

# ***Humboldt Bay Municipal Water District***

## **Municipal Service Review**



May 2009

Prepared by:



**HUMBOLDT**  
*Local Agency Formation Commission*

**For Updating the Sphere of Influence Report**

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## **INTRODUCTION**

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This Municipal Service Review (MSR) was prepared as part of a mandated review of the Spheres of Influence (SOI) of all government entities in the County by the Humboldt Local Agency Formation Commission (LAFCo). This report focuses on the Humboldt Bay Municipal Water District (HBMWD). The purpose of this study is to examine and evaluate local governmental services in order to improve overall understanding of local service conditions and to enhance these conditions through comprehensive review and analysis. This MSR presents for the Commission's consideration a discussion, analysis, and recommendations regarding services provided by the HBMWD. The current SOI for the HBMWD was updated in 2001; this MSR serves to update the relevant data on services provided within the district's SOI. At this time, the SOI will not be amended.

### **Review Methods**

This MSR was prepared by LAFCo staff during the first half of 2009. The HBMWD completed an agency profile questionnaire, which provided LAFCo with the current status of district operations. The Infrastructure and Services Report that was compiled as part of the Humboldt County General Plan was also referenced for regional population and housing projections, as well as detailed descriptions of existing infrastructure. The draft report was sent to the district staff for review and clarification. All information gathered for this report is filed by Humboldt LAFCo for future reference.

### **Statutory Authority**

The fundamental role of the Local Agency Formation Commission (LAFCo) is to implement the Cortese-Knox-Hertzberg Act (Act) consistent with local conditions and circumstances. The Act guides LAFCo's decisions. The major goals of LAFCo as established by the Act are to:

- Encourage orderly growth and development;
- Promote orderly development;
- Discourage urban sprawl;
- Preserve open-space and prime agricultural lands by guiding minimizing resource loss;
- Exercise its authority to ensure that affected populations receive efficient services;
- Promote logical formation and boundary modifications that direct the burdens and benefits of additional growth to those local agencies that are best suited to provide services;
- Make studies and obtain and furnish information which will contribute to the logical and reasonable development of local agencies to provide for present and future needs;
- Establish priorities by assessing and balancing community service needs with financial resources available to secure and provide community services and to encourage government structures that reflect local circumstances, conditions and financial resources;
- Determine whether new or existing agencies can feasibly provide needed services in a more efficient or accountable manner and, where deemed necessary,

As set forth in §56425(g) of the Act, on or before January 1, 2008, and every five years thereafter, Humboldt LAFCo shall review and update each Sphere of Influence (SOI). An MSR shall be conducted prior to, as a part of, or in conjunction with, the action to adopt, amend, or revise an SOI pursuant to the Act. Together, the SOI and MSR documents analyze the District's ability to serve existing and future residents.

In accordance with §56430 of the Act, in preparation for adopting, amending, or revising an SOI, Humboldt LAFCo shall comprehensively review all services and public service providers within the designated geographic area. The Commission shall prepare a written statement of determinations on six subject areas as pursuant to state law; these determinations may be utilized in future decision-making about the provision of services, appropriate boundaries, changes of organizations, and need to revise or update SOIs. LAFCO is required to make written determinations on the following:

1. Growth and population projections for the affected area;
2. Present and planned capacity of public facilities and adequacy of public services, including infrastructure needs or deficiencies;
3. Financing ability of agencies to provide services;
4. Status of and, opportunities for, shared facilities;
5. Accountability for community service needs, including governmental structure and operational efficiencies;
6. Any other matter related to effective or efficient service delivery, as required by commission policy.

## **AGENCY PROFILE**

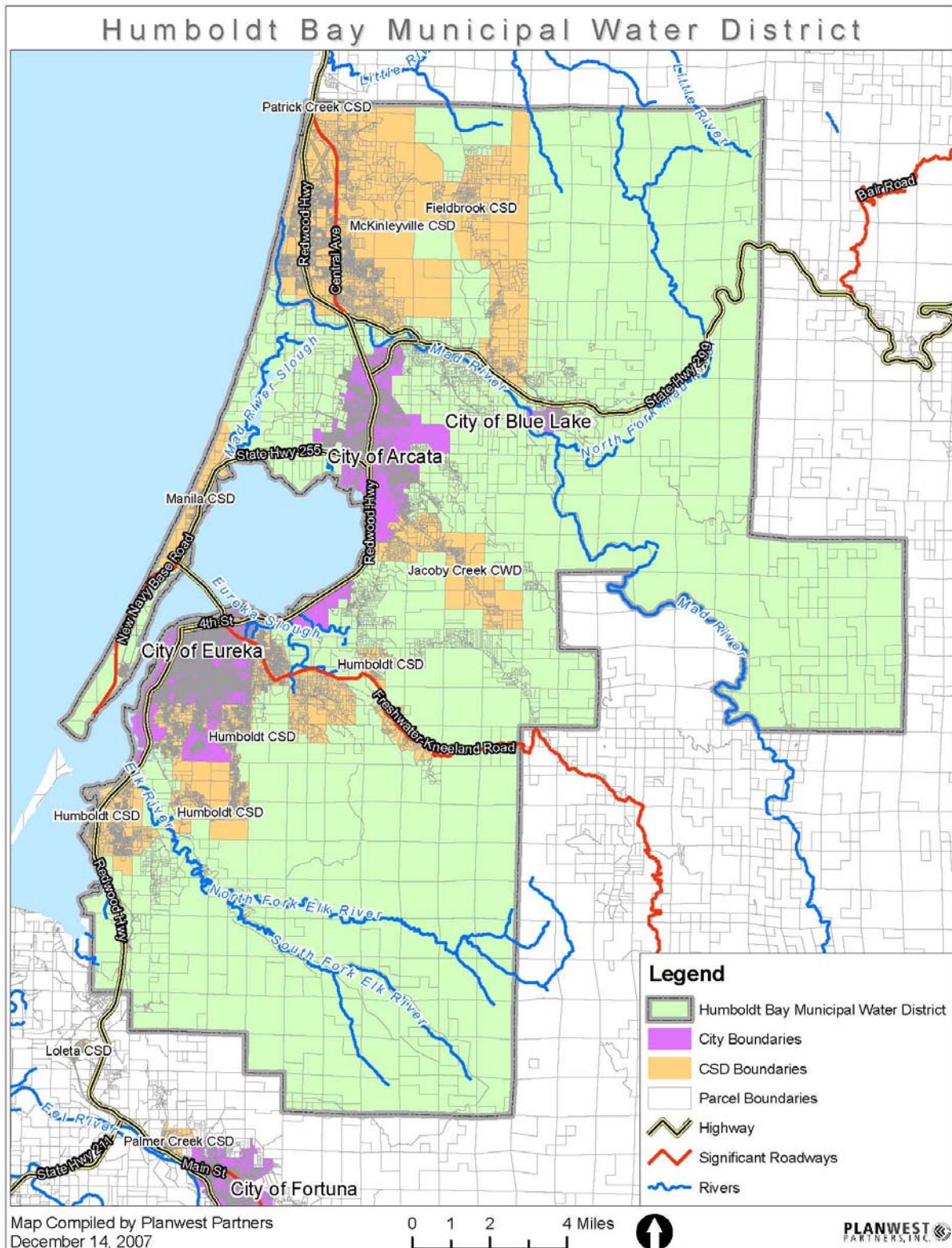
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The Humboldt Bay Municipal Water District (HBMWD) is located on the north Pacific Coast approximately 270 miles north of San Francisco. The district covers 203,164 acres in the Humboldt Bay region, the County's most heavily populated area. The map, on page 3, shows the HBMWD boundary.

The HBMWD's mission is as follows:

1. Reliably deliver high quality drinking water to the communities and customers we serve in the greater Humboldt Bay Area at a reasonable cost.
2. Reliably deliver untreated water to our wholesale industrial customer(s) at a reasonable cost.
3. Protect the long-term water supply and water quality interests of the district in the Mad River watershed.

**Figure 1: HBMWD Boundary and Sphere of Influence**



**Table 1: Agency Profile**

<b>Agency Name</b>	<b>Date of Formation</b>	<b>Enabling Legislation</b>
Humboldt Bay Municipal Water District	March 19, 1956	California Municipal Water Act
<b>Contact Person</b>	<b>Contact Title</b>	<b>Email/Website</b>
Sherrie Sobol	Executive Assistant / Board Secretary	Email: <a href="mailto:sobol@hbmwd.com">sobol@hbmwd.com</a> Website: <a href="http://www.hbmwd.com">http://www.hbmwd.com</a>
<b>Mailing Address</b>	<b>Physical Address</b>	<b>Phone/Fax</b>
Humboldt Bay Municipal Water District P.O. Box 95 Eureka, CA 95502	Humboldt Bay Municipal Water District 828 Seventh Street Eureka, CA 95502	Phone: (707) 443-5018  Fax: (707) 443-5731

**Formation**

The HBMWD was formed in September of 1956, following a special election. The district was formed for the purpose of providing a reliable supply of water to the Humboldt Bay area for both municipal and industrial use.

**Governance Structure and Administration**

The HBMWD is governed by a five member Board of Directors with one member elected from each of the district's five divisions. Board Meetings are held on the second Thursday of each month in the Boardroom of the Humboldt Bay Municipal Water District at 828 Seventh Street, Eureka, California. Special meetings are called as needed. The meetings are noticed via email, website, posting and US Mail. Table 2 shows the existing Board composition.

**Table 2: Board of Directors**

<b>Board Member</b>	<b>Title</b>	<b>Term Expiration</b>
Kaitlin Sopoci-Belknap	President	November 2012
Aldaron Laird	Vice President	November 2010
Barbara Hecathorn	Secretary/Treasurer	November 2012
Tera Prucha	Assistant Secretary/Treasurer	November 2012
Bruce Rupp	Director	November 2010

**Growth and Population****County Population and Growth**

According to the State of California Department of Finance, Humboldt County has an estimated 2008 population of 132,821. The County grew at an overall rate of 0.6 percent during 2007<sup>[1]</sup>. Assuming this growth continues, the population of Humboldt County will reach approximately 147,000 by the year 2025.

## **District Population and Housing Projections**

The HBMWD's service area population is approximately 60% of the population of Humboldt County<sup>i</sup>. Humboldt County's estimated 2008 population is 132,821; therefore, the district's approximate 2008 population is 79,700. At the County's current growth rate of 0.6 percent, the district's estimated 2025 population is 87,700. Land Use designations and district housing growth projections are guided by the Humboldt County General Plan.

## **Services Provided**

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The HBMWD provides wholesale water to the following seven municipal agencies in the greater Humboldt Bay region:

- City of Arcata,
- City of Blue Lake,
- City of Eureka,
- Fieldbrook-Glendale Community Services District (FGCSD),
- Humboldt Community Services District (HCSD),
- Manila Community Services District (MCSD), and
- McKinleyville Community Services District (McKCSD).

The District also provides raw, untreated water for industrial use to one retail customer on the Samoa Peninsula, the Evergreen Pulp Mill. The District retails water to approximately 180 customers located in the West End Road and Fairhaven areas.

The HBMWD supports initiatives to inform the public about water conservation. HBMWD participates in school education programs and public information programs that focus on water conservation and general water awareness. The HBMWD maintains two recreational facilities and a board room facility available for public access and use. The district currently employs 23 full time staff and 1-3 part time seasonal staff. Figure 2 shows the HBMWD's agency organizational chart.

## **Water Service**

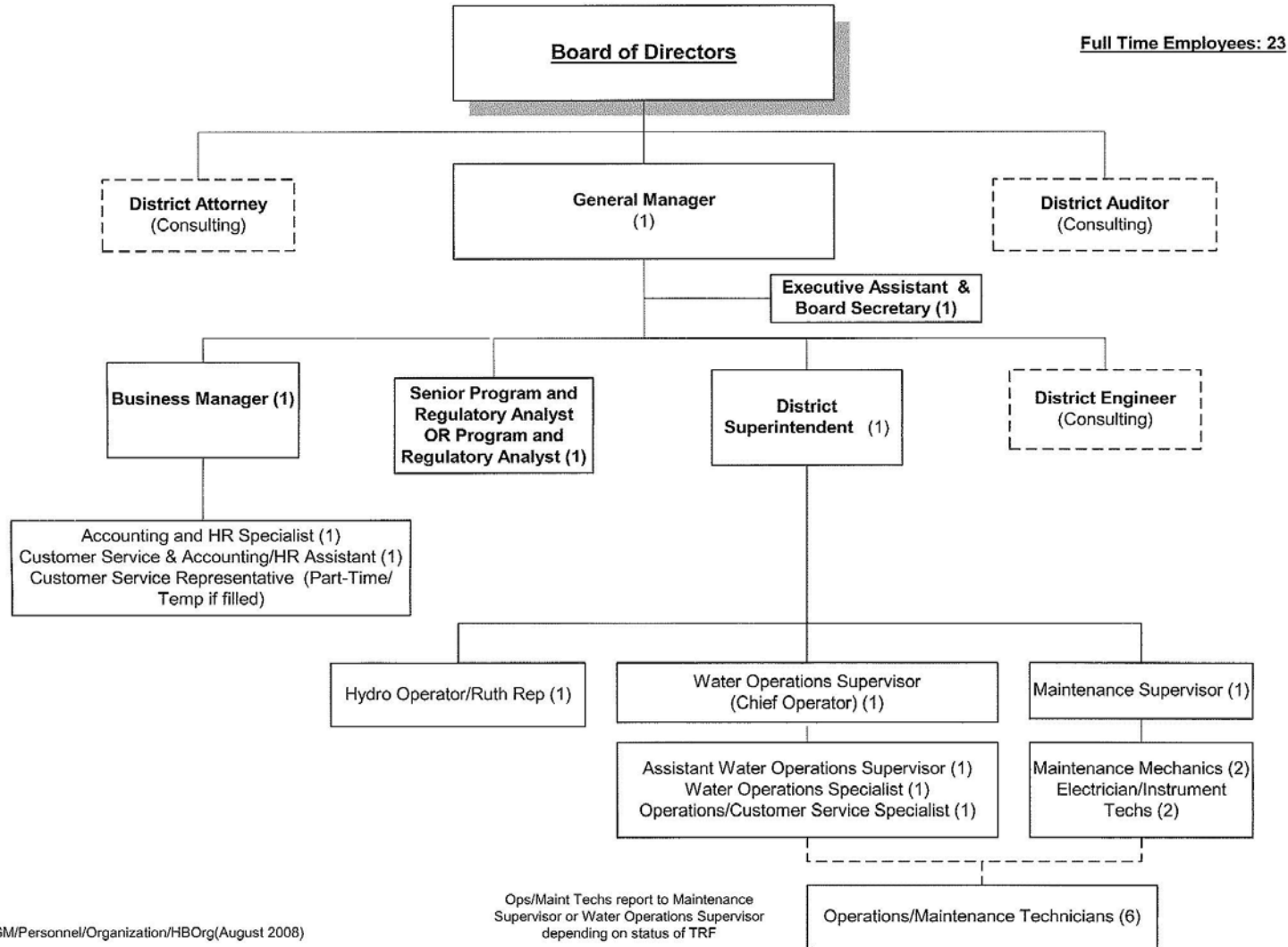
### **Water Source and Demand**

The HBMWD's water comes from the Mad River. The district manages water releases from the R.W. Matthews Dam, which impounds water in Ruth Lake, to ensure sufficient supplies downstream throughout the year. The district's Essex Operations Center, located just northeast of Arcata, pumps groundwater for distribution to the district's municipal customers from four Ranney wells situated within the riverbed at depths of 60-90 feet. Surface water is diverted directly from the Mad River for distribution to the district's only industrial customer, the Evergreen Pulp Mill.

The HBMWD has appropriative water rights permits from the State Water Resources Control Board (SWRCB) for surface water storage and diversion through the year 2029. The district has a water right for 75 MGD, or 84,000 acre-feet per year (AFY). This amounts to 8.4% of the average annual runoff in the watershed. The California Department of Fish and Game requires the district to maintain sufficient flows for fish and wildlife. This amount varies based on the river conditions and time of year. The district's water supply is reliable even in dry years<sup>ii</sup>.

Figure 2: Agency Organizational Chart

### Humboldt Bay Municipal Water District



GM/Personnel/Organization/HBOrg(August 2008)

The district currently delivers an average of 11 MGD of treated water to its wholesale and retail customers. The district's peak daily use is 17 MGD. The domestic water system capacity is 21 MGD. The district's average industrial water use is 15 MGD.

The HBMWD conducts ongoing water monitoring and testing, which indicates that the water quality is very high. This has consistently been the case over the years. The Ranney wells draw water from the sands and gravel of the aquifer located under the riverbed. The sands and gravel provide a natural filtration process resulting in high quality drinking water<sup>iii</sup>.

## **Infrastructure**

Current facilities and operations of the District include:

- 1) R.W. Matthews Dam which forms Ruth Reservoir in southern Trinity County,
- 2) Gosselin hydro-electric power house at Matthews Dam,
- 3) Diversion, pumping, and control facilities adjacent to the Mad River at Essex (at the John R. Winzler Pumping and Control Center),
- 4) Storage and treatment facilities, and
- 5) Two separate and distinct pipeline systems which deliver treated drinking water or untreated raw water to the District's customers.

The HBMWD owns extensive electrical, communication, and supervisory control systems to support and operate the water system. The district has emergency power generators at key facilities to improve the system's reliability. The district also has an extensive inventory of mobile assets, fixed assets, and tools to support the ongoing operation and maintenance of the regional water system<sup>iv</sup>.

## **Diversion and Pumping Works**

The four Ranney Collectors draw water from the aquifer beneath the Mad River via 12 inch perforated lateral pipes that are 60-90 feet below the river bed. The Ranney Wells employ a natural filtration process that results in high quality water<sup>v</sup>.

Three of the Ranney Collectors (No. 2,3, & 4) have two 350 hp electric pumps and one Collector (No. 1) has two 350 hp electric pumps and two 200 hp electric pumps. The total pumping capability is 20-21 MGD.

The Hilfiker Pump Station (No. 6) supplies industrial water to the pulp mill by a "direct diversion" facility with a 60 MGD pumping capability. The Hilfiker Pump Station is comprised of a forebay, which is directly adjacent to the Mad River, and a concrete pumping structure. The concrete structure is divided into two pumping bays, each housing three large electric pumps (two 700 hp and one 200 hp). Each pumping bay has a mechanical motor driven rake that cleans the racks and a fish screen 12 feet in front of the pumps<sup>vi</sup>.

## **Treatment**

The water from the Ranney Collectors is chlorinated at the Essex facility (year round) and pumped to Korblex. During the winter months, the water is processed and filtered at the Turbidity Reduction Facility in accordance with the California Department of Health Services (DHS) standards. The facility includes the following components:

- Rapid Mix Station,
- Filter Building,
- Chemical Building,
- Backwash Pump Station,
- Washwater Recovery Basins,
- Sludge Drying Beds, and
- A filter process to return all filter-waste water to the head of the plant for reuse.

Following treatment, the water flows through two storage tanks. The first is the 2 million gallon baffled storage tank that achieves the required contact time. The second is a 1 million gallon tank that supplies the water to the transmission system, which serves the district's municipal customers<sup>vii</sup>.

### **Distribution System**

The district operates two separate transmission systems, an industrial water system and a domestic water system. The domestic system begins at the Korblex tank and delivers treated drinking water to the seven wholesale municipal customers and 180 retail customers served directly by the district in the communities of Fairhaven and Samoa.

The industrial water system begins at Essex and delivers untreated water to a wholesale industrial customer on the Samoa Peninsula. The distribution system consists of over 35 miles of pipelines ranging from 6 to 51 inches in diameter. There is one booster pump station on the Samoa Peninsula, which has two pumps (100 hp and 200 hp).

### **Infrastructure Needs and Deficiencies**

The district's infrastructure includes numerous varied components that perform important functions of the water system. The district has developed a comprehensive inventory of its infrastructure and assets and a planning framework to aid in the scheduling of maintenance and upgrades. Ranking and prioritization of improvements are determined by factors such as useful life, and Redundancy and Importance.

Subfactors that determine the importance of improvements include public health, safety, regulatory requirements, increased service reliability, increased capacity, and improved operations / maintenance. The HBMWD has devised a 20 year Capital Improvement Plan (CIP) to guide infrastructure improvements and ensure a reliable regional water service. The district's CIP can be

### **Maintenance Schedule**

The district has meters on all services and sources. Each wholesale customer has a delivery point meter that is read monthly. Totalizers measuring production and delivery rates are read continuously to detect and investigate possible leaks.

### **Planned Upgrades**

The district has no new water system projects planned.

## **Public Facilities**

### **Recreational Facilities**

The HBMWD maintains two recreational day use area on lands adjacent to the Mad River for public access and use. These areas are referred to as Park 1, which is located on West End Road, and Park 4, located on Warren Creek Road. The public can reserve these day use areas for group events. Both parks are open during daylight hours and closed at sunset.

- **Park 1- located on West End Road:** Includes river access, limited parking, picnic tables, horseshoe pits, BBQ, and one unisex restroom.
- **Park 4 - located on Warren Creek Road:** Includes river access, limited parking, picnic tables, and one unisex restroom. A disc golf course is operated and maintained under an agreement with Par Infinity Disc Golf with certain restrictions.

### **Board Room Facility**

The District's Board Room is located at 828 Seventh Street, Eureka, California. The Board Room is available for use by not-for-profit groups and governmental agencies when not used by the HBMWD. The Board Room is not available on Friday evenings, weekends or holidays.

## **Other Service Providers**

Fire Protection Services within the HBMWD boundary are provided by various local Fire Protection Districts (FPD) including: 1) Arcata FPD, 2) Humboldt No. 1 FPD, 3) Blue Lake FPD, 4) Samoa Peninsula FPD, 5) the Eureka City Fire Department, and 6) Fieldbrook FPD. Municipal Services are provided by the HBMWD's seven wholesale water customers.

The Ruth Lake Community Services District (RLCSD) provides recreational opportunities at Ruth Lake and the U.S. Forest Service operates several campgrounds around Ruth Lake.

## **Budget**

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The HBMWD's primary sources of revenue for FY 2008/09 include wholesale water sales (75%), property tax revenue (10%), and P, G, & E power sales (6%). The district's primary expenditures include salary and employee benefits (39%), projects (30%), and power costs (12%). The district has a 20 year, zero-percent interest, State Revolving Fund (SRF) loan for the Regional Treatment Plant. The district's remaining obligation on this loan is \$7.9 million. Table 3 shows the HBMWD's budget summary.

**Table 3: HBMWD Budget Summary**

<b>Budget Summary</b>	<b>FY 2007/08 Budget (Actual)</b>	<b>FY 2008/09 Budget</b>
<b>Budgeted Costs</b>		
Salary and Employee Benefits	\$2,268,142	\$2,467,080
Services and Supply	\$665,400	\$637,700
Projects	\$1,581,838	\$1,895,701
Power	\$800,000	\$750,000
Debt Service	\$547,337	\$547,337
Total Expenditures	\$5,862,717	\$6,297,818
<b>Revenues</b>		
Wholesale Contract Revenues	\$4,591,877	\$4,653,381
Other Revenues	\$1,370,000	\$1,555,000
Total Revenues	\$5,961,877	\$6,208,381

## **MSR Determinations**

### **Growth and population projections for the affected area**

The HBMWD currently serves a population of 79,700, which is 60% of Humboldt County. The County's estimated growth rate is 0.6%, resulting in an estimated 2025 district population of 87,700. The district serves the most densely populated region of the County, the Humboldt Bay region. This region includes communities likely to experience significant development in the future. The Humboldt County General Plan includes a complete description of growth and population projections for the Humboldt Bay region and the seven served municipalities.

### **Present and planned capacity of public facilities and adequacy of public services, including infrastructure needs or deficiencies**

The HBMWD's 20 year Infrastructure and Capital Improvement Plan (CIP) includes a detailed description of the present and planned capacity of the regional water system. The CIP includes an asset inventory, a framework for identifying priority improvements, engineering studies, and financing options. The water system infrastructure currently has no significant needs or deficiencies to report.

### **Financing ability of agencies to provide services**

The HBMWD's CIP includes a section addressing infrastructure financing options. Due to the nature of the service provided and the substantial population served by the district, there are several options for financing water system improvements. These options include rate restructuring, grants, loans, and bonds.

### **Status of and, opportunities for, shared facilities**

The HBMWD's regional water system supplies water to seven municipalities and one industrial customer in the Humboldt Bay region. All wholesale water customers in the region are currently served by the district and there are no further opportunities for shared facilities.

### **Accountability for community service needs, including governmental structure and operational efficiencies**

The HBMWD holds regular Board meetings that are open to the public and are noticed in accordance with the Brown Act. These meetings are held on the second Thursday of each month in the Boardroom of the HBMWD at 828 Seventh Street, Eureka, California. The HBMWD supports initiatives to inform the public about water conservation and participates in school education programs and public information programs that focus on water conservation and general water awareness. The HBMWD also maintains two recreational facilities and a board room facility available for public access and use.

### **Any other matter related to effective or efficient service delivery, as required by commission policy.**

The HBMWD's SOI encompasses all existing service areas and is sufficient to meet the district's projected growth. The HBMWD has no plans for expansion of services. Based on the results of this MSR, no amendments to the HBMWD SOI are necessary at this time.

## **REFERENCES**

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<sup>i</sup> *Humboldt Bay Municipal Water District Urban Water Management Plan*. 2005. Section 2.

<sup>ii</sup> *Humboldt County General Plan Update Community Infrastructure and Services Report*. July 2008. [http://co.humboldt.ca.us/planning/gp/PrelimHearingDraft/Group7c/Technical%20Report/Comm\\_Inf\\_Serv\\_Tech\\_Report.pdf](http://co.humboldt.ca.us/planning/gp/PrelimHearingDraft/Group7c/Technical%20Report/Comm_Inf_Serv_Tech_Report.pdf)

<sup>iii</sup> Humboldt Bay Municipal Water District Infrastructure and Capital Improvement Plan. Version 1: Approved by the Board of Directors October 11, 2007. Prepared by HBMWD and Winzler and Kelly Engineers

<sup>iv</sup> *ibid*

<sup>v</sup> *ibid*

<sup>vi</sup> *ibid*

<sup>vii</sup> *ibid*