Humboldt Bay Municipal Water District

To: Board of Directors
From: John Friedenbach
Date: January 5, 2025

Re: LAFCO Municipal Service Review

Background / History

The Local Agency Formation Commission (LAFCo) is responsible for conducting Municipal Service Reviews (MSR) which include reviews of agency spheres of influence (SOI). According to the Cortese Knox Hertzberg Act, MSR's are to be conducted every 5 years. LAFCo's last MSR of HBMWD occurred in 2009, so the District is due. Staff has been informed by LAFCo that the District's MSR will occur within the next six months.

Discussion

At the December board meeting, staff provided an update regarding LAFCo's MSR of HBMWD. On Friday January 3rd at 8:47 pm, after the Jan. 9th agenda had been posted, staff received a rough draft of their proposed MSR for the District. Prior to 9:00 am on Monday January 6th, staff revised and re-posted the Jan. 9th agenda and included this item for discussion. The timeline for LAFCo's and HBMWD's review and adoption of the MSR is as follows:

January 2025:
January 9th Board meeting – HBMWD's review of rough draft.
January 15th LAFCo meeting – LAFCo's review of rough draft.

February 2025:
February 13th Board meeting – HBMWD's final review and consideration of any LAFCo revisions from their Jan. 15th meeting.

March 2025:
March 19th LAFCo meeting – consideration of final draft of HBMWD MSR.

May 2025:
May 21st LAFCo meeting – formal adoption of HBMWD MSR.

Next Steps

Receive director comments on rough draft at Jan 9th HBMWD board meeting.
Staff attend Jan 15th LAFCo meeting to provide input and observe LAFCo proposed edits.
Finalize HBMWD comments on MSR at Feb. 13th HBMWD board meeting.
Staff attend March 19th LAFCo meeting.
Staff report status at April 10th HBMWD board meeting.
Staff and/or Directors attend May 21st LAFCo meeting for final adoption of HBMWD MSR.

Humboldt Bay Municipal Water District Municipal Services Review and Sphere of Influence Update

Administrative Draft

January 2025

HUMBOLDT
Local Agency Formation Commission

www.humboldtlafco.org

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Acknowledgements:

LAFCo would like to thank the staff and board members of the Humboldt Bay Municipal Water District for their assistance during the preparation of this Municipal Services Review.

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1.0 MSR/SOI BACKGROUND

1.1 Role and Responsibility of LAFCo

Local Agency Formation Commissions (LAFCos) are independent regulatory commissions that were established by the State legislature in 1963 to encourage the orderly growth and development of local governmental agencies including cities and special districts. Today, there is a LAFCo in each of California's 58 counties. Humboldt LAFCo is a seven-member commission comprised of two members of the Humboldt County Board of Supervisors, two City Council members, two Special District representatives, and one Public Member-At-Large. The Commission also includes one alternate member for each represented category.

LAFCo is responsible for implementing the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 ("CKH Act") (California Government Code Section 56000 et seq.) for purposes of facilitating changes in local governmental structure and boundaries that fosters orderly growth and development, promotes the efficient delivery of services, and encourages the preservation of open space and agricultural lands. Some of LAFCo's duties include regulating jurisdictional boundary changes and the extension of municipal services. This includes city and special district annexations, incorporations/formations, consolidations, and other changes of organization. LAFCo seeks to be proactive in raising awareness and building partnerships to accomplish this through its special studies, programs, and actions.

The CKH Act outlines requirements for preparing Municipal Service Reviews (MSRs) for periodic Sphere of Influence (SOI) updates. MSRs and SOIs are tools created to empower LAFCo to satisfy its legislative charge of "discouraging urban sprawl, preserving open space and prime agricultural lands, efficiently providing government services, and encouraging the orderly formation and development of local agencies based upon local conditions and circumstances" (§56301). CKH Act Section 56301 further establishes that "one of the objects of the commission is to make studies and to obtain and furnish information which will contribute to the logical and reasonable development of local agencies in each county and to shape the development of local agencies so as to advantageously provide for the present and future needs of each county and its communities." SOIs therefore guide both the near-term and long-term physical and economic growth and development of local agencies, and MSRs provide the relevant data to inform LAFCo's SOI determinations.

1.2 Purpose of Municipal Service Reviews

As described above, MSRs are designed to equip LAFCo with relevant information and data necessary for the Commission to make informed decisions on SOIs. The CKH Act, however, gives LAFCo broad discretion in deciding how to conduct MSRs, including geographic focus, scope of study, and the identification of alternatives for improving the efficiency, cost-effectiveness, accountability, and reliability of public services. The purpose of a MSR in general is to provide a comprehensive inventory and analysis of the services provided by local municipalities, service areas, and special districts. A MSR evaluates the structure and operation of the local municipalities, service areas, and special districts and discusses possible areas for improvement and coordination. While LAFCos have no direct regulatory authority over cities and special districts, MSRs provide information concerning the governance structures and efficiencies of service providers – and may also serve as the basis for subsequent LAFCo decisions. The MSR is intended to provide information and analysis to support a sphere of influence update. A written statement of the study's determinations must be made in the following areas:

(1) Growth and population projections for the affected area

(2) Location and characteristics of any disadvantaged unincorporated communities within or continuous to the sphere of influence

(3) Present and planned capacity of public facilities, adequacy of public services, and infrastructure needs or deficiencies

(4) Financial ability of the agency to provide services

(5) Status of and opportunities for shared facilities

(6) Accountability for community service needs, including governmental structure and operational efficiencies

(7) Any other matter related to effective or efficient service delivery, as required by Commission policy

This MSR is organized according to these determinations listed above. Information regarding each of the above issue areas is provided in this document.

1.3 Purpose of Spheres of Influence

In 1972, LAFCos were given the power to establish SOIs for all local agencies under their jurisdiction. As defined by the CKH Act, "'sphere of influence' means a plan for the probable physical boundaries and service area of a local agency, as determined by the commission" (§56076). All boundary changes, such as annexations, must be consistent with an agency's sphere of influence with limited exceptions.

Pursuant to Humboldt LAFCo policy, a MSR is conducted prior to or in conjunction with its mandate to review and update each local agency's sphere of influence every five years or as necessary. The municipal service review process is intended to inform the Commission as to the availability, capacity, and efficiency of local governmental services prior to making sphere of influence determinations.

LAFCo is required to make five written determinations when establishing, amending, or updating an SOI for any local agency that address the following (§56425(c)):

(1) The present and planned land uses in the area, including agricultural and open space lands.

(2) The present and probable need for public facilities and services in the area.

(3) The present capacity of public facilities and adequacy of public services that the agency provides or is authorized to provide.

(4) The existence of any social or economic communities of interest in the area if the Commission determines that they are relevant to the agency.

(5) For an update of an SOI of a city or special district that provides public facilities or services related to sewers, municipal and industrial water, or structural fire protection, the present and probable need for those public facilities and services of any disadvantaged unincorporated communities within the existing sphere of influence.

Service reviews may also contain recommendations for sphere of influence or government structure changes needed to implement positive service changes. Where more detailed analysis of service options is necessary,

service reviews may contain recommendations for special studies where there is the potential to reduce service gaps and improve service levels.

1.4 Disadvantaged Unincorporated Communities

Senate Bill (SB) 244 (Chapter 513, Statutes of 2011) made changes to the CKH Act related to "disadvantaged unincorporated communities," (DUCs) including the addition of SOI determination number (5) listed above. Humboldt LAFCo has adopted DUC policy, which identifies 31 inhabited unincorporated "legacy" communities, including several within HBMWD, for purposes of implementing SB 244.[1] These legacy communities were defined as part of the Humboldt County 2014 Housing Element for areas not located within the sphere of influence of a city. DUCs are recognized as social and economic communities of interest for purposes of recommending SOI determinations pursuant to Section 56425(c).

DUCs are evaluated for the present and probable need for three primary services: water, wastewater, and fire/emergency response. HBMWD currently provides wholesale services to local agency water service providers within the District and retail water services to limited areas within the District. The existing HBMWD SOI is coterminous with the District boundary, meaning that any DUCs within the SOI are also within the District and to the extent that such areas have a need for municipal water services, primary consideration should be given to the nearest local agency water service provider for service delivery. Should any nearby areas outside the HBMWD boundary be proposed for annexation, careful consideration should be given to the boundary location and nearby local agency water service providers in order to ensure potentially disadvantaged areas are receiving vital services.

[1] https://www.arcgis.com/apps/View/index.html?appid=4319a8066745442cbe7de6af1d13f98a

2.0 HUMBOLDT BAY MUNICIPAL WATER DISTRICT BACKGROUND

2.1 Agency Overview

The Humboldt Bay Municipal Water District (HBMWD or District) is an independent special district primarily located along the central coastline of Humboldt County, California. It lies along Highway 101 and 299 and includes to the county's most populous communities, including Eureka, Arcata and McKinleyville. Humboldt Bay lies within the traditional lands of the Wiyot people, with Yurok also having a presence in the surrounding area. The Wiyot refer to the bay as Wigi (pronounced "wee-ghee"), a term that holds significant cultural importance.

HBMWD is authorized to provide wholesale and retail water services. The mission of HBMWD is to "Reliably deliver high quality drinking water to the communities and customers we serve in the greater Humboldt Bay Area at a reasonable cost; reliably deliver untreated water to our wholesale industrial customer(s) at a reasonable cost; and protect the environment of the Mad River watershed to preserve water rights, water supply and water quality interests of the District".

District Goals include:

- Safety and Public Health
  - Ensure worker and public safety by consistently employing safe work practices, striving for zero on-the-job reportable injuries each year.
  - Operate the regional water system in full compliance with state and federal safe drinking water laws and regulations to safeguard public health.
- Financial Responsibility
  - Conduct all operations cost-effectively to maintain the lowest possible rates for customers while meeting public health, service, and reliability objectives.
  - Strategically plan and budget for annual activities and projects, managing them in alignment with the approved budget.
- System Operation and Maintenance
  - Maintain and upgrade the regional water system to ensure it reliably meets the needs of all customers.
  - Utilize preventive maintenance practices to maximize infrastructure longevity while investing in upgrades and improvements when financially and operationally prudent.
- Customer Service
  - Understand and address the community's water supply needs effectively.
  - Foster collaborative relationships with wholesale customers to address commercial and operational matters critical to water supply and the regional system.
- Future Positioning
  - Develop a comprehensive long-term infrastructure plan, encompassing both capital projects and maintenance, to ensure the system can reliably serve the community for the next 60 years.
  - Protect the quality and quantity of the District's water resources by maintaining local control of water rights and safeguarding the watershed.
  - Attract, retain, and support qualified employees, emphasizing training, professional development, and empowerment to fulfill the District's objectives.

- Collaborate with regulatory agencies to secure timely and cost-effective permits for operations and maintenance while promoting long-term regulatory stability and predictability.
- Address climate change impacts by supporting initiatives that align with California's greenhouse gas reduction goals (AB 32), focusing on projects that reduce the District's emissions in line with its mission and core functions.

Table 1: HBMWD Contact Information

Contacts	Contessa Dickson, Executive Assistant/Board Secretary
E-mail	office@hbmwd.com
Address	828 Seventh Street Eureka, CA 95501
Phone	707-443-5018
Website	www.hbmwd.com

2.2 Formation and Development

HBMWD was formed on March 19, 1956, pursuant to the California Municipal Water District Act .of 1911 (California Water Code §§ 71000–73001). HBMWD was established through a public initiative to create a reliable regional water supply to meet the growing demands of the Humboldt Bay area. At the time, the region's expanding communities and industrial sectors required a dependable water source for domestic, municipal, and industrial purposes. Recognizing this need, a public vote was held to form HBMWD as an independent special district, enabling it to secure funding for critical water infrastructure.

The development of the regional water system included three initial parts with construction lasting from 1960 to 1962. One of HBMWD's first major undertakings was the construction of the R.W. Matthews Dam on the Mad River, which created Ruth Lake in Trinity County, a vital reservoir for the region's water supply. HBMWD also built a diversion, pumping and control works on the Mad River at Essex (now known as the John R. Winzler Operations and Control Center) and a pipeline delivery system, establishing itself as a wholesale water supplier for nearby cities and community service districts. The pipeline system initially supplied water to the City of Arcata, the City of Eureka, and two pulp mills on the Samoa Peninsula. The original system infrastructure cost a total of $13.8 million, which was financed through 40-year General Obligation bonds authorized by voters in 1956. These efforts establishing the District's water infrastructure created a sustainable water system that has been vital in fostering Humboldt County's growth, economic development, and long-term stability.

After the construction of Ruth Lake, HBMWD chose not to assume secondary recreational responsibilities and instead, on December 31, 1964, entered into a Master Lease Agreement with Trinity County to address these responsibilities. Upon formation of the Ruth Lake CSD in 1966, Trinity County transferred and assigned the Master Lease to Ruth Lake CSD. This Assignment of Lease agreement assigns and transfers to the Ruth Lake CSD "all of its right, title and interest in and to that certain lease" provided, however, that this assignment "shall not in any way operate to release [the County] from any of the terms, conditions or obligations of said lease". While the Master Lease was assigned to Ruth Lake CSD by Trinity County, the County remains responsible for compliance with the terms of the Master Lease. The original 39 year Master Lease agreement commenced on the first day of June, 1964, and provides for six ten-year extensions for a total of 99 years. The Master Lease was extended in May 2023 for another ten years. The lease allows the District to maintain and operate boat launching facilities

(the marina) and other recreational facilities including the camping and day-use areas. The Master Lease also allows the District to sublease parcels of land for recreational purposes to private individuals. Use of sublease parcels for permanent residential purposes is prohibited by the Master Lease agreement and District policy. While Ruth Lake CSD's primary focus is managing all the recreational aspects at Ruth Lake including sublease sites, the Marina and campgrounds, they also oversee small water systems, coordinate garbage pickup, and maintain onsite septic systems and outhouses at the marina and campground locations.Over time, HBMWD expanded its infrastructure, welcoming additional wholesale customers and making numerous upgrades to improve efficiency and reliability.[2] These additions include:

- South Bay Water Extension (1970)
  - Extended the domestic water pipeline from Fairhaven along the Samoa Peninsula and installed an underbay pipeline to serve the Humboldt Community Services District (CSD).
  - Cost: $1.95 million (50% funded by an EDA grant).
- Water Line Extensions to Blue Lake and Fieldbrook (1974)
  - Expanded the pipeline to serve the Fieldbrook Community Services District and the City of Blue Lake.
  - Cost: $291,400.
- Industrial Direct Diversion – Pump Station 6 (1976)
  - Built to address insufficient water delivery capacity for pulp mills and ensure contractual obligations for industrial use.
  - Facility supplies 60 MGD and was completed in 1977.
  - Cost: $5.7 million (50% funded by an EDA grant).
- Hydroelectric Plant (1983)
  - Constructed a hydroelectric facility below Matthews Dam at Ruth Lake to generate revenue from energy production.
  - Cost: $3 million.
- Samoa Booster Pump Station (1996)
  - Installed on the Samoa Peninsula to stabilize delivery pressure and increase system capacity by 0.5 MGD.
  - Cost: $391,000.
- Drinking Water Treatment Additions (1997–2003)
  - Addressed safe drinking water regulations and improved water quality.
- Contact Time (CT) Tank (1997): A 2 MG reservoir to meet enhanced disinfection requirements.
  - Cost: $1.2 million.
- Turbidity Reduction Facility (2003): Built to address high turbidity levels and ensure compliance with regulatory standards.
  - Cost: $10.5 million (funded by a zero-interest loan).
- Emergency Power Generator at Essex (2003)
  - Installed a 2 MW generator to ensure water supply reliability during power outages and reduce operational costs through energy programs.

[2] Further in-depth details on the development and evolution of the HBMWD regional water system can be found in the writings by the previous District Engineer, John Winzler, including his historical accounts "A History of Water Development and Service Within the Humboldt Bay Area (1955–1979)" (written in 1979) and "Water Rate Evaluation—Historical Evolution of District Facilities and Capital Expenditures" (written in 1984).

- Cost: $787,000.

These additions have expanded the District's capacity, improved water quality, and enhanced system reliability, supporting the region's growing needs. Since its inception, HBMWD's regional water system has consistently met the municipal and industrial water needs of the Humboldt Bay region, playing a crucial role in its long-term sustainability and progress.

2.3 Boundary and Sphere of Influence

HBMWD's jurisdictional boundary covers the greater Humboldt Bay area and extends into Trinity County, encompassing a total service area of approximately 225,000 acres (350 square miles). Within Humboldt County, the district's boundaries extend from McKinleyville to the north, College of the Redwoods to the south, and the City of Blue Lake to the east as shown in Figure 1. It is important to note that Patrick Creek CSD, located north of McKinleyville CSD, receives HBMWD water through a service contract with MCSD. Within Trinity County, the HBMWD is the primary owner of more than 3,000 acres within Tax Rate Area (TRA) 066-00 that surrounds Ruth Lake (also shown in Figure 1). HBMWD's SOI encompasses all existing service areas and is coterminous to its jurisdictional boundary.

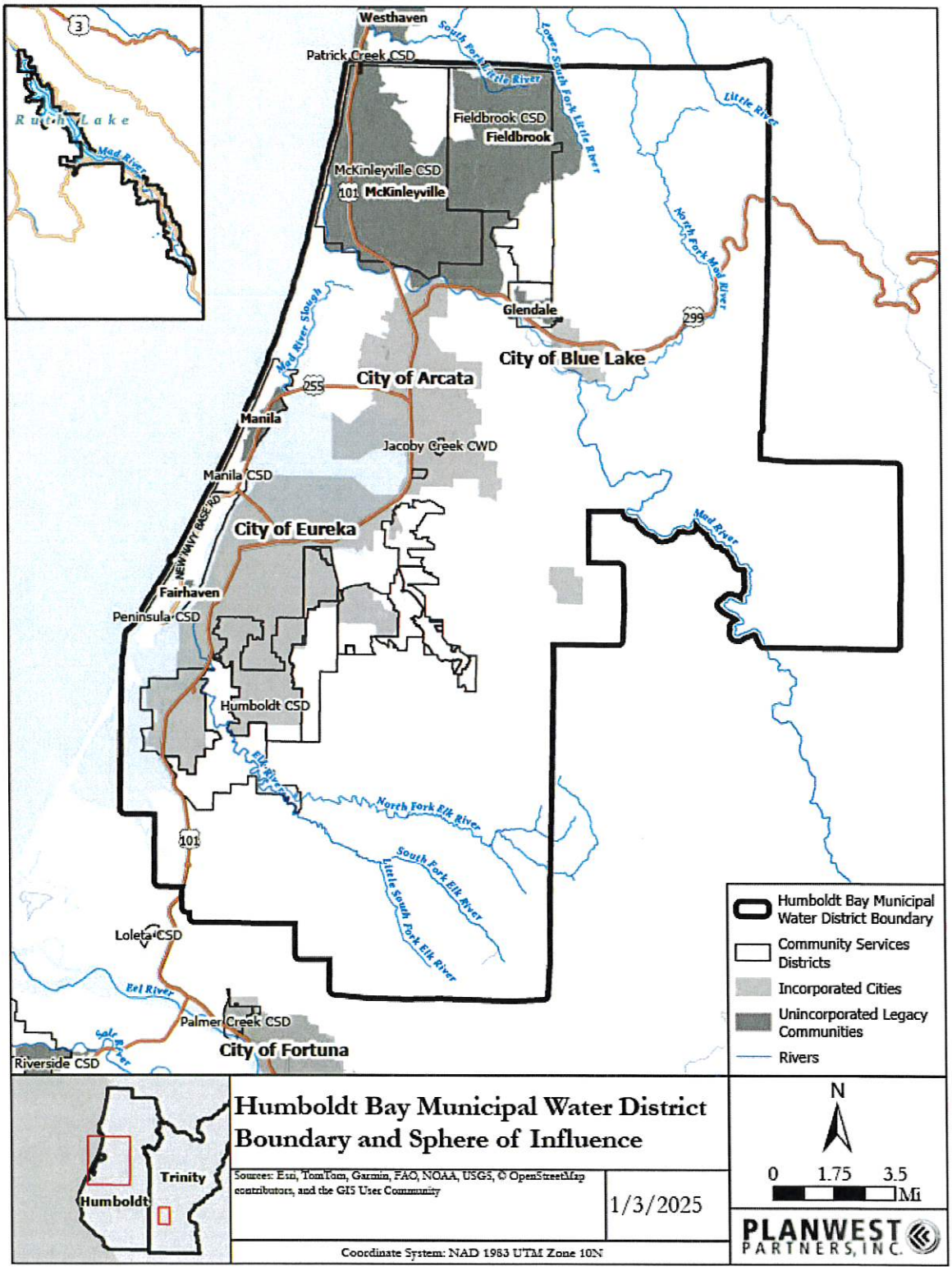


Figure 1: Humboldt Bay Municipal Water District Boundary and SOI

2.4 Tribal Lands

Humboldt Bay and the surrounding area serviced by HBMWD is located within the ancestral tribal lands of several indigenous tribes in Northern California. The primary tribes whose traditional lands intersect with HBMWD's service area include:

- The Wiyot Tribe is a sovereign and federally recognized tribe with around 600 members.[3] The Wiyot people are the original inhabitants of the Humboldt Bay region, referring to the bay as "Wigi." Their ancestral territory encompasses the area around Humboldt Bay, including present-day Eureka and Arcata. The Wiyot have a deep cultural and spiritual connection to this land, particularly to sites like Tuluwat Island within the bay.
- The Yurok Tribe is one of the largest sovereign and federally recognized tribes in California with over 5,000 enrolled members.[4] The Yurok's traditional lands extend along the California coast, including areas north of Humboldt Bay. While their primary territory lies along the Klamath River, their influence and historical presence reach into parts of the HBMWD's operational area.
- The Blue Lake Rancheria is a sovereign federally recognized tribe consisting of members of several indigenous groups, including Wiyot, Yurok, and Hupa tribes as well as members linked to the Tolowa and Cherokee people. The Blue Lake Rancheria actively engages with HBMWD regarding water supply and have partnered on projects like the Mad River Temperature Monitoring Study, aiming to assess and enhance water quality in the Mad River watershed.
- The Trinidad Rancheria, is a sovereign federally recognized tribe consisting of members of several indigenous groups, including the Yurok, Wiyot, Tolowa, Chetco, Karuk, and Hupa peoples. The Cher-Ae Heights Indian Community of the Trinidad Rancheria is located north of Humboldt Bay. The Trinidad Rancheria lands are in proximity to the district's service region. The Trinidad Rancheria has also engaged in discussions with HBMWD regarding water supply to support their community and development projects.

Ruth Lake and the surrounding area, located in Trinity County, California, is situated within the ancestral territories of several Indigenous tribes which include:[5]

- Wailaki people, part of the Eel River Athapaskan linguistic group, traditionally inhabited areas along the Eel River and its tributaries, including regions encompassing Ruth Lake. Their territory extends into parts of present-day Trinity County, where Ruth Lake is located. Today, registered members of the Wailaki people can be found on the Grindstone Indian Rancheria of Wintun-Wailaki Indians in Elk Creek, California, as well as the Round Valley Reservation in Covelo, California.
- Lassik people, also from the Eel River Athapascan linguistic group, are traditionally situated in the mountainous regions of Northern California, overlapping with areas around Ruth Lake.[6]

[3] https://www.wiyot.us/
[4] https://www.yuroktribe.org/
[5] https://native-land.ca/maps/
[6] https://native-land.ca/maps/

- Nongatl people, part of the Eel River Athapascan linguistic group as well, traditionally lived in regions that include parts of present-day Trinity County, with territories that would encompass the area around Ruth Lake.

2.5 Growth and Population

HBMWD utilized population data from the California Department of Finance (DOF) to estimate the population served within its service area. The DOF developed a database titled "Race/Ethnic Population with Age and Sex Detail, 2020-2070", containing population data for each California county, including projections from 2020 to 2070. From this database, Humboldt County's population projections through 2050 were used to estimate growth trends. The data showed an average annual growth rate of approximately 0.19% for Humboldt County from 2020 to 2050, alongside a notable population decline of 5% between 2019 and 2020.

To determine the District's service area population, census block population data and current boundaries for the District and applicable cities for 2020 were analyzed using Geographic Information System (GIS). This total population served was compared to Humboldt County's reported population according to the 2020 US Census. This analysis indicated that in 2020 the District's service area accounted for approximately 63% of Humboldt County's population. This percentage was then used to project the District's population through 2050 in 5-year increments, based on the DOF's countywide projections. These projections allow HBMWD to plan for long-term service needs aligned with regional demographic trends.

Table 2: HBMWD Wholesale Population – Current and Projected

Population	2020	2025	2030	2035	2040	2045	2050
Served	85,755*	84,735	85,228	85,855	86,477	87,587	88,855

Notes: For 2020, Census block population data was used for cities and districts that are wholesale customers to HBMWD and an additional 478 customers were added to include the District's 200 retail water service connections with an average of 2.39 persons per household in Humboldt from 2019-2023 .[7] The District Provides water to approximately 63% of the population of Humboldt County.

According to the California Department of Finance's 2024 projections, Humboldt County's population is expected to experience a gradual increase over the coming decades. The county's population is projected to increase from approximately 136,000 in 2020 to about 141,000 by 2050.[8]. According to the Census, the population was 134,623 in 2010, increased to 136,463 by 2020, and then declined to an estimated 133,985 by July 1, 2023.[9] These figures indicate a slight overall decrease of approximately 0.5% from 2010 to 2023.

2.6 Disadvantaged Unincorporated Communities

As previously noted, Disadvantaged Unincorporated Communities (DUCs) are areas within California that are inhabited and have an annual median household income (MHI) less than 80% of the statewide MHI and have 12 or more registered voters. These communities often face challenges related to infrastructure and public services.

Similarly, Humboldt County has identified "Unincorporated Legacy Communities". In 2011, Senate Bill 244 (Wolk) amended the Government Code to require counties to identify the infrastructure and service needs of

[7] https://www.hbmwd.com/retail-water-services
[8] https://dof.ca.gov/Forecasting/Demographics/projections/
[9] https://www.census.gov/quickfacts/fact/table/humboldtcountycalifornia/PST045223

unincorporated legacy communities as part of their general plans during the next Housing Element update. Under SB 244, an unincorporated legacy community is defined as a community that meets the following criteria:

- Contains 10 or more dwelling units located in close proximity to one another;
- Is geographically isolated and has existed for more than 50 years; and
- Has a median household income that is 80% or less of the statewide median household income.

Within the HBMWD SOI/district boundary, several Legacy Communities have been identified. These communities include Fieldbrook. Manila, Samoa, Fairhaven, and McKinleyville as shown in Figure 1. However, as these most of the area of these communities are within the service areas of community services districts that receive wholesale water service from HBMWD, and thse agencies assume the responsibility for planning and operations a relating to the unique needs and challenges of these ULCs to ensure equitable access to water services. Manila receives water and sewer service from the Manila Community Services District;. Fieldbrook receives water service, and the Glendale are receives water and sewer service, from the Fieldbrook-Glendale Community Services District; and McKinleyville receives water and sewer services from the McKinleyville Community Services District, and each of these service providers receives wholesale water from HBMWD. HBMWD provides retail water service to Fairhaven and Finntown within the Peninsula CSD.

HBMWD infrastructure currently extends to McKinleyville in the north and College of the Redwoods south. However, DUC's adjacent to HBMWD's SOI/jurisdictional boundary that are disadvantaged or with inadequate access to water have the potential of requesting connection to HBMWD for water connection or supplemental water service. It should be noted that there are local agencies who provide water service near these areas, such as the Loleta and Westhaven Community Services Districts which should be considered which new water service is needed in DUC areas. Figure 2 shows communities and areas where the annual household income is less than 80% of the statewide median income north of HBMWD's jurisdiction to Big Lagoon and South to King Salmon.

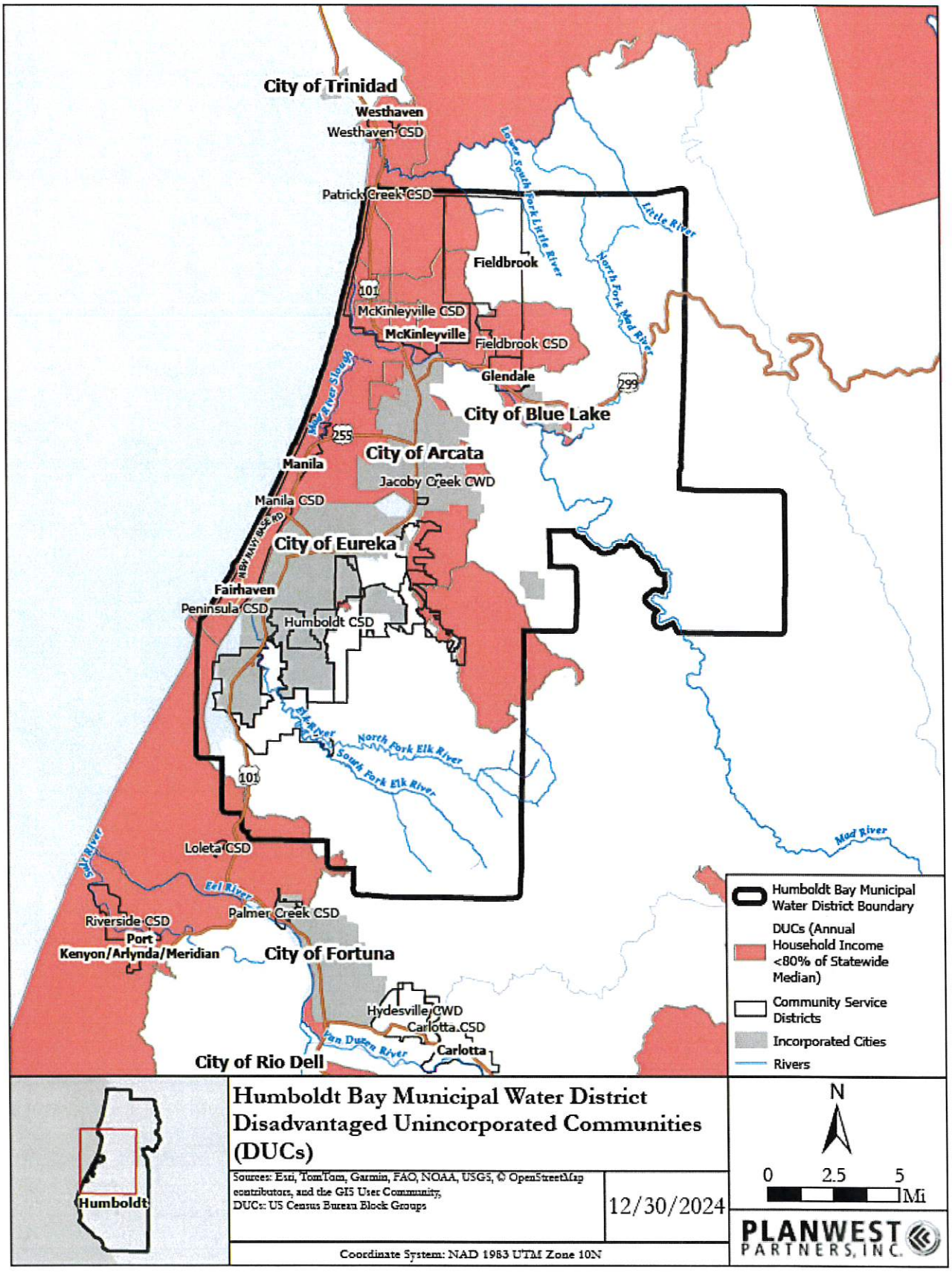


Figure 2: Historic Legacy Communities and Communities with Annual Household Income <80% of Statewide Median

2.7 Hazards

HBMWD participated in and met the participation requirements to be covered by the Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP) for the Humboldt Operational Area, 2020.[10] The Humboldt LHMP is a plan to identify and profile hazard conditions, analyze risk to people and facilities, and develop mitigation actions to reduce or eliminate hazard risks in Humboldt County and in incorporated jurisdictions within the County. Jurisdictions with FEMA-approved and formally adopted mitigation plans are eligible to apply for funding under FEMA's hazard mitigation assistance programs, including Hazard Mitigation Grant Program, Pre-Disaster Mitigation and Flood Mitigation Assistance grant programs. The LHMP incorporates a process where hazards are identified and profiled, the people and facilities at risk are analyzed, and mitigation actions are developed to reduce or eliminate hazard risk. The implementation of these mitigation actions, which include both short and long-term strategies, involves planning, policy changes, programs, projects, and other activities. References to specific actions by HBMWD to reduce hazards, which primarily relate to flooding, are contained in the LHMP, Volume 2: Planning Partner Annexes.

Similarly, the Humboldt County Dam Failure Contingency Plan outlines a comprehensive strategy to mitigate, respond to, and recover from potential dam failure flooding events, including those originating from the R.W. Matthews Dam on the Mad River. The plan integrates coordinated response efforts across agencies, early warning systems, evacuation procedures, and public education to minimize the loss of life and property. HBMWD was involved in providing detailed inundation maps and flood response scenarios in collaboration with Humboldt County's Office of Emergency Services (OES).

HBMWD also participated in and met the participation requirements to be covered by the Trinity County Local Hazard Mitigation Plan (HMP), adopted on December 3, 2024 by the Trinity County Board of Supervisors[11]. The Trinity County HMP is a comprehensive framework designed to reduce or eliminate long-term risks to people, property, and infrastructure from natural and man-made hazards. The plan considers the potential impacts of dam failure, water resource management, and environmental protection tied to HBMWD facilities. The HMP is updated every five years to reflect changing conditions and ensure that mitigation strategies remain relevant and effective. References to specific actions by the HBMWD to reduce hazards, which primarily relate to seismic vulnerability, are contained in the HMP in Appendix A. HBMWD Annex.

Earthquakes

HBMWD's infrastructure, including pipelines, the R.W. Matthews Dam, and control facilities, lies in a seismically active region near the Cascadia Subduction Zone. This zone poses a significant risk of high-magnitude earthquakes, potentially causing ground shaking, liquefaction, and landslides. Structural damage to the R.W. Matthews Dam could compromise water storage at Ruth Lake. Pipelines and the John R. Winzler Operations and Control Center could sustain operational disruptions or severe damage. The district has identified seismic retrofitting as a priority for critical infrastructure to reduce vulnerability during earthquakes.

[10] Humboldt County Operational Area Hazard Mitigation Plan, 2020. https://humboldtgov.org/3011/County-Emergency-Plans

[11] At the time the draft Trinity County Hazard Mitigation Plan (HMP) was reviewed by the Trinity County Board of Supervisors, the draft Humboldt Bay Municipal Water District (HBMWD) HMP Annex remains under review and revision by HBMWD. Per guidance from CAL OES to the Trinity County HMP planning team, HBMWD's annex will be incorporated into the Trinity County HMP once revisions are complete and the document has been approved by the HBMWD Board of Directors.

HBMWD has secured Hazard Mitigation Grants to replace vulnerable infrastructure. For instance, in 2014 the District obtained $2.85 million to replace approximately 10,000 feet of an 18-inch Techite pipeline from the Terminal Reservoir at Samoa to the Humboldt Bay Crossing.[12] This pipeline, crucial for delivering domestic water to thousands of residents, was susceptible to failure, particularly during seismic events that could trigger tsunamis. The replacement with more resilient materials enhances the system's durability against such hazards.

Over time, HBMWD has consistently maintained their infrastructure by implementing specific measures to mitigate earthquake risks and enhance the resilience of its infrastructure. Most recently, HBMWD initiated a project to retrofit two tanks at the Korblex Reservoirs to improve their earthquake resilience.[13] The project involved soliciting bids for construction management services, with specifications and bid documents made available in May 2024. A similar seismic retrofit project was undertaken for the Samoa Reservoir 1 Tank in May of 2024[14].

Tsunamis

A Cascadia Subduction Zone earthquake could generate a tsunami that affects the Humboldt Bay area. Tsunamis could potentially inundate HBMWD's diversion and pumping facilities near Essex, as well as its pipelines and control systems near the coastline. HBMWD is actively engaged in regional tsunami hazard mitigation efforts. The Humboldt LHMP includes planning that ensures that these facilities can withstand potential inundation or are supported by contingency measures.

HBMWD has secured Hazard Mitigation Grants to replace vulnerable infrastructure. HBMWD has focused on retrofitting emergency water supply interties for communities like McKinleyville, Blue Lake, Fieldbrook-Glendale, Arcata, and Eureka. These interties provide alternative water supply routes if primary systems are compromised by tsunami events, ensuring continuous water service during emergencies.

Flooding

Intense rainfall events could result in the overflow of the Mad River and/or Ruth Lake during storms which could lead to flooding of HBMWD facilities and pipelines, especially in low-lying areas. In Ruth Lake, excessive inflows during major storm events can place significant stress on the dam, potentially compromising its structural integrity if not managed properly. Large storm events may overtop the dam or necessitate emergency water releases from Ruth Lake, potentially causing downstream flooding in the Mad River watershed. In the Mad River area, flood damage to diversion and treatment facilities near Essex could occur. Both the Mad River and Ruth Lake could also be subject to water quality risks due to sediment and debris influx. Erosion from flooding also poses a risk to both areas. At Ruth Lake, erosion along the reservoir's banks and surrounding lands could potentially destabilize adjacent infrastructure and increase sediment loads. Bridges, culverts, and other supporting infrastructure near Ruth Lake could be damaged or rendered impassable during flood events. For the Mad River watershed, erosion along the riverbank can expose underground pipelines, making them vulnerable to physical damage, displacement, or ruptures during high-flow events. Facilities located near the river, such as diversion works and pumping stations, may experience foundation instability due to eroding soil,

[12] https://humboldtgov.org/DocumentCenter/View/1029/Hazard-Mitigation-Plan-Progress-Report-PDF?
[13] https://www.hbmwd.com/korblex-reservoirs-2-tanks-seismic-retrofit-project?
[14]https://www.hbmwd.com/samoa-reservoir-1-tank-seismic-retrofit-project-and-korblex-reservoirs-2-tanks-seismic-retrofit-project-plans-and-specs?

leading to structural damage or failure. Similar to Ruth Lake, erosion near access roads or pathways leading to HBMWD facilities can hinder maintenance crews' ability to reach and repair critical infrastructure.

HBMWD mitigates these risks in several ways. There are regular inspections and HBMWD ensures the maintenance of the dam and surrounding infrastructure. Hydrological monitoring systems are also employed to predict and manage inflows. There are sediment management strategies to maintain reservoir capacity and water quality. In addition, HBMWD actively works with regional agencies to maintain access roads and coordinate flood response plans. These efforts help ensure that the infrastructure in the Mad River watershed and Ruth Lake area can withstand flood events while maintaining its critical role in HBMWD's water supply system.

Wildfire

HBMWD has experienced significant impacts from wildfires, particularly in the area surrounding Ruth Lake. The August Complex Wildfire of 2020, which burned more than 1 million acres across five counties, devastated over 1,600 acres of vegetation on HBMWD-owned land, including large areas of forested lands on the northern and southern edge of Ruth Lake.[15] In addition to loss of forested lands, many structures around the lake were also lost and there was damage to the Ruth Lake CSD's campground and dock facilities. In total, there were 78 lease lots affected by the fire.[16]. This destruction not only increased wildfire risks due to dead and charred vegetation but also disrupted the local ecosystem, and damaged access roads and other infrastructure. Wildfire devastation around Ruth Lake posed significant challenges for HBMWD, as all post-disaster rebuilding on HBMWD-owned lands, including all lease lot holder requests for rebuilding after the fire disaster, must be approved by Ruth Lake CSD and HBMWD. These impacts have highlighted the district's vulnerability to wildfires and the need for proactive fire management measures.

To address these challenges, HBMWD has actively engaged in wildfire preparedness and mitigation efforts. The district has launched the Ruth Area Fire Fuel Reduction and Defensible Space Project, which involves clearing excess vegetation, removing fire-prone trees, and creating defensible space around structures and key infrastructure. These efforts align with CAL FIRE standards and aim to reduce the likelihood of wildfires spreading to or from the area surrounding Ruth Lake. In addition, HBMWD collaborates with public agencies and contractors to implement best practices for wildfire resilience, including vegetation management and improving access for firefighting crews. These initiatives not only safeguard HBMWD's infrastructure but also protect the broader community and environment in Southern Trinity County.

Dam Failure

Dam failure represents a critical hazard for HBMWD due to its ownership and operation of the R.W. Matthews Dam. A dam failure at R.W. Matthews Dam could result in the uncontrolled release of water, leading to catastrophic flooding along the Mad River. The impacts would not only jeopardize downstream communities but also disrupt HBMWD's ability to supply water to its municipal and industrial customers, compromising critical infrastructure and public health. Erosion from this flooding introduces sediment, debris, and nutrients into the Mad River and have the potential to carry agricultural or urban contaminants into the river.

[15] HBMWD, Ruth Area Fire Fuel Reduction & Defensible Space Project Part III – Request for Proposal (RFP) #3. Accessed from www.hbmwd.com/files/03d3ccc43/RFP+%233+-+CalFire+Fuels+Reduction+11.2023%2C+FINAL+11.20.23.pdf on November 20, 2024.
[16] Ruth Lake CSD MSR/SOI Update. April 19, 2022.

Recognizing these risks, HBMWD has implemented rigorous safety, maintenance, and emergency management protocols. These efforts include regular inspections, hydrological monitoring, and the development of Emergency Action Plans (EAPs) that align with local and state hazard mitigation strategies. HBMWD developed enhanced inundation maps to model potential flooding scenarios in the event of a catastrophic failure of the R.W. Matthews Dam. These maps assist in emergency preparedness by identifying areas at risk and informing evacuation plans.

2.8 Climate Change

The effects of climate change can vary significantly by region. In California, the most notable impacts include longer, drier summer months, leading to reduced precipitation and heightened wildfire risk. Along the California coastline, climate change is expected to exacerbate challenges such as decreased water availability, reduced groundwater recharge, and rising sea levels, posing risks to both natural ecosystems and human infrastructure.

The effects of climate change in the Humboldt Bay region are particularly pronounced and varied. Longer, drier summers have led to decreased precipitation and heightened wildfire risks, impacting the surrounding forests and communities. In addition, reduced groundwater recharge threatens the availability of freshwater resources for municipal, agricultural, and industrial use. HBMWD's has demonstrated a proactive stance on climate resilience and disaster readiness for the following hazards:

Severe Weather

Climate change is expected to impact wind patterns, increase rainfall, and worsen winter storms that are common in the region, potentially disrupting HBMWD operations. These weather changes could damage infrastructure from fallen trees, debris, or erosion. Power outages resulting from extreme weather could affect pumping and treatment facilities.

HBMWD incorporates climate change into its risk assessments, considering its effects on water availability and system vulnerabilities. For example, the district plans to address potential shifts in precipitation patterns, reduced snowpack, and longer dry seasons that could affect Ruth Lake's reservoir capacity and the Mad River's flow. HBMWD mitigates disruptions to power from extreme weather with backup power generators, such as the 2 MW emergency power generator at Essex, which ensures operational continuity during outages.

Drought

While Ruth Lake and the Mad River watershed typically provide ample water, drought conditions can still impact the region. For instance, in 2021, Humboldt County declared a local drought emergency due to low river flows and other drought-related challenges.[17] However, HBMWD's operations are generally less affected by drought compared to other areas. The District's water usage represents a small fraction of the Mad River's total flow. Specifically, Ruth Lake's capacity is less than 5% of the river's average annual runoff, and HBMWD's diversions at Essex account for only about 3% of the total annual runoff. Additionally, HBMWD's management practices, such as releasing water from Ruth Lake to maintain downstream flows, help mitigate drought impacts on water supply and aquatic ecosystems. These releases support river habitat during dry periods, benefiting aquatic species.

[17] Humboldt County Board of Supervisors, Resolution No. 21-77: Resolution of the Humboldt County Board of Supervisors Proclaming the Existence of a Local Emergency Due to Drought. Accessed from humboldtgov.org/DocumentCenter/View/97922/Humboldt-County-Drought-Proclamation-July-20-2021?bidId= on November 20, 2024.

Under California's "use it or lose it" doctrine, unused portions of water rights may be forfeited. HBMWD's unused industrial water rights, due to the closure of pulp mills, could be reallocated, reducing its flexibility during drought periods. HBMWD's resilience to drought could be significantly impacted by changes to its water right allocations, particularly if those changes reduce the district's ability to store or divert water from the Mad River watershed. While HBMWD already releases water to support the Mad River ecosystem, stricter flow requirements could further strain the district's ability to meet customer demand during droughts.

Sea Level Rise

Along the Humboldt Bay coastline, rising sea levels pose a significant challenge. This region is experiencing one of the highest rates of relative sea level rise on the U.S. West Coast, exacerbated by tectonic subsidence. The combination of sea level rise and storm surges increases the risk of flooding and erosion, jeopardizing infrastructure and facilities critical to HBMWD in and around Humboldt Bay. Flooding of low-lying infrastructure, including pipelines and operational facilities near the coast, could greatly impact water service delivery. Increased salinity intrusion into the Mad River could affect water quality, especially in the long term.

The District uses climate models and projections to anticipate long-term impacts, ensuring proactive management of its water rights and infrastructure. HBMWD has taken measures to protect its infrastructure from storms and high winds, including reinforcing pipelines and treatment facilities. The District's contingency planning includes protocols for power outages and system disruptions caused by severe weather events, such as storms and flooding. Given its reliance on the Mad River, HBMWD incorporates flood risk management into its operational strategies, ensuring the integrity of diversion works and the safety of water supplies during extreme weather.

3.0 MUNICIPAL SERVICES

3.1 Water Services

HBMWD provides water services through a comprehensive regional system that supports both municipal and industrial needs in Humboldt County. The District operates diversion facilities on the Mad River, capable of supplying up to 75 million gallons per day (MGD), the Lloyd L. and Barbara Hecathorn Turbidity Reduction Facility, over 35 miles of pipeline infrastructure, and advanced communication and control systems at the John R. Winzler Operations and Control Center.

Source

HBMWD obtains water from the Mad River watershed originating in Trinity County. The District owns 3,000 acres that surrounds Ruth Lake and operates R. W. Matthews Dam that creates the Ruth Lake reservoir on the Mad River and the Gosselin Hydro-Electric Power House associated with the dam. The Ruth Lake reservoir is located off of Highway 36 in Trinity County which stores water captured from the watershed in accordance with the District's permitted water rights as noted below:

- Water Rights Permit 11714 (Application 16454) allows for appropriation of up to 48,030 acre-feet per year as storage that is to be collected from October 1 to April 30 of the following year. The total annual diversion and use allowed under this permit is limited to 132,030 acre-feet per year[18].
- Water Rights Permit 11715 (Application 17291) allows for appropriation of 116 cfs (74.97 MGD) by direct diversion year round and 20,000 acre-feet annually by storage to be collected from October 1 to April 30 of the following year. The maximum diversion is not to exceed 84,000 acre-feet per year and storage, for both Permit 11714 and 11715, is not to exceed 48,030 acre-feet per year. The total annual diversion and use allowed under Permit 11714 and 11715 is not to exceed 132,030 acre-feet per year[19]. Permit 11715 also requires that a minimum of 5 cfs be released into the natural streambed of the Mad River below Ruth Dam at all times. Additionally, there are also specific flows that must be released at different times of the year as detailed in the permit.
- Water Rights Permit 18347 (Application 26657) allows for diversion of 1,000 cfs year round and 120,000 acre-feet per year for storage to be collected from October 1 to April 30 of the following year[20]. The point of diversion is Ruth Reservoir and the intended purpose is for power. The 2024 annual progress report for the permit states 2,682 MW of power.

Water released from R.W. Matthews Dam flows either directly downriver or through the power generation station before being released downriver. The Mad River generally flows northwest towards Blue Lake and then enters the Pacific Ocean near McKinleyville. In Essex, just west of Blue Lake, several wells pump water from the riverbed to the District's treatment facilities.

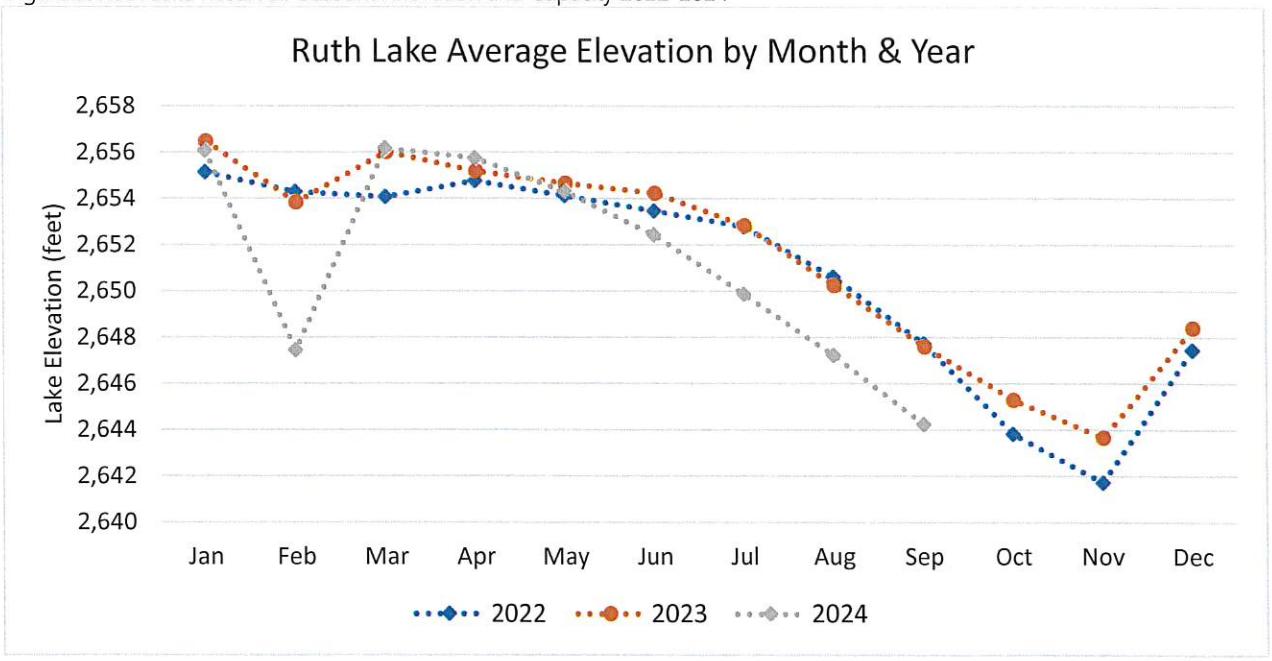
[18] SWRCB, Division of Water Rights, Permit for Diversion and Use of Water (Permit 11714). Filed on July 7, 1955.
[19] SWRCB, Division of Water Rights, Permit for Diversion and Use of Water (Permit 11715), Filed on September 21, 1956.
[20] State Water Resources Control Board (SWRCB), Division of Water Rights, Permit for the Diversion and Use of Water (Permit 18347). Filed on December 9, 1980.

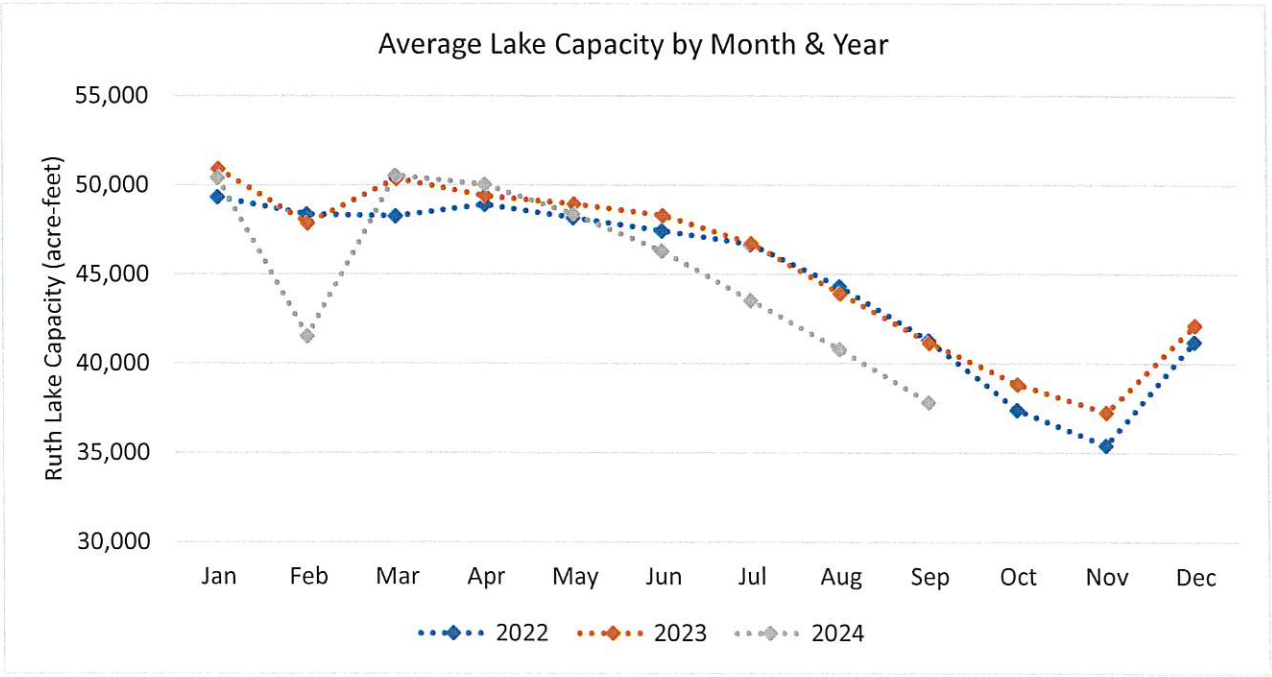
HBMWD monitors and collects telemetry data from its water diversion and storage systems, specifically focusing on critical metrics such as lake elevation, capacity, Mad River flow rates, turbine flow, and water diversions at Essex. Telemetry data from 2022-2024 was analyzed to determine trends and observations as discussed below.[21]

1. Ruth Lake Levels and Capacity:

The lake's elevation and capacity fluctuate over time, reflecting seasonal water storage and release patterns. Lake capacity adjustments are made through releases timed during the summer and fall to maintain supply and ecosystem needs.

Figure 3: Ruth Lake Reservoir Seasonal Elevation and Capacity 2022-2024





[21] HBMWD, Water Diversions, Telemetry Data for 2021 to 2023. Accessed from www.hbmwd.com/water-diversions on November 15, 2024.

2. Mad River Flows:

Flows below the dam in the Mad River show variability based on water releases for municipal and retail use, as well as environmental needs. While HBMWD manages water storage at Ruth Lake and diverts water at Essex, the operations have minimal impact on the natural flow regime of the Mad River which aligns with HBMWD's commitment to maintaining ecological health.[22]

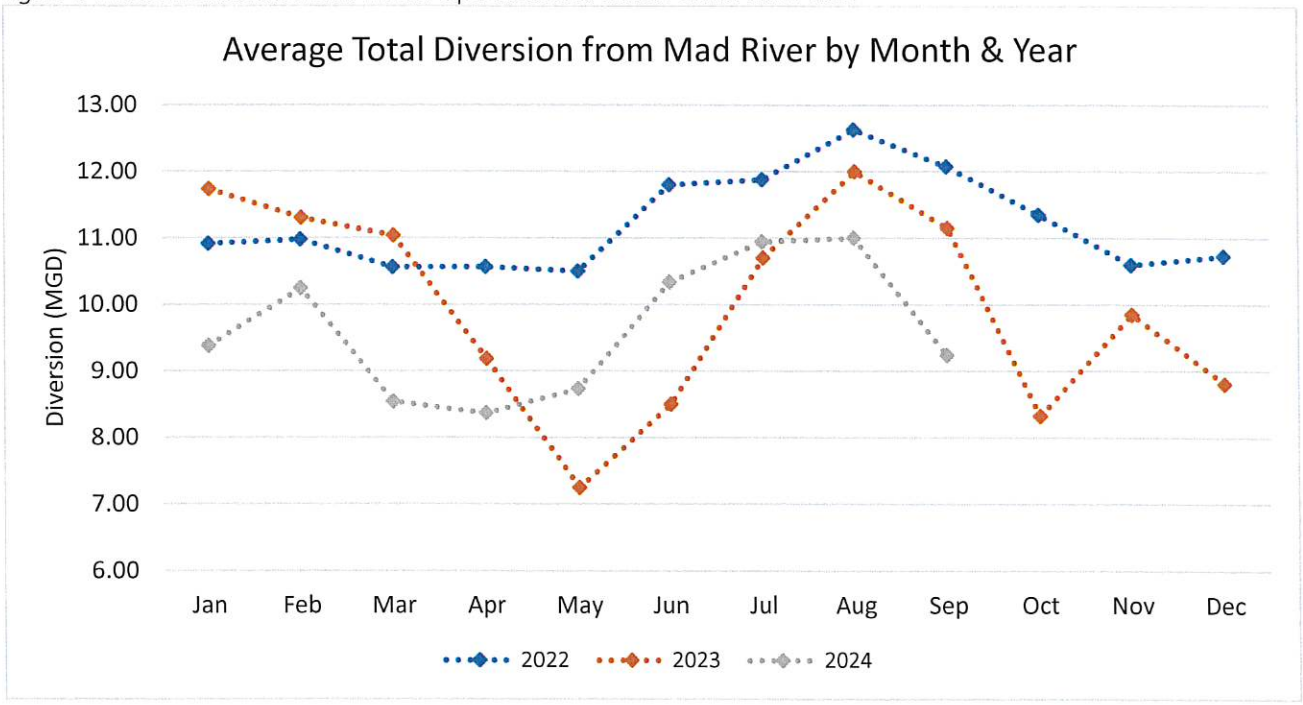
3. Turbine Operations:

Turbine flow data indicates regular use of the hydroelectric facility, with variations based on power generation needs. The hydroelectric plant operates secondary to the water supply function, producing electricity as water is released.

4. Water Diversion at Essex:

Diversion at Essex demonstrates consistent delivery to municipal customers. Flow rates through the diversion facilities highlight HBMWD's capacity to manage water efficiently, meeting municipal and retail demands.

Figure 4: Water Diversion at John R. Winzler Operations and Control Center 2022-2024



5. Seasonal Variations:

Water Telemetry data as shown in exhibits 3-5 exhibit seasonal trends, with higher flows typically observed during wetter months to manage excess runoff and sometimes during the dryer months to ensure adequate downstream supply.

[22] HBMWD, Humboldt Bay Municipal Water District Urban Water Management Plan. 2020

Infrastructure

Ruth Lake Dam and Power House

The R.W. Matthews Dam, located in Trinity County, forms Ruth Lake reservoir which impounds runoff from the upper quarter of the Mad River basin, covering an area of approximately 121 square miles. Ruth Lake has a storage capacity of 48,030 acre-feet, providing essential water resources for HBMWD's operations downstream.[23] Each summer and fall, water is released from Ruth Lake to meet downstream diversion requirements and to maintain minimum bypass flows in the Mad River below Essex.

HBMWD states that the reservoir and water management activities have a minimal impact on the natural flow regime of the Mad River due to several factors. Firstly, the total volume of water impounded and diverted by HBMWD represents a small fraction of the Mad River's natural yield. For example, Ruth Lake's total capacity is less than 5% of the average annual runoff of over 1,000,000 acre-feet into the Pacific Ocean. Also, current water diversions at Essex are approximately 25 to 30 million gallons per day (MGD), equivalent to 3% of the annual runoff, and even the full diversion capacity of 75 MGD would only account for 8%. Downstream tributaries significantly contribute to the Mad River's flow, buffering any potential effects of reduced releases from Ruth Lake during specific periods. Furthermore, there are no out-of-basin water transfers in the Mad River watershed. Water released from Ruth Lake flows directly down the Mad River channel, augmenting natural flows during the summer and fall. This augmentation benefits aquatic species by expanding river habitats, as acknowledged in HBMWD's Habitat Conservation Plan (HCP) for its Mad River activities[24].

The Gosselin Hydroelectric Power House, is located below the R.W. Matthews Dam. The power house was built in 1981 to generate renewable hydroelectric power by harnessing the flow of water released from Ruth Lake[25]. The hydroelectric plant has a capacity of 2 megawatts (MW), utilizing two 1-MW turbine generators. It plays a dual role in supporting energy production while contributing to the efficient management of the Mad River's water resources.

Essex Pumping Facilities

HBMWD operates diversion and pumping facilities near Essex, located northeast of Arcata along the Mad River. Water is diverted from the Mad River using four (4) advanced Ranney Collector wells, which draw from the river's natural subsurface flow approximately 60 to 90 feet below the river surface. The pumping facilities at Essex, including the Hilfiker Pump Station, ensure reliable water flow through the district's pipeline systems.

Diversions through the Essex pumping facilities average about 10 MGD (11,000 acre-feet per year) and support this District's municipal water operations. Industrial water is provided through a separate system that obtains water through a surface diversion facility. The industrial system is capable of supplying 60 MGD of untreated water[26].

[23] BMWD, Humboldt Bay Municipal Water District Urban Water Management Plan. 2020
[24] HBMWD, Beautiful Ruth Lake. Accessed from www.hbmwd.com/beautiful-ruth-lake on November 15, 2024.
[25] HBMWD, Habitat Conservation Plan for its Mad River Operations. Final Approved HCP – April 2004. Accessed from www.waterboards.ca.gov/water_issues/programs/tmdl/records/region_1/2010/ref3683.pdf on November 15, 2024.
[26] HBMWD, Urban Water Management Plan 2020. Adopted on June 10, 2021.

Turbidity Reduction Facility

In response to severe winter storm events that raised turbidity in the Mad River to levels that could potential interfere with the treatment process, the California State Water Resources Control Board Division of Drinking Water (DDW) directed HBMWD (and other public water systems in the region) to address the wintertime turbidity issue. As a result, the District constructed the regional Barbara and Lloyd L. Hecathorn Turbidity Reduction Facility (TRF) which was completed in April 2003[27]. The TRF addresses turbidity issues in the water supply, by employing an in-line gravity filter process to reduce turbidity, ensuring compliance with state water quality standards.[28] Constructed at a cost of approximately $10 million, it was financed through a zero-interest Safe Drinking Water State Revolving Fund Loan. The facility is designed to process 14 MGD during the wintertime and 21 MGD during the summertime when raw water turbidity is generally lower.

Treatment Facility

Need information on treatment facilities including how many, design capacity, and type of treatment.

HBMWD has storage and treatment facilities at various locations to service their domestic and industrial water systems.[29]

Demand

In 2023, the District diverted a total of 3,895.5 acre-feet of water for municipal purposes that was then treated and distributed to the District's various customers. This is a decrease from the 2020 demand of 8,269 acre-feet reported in the District's most recent Urban Water Management Plan (UWMP) [30]. Based on the District's permitted direct diversion water rights of 84,000 acre-feet per year, it can be reasonably estimated that the District is using approximately 4.6% of its source capacity. This is largely due to the loss of industrial uses in 1993 and 2009.

Industrial Contracts

HBMWD's industrial water system can supply up to 60 MGD of untreated surface water. This water was historically provided to two large pulp mills on the Samoa Peninsula. These mills ceased operations in 1993 and 2009, respectively. From 2000 to 2008, when one pulp mill was operating, deliveries of industrial water averaged 14 MGD (15,700 acre-feet per year)[31]. As such, it can be reasonably assumed that both pulp mills would have used roughly 28 MGD (31,400 acre-feet per year). Recent interest in raw water for aquaculture and other industrial uses on the Samoa Peninsula is revitalizing the District's industrial water system, albeit at reduced volumes compared to the former mills.

At this time, the District does not have any existing industrial customers and is not utilizing the industrial water system. However, there is a possibility for future industrial customers which is discussed under "Potential Future Water Contracts".

[27] HBMWD, Urban Water Management Plan 2020 – Section 7.1.1: Water Quality. Adopted on June 10, 2021.
[28] HBMWD, Barbara and Lloyd L. Hecathorn Turbidity Reduction Facility , Accessed from https://www.hbmwd.com/barbara-and-lloyd-l-hecathorn-turbidity-reduction-facility on December 15, 2024.
[29]
[30] HBMWD, Urban Water Management Plan 2020. Table 6-8: Wholesale: Water Supplies – Actual. Adopted on June 10, 2021.
[31] HBMWD, Urban Water Management Plan 2010. Section 3.2 – Water Demands. Prepared June 2011.

Retail Contracts

HBMWD provides retail water service to approximately 200 service connections.[32] The number of retail connections remains fairly consistent with annual disconnections ranging from 0 to 9 from 2020 to December 2024.[33] The properties served are primarily located in unincorporated areas outside the City of Arcata, including the West End Road and Warren Creek Road areas. Additional service areas include parts of the Arcata Bottoms and portions of the Samoa Peninsula south of the Manila Community Services District, encompassing the communities of Fairhaven and Samoa. In 2020, Retail Customer deliveries totaled 274 acre-feet. In 2023, total demand for retail customers was XXX acre-feet.

Table 3: HBMWD Retail Water Rates July 2023

Category 1 – Domestic and Small Businesses Located Within the Fairhaven Distribution Grid				Category 2 – Domestic and Small Businesses Located Outside the Fairhaven Distribution Grid			
Meter Size	New Base Rate	Capital Replacement Charge	Monthly Base Charge	Meter Size	New Base Rate	Capital Replacement Charge	Monthly Base Charge
5/8 x 34"	$42.22	$27.65	$69.85	5/8 x 34"	$43.31	$2.90	$46.21
1"	$68.49	$55.91	$124.40	1"	$55.83	$7.72	$63.55
1.5"	$145.34	$58.70	$204.04	1.5"	$86.02	$15.95	$101.97
2"	$180.13	$61.22	$241.35	2"	$121.81	$23.36	$145.17
3"	$338.09	$67.12	$405.21	3"	$283.45	$46.73	$330.18
4"	$551.49	$111.37	$662.86	4"	$466.25	$63.49	$529.74
6"	$1,037.95	$124.24	$1,162.19	6"	$955.44	$91.28	$1,046.72
8"	$1,720.77	$128.28	1,849.05	8"	$1,639.83	$103.19	$1,743.02
6" FS Only	$1,029.11	$93.25	$1,122.36	6" FS Only	$950.84	$9.79	$960.63
8" FS Only	$1,710.77	$93.25	$1,804.02	8" FS Only	$1,632.50	$9.79	$1,642.29
Rates were updated 7/18/2023[34] and are reflective of a retail rate study set by a March 2021 Resolution.							

Municipal Water Contracts

On a wholesale basis, HBMWD provides treated domestic water to seven municipal agencies, including the cities of Arcata, Blue Lake, and Eureka, and the Community Services Districts of Fieldbrook/Glendale, Humboldt, Manila, and McKinleyville, serving an estimated population of 94,000—approximately 65% of Humboldt County's residents. A summary of water demand for each agency is provided in Table 4: Wholesale Demands (2020 & 2023) [35].

[32] HBMWD, Retail Water Services, Accessed from https://www.hbmwd.com/retail-water-services on December 13, 2024.
[33] HBMWD, Number of Discontinuation of Water Services by Month, Accessed from https://hbmwd.specialdistrict.org/number-of-discontinuations-of-water-service-by-month on December 20, 2024.
[34] https://hbmwd.specialdistrict.org/files/43c3af601/HBMWD+rates+July+2023.pdf
[35] HBMWD, Urban Water Management Plan 2020. Table 4-1: Wholesale – Demands for Potable and Non-Potable Water – Actual. Adopted on June 10, 2021.

The City of Eureka (City) maintains water rights on the Mad River equivalent to 5.16 MGD. Under an agreement between the District and the City, the deliveries from the District to the City are considered to be deliveries of the City's water, emanating from its own water rights, not those of the District. Deliveries to the City in excess of the City's water rights are considered deliveries of the District's water[36].

HBMWD has long-term contracts with its wholesale municipal customers, effective through June 30, 2037, with the potential for a ten-year extension. These contracts detail the allocation of operating, maintenance, and capital costs among customers, ensuring sustainable management of the regional water system. Additional revenue sources, such as property taxes, hydroelectric power sales, and retail water income, are credited back to the wholesale customers, offsetting their costs.

Through collaborative initiatives like the Samoa Peninsula Infrastructure Workgroup, HBMWD is working with public agencies to improve infrastructure, foster economic development, and enhance community well-being. This proactive approach ensures that HBMWD continues to support the water needs of Humboldt County while addressing future challenges and opportunities.

Table 4: Wholesale Demands (2020 & 2023)

Wholesale Agency	Contract Allocation	2020 Demand (AF)	2023 Demand (AF)
City of Arcata		1,679	
City of Blue Lake		178	
City of Eureka		3,554	
Fieldbrook-Glendale CSD		186	
Humboldt CSD		809	
McKinleyville CSD		1,481	
Manila CSD		103	

Potential Future Water Contracts

Industrial Water Users

HBMWD is exploring opportunities to provide water for two significant economic development projects on the Samoa Peninsula: Nordic Aquafarms and the Humboldt Bay Harbor, Recreation, and Conservation District's Offshore Wind Terminal. Both projects represent opportunities for HBMWD to utilize its industrial water infrastructure, which has been underutilized since the closure of the Samoa pulp mills.

- Nordic Aquafarms
  Nordic Aquafarms is developing a large-scale land-based aquaculture facility on the Samoa Peninsula, aimed at producing sustainably farmed fish to meet growing consumer demand. The project requires a significant and reliable supply of untreated water for its aquaculture operations. HBMWD's industrial water system, capable of delivering large volumes of raw water, is well-suited to meet this demand. Water sales to Nordic Aquafarms could provide a stable revenue source for HBMWD, helping to offset the loss of industrial water demand after the pulp mills closed. This partnership also aligns with regional goals to support sustainable industries and create local jobs.

[36] HBMWD, Urban Water Management Plan 2020 – Section 6.9: Summary of Existing and Planned Sources of Water. Adopted on June 10, 2021.

- Offshore Wind Terminal
  The Harbor District is developing an Offshore Wind Terminal on the Samoa Peninsula to support the assembly and deployment of wind turbines for offshore energy production. This initiative is part of California's effort to expand renewable energy infrastructure. The terminal is expected to require industrial-grade water for various construction, operational, and maintenance activities, including dust control, turbine assembly, and other site needs. Water sales to the Offshore Wind Terminal would provide another beneficial use of water for HBMWD, contributing to the region's transition to renewable energy and bolstering economic growth on the Peninsula.

Mainline Extensions

The process for HBMWD to extend service to new areas is primarily led by parties interested in receiving the service connection. Project proposal, engineering, design, and construction is typically taken on by the interested party in consultation with HBMWD staff. Once the project is completed, HBMWD will take ownership of the facilities and infrastructure and assume maintenance for the extent of the line from its connection point to the HBMWD pipeline. As of 2024, several proposed extensions are in the works including the following:

- Trinidad Rancheria
  The Trinidad Rancheria has proposed extending the HBMWD water pipeline from McKinleyville to their lands south of Trinidad. This initiative aims to secure a reliable water source to support Trinidad Rancheria's long-term development plans, which include constructing a hotel, RV park, gas station, convenience store, and tribal housing. In June 2020, Trinidad Rancheria formally requested government-to-government consultation with HBMWD to explore this extension. Subsequently, in February 2022, HBMWD and the Trinidad Rancheria approved an agreement for the pipeline extension. The agreement stipulates that Trinidad Rancheria will develop detailed plans for the pipeline, including its size, path, regulatory approvals, and construction designs, all subject to HBMWD's approval. Once constructed, the pipeline would deliver water from HBMWD's system to a master meter on Trinidad Rancheria's tribal trust lands, enabling Trinidad Rancheria to distribute water to its customers on these lands.

  As of 2024, Trinidad Rancheria has contracted engineers to evaluate pipeline design options. The debate over water delivery capacity has focused on estimates for 2-inch and 4-inch diameter pipelines under nominal pressure conditions[37]. HBMWD staff has estimated that a 2-inch pipe could deliver approximately 271,000 gpd, while a 4-inch pipe could deliver approximately 383,000 gpd. However, minimum fire flow requirements mandate the installation of a 6-inch diameter pipeline.. The pipeline's final design and capacity will ultimately depend on the Rancheria's engineering studies and HBMWD's approval of the proposed plans.

- Blue Lake Rancheria
  In recent years, Blue Lake Rancheria has engaged in discussions with HBMWD regarding a potential mainline extension to connect Blue Lake Rancheria to HBMWD's water system. Currently, the Rancheria receives water and wastewater services from the city of Blue Lake via several out of agency service connections. This proposed extension aims to provide a reliable and high-quality water source to support Blue Lake Rancheria's community needs and future development plans.

[37] July 2, 2021 Letter from HBMWD to Water Advisory Committee (WAC)

As of March 2024, the HBMWD Board of Directors included the Blue Lake Rancheria Mainline Extension as a discussion item in their regular meeting agenda, indicating ongoing deliberations about the project's feasibility and implementation. As of July 2024, the Board considered a Memorandum of Understanding (MOU) concerning the extension, suggesting progress in formalizing the collaboration between HBMWD and the Blue Lake Rancheria. The proposed extension reflects Blue Lake Rancheria's commitment to securing sustainable water resources for its community and underscores HBMWD's role in supporting regional water infrastructure development. While specific details about the project's timeline and scope are still under discussion, the ongoing engagement between the two entities highlights a proactive approach to addressing water supply challenges in the area.

Planned Capital Improvements

The Humboldt Bay Municipal Water District (HBMWD) outlined a comprehensive Capital Improvement Plan (CIP) in 2017 to ensure the reliability and efficiency of its regional water system. This plan addresses the challenges of aging infrastructure and the need for system enhancements. Key planned improvements include:

- Ranney Collector Rehabilitation: Upgrading the Ranney Collectors, which are essential for drawing water from the Mad River, to maintain optimal performance and water quality.
- Pipeline Replacements: Replacing aging pipelines, such as the Techite Pipeline, to prevent leaks and ensure consistent water delivery to customers.
- Treatment Facility Enhancements: Modernizing water treatment facilities to meet current regulatory standards and improve the overall quality of the water supply.
- Hydroelectric Plant Upgrades: Implementing improvements at the Gosselin Hydroelectric Power Plant to enhance energy efficiency and reliability.
- Communication and Control Systems: Updating the John R. Winzler Operations and Control Center to incorporate advanced technologies for better monitoring and management of the water system.

These initiatives are part of HBMWD's ongoing efforts to provide high-quality water services to the Humboldt Bay region. The CIP is a dynamic document, subject to updates based on evolving needs and circumstances. It serves as a strategic guide for prioritizing projects, allocating resources, and tracking progress to ensure the district's infrastructure continues to meet the community's water supply requirements effectively.

Funding Sources

The District secures funding through multiple channels to support its operations and infrastructure. The primary revenue source is the sale of water to municipal and industrial customers, which includes both treated and untreated water supplies. It should be noted that HBMWD wants to get out of retail in Fairhaven and Glendale by transferring these customers to the Samoa Peninsula Water District. HBMWD also generates income by selling hydroelectric power produced at the Gosselin Hydro-Electric Power House to Pacific Gas and Electric Company (PG&E) on an "as available" basis.

Property tax revenues contribute to the district's financial resources. HBMWD receives a share of Humboldt County's 1% property tax revenue, providing additional consistent support for administrative, operational, and capital needs.

Additionally, the district actively pursues grants and low-interest loans to finance capital improvement projects aimed at maintaining and upgrading its water infrastructure. HBMWD actively pursues grants for projects such as instream flow studies, wildfire mitigation, and infrastructure upgrades. State Revolving Fund (SRF) Loans often provide funding for capital improvement projects. These opportunities have variable availability and amounts, but contribute to a diversified funding strategy that enables HBMWD to effectively manage its water resources and infrastructure, ensuring reliable service to its customers. More information on the District's financial status is provided under Governance and Finance.

Water Resource Planning

HBMWD holds three separate water rights permits for direct diversion, storage, and hydroelectric generation. For nearly five decades, the District supplied 40 to 50 MGD to two large industrial customers— the pulp mills located on the Samoa Peninsula. However, the closure of the Simpson Pulp Mill in 1993 and the Evergreen Pulp Mill (now known as the Samoa Pulp Mill) in 2009, with no prospects for reopening, significantly affected the District's financial operations. These closures also resulted in a significant underutilization of water which poses a risk to the District's water rights which are due for permit renewal in 2029.

To address these challenges, HBMWD has proactively sought new users to maximize the available water supply, aiming to safeguard its water rights and stabilize revenue streams. In 2005, the HBMWD Board of Directors initiated strategic planning efforts to address long-term issues of strategic importance to the District. Ultimately, the Board of Directors agreed to focus on two main planning initiatives regarding Water Resource Planning (WRP) and Infrastructure Planning.

HBMWD initiated the WRP initiative in 2009 by forming an Advisory Committee comprising of a diverse array of stakeholders, including municipal representatives, environmentalists, fisheries experts, economic developers, tribal members, and labor groups, to guide the planning process. Over 15 months, the committee engaged the community through educational initiatives and public input sessions, resulting in a comprehensive report of recommendations in 2010. These recommendations prioritized protecting the District's water rights, achieving fiscal sustainability by generating new revenue streams, and ensuring environmental sustainability by preserving and potentially enhancing the Mad River ecosystem. The Board segmented these recommendations into actionable tiers, focusing on (1) local water sales, (2) water transfers to other agencies, and (3) exploring in-stream environmental water use options. The effort culminated in a detailed implementation plan adopted in 2011, which continues to guide HBMWD's strategic efforts to secure and optimize its water resources for the benefit of the community and environment.

Local Water Sales

HBMWD has proactively pursued local commercial and industrial water sales to utilize its available water resources effectively. As discussed previously, several projects and proposed extensions are currently in the works. One notable project within the District includes Nordic Aquafarms, a company planning to establish a land-based fish farm on the Samoa Peninsula. Additionally, HBMWD is involved in the development of the Humboldt Bay Offshore Wind Heavy Lift Marine Terminal at the Redwood Marine Terminal site on the Samoa Peninsula. This terminal is designed to support offshore wind energy projects along the West Coast, potentially increasing local industrial water demand. This project also transforms an old pulp mill (Louisiana-Pacific Pulp Mill) into a facility supporting offshore wind energy operations,

Water Transfer to Other Agencies

HBMWD has actively explored the potential transfer of available water to other public agencies for authorized beneficial uses, such as municipal, industrial, or environmental purposes. This effort included engaging with stakeholders and conducting public outreach to identify community priorities and ensure local interests are fully protected. Any transfer would be carried out under a strictly defined contract that safeguards the district's water rights and aligns with public input received during the planning process. To date, neighboring municipalities such as Mendocino County have not expressed interest in water transfer.

In-Stream Environmental Use

HBMWD has considered dedicating a portion of the available water, which for much of the year would otherwise have remained in storage at Ruth Reservoir, to in-stream flows to support defined environmental benefits. The dedication was contingent on clearly demonstrated environmental advantages and securing financial support to conduct the required scientific studies and obtain regulatory approvals. In 2018, HBMWD was awarded a $693,408 grant from the Wildlife Conservation Board to explore dedicating a portion of its water rights to instream flows for environmental enhancement[38]. This initiative focuses on improving habitats for fish and wildlife, particularly salmonids and other special-status species in the Mad River. Supported by local organizations and environmental experts, the project includes funding for scientific studies and permits necessary to file a "Petition for Change" with the State Water Resources Control Board. If approved, the petition would allocate up to 25 million gallons per day from Ruth Reservoir for instream flows, promoting aquatic ecosystem health while preserving HBMWD's water rights under California's "use it or lose it" doctrine. In fall of 2024, HBMWD sent in the Petition for Change to the State Water Resources Control Board and awaits their response.

3.2 Electric Power Services

HBMWD owns the Gosselin Hydro-electric Power House which is intended to generate renewable hydroelectric power by utilizing water released from Ruth Lake, contributing to both energy production and water resource management. With a capacity of 2 megawatts (MW), the plant is equipped with two 1-MW turbine generators designed to harness the natural flow of the Mad River.

HBMWD maintains a contract with PG&E to sell energy and capacity on an "as available" basis. Unlike traditional hydroelectric plants operated as "peaking" facilities, the Gosselin Power House does not engage in "ramping," or rapid adjustments to water flow based on energy demand. Instead, power generation is an incidental function tied to the District's primary mission of meeting water supply needs. Releases from Ruth Lake are managed primarily to ensure water delivery and environmental flow requirements, with electricity generation occurring as a secondary benefit.

3.3 Other Service Providers

In addition to HBMWD, other local governmental agencies that provide services within the boundaries of HBMWD include:

- City Retail Providers within HBMWD:

[38] HBMWD, Water Resources Planning, WCB Press Release 2018. Accessed from www.hbmwd.com/files/2359b5358/WCB+Press+Release+2018.pdf on November 20, 2024.

- City of Arcata (local service provider for water services, wastewater services, solid waste and recycling, public works, parks and recreation, police services, and planning/development)
- City of Blue Lake (local service provider for water services, wastewater services, solid waste, parks and recreation, and police services contracted through the Humboldt County Sheriff's Office)
- City of Eureka (local service provider for water services, wastewater services, solid waste and recycling, public works, parks and recreation, police services, fire protection, and planning/development)

- District Retail Providers within HBMWD:
  - Fieldbrook-Glendale Community Services District (local service provider for water distribution, fire protection, and street lighting)
  - Humboldt Community Services District (local service provider for water distribution, wastewater collection and treatment, solid waste and recycling, and park and recreation)
  - Manila Community Services District (local service provider for water distribution, wastewater services, stormwater management, and parks and recreation)
  - McKinleyville Community Services District (local service provider for water distribution, wastewater management, street lighting, parks and recreation, and library services)
  - Peninsula Community Services District (local service provider for wastewater services, stormwater management, fire protection, street lighting, and parks and recreation and future plans to take on water distribution for retail customers currently serviced by HBMWD)
- Other Agencies:
  - Humboldt Bay Harbor Conservation and Recreation District (countywide service provider of harbor management and Humboldt Bay resource conservation)
  - Humboldt County Resource Conservation District (countywide service provider of soil conservation, agricultural services support, habitat conservation)
  - Trinity County Resource Conservation District (countywide service provider of soil conservation, agricultural services support, habitat conservation, wildfire and forest management, and community engagement and education)
  - Humboldt County (countywide provider of general government, roads, drainage, law enforcement)
  - Wiyot Tribe (a sovereign, federally recognized Tribal government that provides critical services to Tribal members living within the Wiyot Ancestral Territory, including within the HBMWD).

3.4 Shared Services

North Coast Resource Partnership

HBMWD is an active participant in the North Coast Resource Partnership, a collaborative framework that brings together local governments, tribes, and resource agencies across the North Coast region to address water resources, watershed restoration, and climate adaptation. Through this partnership, HBMWD leverages state and federal funding opportunities for infrastructure improvements, water supply resilience projects, and ecological restoration in the Mad River watershed, including Ruth Lake. The NCRP fosters regional coordination and prioritizes projects that align with water security and environmental sustainability goals.

Samoa Peninsula Infrastructure Workgroup

HBMWD is a member of the Samoa Peninsula Infrastructure Workgroup, which focuses on infrastructure planning and economic revitalization for the Samoa Peninsula. The workgroup collaborates with public agencies, including HBMWD, to assess and develop necessary upgrades to water, wastewater, and other essential services on the Peninsula. Given HBMWD's historical role in supplying raw and treated water to industrial customers, including the former pulp mills, the workgroup aims to explore opportunities for utilizing HBMWD's water resources to support new economic development initiatives, such as aquaculture and renewable energy projects.

Ruth Lake Community Services District

Ruth Lake CSD oversees recreation facilities, water systems, and waste management around Ruth Lake, while HBMWD provides technical support and regulatory oversight for water use permits. Together, the two agencies ensure sustainable water management and recreational use of Ruth Lake.

As discussed previously, the Ruth Lake CSD leases the land surrounding Ruth Lake from the HBMWD based on a Master Lease Agreement between HBMWD and Trinity County. The lease allows the Ruth Lake CSD to maintain and operate boat launching facilities (the marina) and other recreational facilities including the camping and day-use areas. The Master Lease also allows the Ruth Lake CSD to sublease parcels of land for recreational purposes to private individuals. Use of sublease parcels for permanent residential purposes is prohibited by the Master Lease agreement and CSD policy.

There are a total of 172 subleases including 36 boat leases and 136 road access leases around the lake which are managed according to CSD policy. Most lots are accessible by vehicle, but some are only accessible by boat. Subleases must adhere to rules regulating the use of private docks, onsite wastewater treatment systems (septic systems), utilities, insurance requirements, and other regulations as set forth by the Ruth Lake CSD. Any proposed development or change to sublease properties must first be approved by the Ruth Lake CSD to ensure conformance with set policies. Subleases may also be transferred from one party to another with Ruth Lake CSD approval.

The Ruth Lake Leaseholder's Association is an organization for all leaseholders of Ruth Lake. The Association serves as a liaison to coordinate affairs between the leaseholder members and the Ruth Lake CSD. The Association keeps members informed through an Association newsletter, email blasts, and through its Facebook group.

4.0 GOVERNANCE & FINANCE

4.1 Governance

HBMWD is an independent special district served by a five-member Board of Directors that are elected to four-year staggered terms of office. Board meetings are held every second Thursday of each month at 9:00 a.m. Meetings are usually held at the HBMWD Board Room at 828 7th Street, Eureka but Members of the public may join the meeting online. One annual meeting occurs at Ruth Lake.

Table 5: HBMWD Board of Directors

Board Member	Division	Term
Tom Wheeler	Division 1	November 2028
Sheri Woo	Division 2	November 2028
David Lindberg	Division 3	November 2028
J. Bruce Rupp	Division 4	November 2026
Michelle Fuller	Division 5	November 2026

In accordance with Senate Bill 415[39], which became effective on January 1, 2018, the election of its Board Members coincide with the statewide general election which is held in even numbered years. Three positions were up for election in 2024.

Staffing

HBMWD's core team of eight professionals oversee its operations and ensure efficient service delivery. There is a General Manager who provides overall leadership and strategic direction for the district. The current long-standing General Manager is set to retire in mid-2025 which will result in transition in management. There is also a Superintendent who manages operational and technical functions, ensuring the water system operates reliably. There is a Business Manager who oversees financial and administrative functions, supported by an Accounting Specialist II and two Accounting Technicians who handle financial transactions and reporting. The Executive Assistant and Board Secretary manage administrative tasks and board coordination while the Regulatory Analyst II, ensures compliance with state and federal regulations.

In total, the District employees XX full-time employees, XX part-time employees, and XX seasonal employees. HBMWD offers employees a full benefit package including a retirement plan through CalPERS, health insurance (medical, dental, vision, and an Employee Assistance Plan), life insurance, long term disability, medical flight coverage, longevity pay, paid holidays, vacation time, and more[40].

[39] SB 415 prohibits a local government from holding an election on any date other than a statewide election date if doing so in the past has resulted in a significant decrease in voter turnout. The public policy behind SB 415 was to address waning civic engagement in politics as illustrated by declining voter turnout in federal, state, and municipal elections. The legislative analysis asserts that one major contributing factor to low voter turnout - the timing of elections - could be addressed by synchronizing municipal elections with statewide elections.

[40] HBMWD, Summary of Benefits, 2024 Summary of Benefits. Accessed from www.hbmwd.com/summary-of-benefits#body_file-6f7d5fd6-b3f5-41d9-86da-975085191f8a on December 20, 2024.

Accountability and Transparency

The District maintains a website in accordance with SB929 regulations[41] (www.hbmwd.com). District audits since 2011 and state controller reports since 2014 are available on the website[42] along with Consumer Confidence Reports (CCR) from 2016 to today[43]. The CCR is an annual report that must be distributed to consumers by July 1st every year and discusses the overall quality of water provided by District.

Table 6: SB929 Website Posting Requirements

Type of Requirement	Description of Requirement	Is the District in compliance?
District Contact Information	The bill does not state the specific contact information required. We recommend posting, at a minimum: o Physical address o Mailing address o Phone number o E-mail address	Yes
Most Recent Agenda	The most recent agenda must be: o Posted at least 72 hours in advance of the meeting o Linked on the homepage of the website, navigating directly to the current agenda o Searchable, indexable, and platform-independent (simply put, post the agenda as a PDF)	Yes
Financial Transaction Report	The State Controller's report for the District's Financial Transaction report must be posted or linked to the corresponding State Controller website.	Yes
Staff Compensation Report	The State Controller's report for the District's Staff Compensation report must be posted or linked to the corresponding State Controller website.	Yes
Enterprise System Catalog	As required by SB272, the Enterprise System Catalog must be posted. This includes: o Current system vendor o Current System product o System's purpose o A description of categories or types of data o Department that is the prime data custodian o Frequency in which system data is collected and updated	Yes

Board agendas and notices are posted at the District office at least 72 hours in advance of scheduled Board meetings and on the District's website. Meetings of the Board of Directors are subject to the Ralph M. Brown Act which requires agendas to be posted at least 72 hours in advance of scheduled Board meetings in a location that is freely accessible to members of the public.

[41] SB 929 was signed into law on September 14, 2018, requiring all independent special districts to have and maintain a website meeting all the special district transparency requirements of State law including the availability of agendas, policies, and financial information by January 1, 2020.
[42] https://www.hbmwd.com/financial-reports
[43] https://www.hbmwd.com/water-related-resources

4.2 Financial Overview

HBMWD adopts an annual budget for the fiscal year (July 1 – June 30). The budgeting process allows the District to review annual expenses, assess the need for capital improvement projects, and plan for major infrastructure upgrades. Based on the District's most recent budget, adopted on July 11, 2024, the largest revenue source for the District is Wholesale Contracts, followed by Grant Funding. The largest expense category for the District is Projects, which accounts for accounts for 64% of the District's overall expenses.

Table 7: Annual Budget Summary

Category	FY 22-23	FY 23-24	FY 24-25
Revenues			
Wholesale Contract Funding	7,774,141	8,039,196	8,315,604
Grant Funding	6,482,793	7,225,758	7,105,518
Other Revenue Funding	1,750,000	1,525,000	1,540,000
Adv. Charges Collected, Reserves, Debt Service	4,868,757	4,833,407	5,011,658
Total Revenues	**$20,875,691**	**$21,623,361**	**$21,972,780**
Expenditures			
Salaries & Wages	2,889,433	2,843,013	2,974,680
Employee Benefits	1,826,621	1,776,146	1,819,707
Service & Supply	933,700	983,700	1,028,600
Power	907,000	1,019,000	1,131,300
Projects	13,421,600	14,180,265	14,121,157
Debt Service/ Capital Financing Funding	547,337	547,337	547,337
Charges for Reserves	350,000	350,000	350,000
Total Expenditures	**$20,875,691**	**$21,623,361**	**$21,972,781**

HBMWD utilizes a third party to conduct an annual audit. The most recent audit for FY2022-23 was prepared by O'Connor & Company and provides details about the District's revenues and expenses for the fiscal year. Over the last six years reviewed, the District has seen an average net gain of $2.61 million. Over that same time period, the District increased their overall net position by $15.82 million from $20.51 million in FY2017-18 to $36.33 million in FY2022-23. This indicates that the District has sufficient revenues to cover year to year expenses and is able to save up over time to complete major capital improvement projects. Additionally, the District was able to increase its unrestricted fund balance from (-$2.80 million) to $1.38 million. This allows the District to have more flexibility and resiliency when responding to sudden financial needs such as a drop in sales, infrastructure failure, or other unforeseen circumstances.

Why is there such a large difference between the budget and the audit?

Table 8: Audit Summary

Category	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
Revenues						
Operating						
Municipal Water Sales	$5,187,851	$ 6,558,913	$6,536,355	$6,662,289	$7,608,421	$7,253,439
Retail Water Sales	$304,080	$434,443	$330,744	$337,430	$359,543	$372,492
Power Sales	$424,774	$497,664	$349,052	$260,924	$423,988	$370,233
SRF Debt Service Receipt	$547,337	$552,061	$501,726	$546,063	$9,361	$546,528
Other Operating	$19,255	$575,600	$411,713	$573,721	$1,171,201	$-
Nonoperating						
Taxes	$854,051	$972,985	$996,833	$1,055,543	$1,133,337	$975,000
Interest Income	$49,325	$37,647	$78,556	$31,051	$9,936	$230,024
Grant Revenues	$526,404	$1,358,201	$1,339,444	3,374,358	$-	$-
Total Revenue	*$7,913,077*	*$10,713,846*	*$10,544,423*	*$12,841,379*	*$10,785,787*	*$9,747,716*
Expenses						
Operating Expense	$6,348,732	$7,653,714	$6,985,703	$6,433,252	$6,604,486	$6,611,234
Non-operating Expense	$11,047	$23,077	$9,257	$5,292	$12,888	$30,425
Depreciation	$1,261,601	$1,341,741	$1,400,033	$1,426,647	$1,410,651	$1,429,352
Less Reimbursements	$(235,878)	$(359,858)	$(406,540)	$(360,214)	$(341,621)	$(331,626)
Total Expense	*$7,385,502*	*8,658,674*	*$7,988,453*	*$7,504,977*	*$7,686,404*	*$7,739,385*
Net Gain/(Loss)	$527,575	$2,071,105	$2,608,866	$5,336,402	$3,099,383	$2,008,331

Table 9: Total Net Position Summary

Category	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
Total Current Assets	5,333,346	5,835,277	9,314,591	14,178,055	15,097,916	15,436,398
Total Noncurrent Assets	25,191,635	26,448,947	28,316,486	26,193,527	27,800,720	27,972,022
Total Assets	*$30,524,981*	*$32,284,224*	*$37,631,077*	*$40,371,582*	*$42,898,636*	*$43,408,420*
Total Current Liabilities	551,177	813,600	3,081,584	998,678	1,259,765	880,568
Total Noncurrent Liabilities	10,617,901	9,958,803	9,660,143	7,869,965	5,223,500	6,671,385
Total Liabilities	*$11,169,078*	*$10,772,403*	*$12,741,727*	*$8,868,643*	*$6,483,265*	*$7,551,953*
Deferred Outflows	1,281,831	1,190,306	1,126,728	1,037,378	973,874	2,127,303
Deferred Inflows	124,366	117,654	125,500	1,313,337	3,062,882	1,649,076
Total Net Position	**$20,513,368**	**$22,584,473**	**$25,890,578**	**$31,226,980**	**$34,326,363**	**$36,334,694**
Unrestricted	*(-2,796,573)*	*3,143,413*	*(-3,290,151)*	*488,184*	*1,095,823*	*1,378,434*

Long Term Liabilities

HBMWD has several long-term liabilities including a State Revolving Fund Note, compensated absences (vacation and sick time), net pension liability, and other post-employment benefits. According to the District's most recent audit, $547,337 in payments were made on the SRF note, and other long-term liabilities decreased by $738,924. However, net pension liabilities increased by $2,317,210. The SRF note was used to finance construction of the Turbidity Reduction Facility that was built in April 2003. The note was set for a 20-year term and is set to be paid off in FY2024-25. To date, the District does not have any other long-term loans.

5.0 MSR DETERMINATIONS

As set forth in Section 56430(a) of the CKH Act- In order to prepare and to update the SOI in accordance with Section 56425, the commission shall conduct a service review of the municipal services provided in the county or other appropriate area designated by the commission. The commission shall include in the area designated for a service review the county, the region, the sub-region, or any other geographic area as is appropriate for an analysis of the service or services to be reviewed, and shall prepare a written statement of its determinations with respect to each of the following:

(1) Growth and population projections for the affected area

a) HBMWD encompasses a large portion of Humboldt County's most populated areas and as such, The District's service area accounts for approximately 63% of the County's total population.

b) The estimated 2020 population for the District is 85,477. Based on a projected decline going into the next decade, it is estimated that the population within the District will be approximately 85,228 by 2030.

(2) The location and characteristics of any disadvantaged unincorporated communities within or contiguous to the sphere of influence

a) Numerous DUCs exist in and around the HBMWD boundary. These include the coastline from the Eel River Valley to Westhaven, areas around McKinleyville, Fieldbrook, Blue Lake, Manila, Jacoby Creek, and Loleta along with others. However, since HBMWD is primarily a wholesale provider, when looking at the provision of water service to the these areas, other local water service providers should be considered first.

b) Within and around the HBMWD boundary there are several identified legacy communities. These are populated areas that a generally geographically isolated, have existed for more than 50 years, and have a MHI that is less than 80% of the statewide MHI. These communities include: Fairhaven, Fieldbrook, Manila, McKinleyville, and Samoa.

(3) Present and planned capacity of public facilities and adequacy of public services, including infrastructure needs or deficiencies

a) HBMWD holds three different water rights to the Mad River including one for storage at Ruth Lake, one for hydroelectric generation, and one for direct diversion from the Essex pumps. Direct diversion is not to exceed 116 cfs (74.97 MGD) and 84,000 acre-feet per year.

b) The hydroelectric plant near Ruth Lake has the capacity to produce 2 MW of power utilizing two 1 MG turbines generators. This power generation is used to support district operations and help offset the cost of water distribution. However, it is not a main source of income for the District.

c) HBMWD maintains four advanced Ranney Collector wells in Essex that pump an average of 10 MGD (11,000 acre-feet per year). These support the District's municipal water supply system and the industrial water supply system which is currently not in use.

d) The District's Turbidity Reduction Facility was constructed to meet state requirements for turbidity and help improve overall water quality. The facility can process 14 MDG during the winter and 21 MGD during the summer when raw water turbidity is generally lower.

e) In 2023, the District diverted a total of 3,895.5 acre-feet of water from the Mad River for municipal services. This is approximately 4.6% of the District's total source capacity. This highlights the District's ability to provide additional services to the area, such as the proposed Nordic Aquafarm and Redwood Marine Terminal projects.

f) HBMWD regularly plans for and implements capital improvement projects such as well rehabilitation, pipeline replacements, treatment facility enhancements, and more. These projects are included in the District's Capital Improvement Program and budgeted for on an annual basis.

(4) Financing ability of agencies to provide services

a) HBMWD adopts an annual budget for the fiscal year (July 1 – June 30). Budget review and preparation typically takes place in the spring of each year with final adoption occurring in June or July.

b) The District regularly conducts annual audits in accordance with generally accepted accounting principles. Based in the District's FY2022-23 audit, revenues totaled $9.7 million and expenses totaled $7.7 million for a net gain of approximately $2.0 million.

c) Over the last six fiscal years reviewed, the District has increased their overall net position by $15.82 million and improved their unrestricted fund balance. This shows sound financial planning and management that allows the District to build up reserves and be more resilient to sudden financial needs.

(5) Status of and, opportunities for, shared facilities

a) HBMWD works in coordination with Ruth Lake Community Services District to manage the lands around Ruth Lake for recreational purposes.

b) The District regularly coordinates with its wholesale municipal water service contract agencies including the cities of Arcata, Blue Lake, and Eureka along with other agencies including Fieldbrook-Glendale CSD, McKinleyville CSD, Manila CSD, and Humboldt CSD.

c) There may be an opportunity to work with agencies north of the current HBMWD boundary including Westhaven CSD, City of Trinidad, and the Trinidad Rancheria. Additional feasibility analysis and environmental document will be required to assess the potential for extending water mains to this area.

(6) Accountability for community service needs, including governmental structure and operational efficiencies

a) HBMWD is an independent special district served by a five-member Board of Directors. The Board meets monthly on the second Thursday of every month and meetings are open to the public for in person and online attendance. Meeting agendas are posted at least 72 hours in advance of the meeting both online and at the District office.

b) The District currently maintains a website in compliance with SB929 requirements. Financial reports including annual audits and State Controller reports can be accessed from the website. To increase transparency, the District may want to consider posting its adopted budget with the other available financial reports.

(7) Any other matter related to effective or efficient service delivery

a) No other matters are to be considered at this time. The District is encouraged to continue its water use planning efforts so that the region can be sufficiently supplied with reliable potable water.

6.0 SOI DETERMINATIONS

In order to carry out its purposes and responsibilities for planning and shaping the logical and orderly development of local governmental agencies to advantageously provide for the present and future needs of the county and its communities, the commission shall develop and determine the sphere of influence of each local agency, as defined by G.C. Section 56036, and enact policies designed to promote the logical and orderly development of areas within the sphere. In determining the sphere of influence of each local agency, the commission shall consider and prepare a written statement of its determinations with respect to the following:

(1) Present and planned land uses in the area, including agricultural and open-space lands.

a) The District serves a wide area that includes both urban and rural land uses. It also encompasses three distinct City service areas that are subject to their own individual land use and zoning ordinances.

b) HBMWD encompasses a large amount of Timber designated lands surrounding the Mad River and Eel River watersheds.

(2) Present and probable need for public facilities and services in the area.

a) The greater Humboldt Bay region continues to be the most densely populated region of the county. As such, there is a present and continued need for reliable water service in the area.

b) Areas north of the HBMWD boundary continue to experience water reliability issues including diminishing surface water supply, aging water systems, lack of sufficient personnel to manage systems, and limited system redundancy.

(3) Present capacity of public facilities and adequacy of public services that the agency provides or is authorized to provide.

a) HBMWD is currently utilizing approximately 4.6% of its source capacity due to the loss of its industrial water contracts in 1993 and 2009. However, this also means that the District has ample water supply to provide service to new wholesale or industrial contracts as is beneficial for the area.

(4) Existence of any social or economic communities of interest in the area if the commission determines that they are relevant to the agency.

a) Several established communities exist within the District boundaries including several cities and census designated places around Humboldt Bay. Many of these communities have local public service providers that receive water through contracts with HBMWD.

(5) For an update of a sphere of influence of a city or special district that provides public facilities or services related to sewers, municipal and industrial water, or structural fire protection, the present and probable need for those public facilities and services of any disadvantaged unincorporated communities within the existing sphere.

a) No changes to the existing HBMWD SOI are proposed at this time. Should future extension of services be considered, additional feasibility studies and environmental documentation will likely be required to support the extension of services and an amendment to the SOI.