

Municipal Service Review

For the Humboldt Community Services District Sphere of Influence Report

Prepared for:



SH Consulting Engineers & Geologists, Inc.

812 W. Wabash Ave.
Eureka, CA 95501-2138
707-441-8855

July 2014
013159

Reference: 013159

Municipal Service Review

For the Humboldt Community Services District

Sphere of Influence Report

Prepared for:

Humboldt Community Services District

Prepared by:



Consulting Engineers & Geologists, Inc.

812 W. Wabash Ave.

Eureka, CA 95501-2138

707-441-8855

July 2014

QA/QC: MKF___

Table of Contents

	Page
List of Illustrations.....	ii
Abbreviations and Acronyms.....	iii
Local Agency Formation Commission Authority–Latent Powers, Enabling Legislation and Empowered Services	1
Agency Profile	2
Services and Service Area.....	2
Formation.....	3
Growth and Population Demographics	3
Infrastructure.....	3
Facility/ Services Plans or Similar Documents	3
Current Infrastructure	4
Water.....	4
Wastewater	4
Street Lighting	5
Office and Support Facilities	5
Maintenance Schedule	5
Funding Sources for Improvements.....	6
Services	6
Sewer.....	7
Water.....	8
Infrastructure Deficiencies.....	8
Other Service Providers	9
Financing Constraints and Opportunities.....	9
Budget.....	9
Sustainability of Financial Practices.....	11
Future Growth.....	11
Service Rates	11
Water Service Rates	11
Sewer Service Rates	12
Adequacy	13
Opportunities for Shared Facilities	13
Government Structure Options.....	14
Municipal Service Review Determinations.....	14
Growth and Population	14
Infrastructure.....	15
Financing Constraints and Opportunities.....	15
Rate Restructuring	16
Cost Avoidance Opportunities	16
Opportunities for Shared Facilities	16
Government Structure Options	16
Evaluation of Management Efficiencies	16
Local Accountability.....	17
References	17

List of Illustrations

Figures	On Page
1. Existing HCSD Boundary and Sphere of Influence	2
2. Community Areas Served By HCSD	4

Tables	On Page
1. Capital Improvement Plan Major Projects and Costs Needs List.....	6
2. HCSD Budget Summary Fiscal Year 2014/15	10
3. Monthly Water Service Base Rates	12
4. Monthly Sewer Service Rates	13
5. Local Accountability–Humboldt Community Services District	14
6. Development Potential and Limitations for HCSD	15

Abbreviations and Acronyms

hcf	hundred cubic feet
mg	milligram
MG	million gallons
mg/L	milligrams per liter
MGD	million gallons per day
ADWF	average dry weather flow
BOD	biological oxygen demand
CAL FIRE	California Department of Forestry and Fire Protection
CIP	capital improvement plan
CKH Act	Cortese-Knox-Hertzberg Act
CWSRF	Clean Water State Revolving Fund
FES	Freshwater Environmental Services
FY	fiscal year
GIS	geographic information system
HBMWD	Humboldt Bay Municipal Water District
HCSO/District	Humboldt Community Services District
I & I	infiltration and inflow
LAFCo	Local Agency Formation Commission
LU	living unit
MSR	municipal services review
RWQCB	North Coast Regional Water Quality Control Board
SLS	sewer lift station
SOI	sphere of influence
SS	settleable solids
USA	urban study area
W&K	Winzler & Kelly Consulting Engineers
WSA	Water Study Area
WWTP	wastewater treatment plant

Local Agency Formation Commission Authority–Latent Powers, Enabling Legislation and Empowered Services

The fundamental role of the Local Agency Formation Commission (LAFCo) is to implement the Cortese-Knox-Hertzberg Act (CKH Act) consistent with local conditions and circumstances. The CKH Act guides LAFCo's decisions. The major goals of LAFCo as established by the CKH 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 that 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 CKH Act, on or before January 1, 2008, and every five years thereafter, Humboldt LAFCo shall review and update each sphere of influence (SOI). Additionally, a municipal services review (MSR) shall be conducted with, or in conjunction with the action to establish or to update an SOI pursuant to the CKH Act. Together, the SOI and MSR documents analyze a district's ability to serve existing and future residents.

In order to prepare and to update SOIs in accordance with § 56425, Humboldt LAFCo shall conduct a service review of the municipal services provided in the Humboldt Community Services District (HCSD or District). The commission shall include in the area designated for service review any other geographic area as is appropriate for an analysis of the services to be reviewed, and shall prepare a written statement of determinations with respect to the following:

1. infrastructure needs or deficiencies,
2. growth and population projections for the affected area,
3. financing constraints and opportunities,
4. cost avoidance opportunities,
5. opportunities for rate restructuring,
6. opportunities for shared facilities,
7. government structure options,
8. evaluation of management efficiencies, and
9. local accountability and governance.

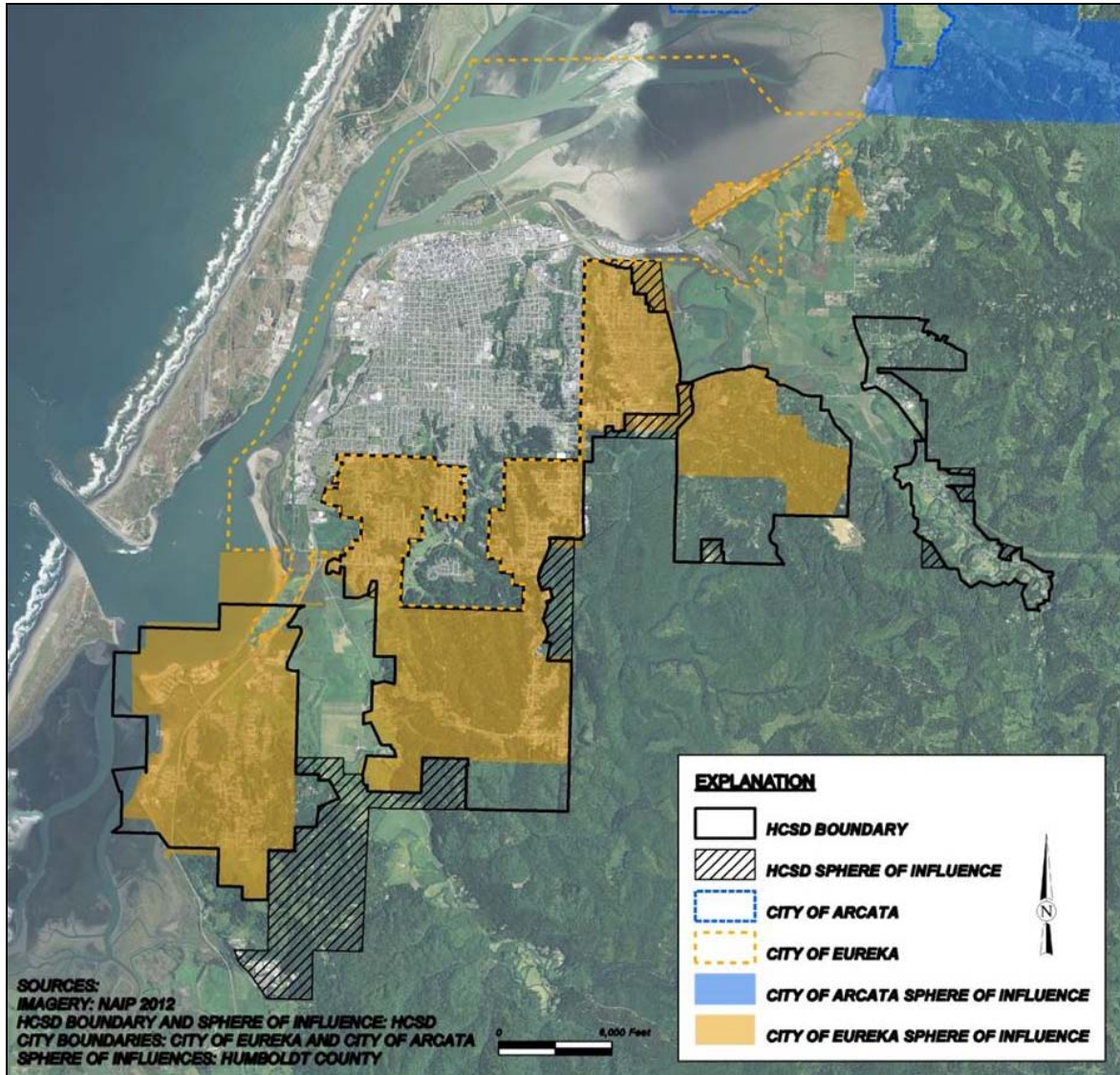


Figure 1. Existing HCSD District Boundary and Sphere of Influence

Agency Profile

Services and Service Area

HCSD provides water, sewage collection, and street lighting services to residents in the unincorporated areas of Eureka. The District operates and maintains a local water system and district wells, which generally have good water quality. The District also purchases water from Humboldt Bay Municipal Water District (HBMWD). HCSD collects wastewater and has a contract with the City of Eureka for treatment and disposal. Figure 1 (above) shows the current District boundary and SOI, as well as the district boundaries and SOIs of other service providers near HCSD.

HCSD consists of approximately 15 square miles and provides water, sewer, and street lighting services to the areas of Myrtle town, Pine Hill, Humboldt Hill, Fields Landing, King Salmon, Cutten, Ridgewood, Rosewood, Pigeon Point, Mitchell Heights, College of the Redwoods, Elk River, and Freshwater.

The land use designations of parcels within the District's jurisdiction were adopted in the following planning documents, which are incorporated here by reference: Eureka Community Plan (Humboldt County, 1995), Freshwater Community Plan (Humboldt County, 1985), Humboldt Bay Area Plan (Humboldt County, 1995), and the Humboldt County Framework Plan (Humboldt County, December 1984).

Land use and zoning for areas within HCSD are primarily residential near the City of Eureka and developed areas of Freshwater, with some commercial uses in Myrtle town, Fields Landing, and King Salmon. Adjacent areas not included within the district or SOI boundary are mostly undeveloped timber and agricultural lands.

Formation

HCSD was formed as an independent multi-purpose district organized pursuant to California Government Code Section 61000 et seq. in September 1952. Formation of HCSD was prompted by an unmet need for urban type services in the rapidly growing "suburban" areas surrounding the City of Eureka. Because the desired services could not be obtained from the City, district formation was the only means available for providing those services necessary for the maintenance of existing and developing residential and commercial areas. HCSD employs a General Manager who is responsible for administering and implementing policies set by the Board.

Growth and Population Demographics

According to the United States Census Bureau, the total Humboldt County population for 2012 was 134,827. HCSD staff estimates that approximately 18,000 people reside within the district service area. According to the Department of Transportation, Economic Development Branch (Economic Development Forecast, 2011 - 2040), the current County-wide population is projected to have a relatively low growth rate of approximately 0.9% per year (California Economic Forecast, 2013). Much of this growth will likely occur in the incorporated cities of the county, but because of the District's proximity to the City of Eureka and the scarcity of land within the City suitable for new residential developments, the District is likely to see much of the projected growth. Based on population projections in section 2200 of the Eureka Community Plan, the District assumes a 2% annual growth rate over the 20-year planning period.

Infrastructure

Facility/ Services Plans or Similar Documents

This report relies on information acquired primarily from HCSD staff, the HCSD fiscal year (FY) 2014/15 Capital Improvement Program; the HCSD 2010 Urban Water Management Plan (FES, 2011), and the HCSD FY 2014/15 budget document.

Current Infrastructure

HCSD currently provides various infrastructure services to several unincorporated community areas located to the south and east of the City of Eureka. Some of HCSD's services also extend beyond those areas, to serve scattered individual residential developments. Figure 2 depicts the rough location of the community areas served by HCSD.

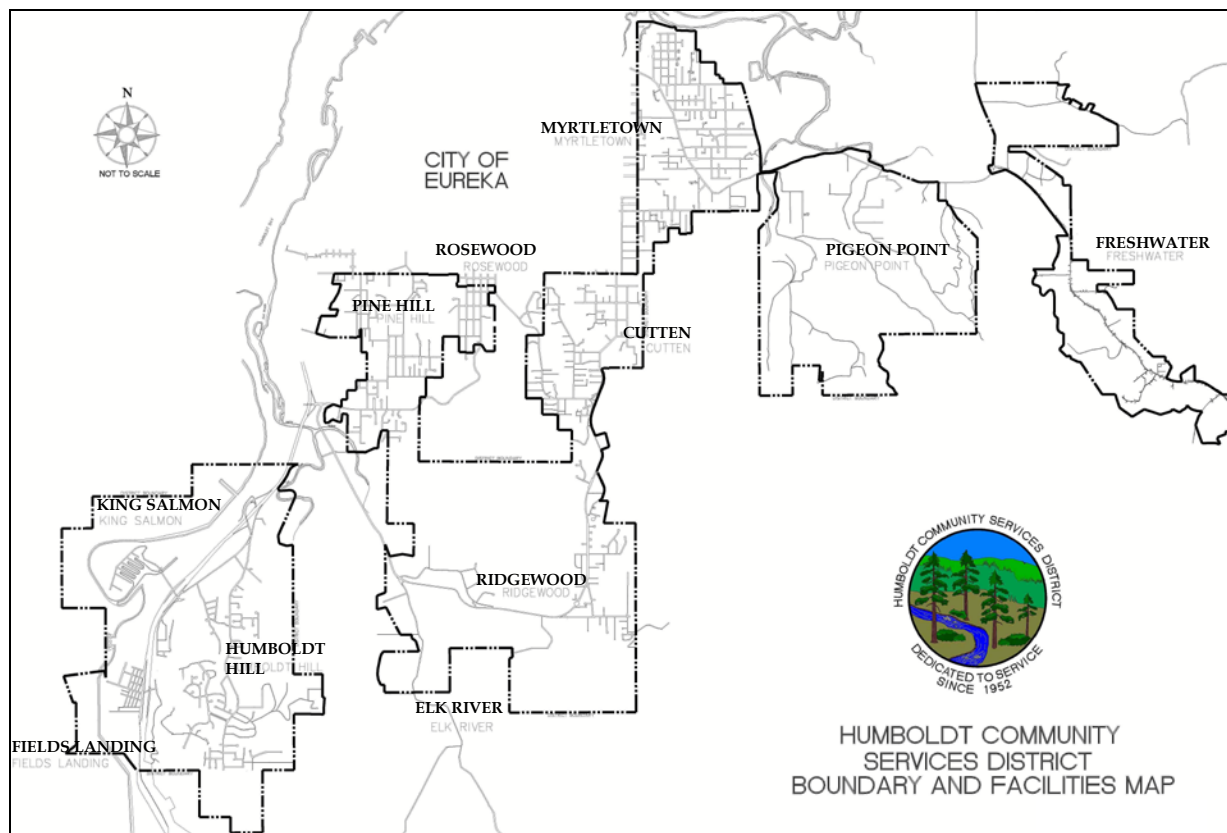


Figure 2. Community Areas Served By HCSD

Water

HCSD water infrastructure includes 3 wells, 426 fire hydrants, 13 water booster pumping stations, 10 water storage reservoirs containing 5 million gallons (MG) of storage capacity, 16 pressure zones, 87 miles of water mains, and 7,526 service connections (2010). Approximately 97% of water service connections are residential and approximately 3% are commercial. HCSD does not serve any industrial users. The water system currently has a total of 5 MG of storage capacity, has a peak daily water consumption of approximately 3.20 MG, and an average daily water consumption of approximately 2.58 MG.

Wastewater

HCSD currently maintains 6,326 sewer service accounts, of which 97 are associated with commercial users and all other with residential users (NBS, 2012; HCSD 2014/15 CIP). Wastewater infrastructure includes 29 wastewater pumping stations, and about 78 miles of sewer mains. Of the District's lift stations, five are located in the Pine Hill area, five in Rosewood area, five in the Cutten and Ridgewood areas, six in the Myrtle town area, three in the King Salmon area, and five in the

Humboldt Hill area. HCSD has a peak daily wastewater flow of approximately 1.92 MG, and an annual average daily wastewater flow of approximately 0.92 MG. Sewage within the District is sent to the City of Eureka's Elk River wastewater treatment plant (WWTP) for treatment. By agreement, the District has purchased approximately 30% of the current plant capacity.

HCSD, along with the City of Eureka, is currently funding installation of a major sewer interceptor and pump station project (Martin Slough Interceptor Project) that will result in the elimination of several pumping stations within the two agencies' systems. When the project is completed, the City and HCSD will be able to decommission several pump stations, which will result in an estimated savings to the entities of about \$100,000 per year in electrical power costs. Reducing the number of pump stations also lowers the risk of sewer overflow, as many of the stations are old and do not have backup generators or other modern equipment. Another goal of the Martin Slough Interceptor Project is to accommodate the planned development of the unincorporated area within the Martin Slough drainage basin, by accepting wastewater flows for the ultimate development condition of that area, in conformance with the currently approved Humboldt County General Plan.

Street Lighting

In addition to water and sewer infrastructure, HCSD is also responsible for paying the electric bill for 524 streetlights.

Vehicles and Equipment

The District's current vehicles and equipment consist of 5 small vehicles, 7 full-sized trucks, 3 dump trucks, 2 backhoes, 1 excavator, 2 "Bobcats" with attachments, 2 large flatbed trailers, 2 small utility trailers, 1 hydro sewer cleaning machine, 1 sewer camera van, 1 hydraulic excavator (VacCon), 1 sewage bypass pump, and 1 roller. This fleet of 29 vehicles and equipment is needed to support a construction crew, maintenance department, customer service/meter readers, and the engineering/planning department.

Office and Support Facilities

HCSD maintains a public office at 5055 Walnut Drive in Eureka, which is where the District collects fees, conducts meetings, and handles administrative duties associated with District operations.

Maintenance Schedule

HCSD annually budgets for performing significant projects that require major financial and manpower resources. The annual budget follows an established capital improvement plan (CIP) based on a five year master plan for budgeting and planning of District water and sewer facility improvements. The CIP is updated annually and is used to identify, prioritize, and schedule necessary improvements within budget funding constraints. HCSD has been using a CIP process for guiding annual budgeting for 30 or more years. The 2014/15 CIP contains the following major projects, costs, and needs.

Table 1 FY 2014/15 Capital Improvement Plan Major Projects and Costs Needs List HCSD Municipal Service Review 2014				
Project	Description	Code ¹	Estimated Cost	Comments
Water				
New South Bay Well	Replace aging infrastructure	M	\$ 175,000	
CR ² Transmission main from Berry Tank	Upper HH ³ presszone, CR feed, Elk River Valley supply	C,G,R	\$ 200,000	
New Elk River Valley Wells	Develop less expensive water	C,G,R,S	\$ 225,000	
Freshwater Wells	Develop water at north end of District	G,R,S	\$ 225,000	
Overall District Aerial Mapping	Develop accurate mapping	O	\$ 300,000	
New Ridgewood 1.0 MG ⁴ Tank	Additional Myrtle town storage, Ridgewood growth	G,S	\$ 1,000,000	Deferred
New Berry 1.0 MG Tank	Upper HH presszone, CR feed, Elk River Valley supply	C,R	\$ 1,000,000	
Steel Main Replacement	Continue Steel Main Replacement program	R,M,S	\$ 500,000	Last 1 year
Sewer				
Sewage Lift Station Upgrades	Continue lift station upgrade program	C,M,R	\$ 300,000	76% Complete
Martin Slough SLS and existing SLS interties	Replace 5 minor lift stations	C,M,R	\$1,571,354	Phase 2C Construction
Other				
District Yard Improvement	Miscellaneous Building and Grounds	M	\$ 250,000	In Progress
			TOTAL	\$5,746,354
1. Codes: C: Cost G: Growth M: Maintenance / Replacement O: Other R: Reliability S: System Efficiency 2. CR: College of the Redwoods 3. HH: Humboldt Hill 4. MG: million gallons 5. SLS: sewer lift station				

Funding Sources for Improvements

The bulk of the District's revenues come from user fees and long-term debt or taxes. Several loans have also been obtained by the District to carry out several capital improvement projects. The District carries three primary long-term debt accounts. Two of these are associated with the Martin Slough Interceptor Project and the other with the Freshwater/Mitchell Road Safe Drinking Water Project.

Services

HCSD serves about 7,526 water service connections and 6,326 sewer service connections. Streetlights are also provided in various locations throughout the District. Presently, the District offers water and sewer services to all of the units within the District boundary; however, some unserved areas within the District service boundary are served by private supply well and those residents do not wish to receive water service.

Sewer

Collection System, Pipelines, Pumps, and Treatment Facilities. Sewer infrastructure includes 6,326 sewer service connections, 29 wastewater pumping stations, and about 78 miles of sewer mains. HCSD has an agreement with the City of Eureka to use approximately 30% of the City's WWTP capacity. The District has a peak daily wastewater flow of approximately 1.92 MG, and an annual average daily wastewater flow of approximately 0.92 MG.

Demand for Service. HCSD contracts for sewer with the City of Eureka allowing HCSD to account for average dry weather sewer flows of up to 30.5% of the permitted capacity of the Elk River WWTP. According to the National Pollutant Discharge Elimination System permit issued by the North Coast Regional Water Quality Control Board (RWQCB), the Eureka WWTP is permitted for an average dry weather flow (ADWF) of 5.24 million gallons per day (MGD), peak dry weather flow of 8.6 MGD, and a peak wet weather flow of 32 MGD. The City has indicated that the design capacity of the Elk River WWTP is 6.0 MGD ADWF. According to the *City of Eureka Municipal Service Review* (LAFCo, 2014):

Data for ADWF to the WWTP indicates the ADWF from 1999 through 2008 was 4.45 MGD, or approximately 85% of the ADWF design capacity. The ADWF has decreased to 4.14 MGD, or approximately 79% of the ADWF design capacity, over the past 5 years, but the BOD load has remained fairly consistent. Additional plant BOD loading beyond the design capacity would require significant upgrades to the secondary treatment system. Peak wet weather flow above 32 MGD are not practical given the hydraulic limitations of the primary and secondary treatment units and the regulator push to reduce the use of blending during peak flow events. Until secondary treatment system upgrades are implemented at the WWTP, increases in loading should be limited to the existing allocations in the Agreement and should be carefully monitored.

System Capacity. Wastewater is collected from approximately 6,326 connections throughout HCSD's service areas. Annual average daily wastewater flows for the District were approximately 0.92 MGD (2013). Flow data is collected on a daily basis. The peak daily wastewater flow (December) is 1.92 MG. Peak wet weather flows are likely two to three times this amount. The peaking factor for the system is estimated to be around six. No significant deficiency has been identified as existing in the District's existing collection system. Although infiltration and inflow (I & I) has historically been a condition increasing wet weather flows, the District has been making progress in addressing collection system deficiencies. Treatment and disposal capacity at the Elk River WWTP are controlled by the City of Eureka.

Ability to Meet Regulations and Permit Requirements. As a collection system owner/operator, HCSD maintains its system in compliance with all rules and regulations. It is not believed that the HCSD collection system will have any problem accommodating projected future growth. The WWTP was designed such that its treatment capacity could be increased as needed to accommodate both the City's planned growth within its SOI as well as the projected HCSD growth. The City has opted not to pursue a request to the State Water Resources Control Board for a capacity change beyond the design capacity at this time, but would likely do so when a capacity increase is warranted.

Water

Water Source. The District has two main water sources: water from the Mad River, which is purchased from HBMWD directly and from the City of Eureka indirectly; and groundwater, which is pumped from District owned wells. The District purchases about one third of its potable water from the HBMWD, one third from the City of Eureka (which purchases it from HBMWD through the Hubbard and Harris booster pump station), and one third of the potable water is pumped from District-owned wells in the Humboldt Hill area (Elk River aquifer). The District's and City's water systems are interconnected at various locations allowing for transfers to occur. The District's wells primarily serve the southern portion of HCSD, including Humboldt Hill, Fields Landing, King Salmon, College of the Redwoods, and some portions of the Pine Hill area.

Water Storage. Drinking water is pumped to 10 reservoirs by 13 water booster pump stations. The 10 reservoirs have a total storage capacity of approximately 5 MG.

Distribution System. HCSD distributes water through approximately 87 miles of water mains to 7,526 service connections. Most (approximately 97%) of HCSD's water customers are residential, and the remainder are commercial users. HCSD does not serve any industrial users. There are 16 pressure zones that distribute water throughout the District. The water reservoirs operate 14 pressure zones using gravity flow. The other two pressure zones are supplied hydro-pneumatically by pump stations and are subject to shortages during power outages. The District owns three trailer-mounted generators, the largest of which is 125 kilowatts, to protect against water shortages during power failures. Fire protection is achieved through 426 fire hydrants located on the system.

Water Demand. Overall, peak daily use is at approximately 71% of existing source capacity. According to its current CIP, the District delivered approximately 941 MG of water for customers in FY 2012/13; average daily use is estimated at 2.58 MGD, and peak daily use is 3.20 MGD. Based on average daily use of water, with a maximum domestic water capacity of 4.68 MGD, the District has approximately 2.10 MGD of capacity remaining.

Based on present and projected water use levels, the District has the ability to meet the water demands of development without the need to supplement supplies or storage and delivery systems. The District currently meets regulatory requirements for providing water and there is ample water from the supplier to meet future demands until maximum build-out of the District occurs. The HCSD 2010 urban water management plan (FES, 2011) addresses water shortage contingency planning, which includes action to be undertaken by the District to prepare for, and implement during, a catastrophic interruption of water supplies, including water shortages.

Infrastructure Deficiencies

The HCSD water system has no significant deficiency; although, some storage and fire flow improvements are anticipated to accommodate future development. The HCSD wastewater collection system has no significant deficiency. Although I & I has historically existed, the District has been making progress in reducing it in the collection system. The District is limited by treatment and disposal capacity at the Elk River WWTP. The District and the City of Eureka are evaluating the Elk River WWTP existing capacity and potential expansion, and evaluating pressure sewer capacity limitations at the City's Hill Street pump station.

Other Service Providers

The County of Humboldt provides general governmental services and law enforcement services throughout the District. Part of the District is within the State Responsibility Area for fire protection service from CAL FIRE. The District is also served by Humboldt Bay Fire, which was founded in 2011 through a joint powers authority consolidating the Humboldt No. 1 Fire Protection District and City of Eureka Fire Department. HCSD provides fire hydrants to areas where water service is available.

Financing Constraints and Opportunities

Budget

According to its current operating budget, most of HCSD's revenue comes from metered water sales (\$3,590,855), sewer service charges (\$3,685,502), property taxes (\$462,000), and other miscellaneous revenues (\$267,500). HCSD's largest expenditures are direct wages (\$1,105,000), sewage treatment services from the City (\$1,355,582), water purchases from the City and HBMWD (\$1,181,670), and employee related insurances and benefits (\$1,214,123).

As shown in Table 2, excerpted from the current HCSD budget document, the District has prepared a four-year pro-forma statement presenting an overview of expected revenues, expenditures, and anticipated reserves. As shown on Table 2, after completion of the Martin Slough Interceptor Project and 2014/15 CIP projects, the District expects to start increasing reserves.

Table 2
HCSD Budget Summary Fiscal Year 2014/15
HCSD Municipal Service Review 2014

	Adopted Budget 2014/15	Note	Year 2 2015/16	Year 3 2016/17	Year 4 2017/18	Year 5 2018/19
Budget Summary						
Total Operating Revenue	\$7,437,857	A,B	\$7,510,621	\$7,584,112	\$7,658,338	\$7,733,306
Total Operating Expenses	(\$5,709,012)	C,D	(\$5,852,728)	(\$6,020,942)	(\$6,194,865)	(\$6,374,720)
Operating Budget Surplus (Deficit)	\$1,728,846		\$1,657,893	\$1,563,170	\$1,463,473	\$1,358,586
Total Non-Operating Revenue	\$568,000		\$568,000	\$568,000	\$568,000	\$568,000
Total Long-term Debt Payment	(\$734,807)	D	(\$1,043,075)	(\$948,945)	(\$854,375)	(\$854,375)
Budget Surplus (Deficit)						
Before Capital Expenditures	\$1,562,039		\$1,182,817	\$1,182,225	\$1,177,097	\$1,072,211
HCS D Capital Improvement Plan Expenditures	(\$1,283,418)	E	(\$1,703,800)	(\$1,339,842)	(\$2,031,367)	(\$1,037,067)
Proceeds from Debt Issuance	\$4,331,619	F,G	\$2,668,381	0	0	0
City of Eureka Wastewater CIP	(\$221,901)	H	0	0	0	0
City of Eureka Martin Slough CIP- Force Main	(\$2,936,914)	G	(\$2,668,381)	0	0	0
City of Eureka Martin Slough CIP- Collector Lines	(\$1,394,705)	G	0	0	0	0
Budget Surplus(Deficit)	\$56,720		(\$520,983)	(\$157,617)	(\$854,270)	\$35,144
Reserve Summary						
Budget Surplus (Deficit)	\$56,720		(\$520,983)	(\$157,617)	(\$854,270)	\$35,144
Reserves Beginning of Year	\$2,500,000		\$2,556,720	\$2,035,737	\$1,878,120	\$1,023,850
Anticipated Reserves End of Year	\$2,556,720		\$2,035,737	\$1,878,120	\$1,023,850	\$1,058,994

- A. Projected water revenue increases: 1% annually for growth.
B. Projected water revenue increases: 1% annually for growth.
C. Costs are estimated to increase for inflation 2% per year where appropriate.
D. Water costs increase 2% for inflation and 2% for wholesale water costs .
E. Capital expenditures based on the District's 5-year CIP.
F. New debt service for \$7 million from Clean Water Act State Revolving Fund (CWSRF) to finance the Martin Slough costs. Payment to start FY 2015/16.
G. Remainder of \$7 million CWSRF loan disbursed on Martin Slough project in FY 2015/16.
H. No amount projected for City of Eureka's wastewater treatment plant CIP.

Source: 2014/15 HCSD budget document

Sustainability of Financial Practices

Overall, HCSD has been successful in retaining funding and resources to conduct necessary major improvements, maintenance, and upgrades to its facilities. Considering the projected increases in the budget surpluses, the District appears to be following a sound financial track.

Future Growth

Based upon average daily water consumption and a number of other capacity factors, HCSD estimates that it has approximately 5,500 residential water hookups available.

HCSD currently has approximately 2,689 available sewer connections based on its contract with the City of Eureka, a 2009 letter from City of Eureka to HCSD (City of Eureka, 2009), and HCSD's estimate that HCSD has used approximately 60 sewer connections since the 2009 letter.

HCSD is interested in extending its SOI and District boundaries in order to provide service to residents outside of the District. The Martin Slough Interceptor Project, currently underway, will also accommodate future growth.

HCSD has received inquiries about extending services to areas outside of District boundaries from residents on individual private wells with poor water quality. These areas include Indianola, Elk River, Old Arcata Road, and Freshwater. Additionally, newly proposed developments, including on the McKay Tract, would require annexation into the District to serve the development.

Service Rates

Water Service Rates

In 2009, the District adopted a water rate ordinance that would be in effect for five years. The adopted rate system incorporated yearly increases based upon the performance of the consumer price index and "pass through" costs associated with any supply purchase price increases. Monthly rates consist of a base fee for users based upon meter size and monthly consumption charges, which depend on the quantity of consumption and the location of service. The District's rates take into consideration charges based upon two location categories. Table 3 represents the water user fees effective July 2014.

**Table 3
Monthly Water Service Base Rates
HCSD Municipal Service Review 2014**

	Category 1 Original District	Category 2 Humboldt Hill
Base Rates §7.01.030		
5/8" x 3/4"	\$ 15.55	\$ 20.00
3/4"	\$ 20.00	\$ 24.40
1"	\$ 26.60	\$ 31.10
1-1/2"	\$ 53.30	\$ 57.75
2"	\$ 88.75	\$ 93.20
3"	\$ 198.50	\$ 205.20
4"	\$ 350.75	\$ 357.05
6"	\$ 780.55	\$ 780.55
Consumption Rates §7.01.040		
Cost per 1 hcf ¹	\$ 2.20	\$ 2.80
Youth Recreation Fields		
<100 hcf (10,000 cubic feet)	\$ 2.20	\$ 2.20
>100 hcf (10,000 cubic feet)	\$ 0.95	\$ 0.95
Fire System Charge §7.01.050		
Per inches in diameter of the service line (not subject to increase)	\$ 3.00	\$ 3.00
Backflow Prevention Device Charges §7.01.055		
Per month for testing (not subject to increase)	\$ 2.50	\$ 2.50
Water Haulers §7.01.060		
Per load <4,000 gallons	\$ 19.25	\$ 19.25
Per 1,000 gallons	\$ 4.80	\$ 4.80
Temp Construction Meters §7.01.065		
Meter setting fee (not subject to increase)	\$ 40.00	\$ 40.00
Monthly fee	\$ 88.75	\$ 88.75
Per hcf	\$ 2.80	\$ 2.80
1. hcf: hundred cubic feet		

Sewer Service Rates

In March 2012, a sewer rate and connection fee study was completed and adopted by the HCSD Board. The primary purposes of the study were to:

1. determine the impacts of the Martin Slough Interceptor Project and increased costs associated with the City of Eureka capital improvement program and wastewater treatment plan, and
2. summarize the new volumetric residential sewer rate based on average winter water consumption. The study proposed a sewer rate system projecting yearly increases through the year 2016.

The 2013/14 sewer rates adopted by the District are presented in Table 4.

**Table 4
Monthly Sewer Service Rates
HCSD Municipal Service Review 2014**

User Class	Monthly Account Charge ¹	Monthly Base Rate ² (per LU) ³	Flow Rate ⁴ (per hcf) ⁵
Residential			
Single-family Residence	\$ 4.00	\$ 21.59	\$ 2.96
Multi-family Residence	\$ 4.00	\$ 17.27	\$ 2.96
Mobile Homes	\$ 4.00	\$ 18.78	\$ 2.96
Trailer Parks	\$ 4.00	\$ 10.79	\$ 2.96
For separate laundry facilities	\$ -	\$ 10.80	\$ -
For additional Units without kitchens	\$ -	\$ 10.80	\$ -
Commercial BOD⁶/SS⁷ levels			
Light strength <370 mg/L ⁸	\$ 4.00	\$ 41.76	\$ 5.70
Medium strength 370-500 mg/L	\$ 4.00	\$ 50.71	\$ 7.56
Heavy strength >500 mg/L	\$ 4.00	\$ 59.67	\$ 6.65
Public Facilities, Schools, Religious and Non-Profit Organizations	\$ 4.00	\$ 41.76	\$ 5.70
Fairgrounds	\$ 4.00	\$ 41.76	\$ 1.43
Commercial Power Plants	\$ 4.00	\$ 697.59	\$ -
RV Dump Station	\$ 4.00	\$ 43.18	\$ -
1. Monthly account charge applies to each customer account, not to each living or business unit. 2. Monthly base rate applies to each living or business unit included in the customer's account. 3. LU: living unit 4. Volumetric flow rate is based on the average winter water use (December-March) for each account. For Residential customers, the rate applies to each hcf. For Non-Residential customers, the rate applies to each hcf in excess of 2 hcf. 5. hcf : 100 cubic feet (748 gallons) of water flow 6. BOD: biological oxygen demand 7. SS: settleable solids 8. mg/L: milligrams per liter			

Adequacy

HCSD's projected budget reserves, presented previously, show that the proposed water and sewer rate structures will result in a positive growth and balance of reserves in FY 2016/17 and 2017/18. Due to the Martin Slough Interceptor Project and some scheduled CIP activity, the reserves are projected to decline in FY 2014/15 and FY 2015/16. However, the overall reserve balances will remain positive.

Opportunities for Shared Facilities

Currently, HCSD has an agreement to use sewage treatment capacity at the City of Eureka's Elk River WWTP. The District has a contract that allows it to use about 30% of the current plant capacity, which reduces long-term District costs and the need for redundant infrastructure.

HCSD has an “intermingled services agreement” with the City of Eureka (City of Eureka/HCSD, 1981). The agreement allows the City and District to provide water and sewer services to each other’s customers as well as to their own customers, reducing the cost of services for both entities.

HCSD has a working relationship with Humboldt Bay Fire. Prior to approval of any subdivision, HCSD will work with the fire department to identify hydrant locations and where the size of water mains should be increased to provide adequate fire flows.

Government Structure Options

HCSD makes an effort to conduct capital improvements in-house using its own employees. The District has a five-member Board of Directors and 21 employees. Due to the nature of some developments, some service extensions are contracted out. The City of Eureka provides about 30% of its sewer treatment capacity to HCSD. Sharing the treatment facility eliminates capital and labor duplication and enables the District to use the facility without having to construct and maintain a facility itself.

Table 5 Local Accountability–Humboldt Community Services District HCSD Municipal Service Review 2014	
Contact:	David Hull, General Manager
Mailing Address:	P.O. Box 158, Cutten, CA 95534
Site Address:	5055 Walnut Drive, Eureka, CA 95503
Phone Number:	Phone: 707-443-4558 fax: 707-443-0818
Email/ Website:	www.humboldtcsd.com
Types of Services:	Public water, sewer, and street lighting
Approximate Population Served as of July 1, 2007:	18,000 people within service area 7,526 water service connections 6,326 sewer service connections 524 streetlights
Size of District :	Approximately 15 square miles
Date of Formation:	September 1952
Number of Paid Staff	21 employees

Board Meeting Times and Locations. District Board Meetings are held bi-monthly on the second and fourth Tuesdays of each month, at 5 p.m., at District headquarters located at 5055 Walnut Drive in Cutten. Meeting agendas are posted in the lobby window and on the HCSD website at www.humboldtcsd.com.

Municipal Service Review Determinations

Growth and Population

HCSD has received several requests for water and sewage collection service from parcels located both inside and outside the District SOI. The District is working with the county, City of Eureka, and LAFCo to provide data, maps, and costs to support the District’s consideration of SOI expansions north, south, and east of Eureka. Table 6 describes the development potential and limitations for areas served by HCSD.

**Table 6
Development Potential and Limitations for HCSD
HCSD Municipal Service Review 2014**

Area	Service Provider	Low Unit Development Estimate	Available Capacity	Capacity Limitation	Description of Limitation
Freshwater	Humboldt Community Services District	130	130	LUD	The water system has further capacity. Barring limitations due to site-specific suitability for onsite wastewater, land use densities currently limit development.
Humboldt Hill, South Eureka, Myrtle town	Humboldt Community Services District	4,171	4,171	LUD	The water system has further capacity and HCSD has approximately 2,689 available sewer connections. Certain areas within the HCSD service area may be limited by the City's wastewater treatment plant capacity. Land use densities currently limit development.

HCSD is working with the Humboldt County Planning and Building Department to plan for growth within the Humboldt Hill area. The County has provided HCSD with development projections and HCSD has identified further constraints using topographical maps and other geographic information system (GIS) layers to determine projected density in the area. HCSD's projections resulted in less developable area than the County's projections.

An additional area that may be considered for future annexation to HCSD's district boundary includes the McKay Tract area. District boundary expansions are contingent on infrastructure upgrades, such as, an increase in capacity for the Elk River WWTP, and the extension of larger water mains to provide adequate fire flows to the additional development areas.

Infrastructure

For many years the District has maintained an aggressive and progressive capital improvement program. All systems are well monitored and maintained. Necessary upgrades and replacements are identified, scheduled, and performed as funding allows. The District's fiscal management practices have supported the mission and goals related to services provided.

The potential extension of infrastructure into development areas currently within the District and its SOI is a significant issue facing HCSD. To address these growth issues, HCSD must work with Humboldt County, the City of Eureka, HBMWD, and Humboldt Bay Fire to coordinate service delivery. These services will also require permitting by state agencies, most notably the RWQCB. There have already been several meetings between the local service providers and developers to address infrastructure issues, and more are planned.

Financing Constraints and Opportunities

The HCSD budget for FY 2014/15 shows the District to be operating with \$7,437,857 in total district revenues, and \$5,709,012 in total operating expenses, leaving the District with an operating surplus of \$1,728,846. Total long-term debt payments amount to \$734,807, which is approximately 10% of the total District revenue. Major expenses associated with the Martin Slough Interceptor Project, along with other

scheduled capital improvement projects are being accommodated by the large reserve fund, which has been built up through proceeds from long-term debt financing. The District projects sufficient budget surplus to maintain the capital improvement program into the future.

Rate Restructuring

In order for HCSD to provide water and wastewater services to its customers, it must purchase supply water from the HBMWD and wastewater treatment capacity from the City of Eureka. Those costs make up a large portion of the District's operating costs relative to each of those service areas. The District has very limited or no control over future cost increases (or decreases) associated with those costs. The two "uncontrolled pass-through" costs must be accommodated through the District's rate structure, along with other operations and maintenance costs and capital improvement expenses. Both of the existing rate structures appear to address all necessary funding requirements, including "pass-through" increases and are continually monitored and updated as necessary by the District.

Cost Avoidance Opportunities

HCSD collects all water and wastewater fees and conducts administrative activities at one location. HCSD also provides its customers with an online form that authorizes automatic payment of HCSD utility bills. These consolidated activities avoid extra costs.

Opportunities for Shared Facilities

HCSD contracts for sewer with the City of Eureka, allowing HCSD to account for average dry weather sewer flows of up to 30.5% of the permitted capacity of the Elk River WWTP. The degree of service similarity and development density suggests that this organizational agreement is beneficial for both the District and City. HCSD has an "intermingled services agreement" with the City of Eureka (City of Eureka/HCSD, 1981). The agreement allows the City and District to provide water and sewer services to each other's customers as well as to their own customers, reducing the cost of services for both entities. Emergency generators and sewer bypass equipment is shared with the City of Eureka. The City and the District share 20 MG of water storage for emergencies. The District also shares fire hydrant facilities and responsibilities with other service providers.

Government Structure Options

HCSD is overseen by a five-member Board of Directors and is operated by a total of twenty-one (21) staff members. The District's Board of Directors and management direction has resulted in hiring skilled construction personnel to purchase, replace, and maintain state-of-the-art construction equipment, on a cost-efficient basis, for capital improvements. The District is in a good position to continue to provide water distribution and storage and sewage collection without increasing groundwater usage or adding sewage treatment capabilities.

Evaluation of Management Efficiencies

Customers within the HCSD district boundaries have adequate water, wastewater, and streetlight services provided to them by the District. Based on present and projected water and wastewater use levels, the District has the ability to meet the demands of development.

Services are available to and distributed efficiently within the District boundary; however, the district boundaries are not always contiguous, with large spaces between service areas. Due to existing boundaries, there are island areas not receiving service.

When compared with other districts throughout the County, HCSD water and wastewater unit costs are considered reasonable (NBS, 2012). Expansion of services in the future will prompt further evaluation of management efficiencies, involving the City of Eureka, Humboldt County, HBMWD, and Humboldt Bay Fire.

Local Accountability

HCSD has office hours Monday through Friday from 8:00 a.m. to 5:00 p.m. The District has a website: www.humboldtcsd.com and public documents are available through the District office upon request. The HCSD Board of Directors meets on the second and fourth Tuesdays of each month at 5 p.m., which complies with the provisions of the Brown Act.

References

- California Economic Forecast. (October, 2013). *California County-Level Economic Forecast 2013-2040*. Santa Barbara, CA.
- City of Eureka. (January 27, 2009). "Wastewater Flows and Remaining Capacity at Elk River WWTP." Eureka, CA:City of Eureka.
- City of Eureka/Humboldt Community Services District. (January 21, 1981). "Agreement between City of Eureka and Humboldt Community Services District for Intermingled Water and Sewer Connections." Eureka: CA:City of Eureka/HCSD.
- Dyett & Bhatia. (February, 2002). *Humboldt 2025 General Plan Update, Building Communities, A Discussion Paper For Community Workshops*.
- Freshwater Environmental Services. (August 22, 2011). *Humboldt Community Services District 2010 Urban Water Management Plan*. Arcata, CA:FES.
- Humboldt Community Services District. (Adopted by the Board of Directors June 10, 2014). *Humboldt Community Services District Fiscal Year 2014-2015 Budget*. Resolution No. 2014-06. Eureka, CA:HCSD.
- . (Adopted by the Board of Directors June 10, 2014). *Humboldt Community Services District Fiscal Year 2014-2015 Capital Improvement Program Detail*. Eureka, CA:HCSD.
- Humboldt County. (Adopted December 1984). *Humboldt County General Plan, Volume I, Framework Plan*. Eureka, CA:Humboldt County.
- . (Adopted May 1985). *Humboldt County General Plan, Volume II, Freshwater Community Plan*. Eureka, CA:Humboldt County.
- . (Adopted April 1995). *Humboldt County General Plan, Volume II, Humboldt Bay Area Plan of the Humboldt County Local Coastal Program*. Eureka, CA:Humboldt County.
- . (Adopted April 1995). *Humboldt County General Plan, Volume II, Eureka Community Plan*. Eureka, CA:Humboldt County.
- Humboldt Local Agency Formation Commission. (May, 2008). *Humboldt Community Services District Municipal Service Review*. Arcata, CA:LAFCo.
- . (December 16, 2013). *City of Eureka Municipal Service Review*. Arcata, CA:LAFCo.

---. (January 15, 2014). *City of Eureka Municipal Service Review*. Arcata, CA:LAFCo.

NBS. (March, 2012). *Humboldt Community Services District Sewer Rate and Connection Fee Study Report*. Temecula, CA:NBS.