID: KCAMANCH5**
 Station Name: Irish Beach, California

9.4.2 Irish Gulch (very low flow) - July 2021



9.4.3 Irish Gulch Upper Intake Stream Bed (dry) – August 2021



9.4.4 Irish Gulch Lower Intake (South Fork) flow measurement – August 2021



9.5 IBWD Tank #5 – old wood tank removed



9.6 Drilling IBWD Wellhead #2



9.7 IBWD Tank #2 – old wood roof removed



9.8 IBWD Institutional Capacity Example – recent Tank #1 replacement

Tank under construction



Completed tank



