

# McKinleyville Community Services District

## BOARD OF DIRECTORS

April 6, 2016

TYPE OF ITEM: **INFORMATIONAL**

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**ITEM: E.2**                      **Review Draft Urban Water Management Plan (UWMP)**

**PRESENTED BY:**              **James Henry, Operations Director**

**TYPE OF ACTION:**              **None**

### **Recommendation:**

Staff recommends that the Board review and discuss the Draft UWMP, recommend updates and direct staff to bring the item back to the Board for a review of the final draft at the regular Board meeting on June 1, 2016.

### **Discussion:**

MCSD is required to update the Urban Water Management Plan (UWMP) every five years. The last update was in 2010 with revisions made in 2013. For the past several months, staff has been working with the Department of Water Resources, Humboldt Bay Municipal Water District, City of Eureka, City of Arcata and Freshwater Environmental to update our plan. MCSD staff has attended several regional meetings and workshops to collaborate with those agencies. A copy of the draft plan is included in tonight's Board packet. MCSD and other regional municipalities are still awaiting information from HBMWD for sections within chapter 7. This information will be incorporated into the second draft being presented at the May 4, 2016 Board meeting.

The following is a tentative timeline for the completion of the process:

- April 6, 2016 – present first Draft of the UWMP
  - Accept recommendations and revisions from the Board
- Publish Public Notice for the Public Hearing to be scheduled for the June 1, 2016 regular Board meeting
- June 1, 2016 – hold a public hearing for comment and approval of the final Draft by the Board of Directors

### **Alternatives:**

Take Action

### **Fiscal Analysis:**

Not applicable

### **Environmental Requirements:**

Not applicable

### **Exhibits/Attachments:**

- Attachment 1 – Draft Urban Water Management Plan

**MCKINLEYVILLE COMMUNITY SERVICES  
DISTRICT  
2015  
URBAN WATER MANAGEMENT PLAN**



**March 18, 2015**

**DRAFT**

**Prepared by: MCSD Staff**

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Appendix B	UWMP SBX7-7 Tables
Appendix C	AWWA Water Loss Audit Worksheet
Appendix D	MCSD Water Shortage Contingency Plan
Appendix E	MCSD Ordinance 10
Appendix F	Notices for Public Hearings, and Agency Notifications

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## **ABBREVIATIONS AND ACRONYMS**

ADD	Average Daily Demand
AFY	Acre Feet per Year
AWWA	American Water Works Association
CDP	Census Designated Place
CIP	Capital Improvement Plan
CWC	California Water Code
DMM	Demand Management Measures
DOF	Department of Finance
District	McKinleyville Community Services District
DWR	California Department of Water Resources
ERP	Emergency Response Plan
GIS	Geographic Information Services
GPCD	Gallons per Capita per Day
HBMWD	Humboldt Bay Municipal Water District
MCSD	McKinleyville Community Services District
MG	Million Gallons
MGD	Million Gallons per Day
NOAA	National Oceanic Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
PWS	Public Water System
SWRCB	State Water Resources Control Board
UWMP	Urban Water Management Plan
WSCP	Water Shortage Contingency Plan
WWMF	Wastewater Management Facility

# **1. INTRODUCTION AND OVERVIEW**

This Urban Water Management Plan (UWMP) for the McKinleyville Community Services District (MCSD or District) has been prepared in accordance with the California Water Code and California Urban Water Management Planning Act of 1983 (AB 797) (UWMP Act) as amended, including amendments made per the Water Conservation Bill of 2009 (SBX7-7) The overall intent of the UWMP is to provide a framework for long term water planning and to inform the public of long term resource planning that ensures adequate water supplies for existing and future demands.

Since the early 1970s, the District has reliably supplied water to customers throughout McKinleyville, California. The District operates a regional water system and provides treated drinking water at the retail level. The District is a retail water distributor with all water purchased from Humboldt Bay Municipal Water District (HBMWD) the wholesale regional supplier. The District pumps water from the supplier through Ramey Pump Station and delivers water to over 5,500 customers (2015).

The data used for preparing this report comes primarily from the Districts operational records and coordination with other agencies and the regional wholesaler. Current and projected population figures for the McKinleyville service area and Humboldt County are based on data from the Department of Finance (DOF), US Census Bureau, and District service records. Other sources of information or data are referenced throughout the document with supporting documents added as appendices at the end.

## **1.1. UWMP Organization**

This plan has been organized into sections and subsections based on the 2015 Urban Water Management Plans Guidebook for Urban Water Supplier published by California Department of Water Resources (DWR). Supporting documents and required tables for individual sections of the plan are included as appendices or are referenced throughout the document with a link to the webpage or document location.

## **2. PLAN PREPARATION**

Tables for Section 2 found in Appendix A:

- 2-1: Public Water System
- 2-2: Plan Identification
- 2-3: Agency Identification
- 2-4: Water Supplier Information Exchange

According to the UWMP Act, all retail water suppliers with more than 3,000 connections or distributing more than 3,000 acre-feet per year (AFY) of water shall complete an UWMP every five years, on years ending in 5 and 0. MCSD operates a Public Water System (PWS), system number 1210016, as a California special services district with approximately 5,517 water service connections (2015), therefore, is required to prepare and submit an UWMP. The District's UWMP has been updated from the 2010 version to reflect new regulation and changes to the California Water Code (CWC).

### **2.1. Individual Planning and Compliance**

The MCSD UWMP was developed as an individual plan reporting solely on the MCSD service area. This individual plan addresses all requirements of the CWC. MCSD has attended regular monthly meeting with the regional wholesaler and other suppliers to share information and coordinate the development of individual UWMP's.

### **2.2. Year and Units of Measurement**

All data, numbers, and tables are reported on a calendar year basis and water volume units of measurement are in million gallons (MG). This report includes water use and supply data from calendar year 2015.

### **2.3. Coordination with Other Agencies and the Community**

MCSD has prepared this plan in cooperation with HBMWD, the regional wholesaler, and the other regional suppliers. MCSD receives all water from HBMWD who has assisted all of the municipal agencies in the development and preparation of our Urban Water Management Plans. The HBMWD has hosted several meetings with MCSD and the other municipal agencies to share information and coordinate efforts to complete their respective UWMP's.

MCSD has encouraged public participation throughout the process of the development of the UWMP and will provide time for public review and comment prior to plan adoption by the MCSD Board of Directors. Public hearing notices are in Appendix F.

MCSD has prepared this plan in cooperation with the following agencies and consultants:

- California DWR, agency;
- Humboldt Bay Municipal Water District, regional wholesaler;
- The City of Arcata, regional retailer;
- The City of Eureka, regional retailer;
- Humboldt Community Services District, regional retailer;
- Humboldt County Planning Department, McKinleyville planning authority; and
- Freshwater Environmental Services, consultant.

MCSD provided their wholesaler (HBMWD) with their projected water demand, in five-year increments for 20 years and HBMWD provided MCSD quantification of water supplies available in 5 year increments for 20 years.



### 3. SYSTEM DESCRIPTION

Tables for Section 3 found in Appendix A:

- 3-1: Retail Population Current and Projected

#### 3.1. General Description

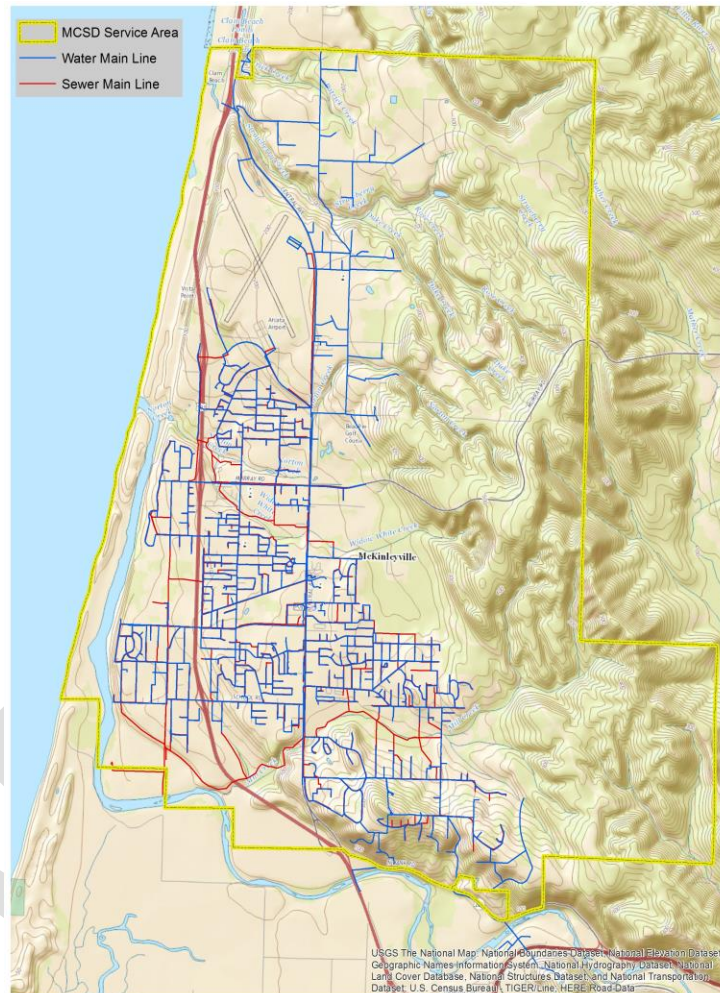
McKinleyville Community Services District was formed on April 7, 1970 as an independent Services District. Initially, the District had authority to serve water and treat sewer wastes, in 1972 the voters added street lighting powers. In 1985 the voters added parks and recreational powers. The District is governed by a five-member Board of Directors elected by McKinleyville voters. The Board meets monthly on the first Wednesday of each month to set policy, consider projects and resolve disputes. The Board's directives are implemented by the District's 27 full-time and 42 part-time employees. The District office is located at 1656 Sutter Road; just east of Central Avenue.

McKinleyville is a small northern California coastal community and is part of unincorporated Humboldt County CA. The District boundary encompasses 12,616 acres ranging from North Bank Road on the south to Patrick's Creek Dr. on the north (See 3.2 Service Area and Map). The McKinleyville water system has four pressure zones, six storage tanks (5.25MG), two booster stations and 87.3 miles of distribution mains.

The wastewater management facility (WWMF) is a secondary disinfected treatment process facility that consists of a collection system with 66.43. miles of collection mains, five lift stations, wastewater treatment facility, and effluent disposal and land reclamation systems. The average dry weather design flow to the WWMF is 1.6 million gallons per day (MGD) and the wet weather design flow is 3.3 MGD. (*MCSD 20-Year Facilities Plan 2012*)

### 3.2. Service Area and Map

**Figure 1. MCSD Service Area and Facilities**



### 3.3. Service Area Climate

McKinleyville is a northern California coastal community that averages 40.3 inches of precipitation per year with an average temperature of 52.9 degrees (*National Oceanic and Atmospheric Administration (NOAA) National Climate Data Center (NCDC)*). The District maintains a weather station at the WWMF that collects measurements for rainfall, temperature, wind speed, and wind direction. Temperatures are typically in the low 50's and high 40's in the wintertime and high 50's to mid-60's all summer long due to heavy fog and strong north winds.

The fall temperatures are in the mid 60's when the fog dissipates. The majority of rainfall occurs within the months of December through April with some months receiving as much as 14-inches. In 2013 McKinleyville received a record low annual rainfall amount of 16.6 inches.

	<b>Monthly Average ETo (inches)</b>	<b>Average Rainfall (inches)</b>	<b>Average Max. Temperature (Fahrenheit)</b>	<b>Average Min. Temperature (Fahrenheit)</b>
<b>January</b>	1.86	6.5	56	41
<b>February</b>	2.24	5.63	56	42
<b>March</b>	3.72	5.31	57	43
<b>April</b>	4.80	3.31	58	44
<b>May</b>	5.27	1.77	60	47
<b>June</b>	5.70	0.75	62	50
<b>July</b>	5.58	0.2	63	52
<b>August</b>	5.27	0.31	64	53
<b>September</b>	4.20	0.59	64	50
<b>October</b>	3.41	2.24	62	47
<b>November</b>	2.40	5.59	58	44
<b>December</b>	1.86	8.11	55	41
<b>TOTAL</b>	<b>46.31</b>	<b>40.31</b>	<b>59.58</b>	<b>46.17</b>

**Table 1.** *McKinleyville Climate Summary, Normal Years 1981-2010 (National Oceanic and Atmospheric Administration (NOAA) National Climate Data Center (NCDC)*

### **3.4. Service Area Population and Demographics**

McKinleyville is the most populated unincorporated area in Humboldt County and is one of the fastest growing communities in the county with a 2010 population of 15,171. (*McKinleyville Community Plan-2002, 2000 U.S. Census Data*) McKinleyville is considered a “bedroom” community with light commercial areas of shops, stores, restaurants and two smaller shopping centers. The majority of the service area is single-family residential (88%), with 8% multi-family residential, and 4% commercial (*District Records December 2015*). There is a small institutional/governmental sector within the service area including, county airport and maintenance yard, two elementary schools, middle and a high school, an animal control facility, and a Coast Guard Air Station. There are no industrial zoned parcels or accounts within the service area.

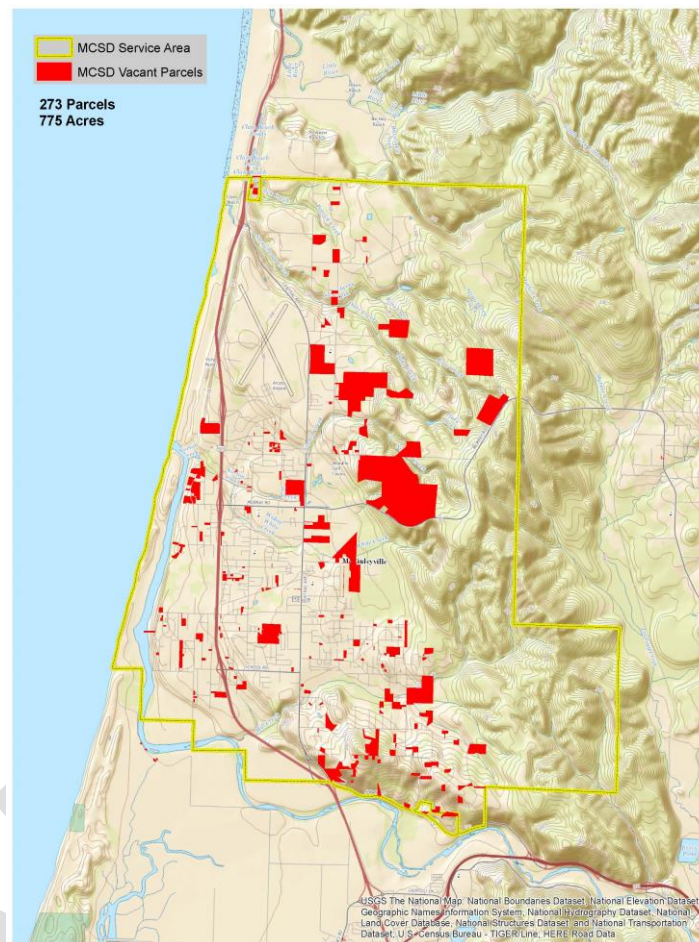
The 2012 Humboldt County General Plan Update Draft EIR Chapter 3.1 page 34 states that by 2030 most of the population growth within the Mad River Watershed Planning Area will occur within the McKinleyville urban development area. The MCSD service area covers mostly urban development areas although there is a significant amount of undeveloped forest and timber land along the eastern perimeter of the service area (see section 3.2). The potential for development of this area is limited due to the terrain and the land being privately owned and zoned for agricultural and timberland production.

There are several rural residential, single-family residential, and multi-family residential vacant parcels throughout the urban development area ranging from .10-120 acres. These parcels have been reviewed by the county and have the capability to be developed in the future (*2012 Humboldt County General Plan DEIR*). The majority of vacant parcels are single-family residential (151) with an estimated occupancy of 2.38 persons per household (*2012 Humboldt County General Plan DEIR*). There are 116 vacant rural-residential parcels and 5 vacant multi-family parcels. Humboldt County Planning Department is in the process of updating the Humboldt County General Plan which is proposing to re-zone several parcels within the McKinleyville urban area to multi-family in order to accommodate future growth.

<b>Housing for McKinleyville 2010</b>	<b>Projected Housing for McKinleyville 2030</b>	<b>Max Buildout</b>
5,535	6,771	8,611

**Table 2** *McKinleyville Housing Numbers and Estimates (Humboldt County General Plan Update DEIR 2012)*

**Figure 2. Vacant Parcels within MCSD Service Area**



McKinleyville, CA population is counted through the McKinleyville Census Designated Place (CDP). Population estimates and projections were calculated using 1990, 2000, and 2010 U.S. Census data and service records from 1995-2015. The annual growth rate for McKinleyville from 2000-2010 was 1.1% (2010 U.S. Census Data). Service records indicate the highest annual growth in meter connections occurred between 2004 and 2008 with an average of 111 connections per year. From 2008 to 2015 the average number of new connections per year has decreased to 44. Therefore, when calculating population projections from 2015-2040, a multiplier of 0.8% was used to account for the decline in growth as McKinleyville reaches full build-out. The multiplier of 0.8% matches the projected housing estimates produced by the

Humboldt County Planning Department and the DOF population projections for Humboldt County as a whole (Table 3-1 Appendix A).

To determine 2015 population MCSD used a DWR approved method of calculating service units to verify projections (see section 5.2). This method assumes a continuous rate of growth and is consistent with the Humboldt County Planning Department housing estimates through 2030. The McKinleyville CDP does not match the service area boundary exactly but contains 95% of the urban and developed areas. The areas not captured by the CDP are rural with steep terrain and include timber production zones.

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## 4. SYSTEM WATER USE

Tables for Section 4 found in Appendix A:

- 4-1: Retail Demands for Potable and Raw Water Actual
- 4-2: Retail Demands for Potable and Raw Water Projected
- 4-3: Retail Total Water Demands
- 4-4: Retail Water Loss Summary Most Recent 12 Month Period Available
- 4-5: Retail Only: Inclusion in Water Use Projections

The McKinleyville water system experiences most of its demand from single-family residential customers followed by multi-family, commercial, Institutional and Government, and landscape irrigation. Agricultural water demand has dropped significantly over the past ten years within the MCSD service area due to agricultural lands being converted into residential developments. There are some small agricultural users growing blueberries and produce with a few plant nurseries. Although these users are within the MCSD service area they are located in rural sections and utilize the local groundwater for irrigation.

The average daily demand (ADD) for the entire MCSD system is approximately 1.51 million gallons per day (MGD). The maximum average daily demand (Max ADD) is approximately 3.41 MGD (*MCSD Water Model Technical Report 2012*).

### 4.1. Recycled versus Potable and Raw Water Demand

Due to our proximity to the Pacific Ocean, the climate, and abundance of precipitation there is no for raw water and little demand for recycled water apart from agricultural beneficial uses. The MCSD wastewater treatment facility uses a secondary disinfected treatment process which does not provide the level of treatment required for recycled wastewater use within parks or on lawns.

The District does utilize reclaimed wastewater to irrigate two pastures for beneficial agricultural use to grow fodder crops (*see section 6.5 for recycled water use*).

## **4.2. Water Use by Sector**

MCSD supplies water to 5 defined water use sectors, single-family residential, multi-family residential, commercial, institutional and government, and landscape. According to the District's water records, the number of residential connections have grown by 4% since the last UWMP. The average annual usage for a single-family home from 2006-2015 is 71,660 gallons/year with a maximum of 82,279 gallons/year in 2008 and a minimum of 59,054 gallons/year in 2015. Even though the population is continuing to increase within the service area the average annual usage is decreasing (see table 4-1). This decrease can be attributed to the slow decline in persons per household from 2.48 to 2.38 within the service area and residents reducing their overall water usage.

Multi-family developments are a requirement of Humboldt County Housing codes, but often multiple units are on one single meter. The annual average usage per multi-family connection from 2008-2015 is 201,090 gallons/year. Typically, individual multi-family units use about one-third to one-half of the water usage of a single-family household. This number is higher due the amount of duplexes, apartments, and trailer parks being served by one-meter connection. The maximum annual usage per connection between 2008 and 2015 is 243,358 gallons/year with a minimum of 175,992 gallons/year in 2015.

The average number of residential connections added per year from 2004-2008 was 111, from 2008-2015 the average number of connections added per year was 44. Due to the decrease in added connections/year water usages for single and multi-family were estimated and projected to 2040 using an annual population growth rate of 0.8% instead of the 1.1% annual growth indicated by the 2010 U.S. Census data.

The MCSD has a light commercial area of shops, stores, restaurants and two smaller shopping centers. The District does track commercial connections but we do have many home based businesses and "cottage industries" that make accurate commercial service numbers and usage



difficult. The average annual usage per commercial connections from 2006-2015 is 177,218gallons/year. The maximum annual usage was 221,348gallons/year in 2007. The minimum annual usage per connection was 159,060 gallons/year in 2015.

Commercial usage projections were estimated by multiplying the projected number of connections by the 10-year average usage. Connection growth in the commercial sector is slower than in the residential sectors due to limited commercial space within the service area.

There are no industrial accounts within the MCSD service area but there is a small institutional/governmental sector: the MCSD offices and facilities, Federal Courthouse, a County Airport and maintenance yard, two elementary schools, middle and a high school, an animal control facility, and a Coast Guard Air Station. The demand within the institutional/government sector for 2015 was 13,679,711 gallons. This demand is not expected to increase due to the limited potential for development and the proximity to existing county institutional/government facilities.

Institutional/Government sector usage projections were calculated using MCSD billing records. Considering the majority of the institutional/government connections are MCSD facilities or established State and County facilities this sector is not expected to grow significantly and was projected at 0.4% annual growth half the rate of residential and commercial usages.

The landscape sector includes all MCSD facilities, open spaces, and sports sites irrigation. All landscape sites are metered and recorded through MCSD billing records. Landscape sector projections were calculated using MCSD billing records. Usage within this sector is not expected to increase significantly. There are no plans to expand MCSD facilities or sports fields therefore, landscape usage was projected at 0.4% annual growth half the rate of residential and commercial usages.

Even though the population within the MCSD service has increased water usage demands by sector has decreased since 2006. This downward trend can be attributed to the reduction in persons per household and the continuation of California State laws requiring residents, businesses, and municipalities to reduce overall water consumption.

There are several meters dedicated to landscape irrigation throughout the service area. All new subdivisions forming open space zones are required to install meters and encouraged to install drip systems and plant native plants that need little to no watering. The District manages twenty-eight such open space zones plus the Hiller Sports Site, Pierson Park, and Larissa Park and ensures that conservation measures are met. The District encourages landscape watering via separate meters and drip systems. Residential subdivisions are often required to have front setbacks with landscape zones maintained through benefit assessment fees. The MCSD had accepted many of the open space and landscape zones as a condition of development.

From 2010 through 2015 the landscape accounts used less than 1% of our total gross water use. Considering the requirement for open space zones it is expected that the landscape use sector will grow slightly. There are currently no plans to develop or expand MCSD sports site, fields, or parks.

McKinleyville and the City of Arcata's water supply are vulnerable to natural disaster so an emergency intertie was constructed to allow for the flow of water to occur between both systems if necessary. This line remains stagnant when not in use therefore a 5/8-inch bypass was installed which allows the water within the intertie to turnover and maintain its chlorine residual. All water that passes through the bypass is metered and currently enters into the City of Arcata's waters system from the McKinleyville system. The City of Arcata is then billed at the same wholesale price as if they were to receive the water directly from Humboldt Bay Municipal Water District (regional supplier). For the calendar year 2015 the amount of water that passed through the meter from McKinleyville to Arcata was 7.528 MG or 23.1 af (acre-feet) well below the 3000 af to be considered a wholesale transfer.

#### **4.3. Distribution System Water Losses**

MCSD distribution system water losses were calculated using the American Water Works Association (AWWA) water loss reporting worksheet and were calculated for calendar year 2015. The calculated water loss (real loss) for 2015 is 1.920 MG (AWWA Water Loss Worksheet) (See Appendix C). Non-revenue water is only 5.6% of the volume of water supplied and is only 2% of the cost of operating the water system.

The MCSD meters **ALL** customer usage and records **ALL** water sales and uses for parks and District facilities. System leaks are infrequent and are immediately repaired. The water distribution system is only about 45 years old and the system is kept in excellent condition. The District experiences only a few service leaks per year and very infrequent main leaks.

We monitor our system closely and consider our response level to be more than adequate. We track and contact customers about unusual increases in their monthly usage and talk to them about any possible leaks and how to check their meters and plumbing.

McKinleyville Community Services District is in the process of replacing all meters with radio read meters. All meters within the District are expected to be replaced by 2017. The new water meters will also help with water wastage as they will note if water is running 24 hours straight. This will be an immense help to meter readers as well as office staff, in locating leaks. The meters have a +/- 0.01% error factor. This process will take some time however, that will make our efforts to manage leaks and assist customers with locating leaks easier.

#### **4.4. Estimating Future Water Savings**

Due to the service areas proximity to the ocean, the local climate, and abundance of precipitation MCSD does not include future water savings into the local codes, standards, ordinances, or transportation and land use plans.

#### **4.5. Water Use for Lower Income Households**

According to the Humboldt County General Plan Housing Element, 2014, low income and very low income households have an income less than 80% of the median household income. Since MCSD boundaries do not correspond to city or county borders, Humboldt County data was used to determine the percent of low income households that was then applied to the MCSD service area. According to the 2014 Humboldt County General Plan Housing Element 42% of the households are classified as low and very low income. Water use projections include projected water use for single-family and multi-family residential housing needed for lower income.

## 5. BASELINES AND TARGETS

UWMP Standardized Tables for Section 4 found in Appendix A:

- 5-1: Baseline and Targets Summary

All SBX7-7 Verification Tables found in Appendix B

With the adoption of the Water Conservation Act of 2009, also known as the SBX7-7 the State is required to set a goal of reducing urban water use by 20% by the year end 2020. The current usage and percent reduction is measured by calculating the Gallons per Capita per Day. Gallons per Capita per Day (GPCD) is the total water use within a service area (residential, commercial, institutional, etc...) minus allowable exclusions, divided by the population. This is used in UWMPs for purposes of the Water Conservation Act of 2009.

In 2008 MCSD did not have at least 10% of its 2008 measured retail water demand met through recycled water, therefore, used a 10-year baseline to calculate the 2020 target. MCSD originally calculated individual baselines and targets for the 2010 report using population estimations that were inaccurate, therefore, the 2015 UWMP was updated to reflect new population data.

### 5.1. Updating Calculations from 2010 UWMP

Due to new population information published by the Department of Finance and the final release of the 2010 U.S. Census data MCSD updated the population portion of the 2015 UWMP to reflect the new information. In response to the new population data MCSD has updated their 10-year continuous base period as well as the 5-year continuous base period.

### 5.2. Baseline Periods

The 10-year continuous base period used for the 2015 UWMP is, 1996 through 2005. The 5-year continuous base period is from 2003 through 2007. The years chosen capture the highest

consumption years and contain the largest annual population growths, therefore, capturing the widest range of GPCD.

### **5.3. Service Area Population**

MCSD did not use the DWR population tool to calculate the 2015 population due to the tools method of using persons per connection to determine population trends. Over the past ten years there has been an increase in the development of multi-family units with a few existing trailer parks throughout the service area. The addition of several multi-family units with existing trailer parks, where one meter serves numerous people, has skewed the direct relationship of number of persons per connection to population. For example: a trailer park that has 123 units but is served by only one 3-inch connection.

To calculate the 2015 population for McKinleyville, CA, MCSD utilized service records and calculated the number of units associated with each single and multi-family residential meter connection. For example: one meter that serves an 8-plex is counted as 8 service units and one meter that serves a 123-unit trailer park is counted as 123 service units. The number of service units associated with all residential connections, both single-family and multi-family, were totaled and then multiplied by the current number of persons per household 2.38 (*Humboldt County General Plan*). The number of service units for MCSD in December 2015 was 6766, providing a population of 16,103. The population calculated using this method is well below the 16,900 estimated by the DOF and above the 15,353 estimate by the population tool. This method was reviewed and approved by Gwen Huff of DWR on March 14, 2015.

The population for all other years within the 10-year and 5-year baselines were calculated using a straight projection of 1.1% growth from 2000 population to the 2010 population. When the population for 2015 was calculated using the service unit's method the growth rate from 2010 to 2015 was 1.19%. The population growth from 2000 to 2010 was 1.1% therefore this method provided the most accurate projection for each year.

## **5.4. Gross Water Use**

Gross water use is a measure of water that enters the distribution system of the supplier over a 12-month period (either fiscal or calendar year) with certain allowable exclusions. These exclusions are:

- Recycled water delivered within the service area. Recycled water use has been excluded from all calculation of gross water, as reflected in the SB X7-7 Tables. Water suppliers are not required to report their recycled water use, nor demonstrate any reduction in recycled water use for purposes of SB X7-7;
- Indirect recycled water;
- Water placed into long term storage (surface or groundwater);
- Water conveyed to another urban supplier;
- Water delivered for agricultural use;
- Process water.

Gross water use is reported for each year in the baseline periods as well as 2015, the compliance year. Gross water use was calculated using methodology 1: Gross Water Use, of the Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use 2011 manual, and was calculated for each baseline calendar year.

## **5.5. Baseline Daily Per Capita Water Use**

Daily per Capita Water Use is the amount of water used per person per day. In the MCSD 2015 UWMP calculations, this is total water use within the service area, divided by population and is measured in gallons. Daily per Capita Water Use is reported in gallons and is referred to as “Gallons per Capita per Day” or “GPCD”. The GPCD is calculated for each year in the baseline periods and for the compliance year 2015.

The 10-year base period selected for the 2015 UWMP is from 1996-2005 (SBX7-7 Table 5). The rolling average GPCD for the 10-year base period was calculated using target method one and is 113.78 GPCD. The GPCD for each year within the 10-year baseline is included in the table below.

The second baseline (5-year continuous period) was selected from 2003 through 2007 with an average GPCD of 109.90 (SBX7-7 Table 5).

<b>SB X7-7 Table 5: Gallons Per Capita Per Day (GPCD)</b>				
Baseline Year <i>Fm SB X7-7 Table 3</i>		Service Area Population <i>Fm SB X7-7 Table 3</i>	Annual Gross Water Use <i>Fm SB X7-7 Table 4</i>	Daily Per Capita Water Use (GPCD)
<b>10 to 15 Year Baseline GPCD</b>				
Year 1	1996	12,242	543.348	121.60
Year 2	1997	12,566	545.225	118.87
Year 3	1998	12,899	532.514	113.11
Year 4	1999	13,241	539.868	111.71
Year 5	2000	13,599	529.221	106.62
Year 6	2001	13,706	560.556	112.05
Year 7	2002	13,818	574.617	113.93
Year 8	2003	13,932	573.865	112.85
Year 9	2004	14,044	594.61	115.99
Year 10	2005	14,160	573.878	111.03
<b>10-15 Year Average Baseline GPCD</b>				<b>113.78</b>
<b>5 Year Baseline GPCD</b>				
Baseline Year <i>Fm SB X7-7 Table 3</i>		Service Area Population <i>Fm SB X7-7 Table 3</i>	Gross Water Use <i>Fm SB X7-7 Table 4</i>	Daily Per Capita Water Use
Year 1	2003	13,932	594.61	116.93
Year 2	2004	14,044	573.878	111.95
Year 3	2005	14,160	545.397	105.52
Year 4	2006	14,271	555.851	106.71
Year 5	2007	14,376	568.7202	108.38
<b>5 Year Average Baseline GPCD</b>				<b>109.90</b>
<b>2015 Compliance Year GPCD</b>				
2015		16103	455.88	77.56

NOTES: in Million Gallons

## 5.6. 2015 and 2020 Targets

To calculate the 2015 and 2020 targets MCSD used target methodology 1, 20% reduction of the 10-year rolling average for the minimum target and 95% of the rolling 5-year average for the maximum allowable 2020 target required by the CWC. The 2015 interim target is the mid-point between the 10-year baseline and the 2020 target.

10-year base GPCD	113.78	
80% of 10-year base GPCD	<b>91.02</b>	<b>The 2020 target GPCD for MCSD</b>
5-year baseline GPCD	109.90	
95% of 5-year base GPCD	<b>104.4</b>	<b>The maximum allowable GPCD for 2020</b>
2015 interim target	102.4	
<b>2015 actual GPCD</b>	<b>77.56</b>	

## 5.7. 2015 Compliance Daily Per Capita Water Use

The 2015 interim target is the mid-point between the 10-year baseline and the 2020 target set by method 1.

- 2015 interim target GPCD: **102.4**
- 2015 Actual GPCD: **77.56**



## 6. SYSTEM SUPPLIES

Tables for Section 6 found in Appendix A:

- 6-1: Retail Groundwater Pumped N/A
- 6-2: Wastewater Collected Within the Service Area in 2015
- 6-3: Wastewater Treatment and Discharge Within Service Area in 2015
- 6-4: Current and Projected Recycled Water Direct Beneficial Uses Within Service Area
- 6-5: 2010 UWMP Recycled Water Use Projection Compared to 2015 Actual N/A
- 6-6: Methods to Expand Future Recycled Water Use
- 6-7: Expected Future Water Supply Projects or Programs
- 6-8: Water Supplies 2015 Actual
- 6-9: Water Supplies — Projected

The McKinleyville Community Services District has one source of water. The sole source of MCSD water is purchased from The Humboldt Bay Municipal Water District (HBMWD). The water delivered from the HBMWD to the MCSD is through a single transmission main under the Mad River. A waterline intertie with the City of Arcata water system under the Highway 101 bridge is maintained as an emergency connection. The City of Arcata also purchases water from HBMWD.

The water distributed by HBMWD is from Ruth Lake, which is located in Trinity County. The Mad River R.W. Matthews Dam, located at river mile 79, impounds water in Ruth Lake. The HBMWD manages releases from the dam to ensure sufficient supplies downstream throughout the year.

At HBMWD's Essex Operations Center located just northeast of Arcata, water is diverted and pumped to meet demand. Municipal water is pumped from an aquifer beneath the Mad River by four wells, called Ranney wells, situated within the riverbed at depths ranging from approximately 60 to 90 feet. Industrial water is diverted by a surface diversion facility.

MCSD receives the water delivery at the North Bank Pump Station having a bank of three pumps. The District has two 1.5 Million gallons tanks, two 1.0 million gallon tanks, a 100,000 and 150,000 gallon tank and three booster stations throughout the distribution system.

The District does not pump any groundwater or draw surface water from any sources. The local stormwater system is separate from both the water and wastewater systems and is not currently utilized to meet local water supply demands.

#### **6.1. Purchased Water**

MCSD purchases its water directly from Humboldt Bay Municipal Water District (HBMWD). All water received is metered and billed monthly. For calendar year 2015 MCSD purchased 455.879 MG. In 2010 MCSD purchased 552.813 MG. From 2010 to 2015 MCSD's purchased water amounts have decreased by approximately 13%.

#### **6.2. Surface Water**

HBMWD has appropriative water rights permits from the State Water Resources Control Board through the year 2029 for surface water storage and diversion. HBMWD water rights permits allow it to store and divert a combined 75 MGD from the Mad River. This totals 27,371.520 MG per year, which represents 8.5% of the average annual runoff (320,181.616 MG) of the Mad River Basin for the period from 1963 to 2010 (average annual runoff data provided by USGS at Gage Station 1148100 on the Mad River near Arcata, CA).

The HBMWD operates Ruth Reservoir, a 48,000-acre foot reservoir about 79 miles east of the coastal areas. This reservoir impounds only about 3% of the watershed and fills at a very rapid rate in normal rainfall years. Approximately 11 MGD is delivered to the municipal/district customers. Of the delivered water, a peak flow rate of 2.8 MGD is committed to serve the MCSD customers.

### **6.3. Ground Water**

MCSD does not utilize local groundwater to supply customers. Due to the service areas proximity to the ocean and the reliable source of water from Ruth Lake, MCSD has no plans to explore groundwater sources.

### **6.4. Wastewater and Recycled Water**

Due to McKinleyville's proximity to the Pacific Ocean, the climate, and the abundance of precipitation, there is little demand for recycled water within the service area. Dual systems for recycled water use would be extremely expensive and are not being considered at this time. The MCSD wastewater treatment facility produces secondary disinfected treatment that is beneficially utilized for agricultural irrigation but is not capable of producing high quality effluent for further recycled water use.

#### **6.4.1. Wastewater Collection Within Service Area**

MCSD owns and operates the only wastewater treatment facility (WWMF) for the service area. All wastewater collected is from within the MCSD service area. Due to the rural nature of McKinleyville approximately 15% of residents within the service area are on septic systems.

### **6.4.2. Wastewater Collection Treatment and Disposal**

The wastewater management facility is a secondary disinfected treatment process facility that consists of a collection system with 66.43 miles of collection mains, five lift stations, wastewater treatment facility, and effluent disposal and land reclamation systems. The average dry weather design flow of the treatment facility is 1.6 million gallons per day (MGD) and the wet weather design flow is 3.3 MGD (*MCSD 20-Year Facilities Plan 2012*).

In accordance with the Districts National Pollution Discharge Elimination System (NPDES) permit, MCSD disposes treated wastewater to six approved locations; Mad River, percolation ponds, lower Fischer ranch, upper Fischer ranch, Pialorsi ranch, and Hiller storm water treatment wetland and forested area (see table 6-3 for further information). Three of the disposal locations; lower Fischer ranch, upper Fischer ranch, and Pialorsi ranch, provide seasonal agricultural irrigation for fodder crop production. Generally, these locations are irrigated during the summer months of May to October. Due to high rainfall during the winter months, from October to May MCSD discharges directly to the Mad River. Discharge to the percolation ponds and Hiller storm water treatment wetland and forested area is land disposal and are utilized during the summer months or if the river is too low to discharge into.

### **6.4.3. Recycled Water Beneficial Uses**

MCSD owns and manages a 120-acre ranch (Fischer Ranch) for the purposes of reclaimed wastewater disposal. Four of the six permitted discharge locations are located on the ranch; lower Fischer ranch, upper Fischer ranch, Pialorsi ranch, and the percolation ponds. All ranch discharge locations accept the percolation ponds are utilized for beneficial agricultural irrigation. Seasonally one-hundred acres of the Fischer ranch is leased to local ranchers who utilize the property for fodder crop production such as hay. For calendar year 2015, 96.7 MG of recycled wastewater was utilized for beneficial agricultural irrigation.

Most agricultural land within the MCSD service area has already been converted into residential developments. There is one 40-acre ranch adjacent to the existing disposal site that could potentially be irrigated with recycled wastewater in the future. Due to the lack of agriculture

within the service area and the abundance of groundwater the demand for recycle wastewater for irrigation is not expected to increase substantially over the next 20-years.

#### **6.4.4. Future Recycled Water Use**

Water is abundant and relatively inexpensive in our area. Dual systems for recycled wastewater use would be extremely expensive for the piping and system installation. Additionally, tertiary treatment with nutrient removal would be required for recycled use in parks and lawn areas. Our pond plant produces secondary disinfected treatment but is not capable of producing such high quality effluent. Economics in this area simply will not allow such an expensive concept. MCSD did not use or distribute recycled water in 2010 nor does it project any use for 2015.

#### **6.5. Desalinated Water Opportunities**

Due to the regional climate and abundance of precipitation there are no plans within the region or MCSD service area for consideration of desalinated water.

#### **6.6. Future Water Projects**

MCSD rules and regulations states that the MCSD water distribution system must have enough water storage to sustain 5 days of ADD and fire flows. The District's current storage capacity for potable water is 5.25 million gallons in six storage tanks, McCluski Hill (100,000 and 150,000 gal.), Cochran Road (1 million and 1.5 million gallons) and Norton Road (1 million and 1.5 million gallons). In the event the sole transmission line from HBMWD is restricted or destroyed the current storage capacity leaves a 40-hour water supply for McKinleyville water customers at peak flow. To address this, two new 2.5-million gallon tanks are planned for construction within the District's service area. MCSD is in the process of determining the viability of the Mather Road tank site due to seismic considerations. A cost analysis will be conducted to determine the feasibility of design at that site opposed to purchase of a location in a less sensitive area.

New tanks would increase the District's storage capacity, enhance fire flows during peak summer usage and provide additional system capacity for new growth. MCSD has determined it would be more advantageous to initiate phased construction of two tanks at this location to spread the cost over a longer period of time and to enhance the operational flexibility of the system by having two tanks to allow for maintenance and redundancy.

#### **6.7. Summary of Existing and Planned Sources of Water**

MCSD receives 100% of its water from HBMWD the regional supplier. The water distributed by HBMWD is from Ruth Lake, which is located in Trinity County. The Mad River R.W. Matthews Dam, located at river mile 79 impounds water in Ruth Lake. HBMWD manages releases from the dam to ensure sufficient supplies downstream throughout the year.

MCSD recently installed a 12-inch emergency intertie connecting the MCSD and City of Arcata water systems. The intertie is designed to flow in either direction offering both the City of Arcata system and the MCSD system the ability to provide water in emergency situations.

## 7. WATER SUPPLY RELIABILITY

Tables for Section 7 found in Appendix A:

- 7-1: Bases of Water Year Data
- 7-2: Normal Year Supply and Demand Comparison
- 7-3: Single Dry Year Supply and Demand Comparison
- 7-4: Multiple Dry Years Supply and Demand Comparison

All water supplied to the region by HBMWD comes from the Mad River watershed and the Ruth Lake impounded by the R.W. Matthews Dam. The total volume of water impounded and diverted by HBMWD represents a small percentage of the natural yield of the Mad River watershed. The Mad River's average annual discharge into the Pacific Ocean is just over 325,851.432 MG. Ruth Lake, in its entirety, represents less than 5% of the total average annual runoff from the Mad River basin. The entire 15,650.644 MG capacity of Ruth Lake is not drawn down each year, so the amount of winter-season runoff captured in the reservoir is yet a smaller percentage of the total runoff. With respect to diversions, the current withdrawal rate at Essex (where HBMWD pumps water for distribution within the region) is approximately 25 to 30 MGD which is only 3% of the total annual average runoff of the Mad River watershed. The full diversion capacity of 75 MGD (84,000 acre-feet per year) is just 8 % of the total annual average runoff of the watershed.

Average annual precipitation in the watershed is approximately 60 inches with up to 75 inches in the high headwaters primarily falling between October and April. Long duration snow and rain storms are common during the winter with short duration thunderstorms occur infrequently during the summer and fall. The highest average precipitation is in the middle of the watershed in Bug Creek and Boulder Creek, averaging over 100 inches per year in the mountains. The highest precipitation in the watershed is in the vicinity of Bug Creek Butte, averaging over 120 inches a year (*Mad River Watershed Assessment 2010*).

## **7.1. Constraints on Water Sources**

The main constraint regarding MCSD's retail water source is the sole transmission line from HBMWD that runs under the Mad River. This transmission line is vulnerable to natural disasters such as, earthquakes and floods. MCSD addressed this concern by installing a 12-inch emergency intertie between the MCSD and City of Arcata water systems. This intertie has the capability to supply water to either municipality in the event water from HBMWD is unavailable. HBMWD may also restrict water use for retail customers if Ruth Lake falls to 65% of capacity and the accumulated rainfall in the Ruth area is 70% or less of the historical average (49 inches). An event such as this has not occurred within the Mad River Watershed since 1977. Other possible constraints include contamination or damage to the system from natural disasters such as, earthquakes, floods, or other destruction.

### **NEED INFORMATION FROM HBMWD FOR THE FOLLOWING**

## **7.2. Reliability by Type of Year**

### **7.2.1. Types of Years**

#### **7.2.1.1. Average Year**

#### **7.2.1.2. Single-Dry Year**

#### **7.2.1.3. Multiple Dry-Year Period**

#### **7.2.1.4. Sources for Water Data**

## **7.3. Supply and Demand Assessment**

## **7.4. Regional Supply Reliability**

The North Coast is one of the only areas in California with an abundance of water. Droughts, while severe climatically, have not resulted in the level of water supply shortfalls that other areas of California routinely experience. The drought of 1976/1977 was the only declared water emergency on the North Coast. During that event, Ruth Lake storage was 52% of normal average volume and rainfall in the Ruth Lake area was 42% of historical average. The drought came to an end with heavy rains during November 1977.



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## 8. WATER SHORTAGE CONTINGENCY PLANNING

On June 11th, 2015, HBMWD along with its four municipal customers classified as urban water suppliers, received confirmation from the State Water Resources Control Board (SWRCB) that their request to be placed in a lower conservation tier had been granted. Prior to this ruling, MCSD would have been in a tier that would have required a 12% reduction.

Criteria for meeting the request included showing that the source of supply does not include groundwater or water imported from outside the hydrologic region in which the water supplier is located, and that the system has a minimum of four years reserved supply available. Having met these criteria, the SWRCB approved the request by HBMWD. Therefore, McKinleyville and Humboldt Community Services Districts, the Cities of Eureka and Arcata, as well as HBMWD will be required to reduce water production by 4 percent for each month as compared to the same month in 2013. In approving the request, the SWRCB acknowledged the unique characteristics of our region's water system and the security of the supply present at Ruth Lake.

Review of total water production data from 2013 and 2015 shows that MCSD customers have been diligently monitoring and reducing their water usage in consideration of the state's drought MCSD in one of several water suppliers that receives water from HBMWD (wholesaler).

Total Water Production (millions of gallons)			
Month	2013	2015	% Reduction
January	38.3	32.8	14%
February	33.6	29.9	12%
March	36.2	33.5	8%
April	39.8	33.2	16%
May	49.4	38.2	23%
		Average	14.60%

Table 3. MCSD Water Production Reduction

HBMWD has a Water Shortage

Contingency Plan (Appendix C) that governs their actions during a water shortage emergency and under various specific conditions will reduce the amount of water available to the water suppliers (retailers). At the time HBMWD reduces the water allocations to retailers it is up to each of the retailers to determine how to accomplish those reductions. MCSD has Ordinance 10 (Appendix E) which provides a range of water use restrictions to reduce water consumption, enforcement authority and penalties for violation of the water use restrictions. MCSD has Ordinance 10 which was designed to be flexible and able to be implemented in a wide range of water shortage situations.

In November 2014 MCSD Board of Directors approved the MCSD Water Shortage Contingency Plan (WSCP) (See Appendix D). MCSD has prepared this Water Shortage Contingency Plan as a response to California State Water Resources Control Board's Resolution 2014-0038, Emergency Regulation or Statewide Water Conservation, to prepare for potential future local, regional, and State water shortage conditions, and to fulfill a requirement of the Urban Water Management Planning Act. The MCSD Board of Directors has adopted the WSCP and its contents as Ordinance 10 (See Appendix E).

### **8.1. Stages of Action**

MCSD's WSCP defines the four stages of action and percentage of reduction required for specific drought conditions. In addition, the WSCP establishes rules and regulations for rationing and conservation of water during a water shortage emergency and establishes penalties for violations. The full version of the MCSD WSCP is in Appendix D.

The provisions of the WSCP shall take effect whenever the District General Manager, upon engineering analysis of District water supplies, information received from the wholesale water provider, Humboldt Bay Municipal Water District (HBMWD), or due to regulatory requirements, notices, or orders, finds and determines that a water shortage emergency exists or is imminent within the MCSD water service area and a declaration of a water shortage is made by a resolution of the MCSD Board of Directors, and they shall remain in effect for the duration of the water shortage set forth in the resolution.

The WSCP establishes water use restrictions and prohibitions to be implemented during times of declared water shortages, or declared water shortage emergencies. It establishes four levels of response actions to be implemented in times of shortage, as set forth in Section 7, with increasing restrictions on water use in response to worsening drought conditions or decreasing available supplies. The MCSD Board of Directors, upon recommendation by the Manager, shall determine and declare by resolution the stage of response action necessary. Notice of such determination shall be published in a newspaper of general circulation and shall be effective within five (5) days from the date the declaration is made.

The following outlines each stage of action within the MCSD WSCP:

**Stage 1 - Voluntary Conservation (up to 20% reduction).**

Achieve up to 20% reduction in water usage compared to the corresponding billing period in the previous calendar year (prior to declaration of the most recent water shortage emergency) by encouraging voluntary conservation, enforcement of water wasting regulations and water conservation regulations, requesting customers to make conscious efforts to conserve water, request restaurants to serve water only upon request, encourage private sector to use alternate source and encourage night irrigation. Voluntary actions include:

- Water conservation is requested of all customers;
- Installation and use of water efficient indoor devices;
- Use of hose-end shutoff nozzles on all garden and utility hoses;
- Refrain from washing cars, boats, trailers, or other vehicles except by hose with shutoff nozzle and bucket;
- Installation of low-flow shower heads, low flush water closets, and faucet aerators; and
- Promptly repair all leaks in plumbing fixtures, water lines, and sprinkler systems.

**Stage 2 - Mandatory Conservation (up to 30% reduction)**

From and after the date that the Board of Directors, by resolution, determines that Stage 2, Mandatory Conservation actions are to be implemented, in addition to the voluntary action in Stage 1. the following uses are declared to be non-essential and are prohibited:

- Outdoor irrigation of ornamental landscapes or turf with potable water is except Sundays, Tuesdays, Thursdays and Saturdays;
- Washing sidewalks, driveways, parking areas, tennis courts, patios or other exterior paved areas except by public agency for the purpose of public safety;

- Application of potable water to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures;
- Use of potable water in a fountain or other decorative water feature, except where the water is part of a recirculation system;
- Watering any portion of a golf course other than the tees and greens except where private well or recycled water supply is used;
- Fire hydrant water unless authorized by the District, except by fire protection agencies for fire suppression purposes, or for other authorized uses including storm drain maintenance, and street sweeping purposes. Water/sewer flushing and fire flow testing are authorized only if coordinated and performed at the same time; and
- The use of a hose that dispenses potable water to wash a motor vehicle or for any other purpose, except where the hose is fitted with a shutoff nozzle or device attached to it that causes it to cease dispensing water immediately when not in use.

### **Stage 3 – Emergency Water Shortage (up to 50% reduction)**

From and after the date that the Board of Directors, by resolution, determines that Stage 3, Emergency Water Shortage actions are to be implemented, the following additional uses are declared to be non-essential: the following additional uses are declared to be non-essential and are prohibited:

- Outdoor irrigation unless total water use is reduced by 50 % from the same billing period from the previous calendar year (prior to declaration of the most recent water shortage emergency);
- Any leak that are not repaired within 24 hours after discovery;
- Automated commercial car washes without a water recycling system;

- Street cleaning or dust control with potable water;
- Filling or to top off any swimming pools, outdoor spas, wading pools, and ornamental water features;
- Use of water from a fire hydrant except for fighting fires and human consumption;
- Watering any residential lawn, or any commercial or industrial area lawn maintained for aesthetic purposes, at any time of the day or night during the period of March 1, through September 30, when a Stage 3 is in progress;
- Planting any new landscaping, except for designated drought resistant landscaping approved by the District;
- Operating a hotel, motel or other commercial lodging establishment without offering patrons the option to forego the daily laundering of towels, sheets and linens;
- Use of water for any outdoor washing purpose including commercial car washing, window washing, and paint preparation; and
- Washing of cars, boats, trailers, or other vehicles.

#### **Stage 4 – Critical Water Shortage Emergency Mandatory Rationing (> 50% reduction)**

f. From and after the date that the Board of Directors, by resolution, determines that Stage 4, Critical Water Shortage Emergency actions are to be implemented, the following additional uses are declared to be non-essential and are prohibited:

- Agricultural irrigation;
- Outdoor irrigation;
- Any leaks that are not repaired immediately; and
- Bulk water sales.

## **8.2. Prohibition on End Uses**

The following are the MCSD Rules for Homes and Businesses for water uses that are declared to be non-essential and are prohibited:

- Outdoor irrigation of ornamental landscapes or turf with potable water is only allowed on Sundays, Tuesday, Thursdays and Saturdays;
- Washing sidewalks, driveways, parking areas, tennis courts, patios or other exterior paved areas except by the public agency for the purpose of public safety;
- Application of potable water to outdoor landscapes in a manner that causes runoff such that water flows into adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots or structures;
- Use of potable water in a fountain or other decorative water feature, except where the water is part of a recirculation system;
- The application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall;
- Watering any portion of a golf course other than the tees and greens except where private well or recycled water supply is used;
- Fire hydrant water unless authorized by the District, except by fire protection agencies for fire suppression purposes, or for other authorized use including storm drain maintenance, and street sweeping purposes. Water/sewer flushing and fire flow testing are authorized only if coordinated and performed at the same time;
- The use of a hose that dispenses potable water to wash a motor vehicle or for any other purpose, except where the hose is fitted with a shutoff nozzle or device attached to it that causes it to cease dispensing water immediately when not in use;

- Restaurants and other food service establishments can only serve water to customers upon request;
- Hotels and motels must provide guests with the option of not having towels and linens laundered daily;
- Using potable water to irrigate turf in public medians; and
- Using potable water to irrigate landscapes of new homes & buildings inconsistent with CBSC & DHCD requirements.

### **8.3. Penalties, Charges, Other Enforcement of Prohibitions**

Violations of any provision of Ordinance 10 shall be punished as follows:

#### **Section 11. Fines and Penalties (MCSD Ordinance 10)**

- a) An administrative fine of up to \$500.00 may be levied for each violation of a provision of this ordinance in accordance with Water Code Section 71590.
- b) Each violation of this ordinance may be prosecuted as a misdemeanor punishable by imprisonment in the county jail for not more than thirty (30) days or by a fine not exceeding \$600, or both as provided in Water Code Section 71644. The manager shall forthwith direct and cause disconnection of the water service of any person or customer cited for a misdemeanor under this section. Such service shall be restored only upon payment of any turn-on charge fixed by the Board of Directors.
- c) Each day any violation of this Ordinance is committed or permitted to continue shall constitute a separate offense and shall be punishable as such hereunder.

Enforcement of any violations of Ordinance 10 shall be as follows:

#### **Section 12. Enforcement (MCSD Ordinance 10)**

The Manager and all employees of the McKinleyville Community Services District have the duty and are authorized to enforce the provisions of this Ordinance and shall have all the powers



and authority contained in California Penal Code Section 836.5, including the power to issue written notice of violation.

## **8.4. Consumption Reduction Methods**

MCSD has the following (8.5.1) consumption reduction methods in place to reduce water demand within the service area.

### **8.4.1. Categories of Consumption Methods**

- Expand Public Information Campaign: MCSD has created fliers, added inserts to bills and newsletter, published articles, and provided links to information and rebate programs on the website.
- Improve Customer Billing: Over the past five-years MCSD has changed how they collect, store and report water usage and billing data. For example; what used to be residential usage is now broken out into single-family usage and multi-family usage.
- Meter Reading Accuracies: In 2013 MCSD received a grant to initiate a full service area meter replacement program. With several of the customer meters reaching the end of their 18-year life cycle MCSD is working to have all meters within the service area replaced with more accurate radio read meters. Expected completion is 2017.
- Reduce System Water Loss: MCSD reduces system water loss through monthly inspection programs and by performing field verification of suspected leaks and known trouble areas.
- Increase Water Waste Patrol: MCSD has trained meter reader to look for violations of prohibited end-use of water. These employees are equipped with fliers and information reminding customers of prohibited uses and the penalties for being in violation.

## **8.5. Determining Water Shortage Reductions**

MCSD is able to determine actual water savings made from initiating the WSCP through production, consumption, and billing records. In addition to record keeping, the Operations Director compiles and calculates the GPCD and usages for residential and commercial customers monthly for inclusion in the monthly reports for the Board of Directors.

## **8.6. Revenue and Expenditure Impacts**

During the implementation of the various water shortage emergency stages, there will be an impact on revenue and expenses for the District due to the anticipated demand reduction. The table showing net impact on revenue given the various demand reduction scenarios is in section 7.0 of the WSCP. This is intended to be a general analysis of revenue impact and is based on the 2013-2014 annual budget.

The net impact on revenue depends on the stage of water shortage emergency and the duration of the water shortage event. The worst case scenario is a 50% reduction in volumetric sales for a 12-month duration resulting in a \$495,160 shortfall. The more likely scenario is a 20% demand reduction for a three to six-month duration resulting in a net reduction in revenue between \$49,516 and \$99,032. The District has several options it can consider for handling the anticipated revenue impact including:

- Reduce funds allocated for the Capital Improvements Funds (CIP) reserve, thereby reducing the CIP reserve fund and delaying implementation of CIP projects;
- During the next rate study develop a water shortage surcharge (rate structure) that automatically goes into effect upon declaration of a specific stage of water shortage emergency; or
- During the next rate study include the establishment of a water shortage emergency fund that will be available in the event of a water shortage emergency.

## **8.7. Resolution or Ordinance**

The MCSD Board of Directors adopted, signed and approved Ordinance 10 on April 1, 2015. Ordinance 10 was developed from and includes all the provisions of the WSCP. The Board approved resolution 2015-09 authorizing MCSD the power to regulate, enforce, and issue fines for violations outlined in the WSCP.

## **8.8. Catastrophic Supply Interruption**

The California Safe Drinking Water Act mandates in Section 4029 that every public water system includes a Disaster Response Plan as part of their Emergency Notification Plan. This plan will outline the steps to be taken to maintain or return water service to the District's customers after a major disaster. MCSD has prepared an Emergency Response Plan (ERP) revised which describes the actions the District will take during a catastrophic interruption of water supplies. The water distribution system is susceptible to two types of emergency situations, earthquakes and contamination. In the event of a major earthquake or groundwater contamination, a water shortage contingency plan would be implemented, which would include rationing of the water storage reservoirs. However, if an earthquake were substantial enough to damage the well casing, pumping system, distribution system, and reservoirs, the water supply would be decreased. In this case, another temporary water supply would need to be used including the Arcata intertie if Arcata is unaffected. Another option is to have water transported by truck from a nearby municipality.

## **8.9. Minimum Supply Next Three Years**

The North Coast is one of the only areas in California with an abundance of water. Droughts, while severe climatically, have not resulted in the level of water supply shortfalls that other areas of California routinely experience. The drought of 1976/1977 was the only declared water emergency on the North Coast. During that event, Ruth Lake storage was 52% of normal average volume and rainfall in the Ruth Lake area was 42% of historical average. The drought came to an end with heavy rains during November 1977. Even during the only declared water emergency on

the North Coast MCSD did not experience water supply restrictions. During this drought the MCSD supplies were sufficient to meet normal demand without restrictions.

The driest three-year period was 1990, 1991, and 1992. During this period conditions requiring implementation of a water shortage emergency did not exist, there were no restrictions on water supplied by the HBMWD and MCSD supplies were sufficient to meet normal demand without restrictions.

Based on the above historical information, MCSD projects that if the minimum water supply was available during each of the next three water years (based on the driest three-year historic sequence) there would be sufficient supply to meet normal demand without implementing water use restrictions.

HBMWD performed an analysis of the Ruth Lake storage capacity in 2015 that is included as Appendix B. The Ruth Lake Storage Capacity Analysis assumed a four-year repetition of the 1976-1977 hydrology (driest years on record with only 10% of average discharge) and found that Ruth Lake has sufficient supply to provide 36.5 million gallons per day for four years, which is almost four times the current total demand and reliably provide twice the current demand indefinitely.

## **9. DEMAND MANAGEMENT MEASURES**

### **9.1. Water Waste Prevention Ordinances**

The following are MCSD's water waste prohibitions as outlined in section 6 of Ordinance 10 MCSD rules and regulations for rationing and conservation of water.

No water furnished by the District shall be wasted. Waste of water includes, but is not limited to, the following:

- a) Permitting water to escape (run to waste) down a gutter, ditch, surface drain, or otherwise;
- b) Failure to repair a controllable leak of water; and
- c) Failure to put to reasonable beneficial use any water withdrawn from the District's system.

#### **9.1.1. Metering**

All water received and distributed throughout the MCSD service area is metered. HBMWD meters all water delivered to MCSD and bills the District monthly. In addition to the HBMWD meter, MCSD meters all water pumped through the North Bank Pump Station before entering the MCSD distribution system. This dual metering allows both MCSD and HBMWD to compare usages and detect any metering inaccuracies. HBMWD is currently in the process of calibrating the MCSD master meter to improve accuracy.

All customer sectors within the service area are metered and billed monthly. Though the District is fully metered many of the meters throughout the service area have reached their 18-year life span and are in the process of being replaced with new radio read meters. MCSD is expecting to have all residential, commercial, and institutional/government meters replaced to radio read meters by the end of 2017.

### **9.1.2. Conservation Pricing**

Conservation pricing sends a signal to customers regarding their water use. MCSD has a tiered rate structure that meets the UWMP requirements for conservation pricing. In 2009, McKinleyville Community Services District went from a 2-tiered pay schedule to a 3-tiered system. For the years, 2000 thru 2005, our customers averaged 120 GPCD usages. From 2006 thru 2010, that dropped from 120 GPCD to 99 GPCD average. In the year 2010, the GPCD was 94, trending down from 104 GPCD in 2006. McKinleyville residents are very aware of the preciousness of water. So, while our population has continued to grow year after year, customers are using less water. For our SBX7-7 data starting in 2000, customers of MCSD have already started conserving water. MCSD will continue to promote the water conservation efforts of the State of California. In July 2012 MCSD went back to a two-tiered billing system with a variable cost of \$1.27 per CCF up to 800 cubic feet. Over 800 cubic feet is charged at \$3.16 per CCF (2015).

### **9.1.3. Public Education and Outreach**

MCSD has provided public outreach and education for service area customers in the following formats and media outlets.

- MCSD website provides links and information regarding MCSD drought rules for home and business water uses that are declared to be non-essential, State operated rebate programs, turf replacement rebates, and high efficiency toilet replacement program.
- MCSD Newsletter Articles were published informing customers of California/MCSD drought rules, rebate programs, and ways they can conserve water at home.
- Radio and news interviews: MCSD General Manager participated in “Talk Shop” interviews on water conservation efforts and programs.
- Radio Ads: In 2014 MCSD in cooperation with HBMWD and other regional retail providers recorded seven different 30 second radio ads each year highlighting different water conservation messages for broadcast on 3 radio stations over a six-month period.

#### **9.1.4. Programs to Assess and Manage Distribution System Real Loss**

MCSD performs annual AWWA Water Loss Audits to assess real loss from the distribution system. Loss rates are very low for the District. Non-revenue water is only 5.6% of the volume of water supplied and is only 2% of the cost of operating the water system. Real loss is managed by addressing any water leak as soon as they are identified.

#### **9.1.5. Water Conservation Program Coordination and Staffing Support**

MCSD employs 25 total full time personnel and does not have the capability of holding a position solely for a water conservation coordinator. At this time the general manager Gregory Orsini, is the point of contact for water conservation with various staff helping out.

### **9.2. Implementation of DMM's Over the past Five Years**

Over the past five years MCSD has focused water conservation efforts on public education and outreach and programs to assess and manage distribution system real loss.

Public Education and Outreach - In the past five years MCSD has coordinated public education and outreach with the other regional water retailers that are supplied water by HBMWD. This coordinated outreach included a series of radio announcements that promote water conservation and staffing a booth at the Humboldt County Fair that promotes water conservation. Details are noted below:

- Recorded 7 different 30-second radio ads highlighting different water conservation messages for broadcast on 3 radio stations over a six-month period (May-Oct 2014 and 2015);
- Staffing a booth at the Humboldt County Fair that promotes water conservation (2014 and 2015); and

- Made water conservation presentations to various local civic groups such as local Daughters of the America Revolution; Soroptomist International of Eureka.

### **9.3. Planned Implementation to Achieve Water Use Targets**

MCSD is meeting their water use targets by a significant margin. MCSD will continue their program to assess and manage distribution system real loss and will continue public education and outreach activities to further assure that they will meet the 2020 water use targets. MCSD will monitor their GPCD annually while performing their annual AWWA water loss audits. If their GPDC begins to increase, they when will implement further conservation programs.



## **10. PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION**

The MCSD 2015 UWMP has been prepared in accordance with the CWC and the 2015 Urban Water Management Plan Guidebook for Urban Water Suppliers. MCSD has included water use and planning data for the entire year 2015.

### **10.1. Notice of Public Hearing**

MCSD shall hold a public hearing prior to adopting the UWMP. MCSD provided written notice of their UWMP review and updating at least 60 days prior to the public hearing to the water wholesaler HBMWD, Humboldt County, City of Arcata, City of Eureka, City of Blue Lake, Fieldbrook-Glendale CSD, and Manila CSD. A copy of the 60-day notice letters are included as Appendix \_\_\_\_.

The public hearing provides an opportunity for the public and cities and counties to provide input to the plan before it is adopted. The notice will include the time and place of the public hearing and where the 2015 UWMP can be viewed with contact information of the preparer. The public hearing notices will be published at least 15 days in advance in the local newspaper, and on the MCSD board agenda that is posted throughout the community.

### **10.2. Public Hearing and Adoption**

The public hearing will be held during a regularly scheduled MCSD Board meeting, the first Wednesday of the month, the month prior to plan adoption. During the public hearing MCSD staff will provide information regarding baseline values, water-use targets, and implementation plan to achieve targets and goals.

The adoption hearing for the 2015 UWMP will take place the board meeting following the public hearing to allow time for the inclusion of comments and revisions. During the adoption hearing the MCSD board of Directors will formally vote to adopt the plan.

The MCSD's 2015 UWMP, was adopted by the MCSD Board of Directors on \_\_\_\_\_, 2016 by Resolution 2016-\_\_\_\_ (Appendix \_\_\_\_\_), and will be submitted to the DWR by July 1, 2016.

### **10.3. Plan Submittal**

MCSD shall submit their 2015 UWMP to the following agencies and locations:

- California Department of Water Resources: The MCSD 2015 UWMP shall be submitted to DWR within 30 days of adoption and by July 1, 2015.
- Electronic Data Submittal: MCSD shall submit a copy of the adopted 2015 UWMP to the DRW online submittal tool, WUEdata. All data from the standardized tables shall be uploaded to through the online tool as well.
- California State Library: No later than 30 days, MCSD shall submit a CD or hardcopy of the adopted 2015 UWMP to the California State Library.
  - California State Library  
Government Publications Section  
P.O. Box 942837 Sacramento, CA 94237  
Attn: Coordinator, Urban Water Management Plans

### **10.4. Public Availability**

MCSD shall make available a copy of the 2015 UWMP for public review. The UWMP will be available in digital format on the MCSD website and a hard copy will be made available for public review at the MCSD office.

McKinleyville Community Services District  
1656 Sutter Rd.  
McKinleyville, CA 95519

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# **APPENDIX A**

## **2015 UWMP Standardized Tables**

Table 2-1 Retail Only: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2015	Volume of Water Supplied 2015
1210016	McKinleyville CSD	5517	455,879,000
<i>Up to 20 entries allowed.</i>			
<b>TOTAL</b>		<b>5517</b>	<b>455879000</b>
NOTES:			

Table 2-2: Plan Identification	
<input checked="" type="checkbox"/>	Individual UWMP
<input type="checkbox"/>	Regional UWMP (RUWMP) <i>(checking this triggers the next line to appear)</i>
	<b>Choose One:</b>
<input type="checkbox"/>	RUWMP includes a Regional Alliance
<input type="checkbox"/>	RUWMP does not include a Regional Alliance
NOTES:	

Table 2-3: Agency Identification	
Type of Agency (select one or both)	
<input type="checkbox"/>	Agency is a wholesaler
<input checked="" type="checkbox"/>	Agency is a retailer
Fiscal or Calendar Year (select one)	
<input checked="" type="checkbox"/>	UWMP Tables Are in Calendar Years
<input type="checkbox"/>	UWMP Tables Are in Fiscal Years
If Using Fiscal Years Provide Month and Day that the Fiscal Year Begins	
Day	Month
Units of Measure Used in UWMP (select one)	
<input type="checkbox"/>	Acre Feet (AF)
<input checked="" type="checkbox"/>	Million Gallons (MG)
<input type="checkbox"/>	Hundred Cubic Feet (CCF)
NOTES:	

Table 2-4 Retail: Water Supplier Information Exchange
The retail supplier has informed the following wholesale supplier(s) of projected water use in accordance with CWC 10631.
Wholesale Water Supplier Name
<b>Humboldt Bay Municipal Water District</b>
NOTES:

Table 3-1 Retail: Population - Current and Projected						
Population Served	2015	2020	2025	2030	2035	2040 <sub>(opt)</sub>
	16,103	16,758	17,439	18,147	18,885	19,653
NOTES: Derived from US Census Data						

Table 4-1 Retail: Demands for Potable and Raw Water - Actual			
Use Type <i>Drop down list</i> <i>select each use multiple times</i> <i>These are the only Use Types that will be recognized by the WUEdata online submittal tool</i>	2015 Actual		
	Additional Description <i>(as needed)</i>	Level of Treatment When Delivered <i>Drop down list</i>	Volume
Single Family		Drinking Water	304.609332
Multi-Family		Drinking Water	79.372320
Commercial		Drinking Water	22.058575
Institutional/Governmental		Drinking Water	13.697711
Landscape		Drinking Water	5.728202
Losses	<i>From AWWA worksheet</i>	Drinking Water	1.920000
Sales/Transfers/Exchanges to other agencies	<i>to City of Arcata</i>	Drinking Water	7.528878
Other	<i>Bulk Water Sales</i>	Drinking Water	1.596445
<b>TOTAL</b>			<b>434.915018</b>
NOTES:			

Table 4-2 Retail: Demands for Potable and Raw Water - Projected						
Use Type <i>Drop down list</i> <i>May select each use multiple times</i> <i>These are the only Use Types that will be recognized by the WUEdata online submittal tool</i>	Additional Description <i>(as needed)</i>	Projected Water Use				
		Records are Available				Report To the Extent that
		2020	2025	2030	2035	2040-opt
Single Family		361.528114	376.222475	391.514090	407.427236	423.987173
Multi-Family		95.506333	100.876022	106.547613	112.538081	118.865352
Commercial		45.859540	48.437918	51.161262	54.037721	57.075905
Institutional/Governmental		13.973865	14.255587	14.542989	14.836185	15.135292
Landscape		5.843686	5.961498	6.081686	6.204297	6.329379
Sales/Transfers/Exchanges to other agencies		7.680665	7.835512	7.993481	8.154634	8.319037
Other	<i>Bulk Water Sales</i>	1.628630	1.661464	1.694960	1.729132	1.763992
<b>TOTAL</b>		<b>532.020833</b>	<b>555.250476</b>	<b>579.536081</b>	<b>604.927286</b>	<b>631.476130</b>
NOTES:						

Table 4-3 Retail: Total Water Demands						
	2015	2020	2025	2030	2035	2040 (opt)
Potable and Raw Water <i>From Tables 4-1 and 4-2</i>	437.150018	532.020833	555.250476	579.536081	604.927286	631.47613
Recycled Water Demand <i>From Table 6-4</i>	96.700000	102.000000	108.000000	114.000000	120.000000	120.000000
<b>TOTAL WATER DEMAND</b>	<b>533.850018</b>	<b>634.020833</b>	<b>663.250476</b>	<b>693.536081</b>	<b>724.927286</b>	<b>751.47613</b>
NOTES:						

Table 4-4 Retail: Water Loss Summary Most Recent 12 Month Period Available <i>(as calculated in Appendix L worksheet)</i>	
Reporting Period Start Date (Month/Year)	Loss
January 2015- December 2015	4.115
NOTES: Million Galons	

Table 4-5 Retail Only: Inclusion in Water Use Projections	
Future Water Savings Included Y/N	No
If "Yes" to above, state the section or page number where citations of the codes, ordinances, etc... utilized in demand projections are found.	Location in UWMP _____
Lower Income Residential Demands Included	No
NOTES:	

Table 5-1 Baselines and Targets Summary					
Retail Agency or Regional Alliance Only					
Baseline Period	Start Years	End Years	Average GPCD	2015 Interim Target	Confirmed 2020 Target
10-15 year	2000	2010	107.52	96.76	86.01
5 Year	2004	2008	105.34		
NOTES:					

Table 6-2 Retail: Wastewater Collected Within Service Area in 2015						
Percentage of 2015 service area covered by wastewater collection system <i>(optional)</i>						100
Percentage of 2015 service area population covered by wastewater collection system <i>(optional)</i>						85
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? <i>Drop Down List</i>	Volume of Wastewater Collected in 2015	Receiving Wastewater Treatment			
			Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area? <i>Drop Down List</i>	Is WWTP Operation Contracted to a Third Party? <i>(optional)</i> <i>Drop Down List</i>
McKinleyville CSD	<i>Metered</i>	320.30	McKinleyville CSD	WWMF	<i>Yes</i>	<i>No</i>
Total Wastewater Collected from		320.30				
NOTES: WWMF = Wastewater Management Facility						



Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2015										
<input type="checkbox"/>	No wastewater is treated or disposed of within the UWMP service area. The supplier will not complete the table below.									The supplier will not
Wastewater Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location Description	Wastewater Discharge ID Number (optional)	Method of Disposal <div>Drop down list</div>	Does This Plant Treat Wastewater Generated Outside the Service Area?	Treatment Level <div>Drop down list</div>	2015 volumes			
							Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area
WWMF	Mad River		1B820840HUM	River or creek outfall	No	Secondary, Disinfected - 23	320.30	163.90	0.00	0
WWMF	Percolation Ponds		1B820840HUM	Percolation ponds	No	Secondary, Disinfected - 23		60.20	0.00	0
WWMF	Lower Fischer Ranch		1B820840HUM	Land disposal	No	Secondary, Disinfected - 23		0.00	7.60	0
WWMF	Upper Fischer Ranch		1B820840HUM	Land disposal	No	Secondary, Disinfected - 23		0.00	66.50	0
WWMF	Hiller Storm Water Treatment Wetland and Forested Area		1B820840HUM	Land disposal	No	Secondary, Disinfected - 23		0.00	0.00	0
WWMF	Pialorsi Ranch		1B820840HUM	Land disposal	No	Secondary, Disinfected - 23		0.00	22.60	0
Total							320.30	224.10	96.70	0
NOTES:										

Table 6-4 Retail: Current and Projected Recycled Water Direct Beneficial Uses Within Service Area*									
<input type="checkbox"/>	Recycled water is not used and is not planned for use within the service area of the supplier. supplier will not complete the table below.								
Name of Agency Producing (Treating) the Recycled Water:		McKinleyville CSD							
Name of Agency Operating the Recycled Water Distribution System:		McKinleyville CSD							
Supplemental Water Added in 2015		No							
Source of 2015 Supplemental Water		No							
Beneficial Use Type <i>These are the only Use Types that will be recognized by the DRW online submittal tool</i>	General Description of 2015 Uses	Level of Treatment <i>Drop down list</i>	2015	2020	2025	2030	2035	2040 (opt)	
Agricultural irrigation	Irrigated for growing fodder crops	Secondary, Disinfected - 23	96.70	102	108	114	120		
Landscape irrigation (exc golf courses)									
Golf course irrigation									
Commercial use									
Industrial use									
Geothermal and other energy production									
Seawater intrusion barrier									
Recreational impoundment									
Wetlands or wildlife habitat									
Groundwater recharge (IPR)									
Surface water augmentation (IPR)									
Direct potable reuse									
Other	Type of Use								
		Total:	96.70	102	108	114	120	0	
IPR - Indirect Potable Reuse									
* This may include use outside the the UWMP area that is NOT included in another UWMP area. It is to be noted in the general description cell.									
NOTES:									

**Table 6-5 Retail: 2010 UWMP Recycled Water Use Projection Compared to 2015 Actual**

<input checked="" type="checkbox"/>	Recycled water was not used in 2010 nor projected for use in 2015. The supplier will not complete the table below.	
Use Type <i>These are the only Use Types that will be recognized by the WUEdata online submittal tool</i>	2010 Projection for 2015	2015 actual use
Agricultural irrigation		
Landscape irrigation (exc golf courses)		
Golf course irrigation		
Commercial use		
Industrial use		
Geothermal and other energy production		
Seawater intrusion barrier		
Recreational impoundment		
Wetlands or wildlife habitat		
Groundwater recharge (IPR)		
Surface water augmentation (IPR)		
Direct potable reuse		
Other	<i>Type of Use</i>	
<b>Total</b>		<b>0</b>
NOTES:		

**Table 6-6 Retail: Methods to Expand Future Recycled Water Use**

Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use
<b>Total</b>			<b>0</b>
NOTES: Currently there are no plans to expand future recycled water use.			

Table 6-7 Retail: Expected Future Water Supply Projects or Programs						
<input type="checkbox"/>	No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.					
<input type="checkbox"/>	Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format. LOCATION OF THE NARRATIVE _____					
Name of Future Projects or Programs	Joint Project with other agencies?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type <i>Drop Down List User may select more than one.</i>	Expected Increase in Water Supply to Agency
	<i>Drop Down List</i>					
Constrtuct 2 new storage takns (2.5)MG each	<i>No</i>	<i>If Yes, Agency Name</i>	Constrtuct 2 new storage takns (2.5)MG each	2018	Average Year	<i>5MG</i>
NOTES:						

Table 6-8 Retail: Water Supplies — Actual				
Water Supply <i>Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool</i>	Additional Detail on Water Supply	2015		
		Actual Volume	Water Quality <i>Drop Down List</i>	Total Right or Safe Yield (optional)
Purchased or Imported Water	<i>HBMWD</i>	455.879	Drinking Water	
<b>Total</b>		455.879		0
NOTES:				

## **APPENDIX B**

### **SBX7-7 Tables**

**SB X7-7 Table 0: Units of Measure Used in UWMP\****(select one from the drop down list)*

Million Gallons

*\*The unit of measure must be consistent with Table 2-3*

NOTES:

**SB X7-7 Table-1: Baseline Period Ranges**

Baseline	Parameter	Value	Units
10- to 15-year baseline period	2008 total water deliveries	530.073	Million Gallons
	2008 total volume of delivered recycled water	0	Million Gallons
	2008 recycled water as a percent of total deliveries	0.00%	percent
	Number of years in baseline period <sup>1</sup>	10	years
	Year beginning baseline period range	1995	
	Year ending baseline period range <sup>2</sup>	2005	
5-year baseline period	Number of years in baseline period	5	years
	Year beginning baseline period range	2003	
	Year ending baseline period range <sup>3</sup>	2007	

<sup>1</sup> If the 2008 recycled water percent is less than 10 percent, then the first baseline period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater, the first baseline period is a continuous 10- to 15-year period.

<sup>2</sup> The ending year must be between December 31, 2004 and December 31, 2010.

<sup>3</sup> The ending year must be between December 31, 2007 and December 31, 2010.

NOTES:

SB X7-7 Table 2: Method for Population Estimates	
Method Used to Determine Population (may check more than one)	
<input checked="" type="checkbox"/>	<b>1. Department of Finance (DOF)</b> DOF Table E-8 (1990 - 2000) and (2000-2010) and DOF Table E-5 (2011 - 2015) when available
<input type="checkbox"/>	<b>2. DWR Population Tool</b>
<input checked="" type="checkbox"/>	<b>3. Other</b> DWR recommends pre-review
NOTES: <i>Service Units Method Approved by DWR 3-14-2015</i>	

SB X7-7 Table 3: Service Area Population		
Year	Population*	Notes
10 to 15 Year Baseline Population		
Year 1	1996	Open field for text
Year 2	1997	
Year 3	1998	
Year 4	1999	
Year 5	2000	
Year 6	2001	
Year 7	2002	
Year 8	2003	
Year 9	2004	
Year 10	2005	
Year 11		
Year 12		
Year 13		
Year 14		
Year 15		
5 Year Baseline Population		
Year 1	2003	Open field for text
Year 2	2004	
Year 3	2005	
Year 4	2006	
Year 5	2007	
2015 Compliance Year Population		
2015	16,103	Open text
*Depending on the method used, the "Population" column is filled from either DOF data, DWR population tool, or manually if using "Other".		
NOTES:		

10 to 15 Year Baseline - Gross Water Use									
Year 1	1996	543.35				0		0	543.35
Year 2	1997	545.23				0		0	545.23
Year 3	1998	532.51				0		0	532.51
Year 4	1999	539.87				0		0	539.87
Year 5	2000	529.22				0		0	529.22
Year 6	2001	560.56				0		0	560.56
Year 7	2002	574.62				0		0	574.62
Year 8	2003	573.87				0		0	573.87
Year 9	2004	594.61				0		0	594.61
Year 10	2005	573.88				0		0	573.88
Year 11	0	0.00				0		0	
Year 12	0	0.00				0		0	
Year 13	0	0.00				0		0	
Year 14	0	0.00				0		0	
Year 15	0	0.00				0		0	
10 - 15 year baseline average gross water use									556.77
5 Year Baseline - Gross Water Use									
Year 1	2003	573.87				0		0	573.87
Year 2	2004	594.61				0		0	594.61
Year 3	2005	573.88				0		0	573.88
Year 4	2006	545.40				0		0	545.40
Year 5	2007	555.85				0		0	555.85
5 year baseline average gross water use									568.72
2015 Compliance Year - Gross Water Use									
2015	455.88				0		0	455.88	
* NOTE that the units of measure must remain consistent throughout the UWMP, as reported in Table 2-3									
NOTES:									

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)										This table may be expandable to allow for more than one distribution system
Baseline Year <i>Fm SB X7-7 Table 3</i>	Agency's Own Water Sources				Purchased or Imported Water Sources				Total Water into Distribution System	
	Name of Source	Volume from Own Sources	Meter Error Adjustment* <i>Optional (+/-)</i>	Corrected Volume from Own Sources	Name of Source	Volume from Purchased/ Imported Sources	Meter Error Adjustment* <i>Optional (+/-)</i>	Corrected Volume from Purchased Sources		
10 to 15 Year Baseline - Water into Distribution System(s)										
		allow for entry of more than one source for any year								
Year 1	1996				0	HBMWD	543.35		543.348	543.348
Year 2	1997				0	HBMWD	545.23		545.225	545.225
Year 3	1998				0	HBMWD	532.51		532.514	532.514
Year 4	1999				0	HBMWD	539.87		539.868	539.868
Year 5	2000				0	HBMWD	529.22		529.221	529.221
Year 6	2001				0	HBMWD	560.56		560.556	560.556
Year 7	2002				0	HBMWD	574.62		574.617	574.617
Year 8	2003				0	HBMWD	573.87		573.865	573.865
Year 9	2004				0	HBMWD	594.61		594.61	594.61
Year 10	2005				0	HBMWD	573.88		573.878	573.878
Year 11	0				0				0	0
Year 12	0				0				0	0
Year 13	0				0				0	0
Year 14	0				0				0	0
Year 15	0				0				0	0
5 Year Baseline - Water into Distribution System(s)										
Year 1	2003				0	HBMWD	573.87		573.865	573.865
Year 2	2004				0	HBMWD	594.61		594.61	594.61
Year 3	2005				0	HBMWD	573.88		573.878	573.878
Year 4	2006				0	HBMWD	545.40		545.397	545.397
Year 5	2007				0	HBMWD	555.85		555.851	555.851
2015 Compliance Year - Water into Distribution System										
2015					0	HBMWD	455.88		455.88	455.88
* Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document										
NOTES:HBMWD = Humboldt Bay Municipal Water District										

SB X7-7 Table 4-C: Process Water Deduction Eligibility (For use only by agencies that are deducting process water) Choose Only One	
<input type="checkbox"/>	<b>Criteria 1-</b> Industrial water use is equal to or greater than 12% of gross water use. Complete SB X7-7 Table 4-C.1
<input type="checkbox"/>	<b>Criteria 2 -</b> Industrial water use is equal to or greater than 15 GPCD. Complete SB X7-7 Table 4-C.2
<input checked="" type="checkbox"/>	<b>Criteria 3 -</b> Non-industrial use is equal to or less than 120 GPCD. Complete SB X7-7 Table 4-C.3
<input type="checkbox"/>	<b>Criteria 4 -</b> Disadvantaged Community. Complete SB x7-7 Table 4-C.4
NOTES:	



**SB X7-7 Table 4-C.3: Process Water Deduction Eligibility**
**Criteria 3 Non-industrial use is equal to or less than 120 GPCD**

Baseline Year <i>Fm SB X7-7 Table 3</i>	Gross Water Use Without Process Water Deduction <i>Fm SB X7-7 Table 4</i>	Industrial Water Use	Non-industrial Water Use	Population <i>Fm SB X7-7 Table 3</i>	Non-Industrial GPCD	Eligible for Exclusion Y/N
--	--	----------------------	--------------------------	---	---------------------	-------------------------------

**10 to 15 Year Baseline - Process Water Deduction Eligibility**

Year 1	1996	543.348		543.348	12,242	121.60	NO
Year 2	1997	545.225		545.225	12,566	118.87	YES
Year 3	1998	532.514		532.514	12,899	113.11	YES
Year 4	1999	539.868		539.868	13,241	111.71	YES
Year 5	2000	529.221		529.221	13,599	106.62	YES
Year 6	2001	560.556		560.556	13,706	112.05	YES
Year 7	2002	574.617		574.617	13,818	113.93	YES
Year 8	2003	573.865		573.865	13,932	112.85	YES
Year 9	2004	594.61		594.61	14,044	115.99	YES
Year 10	2005	573.878		573.878	14,160	111.03	YES
Year 11	0	0		0	0		NO
Year 12	0	0		0	0		NO
Year 13	0	0		0	0		NO
Year 14	0	0		0	0		NO
Year 15	0	0		0	0		NO

**5 Year Baseline - Process Water Deduction Eligibility**

Year 1	2003	573.865		573.865	13,932	112.85	YES
Year 2	2004	594.61		594.61	14,044	115.99	YES
Year 3	2005	573.878		573.878	14,160	111.03	YES
Year 4	2006	545.397		545.397	14,271	104.70	YES
Year 5	2007	555.851		555.851	14,376	105.93	YES

**2015 Compliance Year - Process Water Deduction Eligibility**

<b>2015</b>	455.88		455.88	16103	77.56	YES
-------------	--------	--	--------	-------	-------	-----

NOTES:

SB X7-7 Table 5: Gallons Per Capita Per Day (GPCD)				
Baseline Year <i>Fm SB X7-7 Table 3</i>		Service Area Population <i>Fm SB X7-7 Table 3</i>	Annual Gross Water Use <i>Fm SB X7-7 Table 4</i>	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	1996	12,242	543.348	121.60
Year 2	1997	12,566	545.225	118.87
Year 3	1998	12,899	532.514	113.11
Year 4	1999	13,241	539.868	111.71
Year 5	2000	13,599	529.221	106.62
Year 6	2001	13,706	560.556	112.05
Year 7	2002	13,818	574.617	113.93
Year 8	2003	13,932	573.865	112.85
Year 9	2004	14,044	594.61	115.99
Year 10	2005	14,160	573.878	111.03
10-15 Year Average Baseline GPCD				113.78
5 Year Baseline GPCD				
Baseline Year <i>Fm SB X7-7 Table 3</i>		Service Area Population <i>Fm SB X7-7 Table 3</i>	Gross Water Use <i>Fm SB X7-7 Table 4</i>	Daily Per Capita Water Use
Year 1	2003	13,932	594.61	116.93
Year 2	2004	14,044	573.878	111.95
Year 3	2005	14,160	545.397	105.52
Year 4	2006	14,271	555.851	106.71
Year 5	2007	14,376	568.7202	108.38
5 Year Average Baseline GPCD				109.90
2015 Compliance Year GPCD				
2015		16103	455.88	77.56

NOTES: in Million Gallons

**SB X7-7 Table 6: Gallons per Capita per Day**  
*Summary From Table SB X7-7 Table 5*

10-15 Year Baseline GPCD	113.78
5 Year Baseline GPCD	109.90
2015 Compliance Year GPCD	77.56
NOTES:	

**SB X7-7 Table 7: 2020 Target Method**  
*Select Only One*

Target Method		Supporting Documentation
<input checked="" type="checkbox"/>	Method 1	SB X7-7 Table 7A
<input type="checkbox"/>	Method 2	SB X7-7 Tables 7B, 7C, and 7D
<input type="checkbox"/>	Method 3	SB X7-7 Table 7-E
<input type="checkbox"/>	Method 4	Method 4 Calculator
NOTES:		

**SB X7-7 Table 7-A: Target Method 1**  
 20% Reduction

10-15 Year Baseline GPCD	20% Reduction
113.78	91.02
NOTES:	

SB X7-7 Table 7-F: Confirm Minimum Reduction for 2020 Target			
5 Year Baseline GPCD <i>From SB X7-7 Table 5</i>	Maximum 2020 Target*	Calculated 2020 Target <i>Fm Appropriate Target Table</i>	Confirmed 2020 Target
109.90	104.40	91.02	91.02
* Maximum 2020 Target is 95% of the 5 Year Baseline GPCD			
NOTES:			

SB X7-7 Table 8: 2015 Interim Target GPCD		
Confirmed 2020 Target <i>Fm SB X7-7 Table 7-F</i>	10-15 year Baseline GPCD <i>Fm SB X7-7 Table 5</i>	2015 Interim Target GPCD
91.02	113.78	102.40
NOTES:		

SB X7-7 Table 9: 2015 Compliance					
2015 Interim Target GPCD <i>Fm SB X7-7 Table 8</i>	2015 Actual GPCD <i>Fm SB X7-7 Table 5</i>	Adjustments			In Compliance? Y/N
		Extraordinary Events	Weather Normalization	Economic Adjustment	
102.40	77.56	<i>From Methodology 8 (Optional)</i>	<i>From Methodology 8 (Optional)</i>	<i>From Methodology 8 (Optional)</i>	YES
NOTES:					

## **APPENDIX C**

### **AWWA Water Loss Audit Worksheet**



# AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0

American Water Works Association.  
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?	Click to access definition
+	Click to add a comment

Water Audit Report for: **McKinleyville Community Services District (CA1210016)**  
Reporting Year: **2015** **1/2015 - 12/2015**

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: **MILLION GALLONS (US) PER YEAR**

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

----- Enter grading in column 'E' and 'J' -----

## WATER SUPPLIED

Volume from own sources:	+	?	n/a	0.000	MG/Yr
Water imported:	+	?	10	455.879	MG/Yr
Water exported:	+	?	n/a	0.000	MG/Yr

## Master Meter and Supply Error Adjustments

Pcnt:	Value:	MG/Yr
+	?	
+	?	4
+	?	

Enter negative % or value for under-registration  
Enter positive % or value for over-registration

**WATER SUPPLIED:** **452.279** MG/Yr

## AUTHORIZED CONSUMPTION

Billed metered:	+	?	8	425.466	MG/Yr
Billed unmetered:	+	?	8	1.596	MG/Yr
Unbilled metered:	+	?	8	15	MG/Yr
Unbilled unmetered:	+	?		5.653	MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

**AUTHORIZED CONSUMPTION:** **448.164** MG/Yr

Click here: ?  
for help using option  
buttons below

Pcnt:	Value:	MG/Yr
1.25%		

Use buttons to select  
percentage of water  
supplied  
OR  
value

Pcnt:	Value:	MG/Yr
0.25%		

		MG/Yr
0.25%		MG/Yr

## WATER LOSSES (Water Supplied - Authorized Consumption)

### Apparent Losses

Unauthorized consumption: **1.131** MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	+	?	8	0.000	MG/Yr
Systematic data handling errors:	+	?		1.064	MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

**Apparent Losses:** **2.194** MG/Yr

## Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **1.920** MG/Yr

**WATER LOSSES:** **4.115** MG/Yr

## NON-REVENUE WATER

**NON-REVENUE WATER:** **25.216** MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

## SYSTEM DATA

Length of mains:	+	?	10	87.3	miles
Number of active AND inactive service connections:	+	?	10	5,600	
Service connection density:	?			64	conn./mile main

Are customer meters typically located at the curbside or property line? **Yes**

Average length of customer service line: **?** (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure: **?** **65.0** psi

## COST DATA

Total annual cost of operating water system:	+	?	8	\$2,471.429	\$/Year
Customer retail unit cost (applied to Apparent Losses):	+	?	9	\$6.58	\$/1000 gallons (US)
Variable production cost (applied to Real Losses):	+	?	7	\$1,537.00	\$/Million gallons

☐ Use Customer Retail Unit Cost to value real losses

## WATER AUDIT DATA VALIDITY SCORE:

\*\*\* YOUR SCORE IS: 85 out of 100 \*\*\*

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

## PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Unauthorized consumption

2: Systematic data handling errors

3: Variable production cost (applied to Real Losses)

## **APPENDIX D**

### **MCSD Water Shortage Contingency Plan**

**MCKINLEYVILLE COMMUNITY SERVICES DISTRICT  
WATER SHORTAGE CONTINGENCY PLAN**

Prepared for:  
Mr. Greg Orsini  
McKinleyville Community Services District  
1656 Sutter Road  
McKinleyville, California 95519

March, 2015

Prepared by:  
Orrin Plocher and Stan Thiesen  
of



**Freshwater Environmental Services**

78 Sunny Brae Center  
Arcata, California 95521  
Phone (707) 839-0091



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APPENDIX B	CALIFORNIA WATER CODE SECTION 10632
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## **1.0 INTRODUCTION**

McKinleyville Community Services District (MCSD, or the District) was created on April 7, 1970 when McKinleyville voters voted 589 "yes" votes against 151 "no" votes to form the District. Initially, the District had authority to serve water and treat sewer wastes. In 1972, the voters added street lighting powers, in 1985 the voters added recreational powers and in 1995 the voters authorized construction of the McKinleyville Library.

The District boundary encompasses 12,140 acres ranging from North Bank Road on the south to Patrick's Creek on the north. The District is an independent, special district governed by a five member Board of Directors elected by McKinleyville voters. The Board meets monthly on the first Wednesday of each month to set policy, consider projects and resolve disputes. The Board's directives are implemented by the District's 23 full-time and 42 part-time employees. The District office is located at 1656 Sutter Road; just east of Central Avenue. McKinleyville is the third largest community in Humboldt County after Eureka and Arcata with a population of 16,401 (2011). The MCSD currently have over 5,300 active water services. MCSD is proud of its record of solving problems. The Board has summed up its philosophy by adopting the following Mission Statement: "Provide McKinleyville with safe and reliable water, wastewater, lighting, open space, parks and recreation, and library services in an environmentally and fiscally responsible manner".

### **1.1 Purpose**

MCSD has prepared this Water Shortage Contingency Plan as a response to California State Water Resources Control Board's Resolution 2014-0038, Emergency Regulation for Statewide Water Conservation, to prepare for potential future local, regional, and State water shortage conditions, and to fulfill a requirement of the Urban Water Management Planning Act.

### **1.2 State Regulations and Planning Requirements**

The California Water Code contains two provisions for California water supplies related to water shortage contingency planning.

California Water Code Section 350-359 provides the authority for a governing body to declare water shortage emergencies (Appendix A). Upon the declaration of a water shortage emergency, the local agency is provided with broad powers to implement and enforce regulations and restrictions for managing water shortage conditions. Priority is given to water needed for domestic, sanitation and fire protection purposes. Discrimination is not allowed between water users using water for the same purpose or purposes.

The Urban Water Management Planning (UWMP) Act requires urban water suppliers to perform an urban water shortage contingency analysis that includes several elements (California Water Code §10632, contained in Appendix B). This Water Shortage Contingency Plan addresses each of the required elements in the urban water shortage contingency analysis.

## 2.0 MCSD WATER SUPPLY

The McKinleyville Community Services District has one source of water. The sole source of MCSD water is purchased from The Humboldt Bay Municipal Water District (HBMWD). The water delivered from the HBMWD to the MCSD is through a single transmission main under the Mad River. A waterline intertie with the City of Arcata water system under the Highway 101 bridge is maintained as an emergency connection. The City of Arcata also purchases water from HBMWD.

The water distributed by HBMWD is from Ruth Lake, which is located in Trinity County. The Mad River R.W. Matthews Dam, located at river mile 79, impounds water in Ruth Lake. The HBMWD manages releases from the dam to ensure sufficient supplies downstream throughout the year.

At HBMWD's Essex Operations Center located just northeast of Arcata, water is diverted and pumped to meet demand. Municipal water is pumped from an aquifer beneath the Mad River by four wells, called Ranney wells, situated within the riverbed at depths ranging from approximately 60 to 90 feet. Industrial water is diverted by a surface diversion facility.

HBMWD has appropriate water rights permits from the State Water Resources Control Board through the year 2029 for surface water storage and diversion. Diversion is accomplished in different ways for different uses as mentioned earlier.

HBMWD water rights permits allow it to store and divert a combined 75 million gallons a day (MGD) from the Mad River. This totals 84,000 Acre feet per year (AFY), which represents 8.5% of the average annual runoff (982,600 AFY) of the Mad River Basin for the period from 1963 to 2010 (average annual runoff data provided by USGS at Gage Station 1148100 on the Mad River near Arcata, CA).

The HBMWD operates Ruth Reservoir, a 48,000 acre foot reservoir about 79 miles east of the coastal areas. This reservoir impounds only about 3% of the watershed and fills at a very rapid rate in normal rainfall years. Approximately 11 MGD is delivered to the municipal/district customers and entitlement is limited by actions taken during water shortage emergencies. Of the delivered water, a peak flow rate of 2.8 MGD is committed to serve the MCSD customers.

The MCSD receives the water delivery at the North Bank Pump Station having a bank of three pumps. Standby disinfection is available at this site should the chlorine residual from delivered water drop below 0.2 parts per million. The District has two 1.5 Million gallons tanks, two 1.0 million gallon tanks, a 100,000 and 150,000 gallon tank and three booster stations throughout the distribution system.

### 3.0 MCSD WATER DEMAND

Based on 2013 data, the percent of sales volume by sector is indicated in the table below:

Sector	Demand Percent by Volume
Single family	67
Multi-family	18
Commercial	8
Industrial	
Institutional/governmental	
Landscape	
Other	6

Based on production and sales records, past, current and future water demand for the MCSD is approximately 520 million gallons of water a year to supply water to the McKinleyville CSD service area.

### 4.0 ESTIMATED MINIMUM WATER SUPPLY FOR THE NEXT THREE YEARS

According to the MCSD 2010 Urban Water Management Plan, the North Coast is one of the only areas in California with an abundance of water. Droughts, while severe climatically, have not resulted in the level of water supply shortfalls that other areas of California routinely experience. The drought of 1976/1977 was the only declared water emergency on the North Coast. During that event, Ruth Lake storage was 52% of normal average volume and rainfall in the Ruth Lake area was 42% of historical average. The drought came to an end with heavy rains during November 1977. Even during the only declared water emergency on the North Coast MCSD did not experience water supply restrictions. During this drought the MCSD supplies were sufficient to meet normal demand without restrictions.

The MCSD 2010 Urban Water Management Plan indicates that the driest three-year period was 1990, 1991, and 1992. During this period of time conditions requiring implementation of water shortage emergency did not exist, there were no restrictions on water supplied by the HBMWD and MCSD supplies were sufficient to meet normal demand without restrictions.

Based on the above historical information, MCSD projects that if the minimum water supply was available during each of the next three water years (based on the driest three-year historic sequence) there would be sufficient supply to meet normal demand without implementing water use restrictions.

## 5.0 CATASTROPHIC INTERRUPTION OF WATER SUPPLY

The California Safe Drinking Water Act mandates in Section 4029 that every public water system includes a Disaster Response Plan as part of their Emergency Notification Plan. This plan will outline the steps to be taken to maintain or return water service to the District's customers after a major disaster.

MCSD has prepared an Emergency Response Plan (ERP) dated December 19, 2011, which describes the actions the District will take during a catastrophic interruption of water supplies.

The water distribution system is susceptible to two types of emergency situations, earthquakes and contamination.

In the event of a major earthquake or groundwater contamination, a water shortage contingency plan would be implemented, which would include rationing of the water storage reservoirs. However, if an earthquake were substantial enough to damage the well casing, pumping system, distribution system, and reservoirs, the water supply would be decreased. In this case, another temporary water supply would need to be used including the Arcata intertie if Arcata is unaffected. Another option is to have water transported by truck from a nearby municipality.

## 6.0 STAGES OF ACTION FOR DEMAND REDUCTION

### 6.1 Rationing Stages and Demand Reduction Goals

MCSD's Water Shortage Contingency Plan consists of the following stages of rationing and demand reduction goals:

Stage	Demand Reduction Goals
Stage 1-Voluntary Conservation	20%
Stage 2-Mandatory Conservation	20-30%
Stage 3-Emergency Water Shortage	30-50%
Stage 4-Critical Water Shortage Emergency	>50%

The declaration of a specific stage of water shortage emergency will depend on several variables including:

- Statewide drought conditions;
- Local drought conditions;
- Allocation reductions from HBMWD; and
- State regulations, notices and orders.

Declaration of a Stage 4 water shortage emergency may also be triggered by a major catastrophic event that affects the ability of the District to meet anticipated demands. The decision regarding declaration of a specific Stage of water shortage emergency will

be based on conditions at the time, therefore the triggers are general to accommodate to a broad range of conditions.

## 6.2 Prohibitions on Water Use

During a Stage 1 water shortage voluntary water conservation is requested of all customers including the specific voluntary measures below:

- Use water efficient indoor devices.
- Use of hose-end shutoff nozzles on all garden and utility hoses.
- Refrain from washing cars, boats, trailers, or other vehicles except by hose with shutoff nozzle and bucket.
- Installation of low-flow shower heads, low-flush toilets, and faucet aerators.
- Promptly repair all leaks in plumbing fixtures, water lines, and sprinkler systems.

During a Stage 2 water shortage water use as indicated in the table below are nonessential and are restricted:

<p><del>Outdoor irrigation of ornamental landscapes or turf with potable water is prohibited on odd numbered calendar days. Unattended automatic watering of any lawn, garden, landscaped area, tree, shrub or other plant except between the hours of 12:00 A</del>Outdoor irrigation of ornamental landscapes or turf with potable water is only allowed on Sundays, Tuesdays, Thursdays and Saturdays. <del>M and 4:00 AM.</del></p>
<p>Washing sidewalks, driveways, parking areas, tennis courts, patios or other exterior paved areas except by public agency for the purpose of public safety.</p>
<p>Application of potable water to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures.</p>
<p>Use of potable water in a fountain or other decorative water feature, except where the water is part of a recirculation system.</p>
<p>Watering any portion of a golf course other than the tees and greens except where private well or recycled water supply is used.</p>
<p>Fire hydrant water unless authorized by the District, except by fire protection agencies for fire suppression purposes, or for other authorized uses including storm drain maintenance, and street sweeping purposes. Water/sewer flushing and fire flow testing are authorized only if coordinated and performed at the same time.</p>
<p>The use of a hose that dispenses potable water to wash a motor vehicle or for any other purpose, except where the hose is fitted with a shutoff nozzle or device attached to it that causes it to cease dispensing water immediately when not in use.</p>

During a Stage 3 water shortage emergency, in addition to the restricted water uses in earlier Stages, water uses indicated below are nonessential and are prohibited:

Outdoor irrigation is prohibited unless total water use is reduced by 50 % from the same billing period from the previous calendar year (prior to declaration of the most recent water shortage emergency).
Bulk water sales.
Any leaks that are not repaired within 24 hours after discovery.
Automated commercial car washes without a water recycling system.
Street cleaning or dust control with potable water.
Filling or to top off any swimming pools, outdoor spas, wading pools, and ornamental water features.
Use of water from a fire hydrant except for fighting fires and human consumption.
Watering any residential lawn, or any commercial or industrial area lawn maintained for aesthetic purposes, at any time of the day or night during the period of March 1, through September 30, when a Stage 3 is in progress.
Planting any new landscaping, except for designated drought resistant landscaping approved by the District.
Operating a hotel, motel or other commercial lodging establishment without offering patrons the option to forego the daily laundering of towels, sheets and linens.
Use of water for any outdoor washing purpose including commercial car washing, window washing, and paint preparation.
Washing of cars, boats, trailers, or other vehicles.

During a Stage 4 water shortage emergency, in addition to the restricted water uses in earlier stages, water uses indicated below are nonessential and are prohibited:

Agricultural irrigation.
Outdoor irrigation.
Any leaks that are not repaired immediately.

### 6.3 Violations of Water Use Restrictions

Fines and penalties and enforcement are established in Section 11 and Section 12 MCSD Ordinance 10 (Appendix C).

## 7.0 ANALYSIS OF REVENUE AND EXPENDITURES IMPACTS

During the implementation of the various water shortage emergency stages, there will be an impact on revenue and expenses for the District due to the anticipated demand reduction. The table below indicates the net impact on revenue given the various demand reduction scenarios. This is intended to be a general analysis of revenue impact and is based on the 2013-2014 annual budget.



2014-2015	FY 2014-2015	20%Volumetric Reduction	30%Volumetric Reduction	50%Volumetric Reduction
<b>Revenue</b>				
Annual Base Rate Revenue	\$ 1,005,194	\$ 1,005,194	\$ 1,005,194	\$ 1,005,194
Other Revenue	\$ 253,049	\$ 253,049	\$ 253,049	\$ 253,049
Annual Volumetric Revenue	\$ 1,928,230	\$ 1,542,584	\$ 1,349,761	\$ 964,115
<b>Total Annual Revenue</b>	<b>\$ 3,186,473</b>	<b>\$ 2,800,827</b>	<b>\$ 2,608,004</b>	<b>\$ 2,222,358</b>

Expenses	FY 2014-2015	20%Volumetric Reduction	30%Volumetric Reduction	50%Volumetric Reduction
Fixed Expenses (T&D and Admin)	\$ 813,518	\$ 813,518	\$ 813,518	\$ 813,518
Cost of Water	\$ 863,768	\$ 691,014	\$ 604,638	\$ 431,884
Power (3% of Total Expenses)	\$ 74,143	\$ 59,314	\$ 51,900	\$ 37,071
CIP Reserve	\$ 720,000	\$ 720,000	\$ 720,000	\$ 720,000
<b>Total Annual Expense</b>	<b>\$ 2,471,429</b>	<b>\$ 2,283,847</b>	<b>\$ 2,190,056</b>	<b>\$ 2,002,474</b>

<b>Excess</b>	<b>\$ 715,044</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
Anticipated Short Fall (12-months)	\$ -	\$ 198,064	\$ 297,096	\$ 495,160
Anticipated Short Fall (6-months)	\$ -	\$ 99,032	\$ 148,548	\$ 247,580
Anticipated Short Fall (3-months)	\$ -	\$ 49,516	\$ 74,274	\$ 123,790

The net impact on revenue depends on the stage of water shortage emergency and the duration of the water shortage event. The worst case scenario that is presented above is a 50% reduction in volumetric sales for a 12-month duration resulting in a \$495,160 shortfall. The more likely scenario is a 20% demand reduction for a three to six month duration resulting in a net reduction in revenue between \$49,516 and \$99,032.

The District has several options it can consider for handling the anticipated revenue impact including:

- Reduce funds allocated for the Capitol Improvements Funds (CIP) reserve, thereby reducing the CIP reserve fund and delaying implementation of CIP projects;
- During the next rate study develop a water shortage surcharge (rate structure) that automatically goes into effect upon declaration of a specific stage of water shortage emergency; or
- During the next rate study include the establishment of a water shortage emergency fund that will be available in the event of a water shortage emergency.

## 8.0 MONITORING PROCEDURES

During a declared water shortage emergency water production volumes will be reviewed monthly, including a calculation of Gallons Per Capita per Day (GPCD), and comparison to the same month of the year just prior to the declaration of a water shortage emergency.

## **9.0 WATER FEATURE INVENTORY**

The District will initiate a survey that will inventory water features, and determine if any water features use potable water without a recirculation system. This section of the contingency plan will be updated when this data becomes available prior to the submittal of the 2015 Urban Water Management Plan as required.

**APPENDIX E**  
**MCSD Ordinance 10**

**RESOLUTION 2015-09**

**A RESOLUTION OF THE MCKINLEYVILLE COMMUNITY SERVICES DISTRICT  
(MCSD) BOARD OF DIRECTORS APPROVING AMENDMENTS TO ORDINANCE  
NO. 10**

**WHEREAS**, On January 17, 2014, the Governor issued a proclamation of a state of emergency under the California Emergency Services Act based on drought conditions; and

**WHEREAS**, On April 25, 2014, the Governor issued a proclamation of a continued state of emergency under the California Emergency Services Act based on continued drought conditions; and

**WHEREAS**, The drought conditions that formed the basis of the Governor's emergency proclamations continue to exist; and

**WHEREAS**, The present year is critically dry and has been immediately preceded by two or more consecutive below normal, dry, or critically dry years; and

**WHEREAS**, The drought conditions will likely continue for the foreseeable future and additional action by both the State Water Resources Control Board and local water suppliers will likely be necessary to further promote conservation; and

**NOW, THEREFORE, BE IT RESOLVED** that the McKinleyville Community Services District

1. MCSD Ordinance No. 10 is hereby amended and is attached to this Resolution as Exhibit "A"; and
2. Staff is directed to implement and enforce Ordinance No. 10, as amended by this Resolution, immediately upon adoption.

**ADOPTED, SIGNED AND APPROVED** at a duly called meeting of the Board of Directors of the McKinleyville Community Services District on April 1, 2015 by the following polled vote:

AYES: Couch, Mayo, Wheeler and Corbett

NOES: None

ABSENT: Edwards

ABSTAIN: None

  
\_\_\_\_\_  
John Corbett, Board President

Attest:

  
\_\_\_\_\_  
Becky Schuette, Board Secretary

ORDINANCE NO. 10

**AN ORDINANCE ESTABLISHING RULES AND REGULATIONS FOR RATIONING  
WATER DURING A WATER SHORTAGE EMERGENCY AND ESTABLISHING  
PENALTIES FOR VIOLATIONS THEREOF**

**WHEREAS**, Article X, Section 2 of the California Constitution declares that waters of the State are to be put to beneficial use, that waste, unreasonable use, or unreasonable method of use of water be prevented, and that water be conserved for the public welfare; and

**WHEREAS**, conservation of current water supplies and minimization of the effects of water supply shortages that are the result of drought are essential to the public health, safety and welfare; and

**WHEREAS**, regulation of the day or time of certain water use, manner of certain water use, design of rates, method of application of water for certain uses, installation and use of water-saving devices, provide an effective and immediately available means of conserving water; and

**WHEREAS**, California Government Code section 61100, subdivision (a) incorporates Water Code sections 71000 et seq., including section 71640, into the Community Service District Law; and

**WHEREAS**, California Water Code section 71610.5 authorizes the District to undertake a water conservation program to reduce water use and may require, as a condition of new service, that reasonable water-saving devices and water reclamation devices be installed to reduce water use; and

**WHEREAS**, pursuant to Water Code section 71640, municipal water districts may restrict the use of district water during a drought emergency or other water shortage condition and may prohibit the wastage of district water or the nonessential use of district water during such periods for any purpose other than household uses or other restricted uses as the District determines to be necessary; and

**WHEREAS**, pursuant to Water Code section 71641 and Government Code section 6061, the District must publish in a newspaper of general circulation any ordinance setting forth the restrictions, prohibitions, and exclusions determined to be necessary under Water Code section 71640 within 10 days after its adoption, even though the ordinance is effective upon adoption; and



**WHEREAS**, Water Code section 71644 establishes that, from the publication of an ordinance pursuant to section 71641 until the repeal of the ordinance or end of the emergency, it is a misdemeanor punishable by up to 30 days in county jail and/or a fine of up to \$600 for any person to use or apply water from the District contrary to or in violation of any restriction or prohibition; and

**WHEREAS**, the adoption and enforcement of a comprehensive water conservation program will allow the District to delay or avoid implementing measures such as water rationing or more restrictive water use regulations pursuant to a declared water shortage emergency as authorized by California Water Code sections 350 et seq.

**BE IT ORDAINED BY the Board of Directors of the McKinleyville Community Services District as follows:**

**Section 1. Declaration of Water Shortage Emergency.**

This ordinance is effective immediately upon adoption. The provisions of this chapter shall take effect whenever the District General Manager, upon engineering analysis of District water supplies, information received from the wholesale water provider, Humboldt Bay Municipal Water District (HBMWD), or due to regulatory requirements, notices, or orders, finds and determines that a water shortage emergency exists or is imminent within the MCSD water service area and a declaration of a water shortage is made by a resolution of the MCSD Board of Directors, and they shall remain in effect for the duration of the water shortage set forth in the resolution.

**Section 2. Publication.**

Within ten (10) days of adoption the District will publish in a newspaper of general circulation this ordinance setting forth the restrictions, prohibitions, and exclusions determined by the District to be necessary.

**Section 3. Definitions.**

For the purpose of this Ordinance the following terms, phrases, words, and their derivations shall have the meaning given herein. When not inconsistent with the context, words used in the present tense include the future; words in the plural number include the singular number. The word "shall" is always mandatory and not merely directory.

- a. "District" is McKinleyville Community Services District.
- b. "Board of Directors" is the elected Board of Directors of the McKinleyville Community Services District.
- c. "Customer" is any person using water supplied by the McKinleyville Community Services District.
- d. "Manager" is the General Manager of the McKinleyville Community Services District.
- e. "Person" is any person, firm, partnership, association, corporation, company, or organization of any kind.
- f. "Water" is water from the McKinleyville Community Services District.
- g. "Outdoor surface" is any patio, porch, veranda, driveway, or sidewalk.

**Section 4. Application.**

The provisions of this Ordinance shall apply to all customers using water both in and outside the McKinleyville Community Services District, regardless of whether any customer using water shall have a contract for water service with the McKinleyville Community Services District.

**Section 5. Determination of Stage of Action Necessary.**

This ordinance establishes regulations to be implemented during times of declared water shortages, or declared water shortage emergencies. It establishes four levels of response actions to be implemented in times of shortage, as set forth in Section 7, below, with increasing restrictions on water use in response to worsening drought conditions or decreasing available supplies. The MCSD Board of Directors, upon recommendation by the Manager, shall determine and declare by resolution the stage of response action necessary. Notice of such determination shall be published in a newspaper of general circulation and shall be effective within five (5) days from the date the declaration is made.

**Section 6. Waste of Water Prohibited**

No water furnished by the District shall be wasted. Waste of water includes, but is not limited to, the following:

- a. Permitting water to escape (run to waste) down a gutter, ditch, surface drain, or otherwise;
- b. Failure to repair a controllable leak of water; and
- c. Failure to put to reasonable beneficial use any water withdrawn from the District's system.

**Section 7. Prohibition of Non-Essential Use of Water**

No water furnished by the District shall be used for any purpose declared to be non-essential by this Ordinance for the following stages of action as determined by the Board of Directors after considering specific triggers consistent with the Water Shortage Contingency Plan for the MCSD Service Area.

**Stage 1 - Voluntary Conservation (up to 20% reduction).** Achieve up to 20% reduction in water usage compared to the corresponding billing period in the previous calendar year (prior to declaration of the most recent water shortage emergency) by encouraging voluntary conservation, enforcement of water wasting regulations and water conservation regulations, requesting customers to make conscious efforts to conserve water, request restaurants to serve water only upon request, encourage private sector to use alternate source and encourage night irrigation. Voluntary actions include:

Water conservation is requested of all customers.
Installation and use of water efficient indoor devices.
Use of hose-end shutoff nozzles on all garden and utility hoses.



Refrain from washing cars, boats, trailers, or other vehicles except by hose with shutoff nozzle and bucket.
Installation of low-flow shower heads, low flush water closets, and faucet aerators.
Promptly repair all leaks in plumbing fixtures, water lines, and sprinkler systems.

**Stage 2 - Mandatory Conservation (up to 30% reduction)**

d. From and after the date that the Board of Directors, by resolution, determines that Stage 2, Mandatory Conservation actions are to be implemented, in addition to the voluntary action is Stage 1, the following uses are declared to be non-essential:

<u>Outdoor irrigation of ornamental landscapes or turf with potable water is only allowed on Sundays, Tuesdays, Thursdays and Saturdays.</u>
Washing sidewalks, driveways, parking areas, tennis courts, patios or other exterior paved areas except by public agency for the purpose of public safety.
Application of potable water to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures.
Use of potable water in a fountain or other decorative water feature, except where the water is part of a recirculation system.
Watering any portion of a golf course other than the tees and greens except where private well or recycled water supply is used.
Fire hydrant water unless authorized by the District, except by fire protection agencies for fire suppression purposes, or for other authorized uses including storm drain maintenance, and street sweeping purposes. Water/sewer flushing and fire flow testing are authorized only if coordinated and performed at the same time.
The use of a hose that dispenses potable water to wash a motor vehicle or for any other purpose, except where the hose is fitted with a shutoff nozzle or device attached to it that causes it to cease dispensing water immediately when not in use.

**Stage 3 – Emergency Water Shortage (up to 50% reduction)**

e. From and after the date that the Board of Directors, by resolution, determines that Stage 3, Emergency Water Shortage actions are to be implemented, the following additional uses are declared to be non-essential:

Outdoor irrigation is prohibited unless total water use is reduced by 50 % from the same billing period from the previous calendar year (prior to declaration of the most recent water shortage emergency).
Any leak that are not repaired within 24 hours after discovery.
Automated commercial car washes without a water recycling system.



Street cleaning or dust control with potable water.
Filling or to top off any swimming pools, outdoor spas, wading pools, and ornamental water features.
Use of water from a fire hydrant except for fighting fires and human consumption.
Watering any residential lawn, or any commercial or industrial area lawn maintained for aesthetic purposes, at any time of the day or night during the period of March 1, through September 30, when a Stage 3 is in progress.
Planting any new landscaping, except for designated drought resistant landscaping approved by the District.
Operating a hotel, motel or other commercial lodging establishment without offering patrons the option to forego the daily laundering of towels, sheets and linens.
Use of water for any outdoor washing purpose including commercial car washing, window washing, and paint preparation.
Washing of cars, boats, trailers, or other vehicles.

**Stage 4 – Critical Water Shortage Emergency Mandatory Rationing (> 50% reduction)**

f. From and after the date that the Board of Directors, by resolution, determines that Stage 4, Critical Water Shortage Emergency actions are to be implemented, the following additional uses are declared to be non-essential:

Agricultural irrigation.
Outdoor irrigation.
Any leaks that are not repaired immediately.
Bulk water sales.

g. The percentages stipulated in Stage 2 and Stage 3 may be increased by the General Manager for any class of customer if the General Manager determines that such increase is necessary to protect the public health, safety and welfare or to spread equitably among the water users of the District the burdens imposed by the drought and the shortage in the District's water supply.

**Section 8. Variances**

Applications for a variance from the provisions of Section 7 of this Ordinance may be made to the General Manager. The General Manager may grant a variance to permit a use of water otherwise prohibited by Section 7 if the General Manager determines that the variance is reasonably necessary to protect the public health and safety and/or economic viability of commercial operation. Any decision of the General Manager under this section may be appealed to the Board of Directors.

**Section 9. Suspension of New Connections to the District's Water System**

a. From the date the Board of Directors, by resolution, determines that Stage 2 (Moderate Mandatory) or Stage 3, (Severe Mandatory) Stage 4, (Rationing), actions are to be implemented, until, the Board of Directors by resolution declares that the water shortage has ended, which period is hereinafter referred to as the suspension period, the General Manager may prohibit new or enlarged connections to the District's water system except the following:

(1) connection pursuant to the terms of connection agreements which prior to the date Stage 2, or Stage 3 are implemented, had been executed or had been authorized by the Board of Directors to be executed;

(2) connections of fire hydrants;

(3) connections of property previously supplied with water from a well which runs dry.

(4) connection of property for which the Applicant agrees to defer landscape installation until after the suspension period.

(5) Recycled Water connections.

b. During the suspension period applications for water service will be processed only if the Applicant acknowledges in writing that such processing shall be at the risk and expense of the Applicant and that if the application is approved in accordance with the District's regulations, such approval shall confer no right upon the Applicant or anyone else until the suspension period has expired, and that the Applicant releases the District from all claims of damage arising out of or in any manner connected with the suspension of connections.

c. Upon the expiration of the suspension period, the District will make connections to its water system in accordance with its regulations and the terms of connection agreements for all said applications approved during the suspension period. The water supply then available to the District will be apportioned equitably among all the customers then being served by the District without discrimination against services approved during the suspension period.

d. Nothing herein shall prohibit or restrict any modification, relocation or replacement of a connection to the District's system if the General Manager determines that the demand upon the District's water supply will not be increased thereby.

#### **Section 10. Limits on Individual Consumption.**

Manager may limit the amount of water delivered to customers, whenever the Manager determines the water available to the McKinleyville Community Services District is insufficient to meet the demands of customers of the District and that all water available to said District should be used solely for human consumption, sanitation and fire protection, he may order limits be imposed on individual consumption as determined and specified by resolution of the Board of Directors including penalties in addition to those specified in Section 11 of this Ordinance.



a. While this Ordinance is in effect, no additional water use by a customer, shall be permitted unless the Manager determines that the health, safety, or welfare of the public might be endangered.

### **Section 11. Fines and Penalties.**

Except as otherwise provided herein, violations of any provision of this Ordinance shall be punished as follows:

- a. An administrative fine of up to \$500.00 may be levied for each violation of a provision of this ordinance in accordance with Water Code Section 71590.
- b. Each violation of this ordinance may be prosecuted as a misdemeanor punishable by imprisonment in the county jail for not more than thirty (30) days or by a fine not exceeding \$600, or both as provided in Water Code Section 71644. The manager shall forthwith direct and cause disconnection of the water service of any person or customer cited for a misdemeanor under this section. Such service shall be restored only upon payment of any turn-on charge fixed by the Board of Directors.
- c. Each day any violation of this Ordinance is committed or permitted to continue shall constitute a separate offense and shall be punishable as such hereunder.

### **Section 12. Enforcement.**

The Manager and all employees of the McKinleyville Community Services District have the duty and are authorized to enforce the provisions of this Ordinance and shall have all the powers and authority contained in California Penal Code Section 836.5, including the power to issue written notice of violation.

### **Section 13. Signs on Land Supplied from Private Wells or Recycled Water.**

The owner or occupant of any land within the MCSD water service area that is supplied with water from a private well or with recycled water shall post and maintain in a conspicuous place thereon a sign furnished by the District at cost giving public notice of such supply.

ORDINANCE NO. 10

**AN ORDINANCE ESTABLISHING RULES AND REGULATIONS FOR RATIONING  
WATER DURING A WATER SHORTAGE EMERGENCY AND ESTABLISHING  
PENALTIES FOR VIOLATIONS THEREOF**

**WHEREAS**, Article X, Section 2 of the California Constitution declares that waters of the State are to be put to beneficial use, that waste, unreasonable use, or unreasonable method of use of water be prevented, and that water be conserved for the public welfare; and

**WHEREAS**, conservation of current water supplies and minimization of the effects of water supply shortages that are the result of drought are essential to the public health, safety and welfare; and

**WHEREAS**, regulation of the day or time of certain water use, manner of certain water use, design of rates, method of application of water for certain uses, installation and use of water-saving devices, provide an effective and immediately available means of conserving water; and

**WHEREAS**, California Government Code section 61100, subdivision (a) incorporates Water Code sections 71000 et seq., including section 71640, into the Community Service District Law; and

**WHEREAS**, California Water Code section 71610.5 authorizes the District to undertake a water conservation program to reduce water use and may require, as a condition of new service, that reasonable water-saving devices and water reclamation devices be installed to reduce water use; and

**WHEREAS**, pursuant to Water Code section 71640, municipal water districts may restrict the use of district water during a drought emergency or other water shortage condition and may prohibit the wastage of district water or the nonessential use of district water during such periods for any purpose other than household uses or other restricted uses as the District determines to be necessary; and

**WHEREAS**, pursuant to Water Code section 71641 and Government Code section 6061, the District must publish in a newspaper of general circulation any ordinance setting forth the restrictions, prohibitions, and exclusions determined to be necessary under Water Code section 71640 within 10 days after its adoption, even though the ordinance is effective upon adoption; and

**WHEREAS**, Water Code section 71644 establishes that, from the publication of an ordinance pursuant to section 71641 until the repeal of the ordinance or end of the emergency, it is a misdemeanor punishable by up to 30 days in county jail and/or a fine of up to \$600 for any person to use or apply water from the District contrary to or in violation of any restriction or prohibition; and

**WHEREAS**, the adoption and enforcement of a comprehensive water conservation program will allow the District to delay or avoid implementing measures such as water rationing or more restrictive water use regulations pursuant to a declared water shortage emergency as authorized by California Water Code sections 350 et seq.

**BE IT ORDAINED BY the Board of Directors of the McKinleyville Community Services District as follows:**

**Section 1. Declaration of Water Shortage Emergency.**

This ordinance is effective immediately upon adoption. The provisions of this chapter shall take effect whenever the District General Manager, upon engineering analysis of District water supplies, information received from the wholesale water provider, Humboldt Bay Municipal Water District (HBMWD), or due to regulatory requirements, notices, or orders, finds and determines that a water shortage emergency exists or is imminent within the MCSD water service area and a declaration of a water shortage is made by a resolution of the MCSD Board of Directors, and they shall remain in effect for the duration of the water shortage set forth in the resolution.

**Section 2. Publication.**

Within ten (10) days of adoption the District will publish in a newspaper of general circulation this ordinance setting forth the restrictions, prohibitions, and exclusions determined by the District to be necessary.

**Section 3. Definitions.**

For the purpose of this Ordinance the following terms, phrases, words, and their derivations shall have the meaning given herein. When not inconsistent with the context, words used in the present tense include the future; words in the plural number include the singular number. The word "shall" is always mandatory and not merely directory.

- a. "District" is McKinleyville Community Services District.
- b. "Board of Directors" is the elected Board of Directors of the McKinleyville Community Services District.
- c. "Customer" is any person using water supplied by the McKinleyville Community Services District.
- d. "Manager" is the General Manager of the McKinleyville Community Services District.
- e. "Person" is any person, firm, partnership, association, corporation, company, or organization of any kind.
- f. "Water" is water from the McKinleyville Community Services District.
- g. "Outdoor surface" is any patio, porch, veranda, driveway, or sidewalk.

**Section 4. Application.**

The provisions of this Ordinance shall apply to all customers using water both in and outside the McKinleyville Community Services District, regardless of whether any customer using water shall have a contract for water service with the McKinleyville Community Services District.

**Section 5. Determination of Stage of Action Necessary.**

This ordinance establishes regulations to be implemented during times of declared water shortages, or declared water shortage emergencies. It establishes four levels of response actions to be implemented in times of shortage, as set forth in Section 7, below, with increasing restrictions on water use in response to worsening drought conditions or decreasing available supplies. The MCSD Board of Directors, upon recommendation by the Manager, shall determine and declare by resolution the stage of response action necessary. Notice of such determination shall be published in a newspaper of general circulation and shall be effective within five (5) days from the date the declaration is made.

**Section 6. Waste of Water Prohibited**

No water furnished by the District shall be wasted. Waste of water includes, but is not limited to, the following:

- a. Permitting water to escape (run to waste) down a gutter, ditch, surface drain, or otherwise;
- b. Failure to repair a controllable leak of water; and
- c. Failure to put to reasonable beneficial use any water withdrawn from the District's system.

**Section 7. Prohibition of Non-Essential Use of Water**

No water furnished by the District shall be used for any purpose declared to be non-essential by this Ordinance for the following stages of action as determined by the Board of Directors after considering specific triggers consistent with the Water Shortage Contingency Plan for the MCSD Service Area.

**Stage 1 - Voluntary Conservation (up to 20% reduction).** Achieve up to 20% reduction in water usage compared to the corresponding billing period in the previous calendar year (prior to declaration of the most recent water shortage emergency) by encouraging voluntary conservation, enforcement of water wasting regulations and water conservation regulations, requesting customers to make conscious efforts to conserve water, request restaurants to serve water only upon request, encourage private sector to use alternate source and encourage night irrigation. Voluntary actions include:

Water conservation is requested of all customers.
Installation and use of water efficient indoor devices.
Use of hose-end shutoff nozzles on all garden and utility hoses.

Refrain from washing cars, boats, trailers, or other vehicles except by hose with shutoff nozzle and bucket.
Installation of low-flow shower heads, low flush water closets, and faucet aerators.
Promptly repair all leaks in plumbing fixtures, water lines, and sprinkler systems.

## **Stage 2 - Mandatory Conservation (up to 30% reduction)**

d. From and after the date that the Board of Directors, by resolution, determines that Stage 2, Mandatory Conservation actions are to be implemented, in addition to the voluntary action is Stage 1, the following uses are declared to be non-essential:

<u>Outdoor irrigation of ornamental landscapes or turf with potable water is only allowed on Sundays, Tuesdays, Thursdays and Saturdays.</u>
Washing sidewalks, driveways, parking areas, tennis courts, patios or other exterior paved areas except by public agency for the purpose of public safety.
Application of potable water to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures.
Use of potable water in a fountain or other decorative water feature, except where the water is part of a recirculation system.
Watering any portion of a golf course other than the tees and greens except where private well or recycled water supply is used.
Fire hydrant water unless authorized by the District, except by fire protection agencies for fire suppression purposes, or for other authorized uses including storm drain maintenance, and street sweeping purposes. Water/sewer flushing and fire flow testing are authorized only if coordinated and performed at the same time.
The use of a hose that dispenses potable water to wash a motor vehicle or for any other purpose, except where the hose is fitted with a shutoff nozzle or device attached to it that causes it to cease dispensing water immediately when not in use.

## **Stage 3 – Emergency Water Shortage (up to 50% reduction)**

e. From and after the date that the Board of Directors, by resolution, determines that Stage 3, Emergency Water Shortage actions are to be implemented, the following additional uses are declared to be non-essential:

Outdoor irrigation is prohibited unless total water use is reduced by 50 % from the same billing period from the previous calendar year (prior to declaration of the most recent water shortage emergency).
Any leak that are not repaired within 24 hours after discovery.
Automated commercial car washes without a water recycling system.

Street cleaning or dust control with potable water.
Filling or to top off any swimming pools, outdoor spas, wading pools, and ornamental water features.
Use of water from a fire hydrant except for fighting fires and human consumption.
Watering any residential lawn, or any commercial or industrial area lawn maintained for aesthetic purposes, at any time of the day or night during the period of March 1, through September 30, when a Stage 3 is in progress.
Planting any new landscaping, except for designated drought resistant landscaping approved by the District.
Operating a hotel, motel or other commercial lodging establishment without offering patrons the option to forego the daily laundering of towels, sheets and linens.
Use of water for any outdoor washing purpose including commercial car washing, window washing, and paint preparation.
Washing of cars, boats, trailers, or other vehicles.

#### **Stage 4 – Critical Water Shortage Emergency Mandatory Rationing (> 50% reduction)**

f. From and after the date that the Board of Directors, by resolution, determines that Stage 4, Critical Water Shortage Emergency actions are to be implemented, the following additional uses are declared to be non-essential:

Agricultural irrigation.
Outdoor irrigation.
Any leaks that are not repaired immediately.
Bulk water sales.

g. The percentages stipulated in Stage 2 and Stage 3 may be increased by the General Manager for any class of customer if the General Manager determines that such increase is necessary to protect the public health, safety and welfare or to spread equitably among the water users of the District the burdens imposed by the drought and the shortage in the District's water supply.

#### **Section 8. Variances**

Applications for a variance from the provisions of Section 7 of this Ordinance may be made to the General Manager. The General Manager may grant a variance to permit a use of water otherwise prohibited by Section 7 if the General Manager determines that the variance is reasonably necessary to protect the public health and safety and/or economic viability of commercial operation. Any decision of the General Manager under this section may be appealed to the Board of Directors.

#### **Section 9. Suspension of New Connections to the District's Water System**



a. From the date the Board of Directors, by resolution, determines that Stage 2 (Moderate Mandatory) or Stage 3, (Severe Mandatory) Stage 4, (Rationing), actions are to be implemented, until, the Board of Directors by resolution declares that the water shortage has ended, which period is hereinafter referred to as the suspension period, the General Manager may prohibit new or enlarged connections to the District's water system except the following:

- (1) connection pursuant to the terms of connection agreements which prior to the date Stage 2, or Stage 3 are implemented, had been executed or had been authorized by the Board of Directors to be executed;
- (2) connections of fire hydrants;
- (3) connections of property previously supplied with water from a well which runs dry.
- (4) connection of property for which the Applicant agrees to defer landscape installation until after the suspension period.
- (5) Recycled Water connections.

b. During the suspension period applications for water service will be processed only if the Applicant acknowledges in writing that such processing shall be at the risk and expense of the Applicant and that if the application is approved in accordance with the District's regulations, such approval shall confer no right upon the Applicant or anyone else until the suspension period has expired, and that the Applicant releases the District from all claims of damage arising out of or in any manner connected with the suspension of connections.

c. Upon the expiration of the suspension period, the District will make connections to its water system in accordance with its regulations and the terms of connection agreements for all said applications approved during the suspension period. The water supply then available to the District will be apportioned equitably among all the customers then being served by the District without discrimination against services approved during the suspension period.

d. Nothing herein shall prohibit or restrict any modification, relocation or replacement of a connection to the District's system if the General Manager determines that the demand upon the District's water supply will not be increased thereby.

#### **Section 10. Limits on Individual Consumption.**

Manager may limit the amount of water delivered to customers, whenever the Manager determines the water available to the McKinleyville Community Services District is insufficient to meet the demands of customers of the District and that all water available to said District should be used solely for human consumption, sanitation and fire protection, he may order limits be imposed on individual consumption as determined and specified by resolution of the Board of Directors including penalties in addition to those specified in Section 11 of this Ordinance.

a. While this Ordinance is in effect, no additional water use by a customer, shall be permitted unless the Manager determines that the health, safety, or welfare of the public might be endangered.

### **Section 11. Fines and Penalties.**

Except as otherwise provided herein, violations of any provision of this Ordinance shall be punished as follows:

- a. An administrative fine of up to \$500.00 may be levied for each violation of a provision of this ordinance in accordance with Water Code Section 71590.
- b. Each violation of this ordinance may be prosecuted as a misdemeanor punishable by imprisonment in the county jail for not more than thirty (30) days or by a fine not exceeding \$600, or both as provided in Water Code Section 71644. The manager shall forthwith direct and cause disconnection of the water service of any person or customer cited for a misdemeanor under this section. Such service shall be restored only upon payment of any turn-on charge fixed by the Board of Directors.
- c. Each day any violation of this Ordinance is committed or permitted to continue shall constitute a separate offense and shall be punishable as such hereunder.

### **Section 12. Enforcement.**

The Manager and all employees of the McKinleyville Community Services District have the duty and are authorized to enforce the provisions of this Ordinance and shall have all the powers and authority contained in California Penal Code Section 836.5, including the power to issue written notice of violation.

### **Section 13. Signs on Land Supplied from Private Wells or Recycled Water.**

The owner or occupant of any land within the MCSD water service area that is supplied with water from a private well or with recycled water shall post and maintain in a conspicuous place thereon a sign furnished by the District at cost giving public notice of such supply.

## **APPENDIX F**

### **Notices for Public Hearing and Agency Notifications**

**PHYSICAL ADDRESS:**

1656 SUTTER ROAD  
McKINLEYVILLE, CA 95519

**MAILING ADDRESS:**

P.O. BOX 2037  
McKINLEYVILLE, CA 95519



**MAIN OFFICE:**

PHONE: (707) 839-3251  
FAX: (707) 839-8456

**PARKS & RECREATION OFFICE:**

PHONE: (707) 839-9003  
FAX: (707) 839-5964

DATE March 29, 2016

TO: Paul Helliker, Humboldt Bay Municipal Water District  
Robert Wall, Interim Humboldt County Planning and Building Director  
Karen Diemer, City of Arcata Manager  
Brian Gerving, City of Eureka  
Vicky Hutton and John Berchtold, City of Blue Lake  
Rebecca Crow and Rick Hanger, Fieldbrook-Glendale CSD  
Chris Drop, Manila CSD

McKinleyville Community Services District

Notice of Public Hearing

The McKinleyville Community Services District (MCSD) will hold a public hearing on June 1, 2016 at 7:00PM at Azalea Hall, 1620 Pickett Road, McKinleyville CA. The purpose of the hearing is to invite and accept public input on the draft 2015 Urban Water Management Plan. The draft UWMP Plan will be available for public review at the District Office at 1656 Sutter Road, McKinleyville or available on-line at [www.mckinleyvillecsd.com](http://www.mckinleyvillecsd.com). Please direct comments or questions to Gregory Orsini, General Manager, 1656 Sutter Road, McKinleyville, CA 95519. (707) 839-3251/fax (707) 839-8456.

If you have any questions, please feel free to call me at (707) 839-3251

Sincerely,

Jason Patton  
McKinleyville CSD

DATE March 7, 2016

TO: Paul Helliker, Humboldt Bay Municipal Water District  
Kevin R. Hamblin, Humboldt County Planning and Building Director  
Karen Diemer, City of Arcata Manager  
McKinleyville Community Services District

Re: Notice Regarding Review of the McKinleyville Community Services District Urban Water Management Plan

California Water Code (CWC) 10621(b) requires an urban water supplier preparing an Urban Water Management Plan (UWMP) to notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. CWC further requires each urban water supplier to coordinate the preparation of its UWMP with other appropriate area agencies including other water suppliers that share the same water sources, water management agencies, and other relevant public agencies.

This letter is the MCSD notice to your agency that the MCSD is in the process of reviewing and updating its UWMP. As with the 2010 UWMP, the McKinleyville Community Services District is reviewing and updating its 2015 UWMP in collaboration with Humboldt Bay Municipal Water District, the City of Arcata, the City of Eureka, and the Humboldt Community Services District. If your agency would like to provide input or be involved in the review process you are encouraged to contact myself or any of the above named agencies to coordinate your participation.

If you have any questions please feel free to call me at (707) 839-3251

Sincerely,

Jason Patton  
McKinleyville CSD

**PHYSICAL ADDRESS:**

1656 SUTTER ROAD  
McKINLEYVILLE, CA 95519

**MAILING ADDRESS:**

P.O. BOX 2037  
McKINLEYVILLE, CA 95519



**MAIN OFFICE:**

PHONE: (707) 839-3251  
FAX: (707) 839-8456

**PARKS & RECREATION OFFICE:**

PHONE: (707) 839-9003  
FAX: (707) 839-5964

DATE January 25, 2016

TO: Paul Helliker, Humboldt Bay Municipal Water District  
Robert Wall, Humboldt County Planning and Building Director

Re: Notice Regarding Review of the McKinleyville Community Services District Urban Water Management Plan

California Water Code (CWC) 10621(b) requires an urban water supplier preparing an Urban Water Management Plan (UWMP) to notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. CWC further requires each urban water supplier to coordinate the preparation of its UWMP with other appropriate area agencies including other water suppliers that share the same water sources, water management agencies, and other relevant public agencies.

This letter is the MCSD notice to your agency that the MCSD is in the process of reviewing and updating its UWMP. As with the 2010 UWMP, the McKinleyville Community Services District is reviewing and updating its 2015 UWMP in collaboration with Humboldt Bay Municipal Water District, the City of Arcata, the City of Eureka, and the Humboldt Community Services District. If your agency would like to provide input or be involved in the review process you are encouraged to contact myself or any of the above named agencies to coordinate your participation.

If you have any questions please feel free to call me at (707) 839-3251

Sincerely,

Jason Patton  
McKinleyville Community Services District

# McKinleyville Community Services District

## BOARD OF DIRECTORS

April 6, 2016

TYPE OF ITEM: **ACTION**

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**ITEM: E.3**                      **Consider Local Agency Formation Commission (LAFCo)  
Election for Special District Representative**

**PRESENTED BY:**            **Becky Schuette, Board Secretary**

**TYPE OF ACTION:**        **Roll Call Vote**

### **Recommendation:**

Staff recommends the Board review the information and list of nominees, take public comment and place one (1) vote for the nominee of your choice for Special District representation to serve as a regular “voting” member on the Humboldt Local Agency Formation Commission (LAFCo).

### **Discussion:**

The Humboldt LAFCo is composed of five regular commissioners: two county supervisorial members, two city council members, two Special District members, and one public member. Commission members serve four year terms. There is also one alternate member for each of the four classifications. The Commission employs its own staff, an Executive Officer and Administrator.

Local Agency Formation Commissions, known as LAFCo’s, were created in each county by the California State Legislature in 1963 with regulatory and planning responsibilities to coordinate the timely development of local governmental agencies and their services while protecting agricultural and open-space resources. Most notably, this includes managing local government boundary changes by approving or disapproving proposals involving the formation, expansion, or dissolution of cities and Special Districts.

Special Districts serve important roles in California given that they are responsible for providing a range of municipal services such as water, sewer or fire - within particular areas, such as unincorporated communities. Special Districts fall into two categories, independent and dependent. Independent Special Districts have a board of directors elected by the voters that reside within their boundaries. Dependent Special Districts have a board of directors appointed by other local agencies or whose board members are the board of supervisors or city council.

The Humboldt LAFCo facilitates changes in local governmental structure and boundaries that foster orderly growth and development, promote the efficient delivery of services, and encourage the preservation of open space and agricultural lands.

Requests for nominations were mailed out on December 28, 2015 and at the February 3, 2016 Board Meeting, Bruce Rupp was the MCSD nominee.

Humboldt LAFCo is providing ballots for Special Districts to vote for ONE (1) candidate to fill one (1) expiring term. Staff recommends voting the Board's choice for the Special District representation to serve as a regular "voting" member on the Humboldt Local Agency Formation Commission.

Completed ballots must be returned to the Humboldt LAFCo Office no later than May 6, 2016 at 5:00 pm.

**Alternatives:**

Staff analysis consists of the following potential alternative

- Take No Action

**Fiscal Analysis:**

Not applicable

**Environmental Requirements:**

Not applicable

**Exhibits/Attachments:**

- Attachment 1 – LAFCo Independent Special District Election Memo
- Attachment 2 – Official Ballot
- Attachment 3 – Letter from candidate Debra Lake





# HUMBOLDT

*Local Agency Formation Commission*

1125 16<sup>th</sup> Street, Suite 202, Arcata, CA 95521  
(707) 445-7508 / (707) 825-9181 fax  
[www.humboldtlafo.org](http://www.humboldtlafo.org)

Attachment 1  
RECEIVED

MAR - 9 2016

McK. C.S.D.

Date: March 8, 2016  
To: Board of Directors of Independent Special Districts  
From: George Williamson, Executive Officer  
**Subject: OFFICIAL BALLOT – Independent Special District Election**

The term of office for one of the special district members on LAFCo, currently held by Bruce Rupp of the Humboldt Bay Municipal Water District, expires on June 30, 2016.

The basic process for selecting special district members to LAFCo is set forth in Government Code Section 56332. This provides for a meeting to be convened among representatives from each of the 48 independent special districts in Humboldt County, unless the Executive Officer determines that a meeting is not feasible. Based on Government Code Section 56332, it has been determined that a meeting of this "Independent Special District Selection Committee" for the purpose of selecting a special district member is not feasible due to the likelihood that a quorum would not be achieved. As such, both the nominating process and the election itself will be conducted by mail on behalf of the Independent Special District Selection Committee by the LAFCo Executive Officer.

Previously, a request for nominations was sent on December 18, 2015, which provided for the opportunity for independent special district boards to nominate candidates to fill the special district member vacancy. The nomination period ended on February 19, 2016, with two (2) nominations received by the deadline.

Enclosed is an official ballot to elect one candidate to serve as a regular special district member on LAFCo with a term beginning on July 1, 2016 and expiring June 30, 2020.

Please mark selection directly onto the ballot, voting for no more than one (1) candidate. **Ballots must be returned to Humboldt LAFCo, 1125 16<sup>th</sup> Street, Suite 202, Arcata, CA 95521 on or before May 6, 2016 at 5:00 p.m.**

Your district is encouraged to participate in this election process. For an election to be valid, at least a quorum of the special districts must submit valid ballots. The candidate receiving the most votes shall be deemed elected. Any nomination and ballot received by the Executive Officer after the date specified is invalid, provided, however, that if a quorum of ballots is not received by that date, the Executive Officer shall extend the date to submit ballots by 60 days and notify all districts of the extension.

An election schedule with information about the counting of ballots and successful candidate notification is enclosed.

If you have any questions, please contact LAFCo staff at 707-445-7508.

## Election Schedule

LAFCo call for nominations letter mailed via certified mail	Friday, December 18, 2015
Nominations due to LAFCo	By 5:00 p.m., Friday, February 19, 2016
Ballots mailed from LAFCo via certified mail	Tuesday, March 8, 2016
Election Day – Ballots due to LAFCo	By 5:00 p.m., Friday, May 6, 2016
Election results mailed from LAFCo via certified mail	No later than Friday, May 20, 2016

## Current Special District Terms

Designation	Current Member	Term of Office (ends on June 30)
Regular Member	Bruce Rupp, Humboldt Bay Municipal Water District	2012 - 2016
Regular Member	Troy Nicolini, Samoa Peninsula Fire District	2014 - 2018
Alternate Member	Frank Scolari, Humboldt Community Services District	2014 - 2018

## Independent Special Districts

Big Lagoon Community Services District	Arcata Fire Protection District
Briceland Community Services District	Blue Lake Fire Protection District
Carlotta Community Services District	Briceland Fire Protection District
Fieldbrook-Glendale Community Services District	Bridgeville Fire Protection District
Humboldt Community Services District	Ferndale Fire Protection District
Loleta Community Services District	Fruitland Ridge Fire Protection District
Manila Community Services District	Garberville Fire Protection District
McKinleyville Community Services District	Humboldt No. 1 Fire Protection District
Miranda Community Services District	Kneeland Fire Protection District
Orick Community Services District	Myers Flat Fire Protection District
Orleans Community Services District	Petrolia Fire Protection District
Palmer Creek Community Services District	Redway Fire Protection District
Patrick Creek Community Services District	Rio Dell Fire Protection District
Phillipsville Community Services District	Samoa Peninsula Fire District
Redway Community Services District	Telegraph Ridge Fire Protection District
Riverside Community Services District	Willow Creek Fire Protection District
Scotia Community Services District	
Weott Community Services District	Humboldt Bay Harbor, Recreation and Conservation District
Westhaven Community Services District	Humboldt County Resource Conservation District
Willow Creek Community Services District	North Humboldt Recreation and Park District
Alderpoint County Water District	Southern Humboldt Community Healthcare District
Hydesville County Water District	Fortuna Cemetery District
Jacoby Creek County Water District	Petrolia Cemetery District
Humboldt Bay Municipal Water District	
Garberville Sanitary District	
Resort Improvement District No. 1	

## OFFICIAL BALLOT INDEPENDENT SPECIAL DISTRICT ELECTION

Mark selection directly onto the ballot, voting for no more than one (1) candidate. Ballots must be returned to the LAFCo office at 1125 16<sup>th</sup> Street, Suite 202, Arcata, CA 95521, on or before May 6, 2016 at 5:00 p.m.

Name of District: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

**Please vote for one of the following candidates:**

- ☐ **DEBRA D. LAKE**  
Sponsor: Fruitland Ridge Fire Protection District
- ☐ **J. BRUCE RUPP (incumbent)**  
Sponsor: Humboldt Bay Municipal Water District  
Sponsor: McKinleyville Community Services District

The Board hereby selects the above candidate to fill the term beginning on July 1, 2016 and expiring on June 30, 2020, as a regular special district member of the Humboldt Local Agency Formation Commission.

Board action taken on the \_\_\_\_\_ day of \_\_\_\_\_, 2016, by the following vote:

AYES: \_\_\_\_\_

NOSE: \_\_\_\_\_

ABSTAIN: \_\_\_\_\_

ABSENT: \_\_\_\_\_

DISTRICT REPRESENTATIVE:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed Name / Title



RECEIVED  
MAR 28 2016  
McK. C.S.D.

March 22, 2016

Dear Fellow Service District Members:

My name is Debra D. Lake and I want to introduce myself with regard to the At-large member election for LAFCO.

As a recently retired Postmaster with 27 years of service, I fully understand budgets, personnel issues, scheduling, finance, and retail interaction. In addition, I am an elected Board Member for the newly formed Fruitland Ridge Fire Protection District.

For over 20 years I have been a Volunteer with the Fruitland Ridge Fire Company as both a medical first responder and fire-fighting. During my tenure with the Company, I have gone through extensive training. I also served on the Board. My longevity with the Company required learning to keep a clear head in emergencies which saved lives. Fundraising necessitated good community relations and the ability to reach out to people from all walks of life.

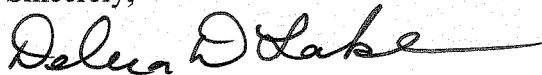
I have been involved with my community for 30 years. It has been my pleasure to serve as a leader in 4-H and Safe and Sober for our youth. I have written and received grants for many non-profits. I contributed to the award winning Avenue of the Giants planning process. I am committed to our community and focus on its needs.

The Humboldt County Board of Supervisors presented me with a Resolution for my service to the community in February, 2016.

I believe I would be an asset in this position with my extensive background, people skills and ability to understand the needs of rural homeowners.

Thank you for your time and I look forward to serving Humboldt County as a member of LAFCo.

Sincerely,



Debra D. Lake

Home: 707-943-3402 preferred

Cell/Text: 707-498-7733

360 Whitlow Road

Myers Flat CA 95554

# McKinleyville Community Services District

## BOARD OF DIRECTORS

April 6, 2016

TYPE OF ITEM: **ACTION**

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**ITEM: E.4**                      **Initiate Process for General Manager's Performance Evaluation**

**PRESENTED BY:**              **Becky Schuette, Board Secretary**

**TYPE OF ACTION:**          **Board President Appointment**

### **Recommendation:**

Staff recommends that that the Board discuss, take public comment and ask the Board President to select one board member to consolidate all Board Member and Department Head evaluations and set a schedule.

### **Discussion:**

As noted in the Board Policy Manual, and in Attachment 1, the Board shall conduct performance evaluations for the General Manager, annually on the anniversary of the General Manager's hire date. Simultaneously, the Board should request 360 evaluations from Department Heads.

During an open public meeting, the Board President will select one board member to consolidate all five Board Member and three Department Head evaluations. Once a member of the Board has been selected, a schedule should be established which includes:

- Date to complete and return sealed evaluations to the Board Secretary;
- Date the appointed consolidator will retrieve the evaluations; and
- A date for the closed session for the General Manager's performance evaluation.

All five Board Members will receive the evaluation forms from the Board Secretary at tonight's meeting with an envelope to seal and return with the completed forms. An electronic version of the evaluation is available if requested. The Board will fill out the evaluations and provide them to the Board Secretary at the District Office in the sealed envelope in accordance with the schedule.

After the meeting, the Board Secretary will distribute the General Manager 360 performance evaluation form to the Finance Director, Operations Director and Recreation Director and coordinate the completion in accordance with the Board's schedule so that the evaluations are all completed and ready simultaneously.

The Board Member selected to consolidate the evaluations will be notified by the Board Secretary that the evaluations by department heads and other Board Members are completed and ready to pick up. The evaluations will be consolidated by averaging each section and combining any written comments so there will be one evaluation from the Board and one evaluation from the Department Heads.

To finish, at a properly noticed public meeting the board will convene a closed session to review the consolidated evaluation with the General Manager for the purpose of discussing the General Manager's performance.

**Alternatives:**

Staff analysis consists of the following potential alternative

- Take No Action

**Fiscal Analysis:**

Not applicable

**Environmental Requirements:**

Not applicable

**Exhibits/Attachments:**

- Attachment 1 – Exhibit A from Board Policy Manual
- Attachment 2 – Board of Director's Evaluation Form GM
- Attachment 3 – Department Head 360 Performance Evaluation of GM

## Exhibit A

This written procedure is provided to the Board of Directors as guidance in completing a 360 Degree Annual Performance Evaluation for the General Manager.

These evaluations should be conducted annually on the anniversary of the General Manager's hire date and use the standard MCSD GENERAL MANAGER EVALUATION Form attached as EXHIBIT 1, unless the Board of Directors determine it insufficient. At that time determine a more appropriate interval.

Simultaneously the Board should request District Department Heads participate in an advisory evaluation by utilizing the GENERAL MANAGER 360 PERFORMANCE EVALUATION Form attached as EXHIBIT 2.

The process will begin with the Board requesting an item be place on the agenda approximately one month prior to the anniversary date. This item should be titled "Initiate process for General Manager Performance Evaluation" and can be accomplished in opened session.

During an open public meeting, the selection of one board member to consolidate all five Board Member and three Department Head evaluations will be determined by the Board President. Once a member of the Board has been selected a schedule should be established and should include:

- Date to complete and return sealed evaluations to Board Secretary,
- Date the appointed consolidator will retrieve the evaluations and
- A date for the closed session for the General Manager's performance evaluation.

All five Board Members will receive the evaluation forms from the Board Secretary at that meeting with an envelope to seal and return with the completed forms. The Board will fill out the evaluations and provide them to the Board Secretary at the District Office in the sealed envelope in accordance with the schedule.

After the meeting the Board Secretary will distribute the GENERAL MANAGER 360 PERFORMANCE EVALUATION form to Finance Director, Operations Director and Parks and Recreation Director and coordinate the completion in accordance with the Board's schedule so the evaluations are all completed and ready simultaneously.

The Board Member selected to consolidate the evaluations will be notified by the Board Secretary that the evaluations by department heads and other Board Members are completed and ready to pick up. The evaluations will be consolidated by averaging each section and combining any written comments so there is one evaluation from the Board and one evaluation from the Department Heads.

During a properly noticed public meeting the board will convene a closed session to review the consolidated evaluation with the General Manager for the purpose of discussing the General Manager's performance. See the example below for noticing.

"PUBLIC EMPLOYEE PERFORMANCE EVALUATION  
(California Government Code § 54954.5 and 54957): Title:  
General Manager—(*Name Inserted Here*)"



MCKINLEYVILLE COMMUNITY SERVICES DISTRICT  
Board of Directors' Evaluation Form - General Manager  
Performance Review Period (\_\_\_\_\_through \_\_\_\_\_)

Board Member: \_\_\_\_\_

Date \_\_\_\_\_

**A. BOARD/MANAGER RELATIONSHIP**

5 - Outstanding 4 - Excellent 3 - Satisfactory 2 - Needs Improvement 1 - Unsatisfactory

	5	4	3	2	1
Provides sufficient staff reports and related agenda materials to allow for effective Board discussion/decision-making. Provides information to Board Members in a timely manner. Obtains and evaluates relevant information and implements or recommends appropriate solutions to problems.					
Displays a professional attitude/image that assures public confidence. Makes effort to be accessible and provides consistent and equal treatment to Board Members.					

**B. COMMUNITY RELATIONS**

5 - Outstanding 4 - Excellent 3 - Satisfactory 2 - Needs Improvement 1 - Unsatisfactory

	5	4	3	2	1
Represents the District well in presentations to civic groups, media and the public and provides a positive, professional image. Sought to develop cooperative working relationships with various outside governmental agencies and other outside groups.					
Promotes community involvement in the District as opportunity allows.					
Enhances community understanding of District's goals and objectives. Deals openly with conflict and District problems.					



**C. LEADERSHIP**

5 - Outstanding 4 - Excellent 3 - Satisfactory 2 - Needs Improvement 1 - Unsatisfactory

	5	4	3	2	1
Assumes leadership in establishing the immediate and long-range goals & objectives for the District.					
Demonstrates original thinking, ingenuity, and creativity by introducing new strategies or courses of action.					
Plans effectively and supports innovative problem-solving by involving others.					

**D. COMMUNICATION**

5 - Outstanding 4 - Excellent 3 - Satisfactory 2 - Needs Improvement 1 - Unsatisfactory

	5	4	3	2	1
Promotes and engages in two-way communication with Board					
Is accessible to Board Members. Communicates new ideas, suggestions, and concerns to the Board.					

**E. MANAGING FINANCIAL AND MATERIAL RESOURCES**

5 - Outstanding 4 - Excellent 3 - Satisfactory 2 - Needs Improvement 1 - Unsatisfactory

	5	4	3	2	1
Identifies District revenue enhancements and cost saving to ensure the District accomplishes important short-term and long-term goals.					
Demonstrates original thinking, ingenuity, and creativity by introducing new financial strategies or courses of action.					
Plans, implements, and directs a comprehensive financial program for the District's long-range economic development.					
Has a general understanding of technical issues affecting the District.					

F. ORGANIZATION

5 - Outstanding 4 - Excellent 3 - Satisfactory 2 - Needs Improvement 1 - Unsatisfactory					
	5	4	3	2	1
Develops procedures in response to needs. Implements practices and monitoring results in support of Board policy. Anticipates changes in various situations and the ability to achieve goals despite these changes. Meets schedules (whether set by the General Manager or by others). Sets priorities, understands systems, practices time management, planning, and is committed to quality work.					

H. OVERALL EVALUATION

5 - Outstanding 4 - Excellent 3 - Satisfactory 2 - Needs Improvement 1 - Unsatisfactory					
	5	4	3	2	1

Remarks/Comments:

**GENERAL MANAGER  
360 PERFORMANCE EVALUATION**

**EXHIBIT B**

*Rating categories:*

- I** - Improvement needed for performance to meet expected standards*  
***M** - Performance fully meets expected standards*  
***E** - Performance consistently exceeds standards*

PERFORMANCE FACTORS	<i><b>I</b></i>	<i><b>M</b></i>	<i><b>E</b></i>	COMMENTS
<b>1. QUALITY OF WORK:</b> Consider the extent to which completed work is accurate, neat, well-organized, thorough, and effective				
<b>2. RELATIONSHIPS WITH PEOPLE:</b> Consider the extent to which the GM recognizes the needs and desires of other people, treats other with respect and courtesy, and inspires their respect and confidence, etc.				
<b>3. WORK HABITS:</b> Consider the GM's effectiveness in organizing and using work tools and time, in caring for equipment and materials, in following good practices of vehicle and personal safety, etc.				
<b>4. TAKING ACTION INDEPENDENTLY:</b> Consider the extent to which the GM shows initiative in making work improvements, identifying and correcting errors, initiating work activities, etc.				
<b>5. ANALYZING SITUATIONS AND MATERIALS:</b> Consider the extent to which the GM applies consistently good judgment in analyzing work situations and materials, and in drawing sound conclusions.				
<b>6. MEETING WORK COMMITMENTS:</b> Consider the extent to which the GM completes work assignments, meets deadlines, follows established policies and procedures, etc.				
<b>7. TECHNICAL AND PRACTICAL KNOWLEDGE OF THE JOB:</b> Extensive knowledge of technical elements in own program and related areas; willing to share technical knowledge; viewed as a knowledgeable resource; ability to effectively utilize a variety of resources to resolve administrative and/or program problems.				

**GENERAL MANAGER  
360 PERFORMANCE EVALUATION**

*Rating categories:*

- I*** - Improvement needed for performance to meet expected standards  
***M*** - Performance fully meets expected standards  
***E*** - Performance consistently exceeds standards

PERFORMANCE FACTORS	<i>I</i>	<i>M</i>	<i>E</i>	COMMENTS
<b>8. SUPERVISING THE WORK OF OTHERS:</b> Creates an environment in which employees are treated with respect. Employees possess a sense of ownership; satisfaction in the District's accomplishments; influence over how things are done, and an understanding of their personal importance to the MCSD. Provides appropriate control over staff activities. Provides timely performance appraisal of subordinate staff. Inspires continuous learning and development of staff. Recognizes and values the contributions of all members of a diverse work force.				
<b>9. LEADERSHIP:</b> Cooperates, inspires, motivates, persuades and guides others toward goal accomplishment; adapts leadership style to a variety of situations; models high standards of honesty, integrity, trust, openness and flexibility; makes sound decisions consistent with District objectives.				
<b>10. FISCAL MANAGEMENT:</b> Understands District costs, debt, cash flow, fixed assets and rate structures and is able to utilize these strategically; Analyzes budget forecasts for accuracy; maintains responsible District costs within Board approved budgets. Timely review and approval of bank reconciliations, journal entries, financial statements, invoices (AP) and payroll.				
<b>11. COMMUNICATION:</b> Proactively informing Board of Departmental and District issues and concerns; Timely collection of information and reports from Departments. Maintains confidentiality of communications.				
<b>12. COMPLIANCE:</b> Demonstrates the ability to maintain the District and all departments in compliance with laws, regulations and reporting requirements				
<b>13. CUSTOMER SERVICE:</b> Shows interest in and understanding of the needs, expectations and circumstance of internal and external customers. Explores options and pursues solutions until customers are satisfied. Is responsive, pleasant, professional and easy to do business with. Looks at the organization and its services from the customer's point of view. Seeks and uses customer feedback to improve services. Meets or exceeds internal and external customer expectations.				

**GENERAL MANAGER  
360 PERFORMANCE EVALUATION**

*Rating categories:*

- I*** - Improvement needed for performance to meet expected standards
- M*** - Performance fully meets expected standards
- E*** - Performance consistently exceeds standards

<b>14. EMPLOYEE SAFETY:</b>  Consider whether the employee maintains and ensures training, safety requirements and compliance for supervised employees (i.e. full time, part-time, seasonal, Cal-works, sub-contractors or visitors)				
<b>15. POLICIES AND PROCEDURES:</b> Consider the extent to which the employee maintains compliance with All District Policies and Procedures. Ensures staff is aware of Human Resource and EEO Policies.				
<b>16: IDP:</b> Develops IDP with supervised employees and ensures employee completes all training requirements.				

**OTHER EVALUATOR COMMENTS:**

**SIGNATURE:** \_\_\_\_\_ N/A

**DATE:** \_\_\_\_\_

**GENERAL MANAGERS COMMENTS:**

**SIGNATURE:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

# McKinleyville Community Services District

## BOARD OF DIRECTORS

April 6, 2016

TYPE OF ITEM: **ACTION**

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**ITEM: E.5**                      **Consider authorization to attend the 2016 Special District Legislative Days on May 17 & 18, 2016 in Sacramento, CA**

**PRESENTED BY:**              **Becky Schuette, Board Secretary**

**TYPE OF ACTION:**          **Voice Vote**

### **Recommendation:**

Staff recommends that the Board review the information provided; take public comment and consider authorization for interested Board Member(s) to attend the Special District Legislative Days in Sacramento CA, on May 17 & 18, 2016.

### **Discussion:**

The California Special District Association (CSDA) is sponsoring a two day conference titled Special District Legislative Days. The conference will be held at the Sacramento Convention Center on May 17 & 18, 2016.

Attendees will gain insights on policy changes impacting our agencies and will have the opportunity to meet with legislators, key issue speakers and California's policy leaders. The conference is designed to allow participants to:

- Exchange ideas with legislators and discuss priority legislation at pre-arranged visits
- Hear directly from state leadership on hot topics affecting local services and infrastructure
- Explore how decisions are really made in the Capitol and how you can influence outcomes
- Get answers to questions at issue-focused industry specific roundtable sessions

General Manager Orsini will be attending the conference as a requirement of being on the CSDA Board of Directors and several Directors' have attended this informational conference in the past.

### **Alternatives:**

Staff analysis consists of the following potential alternative

- Take No Action

**Fiscal Analysis:**

Early bird registration is \$175 before April 17, 2015 and hotel costs at the Hyatt Regency Sacramento are \$189 a night excluding taxes. The District vehicle could be utilized for attendees. An approximate total cost, including per diem is \$750 per attendee.

**Environmental Requirements:**

Not applicable

**Exhibits/Attachments:**

- Attachment 1 – Legislative Days Agenda and Registration Form



California Special Districts Association  
1112 I Street, Suite 200  
Sacramento, CA 95814

*A proud California Special Districts Alliance partner.*

Attachment 1

PRSRT STD  
U.S. Postage  
**PAID**  
Permit No. 316  
Sacramento, CA

## Agenda At A Glance

*Agenda subject to change*

### TUESDAY, MAY 17

9:00 – 10:00 a.m.	REGISTRATION
10:00 – 10:15 a.m.	WELCOME
10:15 – 11:00 a.m.	LEGISLATORS PANEL
11:00 a.m. – 12:00 p.m.	GRASSROOTS ADVOCACY AND PUBLIC OUTREACH PRESENTATION
12:00 – 2:00 p.m.	LUNCH: LEGISLATIVE BRIEFING
2:00 – 5:00 p.m.	LEGISLATIVE VISITS
5:00 – 6:30 p.m.	LEGISLATIVE RECEPTION

### HOTEL INFORMATION

#### Hyatt Regency Sacramento

1209 L Street  
Sacramento, CA  
95814

\$189 CSDA room  
rate. Call to  
reserve at  
1-888-421-1442.

Room reservation  
cut-off April 25,  
2016.

### WEDNESDAY, MAY 18

7:45 – 8:30 a.m.	DISTRICT NETWORKS CAFÉ
8:30 – 8:40 a.m.	WELCOME
8:40 – 9:00 a.m.	LEGISLATOR OF THE YEAR
9:00 – 9:45 a.m.	KEYNOTE SPEAKER
9:45 – 10:30 a.m.	ROUNDTABLES
10:30 – 11:15 a.m.	HOT TOPIC ISSUES
11:15 a.m. – 12:00 p.m.	AWARDS AND LEGISLATIVE PRIORITIES OUTLOOK



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*Districts Stronger Together*

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**CANCELLATION POLICY: Cancellations must be made IN WRITING and received via fax or mail three days prior to event. All cancellations made within the specified time will be refunded less a \$75 processing fee. NO EXCEPTIONS.**

# McKinleyville Community Services District

## BOARD OF DIRECTORS

April 6, 2016

TYPE OF ITEM: **ACTION**

---

**ITEM: E.6**                      **Consider approval of Resolution 2016-08 authorizing the General Manager to sign and file an application for grant funding from the State Water Resources Control Board (SWRCB) for the planning, design, and construction of the McKinleyville Community Services District (MCSD) Wastewater System Energy Efficiency and Renewable Energy Project**

**PRESENTED BY:**              **Greg Orsini, General Manager/ James Henry, Operations Director**

**TYPE OF ACTION:**          **Roll Call Vote**

### **Recommendation:**

Staff recommends that the Board review the information provided; take public comment and consider approving Resolution 2016-08 authorizing the General Manager to sign and file application for SWRCB grant funding.

### **Discussion:**

The District is pursuing the Wastewater System Energy Efficiency and Renewable Energy Project in order to improve the facility on multiple levels. The funding will help provide equipment that will enhance system operation, reduce operating costs, and reduce greenhouse gas emissions attributable to the wastewater collection, treatment, and disposal systems.

Staff is seeking funding in the following areas:

Solar Photovoltaic System: The solar photovoltaic System will be a 644 kW ground mount system which would include solar modules for a capacity of 655 kW DC, power inverters, and ground mount racking.

Generators: The project proposed includes installation of a 60Hz-150kW replacement generator at the Letz Sewer Lift Station and a 60Hz-175kW replacement generator at the Fischer Road Lift Station. The existing generators will be removed and replaced with a new generator and transfer switch. The installation includes exhaust piping through the roof and a cooling hook-up.

Flow Totalizers: Eight new flow totalizers will be obtained for use across the District to collect real time flow data. The flow totalizers will be FLO-DAR model 4000-400 or similar, and include sensor mounting assembly, data cables, and a quad band antenna. The flow totalizers will assist MCSD to identify and isolate the areas impacted by infiltration and inflow.

Lift Stations: The Hiller Lift station currently includes two underground 20 horsepower pumps, which are reaching the end of their useful life and do not meet modern energy efficiency standards. The existing infrastructure contains no room for upgrade, therefore the proposed project would convert the lift station to include submersible pumps. This will enable pumping directly from the wet well into the treatment plant.

**Alternatives:**

Staff analysis consists of the following potential alternative

- Take No Action

**Fiscal Analysis:**

The total amount to fund the four (4) projects would be approximately \$4.5 million. The funding would be for half the project costs resulting in \$2.28 million.

**Environmental Requirements:**

Not applicable

**Exhibits/Attachments:**

- Attachment 1 – Wastewater System Energy Efficiency and Renewable Energy Project Technical Report
- Attachment 2 – Resolution 2016-08



# McKinleyville Community Services District (MCSD)

## Wastewater System Energy Efficiency and Renewable Energy Project Technical Report

March 2016



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- Appendix A – Project Vicinity and Location Figures
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- Appendix C – Solar Schematic
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# 1. Introduction

McKinleyville Community Services District (MCSD) is proposing a project to improve energy efficiency throughout the wastewater collection and treatment system. The MCSD Wastewater System Energy Efficiency and Renewable Energy Project includes development of renewable energy at the Wastewater Management Facility (WWMF), upgrades to the Hiller Road sewer lift station, replacement generators at the Letz Sewer Lift Station and Fischer Road Lift Station, and flow monitoring equipment for inflow and infiltration reduction.

A separate Project Technical Report was not prepared for the MCSD Wastewater System Energy Efficiency and Renewable Energy Project. Technical information was compiled from previous MCSD studies. In addition, some technical information specific to the Wastewater System Energy Efficiency and Renewable Energy Project is presented in this technical report summary.

The two primary documents that will be referenced for technical information are:

- SHN Consulting Engineers & Geologists, Inc. (2011) Wastewater Facilities Plan Administrative Draft MCSD Wastewater Management Facility. October 2011. Eureka, SHN
- Kennedy/ Jenks Consultants. (2014) Preliminary Design Report, McKinleyville Community Services District. April 2014. Santa Rosa, Kennedy/Jenks

The sections that follow summarize where to find system information in previous reports, and presents additional technical information.

## 1.1 Project Area

The McKinleyville Community Services District (District or MCSD) extends north from the Mad River to Patrick Creek and east from the Pacific Ocean to the foothills bordering the community of Fieldbrook. The District is located along Highway 101 approximately 12 miles north of the City of Eureka and 5 miles south of the City of Trinidad. The District project area is described in the 2011 Wastewater Facilities Plan Administrative Draft. A vicinity map is included in Figure 1-1 in chapter 1 of the Facilities Plan. The service area as indicated by the extent of the sewer collection system is shown in Figure 1-4 in chapter 1 of the Facilities Plan, which also shows the existing collection system. The treatment facilities are laid out in Figure 1-2. Relevant hydrologic, geologic, and topographic features are shown in Figure 1-1 and 1-2 in Chapter 1 of the Facilities Plan.

Current land use in the District is mainly composed of residential with some commercial, public and natural resource lands. The Pacific Ocean lies to the west of the District. There are several small creeks that run through the area and the Mad River lies just south of the District. The District serves a population of approximately 15,200 people, and includes 4,532 service connections. Minor growth in the range of 0.8% (Ca Dept of Finance, 2008) to 1.3% (McKinleyville Community Plan, 2002) is anticipated in the region.

Additional information on the study area characteristics around the Wastewater Management Facility (WWMF) can be found in the 2011 Wastewater Facilities Plan Administrative Draft Chapter 2.

Appendix A includes Figure 1 and Figure 2 which show a project vicinity map and detailed map of the project locations.



## 2. Wastewater Characteristics, Existing Facilities, and Current Water Quality

A full description of the District's existing wastewater facilities can be found in the 2011 Wastewater Facilities Plan Administrative Draft. The table below shows where to find information in the existing plans. Additional information to support the MCSD Wastewater System Energy Efficiency and Renewable Energy Project is included in this section as well.

Table 1 Summary of Information Sources for Wastewater Characteristics, Existing Facilities and Current Water Quality

Item Description	Information Source
Existing Treatment Facilities	Chapter 4 of the 2011 Wastewater Facilities Plan Administrative Draft
Wastewater Characteristics	Chapter 3 of the 2011 Wastewater Facilities Plan Administrative Draft
Current water quality characteristics and beneficial uses of the water resources affected by the facility	Discussed in relation to the existing outfall in Chapters 4 and 8 of the 2011 Wastewater Facilities Plan Administrative Draft
current discharge location(s)	Shown in Figure 5.1 in chapter 5 of the 2011 Wastewater Facilities Plan Administrative Draft
Description of all entities responsible or contributing to the existing facilities and sources of wastewater to the facility	Chapter 3 of the 2011 Wastewater Facilities Plan Administrative Draft
Sources of industrial or other problem constituents and current control measures	Chapter 5 of the 2011 Wastewater Facilities Plan Administrative Draft
Wastewater influent and effluent characteristics and variations	Chapter 3 of the 2011 Wastewater Facilities Plan Administrative Draft
Current asset, operation, and maintenance management systems	Chapter 1 of the 2011 Wastewater Facilities Plan Administrative Draft

MCSD has a robust maintenance program to identify and address infiltration issues. However, inflow into the system is an issue. The District can see large spikes in wastewater flow into the WWMF, but due to time lag between inflow and when it is seen at the plant, the District cannot track down the source. The District has one flow totalizer they use to try and capture problems areas. However it does not provide real time data, and can only capture one point, which leaves large variability in potential inflow sources, due to lag time in the collection system.

Appendix B presents a single event at the MCSD Letz Lane pump station during a 1.11-inch rain event. From 12:00 AM to 6:00 AM the pumps can be seen to operate at a normal cycle. Around 8:00 AM the pumps begin to run constantly to keep up with the additional infiltration and inflow. During these heavy rain events the District spends numerous hours looking inside manholes in an

effort to track the source of the additional flows. The more infiltration and inflow (I&I) that enters the system the harder it is for the pumps to keep up. Incorporating flow totalizers at numerous locations will isolate the areas impacted by infiltration and inflow, and allow for source identification and correction.

The District has an average summertime wastewater flow of 0.8 MGD and a wet weather flow of 1.4 MGD. The per capita flow is estimated at 92 gallons per capita per day for the population served by the system of 15,200 people. Thus, a sewer system evaluation is not required.

### 3. Project Objectives

This section of the technical report follows a question and answer type format. The section headings from the technical report guidelines from the SWRCB are presented first followed by a response specific to the proposed project.

#### *A. Reason for the project and its objectives/expected benefits*

The District is pursuing the Wastewater System Energy Efficiency and Renewable Energy Project to improve system operation, reduce operations costs, and reduce greenhouse gas emissions attributable to the wastewater collection, treatment, and disposal systems.

Expected benefits include reduced greenhouse gas emissions from plant operations, though use of renewable energy to operate the WWMF, installation of modern generators at two lift stations that will meet current air board emissions standards, installation of more efficient pumps at the Hiller Lift station, and through reduced pumping associated with a reduction in I&I.

#### *B. Performance characteristics required for efficient treatment*

The proposed project does not make direct changes to the treatment system at the WWMF. However the flow monitoring/ I&I reduction component of the project will reduce the treatment burden at the WWMF during precipitation events.

#### *C. Health-related water characteristics required for discharge, operational, and on-site requirements*

The project does not alter the treatment or discharge systems. As mentioned above the reduction in flow resulting from I&I reduction will reduce the treatment burden at the plant.

#### *D. Wastewater discharge or reuse requirements and anticipated changes in requirements*

The proposed project does not negatively affect the discharge effluent quality and would not result in modifications to discharge or reuse requirements.

#### *E. Relevant operation and on-site requirements*

The proposed project will benefit operations through improvements to the collection system infrastructure. It will also benefit the system through upgrades to key pump stations for energy efficiency and the addition of renewable energy at the WWTF.

#### *F. Projected future flow rates or other changes to the influent wastewater characteristics*

The proposed project would reduce flows to the WWMF during precipitation events. Otherwise the project does not affect flow of planned treatment capacity.

#### *G. Additional facilities or actions needed to comply with waste discharge requirements*

No additional facilities or actions are needed to comply with waste discharge requirement.

## 4. Project Alternatives Analysis

### 4.1 A. Planning and design parameters and assumptions

The design criteria for the four project components varied. For the solar system the design criteria was to maximize the solar array while staying within the available site footprint. The project useful life is 30 to 40 years. For the generator and lift station projects, the design criteria was to match the capacity of the existing systems, but to upgrade them to meet current air board and energy efficiency standards. The useful life of the equipment with regular maintenance is 25 years.

For the flow totalizers the design criteria included the ability for meters to provide real time data viewable at the WWMF. MCSD has a robust maintenance program to identify and address infiltration issues. However, inflow into the system is an issue. The District can see large spikes in wastewater flow into the WWMF, but due to time lag between inflow and when it is seen at the plant cannot track down the source. The District has one flow totalizer they use to try and capture problems areas. However it does not provide real time data, and can only capture one point, which leaves large variability in potential inflow sources, due lag time in the collection system. The proposed flow totalizer project includes an additional eight new meters which will allow the District to do extensive real-time monitoring and identify inflow sources. The useful life of the equipment with regular maintenance is 20 years.

All of the proposed projects would provide benefits to the District for their respective full useful lives. Future upgrades or new treatment requirements would not impact the projects proposed for implementation.

### 4.2 B. Detailed alternatives analysis, including the no action alternative

Due to the nature of the projects, alternative options are difficult to identify. For renewable energy, the District could have considered wind power, however, this was not feasible due to the turbulence created by the bluff where the site is located.

For the replacement of generators and upgrades to the lift station, there was no alternative that would result in the same proposed energy savings and greenhouse gas reductions.

For the flow monitoring/ I&I project, flow monitors without real time data were considered. However due to the nature of the inflow problem, real time data was determined to be essential to achieving real flow reductions.

The no project alternative would result in no energy savings, continuing high emissions from the existing generators, and lift station, and continued problems reducing inflow into the collection system.

A comparison of life cycle costs were not developed as no feasible alternatives to the proposed project were identified. Estimated costs for the proposed project are presented in Section 6.

All of the proposed project components support state planning priorities in section 65041.1 of the Government Code in some form. The projects are located with the urban area of McKinleyville. It is one of the fastest growing areas in Humboldt County and the projects support existing infrastructure in this area. The projects protect environmental resources by reducing greenhouse gas emissions

from the wastewater system. The project will also have the benefit of reducing operations costs, thus minimizing ongoing costs for the state's taxpayers.

A climate change analysis was not completed for the individual project. The overall goal of the project is to increase the use of renewable energy and reduce existing energy demands in the system. This will have the benefit of reducing greenhouse gases which will have a positive impact on climate change.

## 5. Proposed Project

### 5.1 Description of proposed project

#### 5.1.1 Solar Photovoltaic System

The solar photovoltaic System will be a 644 kW ground mount system. The system would include solar modules for a capacity of 655 kW DC, power inverters, and ground mount racking. Appendix C includes additional details on the system, including a site plan. The useful life of the project is 30 to 40 years as specified by the warranty on the modules. The average annual energy cost savings, quoted by the manufacturer, from the installation of solar is \$219,000. The solar modules require limited maintenance as they involve no moving parts.

#### 5.1.2 Generators

The project proposed includes installation of a 60Hz-150kW replacement generator at the Letz Sewer Lift Station and a 60Hz-175kW replacement generator at the Fischer Road Lift Station. The existing generators will be removed replaced with a new generator and transfer switch. The installation includes exhaust piping through the roof and a cooling hook-up.

#### 5.1.3 Flow Totalizers

Eight new flow totalizers will be obtained for use across the District to collect real time flow data.. The flow totalizers will be FLO-DAR model 4000-400 or similar, and include sensor mounting assembly, data cables, and a quad band antenna, The flow totalizers will assist MCSD to identify and isolate the areas impacted by infiltration and inflow.

#### 5.1.4 Lift Stations

The Hiller Lift station currently includes two underground 20 horsepower pumps, which are reaching the end of their useful life and do not meet modern energy efficiency standards. The existing infrastructure contains no room for upgrade and therefore the proposed project would convert the lift station to include submersible pumps. This will enable pumping directly from the wet well into the treatment plant.

## 6. Cost Estimate

### 6.1 Opinion of Probable Capital Cost Estimates

A preliminary opinion of capital cost estimate was developed for the proposed project. For preparation of capital cost, the following criteria were used:

- All costs are presented in February 2016 US dollars
- A 30 percent contingency was included with all construction costs.
- Equipment and installation costs provided by independent suppliers are accurate
- Engineering support for the new generators was estimated to be 20% of the generator construction sub total
- Engineering support for the pump upgrades was estimated to be 20% of the pump upgrade construction subtotal

The opinion of probable capital cost is estimated to be \$4,566,680. A breakdown of cost by component is provided in Appendix D.

### 6.2 Estimated Operating and Maintenance Costs

The operations and maintenance (O&M) costs estimate was developed from the additional operational labor and maintenance costs incurred by the proposed project components. The electrical savings incurred from the installation of the solar modules was also incorporated into the annual O&M cost. The following summarizes the major O&M assumptions:

- Operational costs for the flow totalizers were based on the District's standard hourly wage of \$45 and expected additional 240 hours of labor per year
- The annual maintenance cost for the solar modules was provided by Villara
- The annual energy cost savings from the solar modules was provided by Villara
- O&M cost were not allocated for the new generators and lift station as the new components would have lower O&M costs than the existing components. Thus would result in an overall decrease in O&M cost.

Table 2 summarizes the unit cost values developed for the O&M estimate.

Table 2 O&M Cost Estimates in Year 1

Component	Parameter	Unit Cost
Solar Modules	Energy Cost Savings	- \$219,000 per year
Solar Modules	Maintenance	\$1,000 per year
Flow Totalizers	Maintenance	\$2,500 per year
Flow Totalizers	Operations	\$10,800 per year

### 6.3 20-Year O&M NPV Estimate

The 20-Year Net Present Value (NPV) estimates were developed based on the economic parameters and assumptions included in Table 3.

Table 3 20-Year O&M NPV Estimates

Parameter	Unit Vale
Inflation Rate	2%
Nominal Discount Rate	3%
Real Discount Rate	0.98%

Note: Real Discount Rate =  $(1 + \text{Nominal Interest Rate}) / (1 + \text{Inflation Rate}) - 1$

## 6.4 Lifecycle Cost Estimate

A lifecycle cost estimate was developed for the project which includes the capital cost estimate and the 20-Year Operation and Maintenance (O&M) Net Present Value (NPV) estimate for the proposed project.

Due to the large savings incurred from the solar system, the lifecycle cost is estimated to be \$660,752 over the 20 life span of the project as shown in Table 4.

Table 4 Lifecycle Cost Estimate for Propose Project

Parameter	Estimated Cost
Capital Cost Estimate	\$ 4,566,680
20-Year O&M NPV Estimate	\$ - 3,905,928
<b>Lifecycle Cost Estimate</b>	<b>\$ 660,752</b>

The project useful life is 30 to 40 years. An additional Lifecycle Cost Estimate was developed for a 30-Year lifecycle. Under this scenario the lifecycle cost is estimated to be \$-936,022. The cost savings incurred by the proposed project can be used by the District to offset their operating costs.



## 7. Project Schedule

The project schedule is outlined in Table 5 below:

Table 5 Project Schedule

Date	Project Component
June 2016	Grant Agreement Finalized
June – August 2016	Project Design & Federal Cross Cutters
September – November 2016	Bid Phase
January – June 2017	Construction

## 8. Permitting

The project is not anticipated to involve significant permitting. The project is anticipated to qualify for a categorical exemption from CEQA, under Sections 15301 and 15303. If SWRCB funding is obtained, the District will complete the required federal regulations cross cutter analysis. Due to the limited excavation needed for the Solar system a grading permit from Humboldt County is not anticipated to be needed. Work at the lift stations will be on MCSD property and an encroachment permit is not anticipated to be needed. No permitting will be required for the I&I flow monitoring.

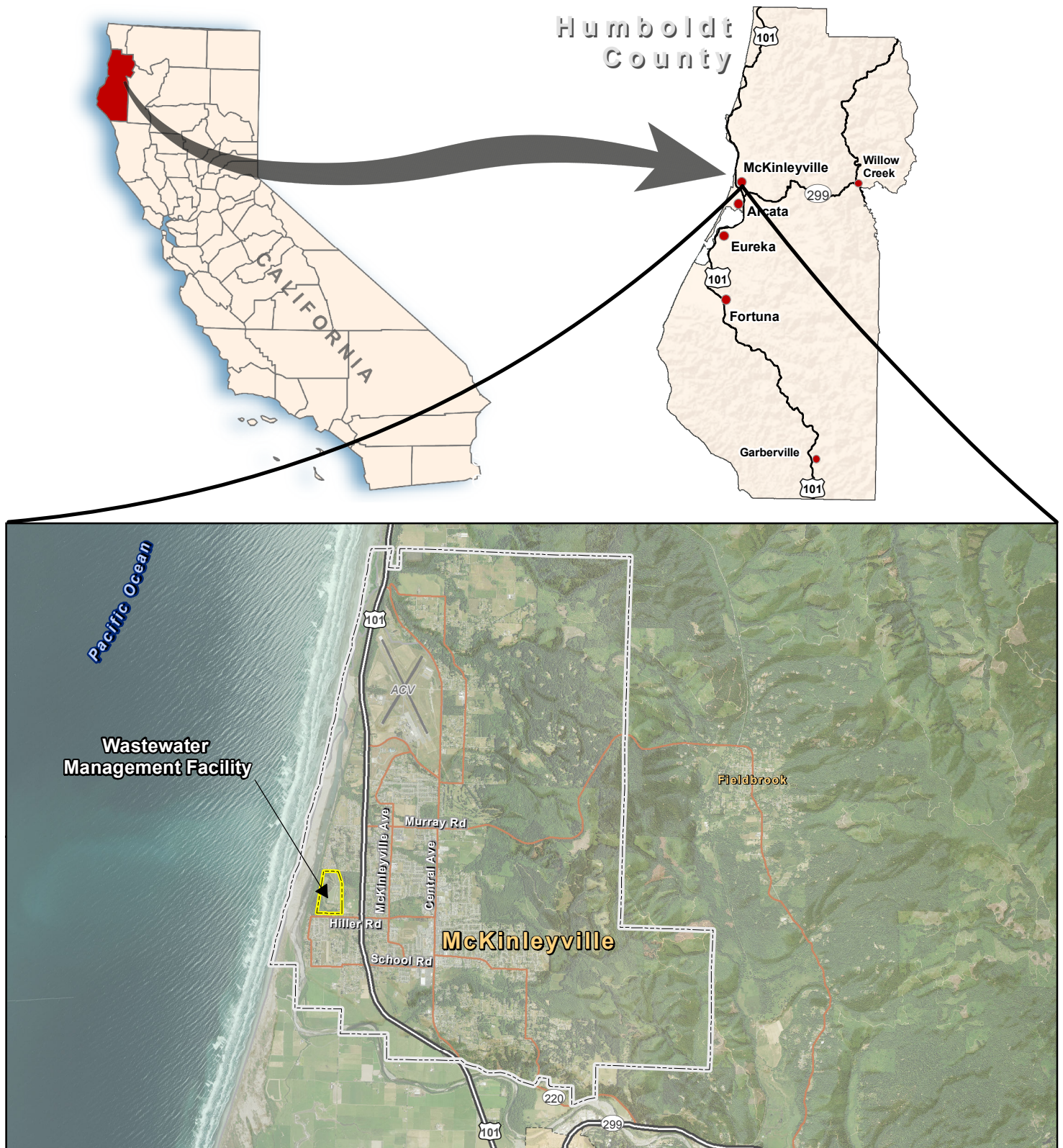
DRAFT

## Attachments



## Appendix A – Project Vicinity and Location Figures





- |  |  |  |
|--|--|--|
|  WWTP Parcel Boundary       |  Highway    |  Counties |
|  McKinleyville CSD Boundary |  Major Road |  |

1: 72,000 @ 8.5' X 11" (ANSI A)

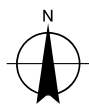
0 0.25 0.5 0.75 1

Miles

Map Projection: Lambert Conformal Conic

Horizontal Datum: North American 1983

Grid: NAD 1983 StatePlane California 1 FIPS 0401 Feet



McKinleyville Community Services District  
Wastewater System Energy Efficiency  
and Renewable Energy Project

Job Number	8410647
Revision	1
Date	24 Feb 2016

Vicinity Map

Figure 1

G:\Legacy\Projects\01059 McKinleyville CSD\8410647 MCSD Funding Assistance\08-GIS\Maps\Figures\F1\_Vicinity.mxd

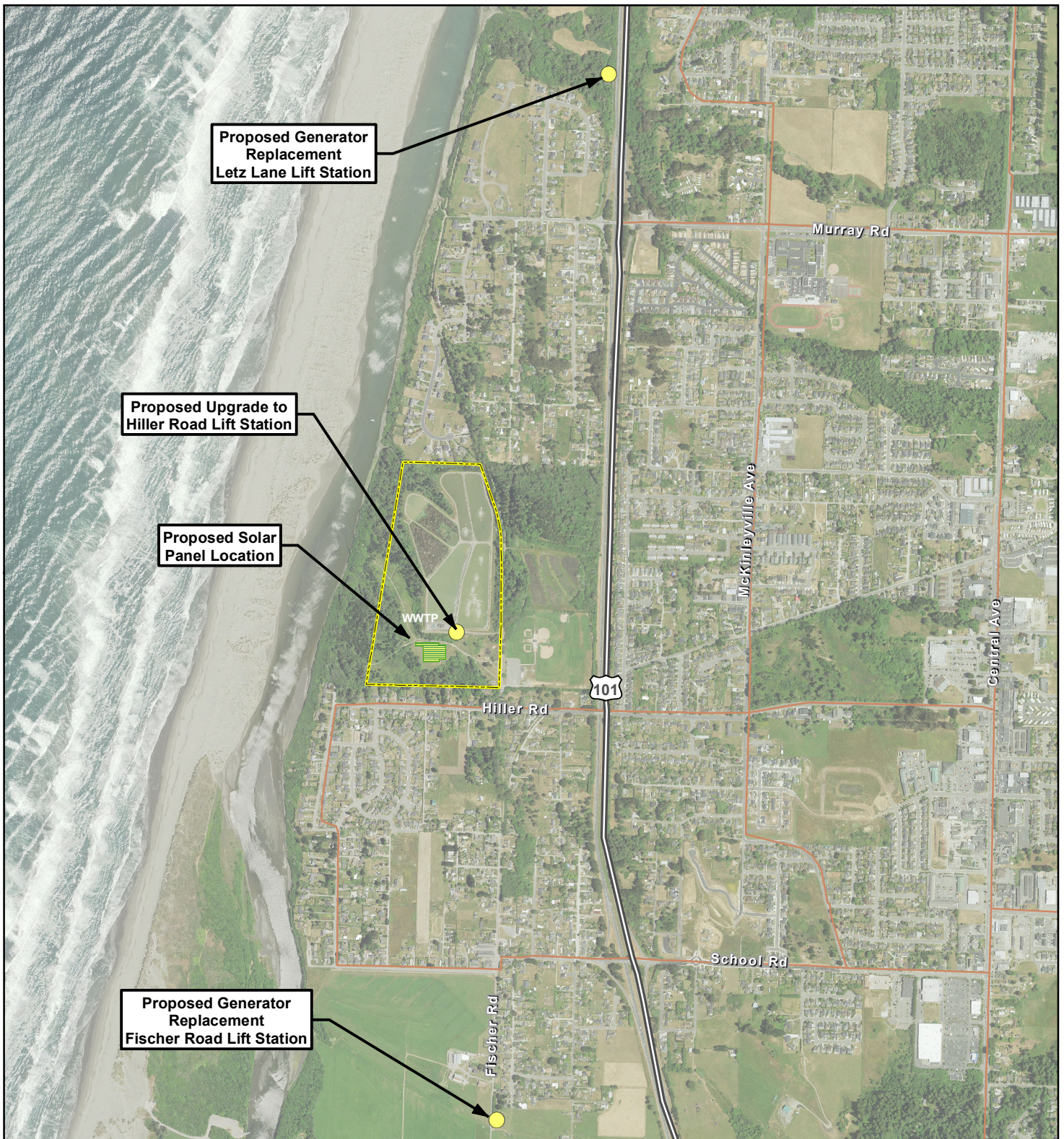
718 Third Street Eureka, CA 95501 T 707 443 8326 F 707 444 8330 E eureka@ghd.com W www.ghd.com






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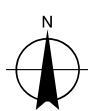






-  WWTP Parcel Boundary
-  Proposed Solar Panels
-  Sanitary Sewer Lift Stations
-  Highway
-  Major Road

Paper Size 8.5" x 11" (ANSI A)  
 0 300 600 900 1,200 1,500  
 Feet  
 Map Projection: Lambert Conformal Conic  
 Horizontal Datum: North American 1983  
 Grid: NAD 1983 StatePlane California I FIPS 0401 Feet



McKinleyville Community Services District  
 Wastewater System Energy Efficiency  
 and Renewable Energy Project

Job Number 8410647  
 Revision A  
 Date 24 Feb 2016

Site Map

Figure 2

718 Third Street Eureka CA 95501 USA T 707 443 8326 F 707 444 8330 E eureka@ghd.com W www.ghd.com

G:\Legacy\Projects\01059 McKinleyville CSD\8410647 MCSD Funding Assistance\08-GIS\Maps\Figures\F2\_SiteMap.mxd  
 © 2012. While every care has been taken to prepare this map, GHD (and DATA CUSTODIAN) make no representation or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and cannot accept liability and responsibility of any kind (whether in contract, tort or otherwise) for any expenses, losses, damages and/or costs (including indirect or consequential damage) which are or may be incurred by any party as a result of the map being inaccurate, incomplete or unsuitable in any way and for any reason. Data source: Data Custodian, Data Set Name/Title, Version/Date. Created by: gldavidson





## Appendix B – Letz Lane Pump Station Memo

February 11, 2016

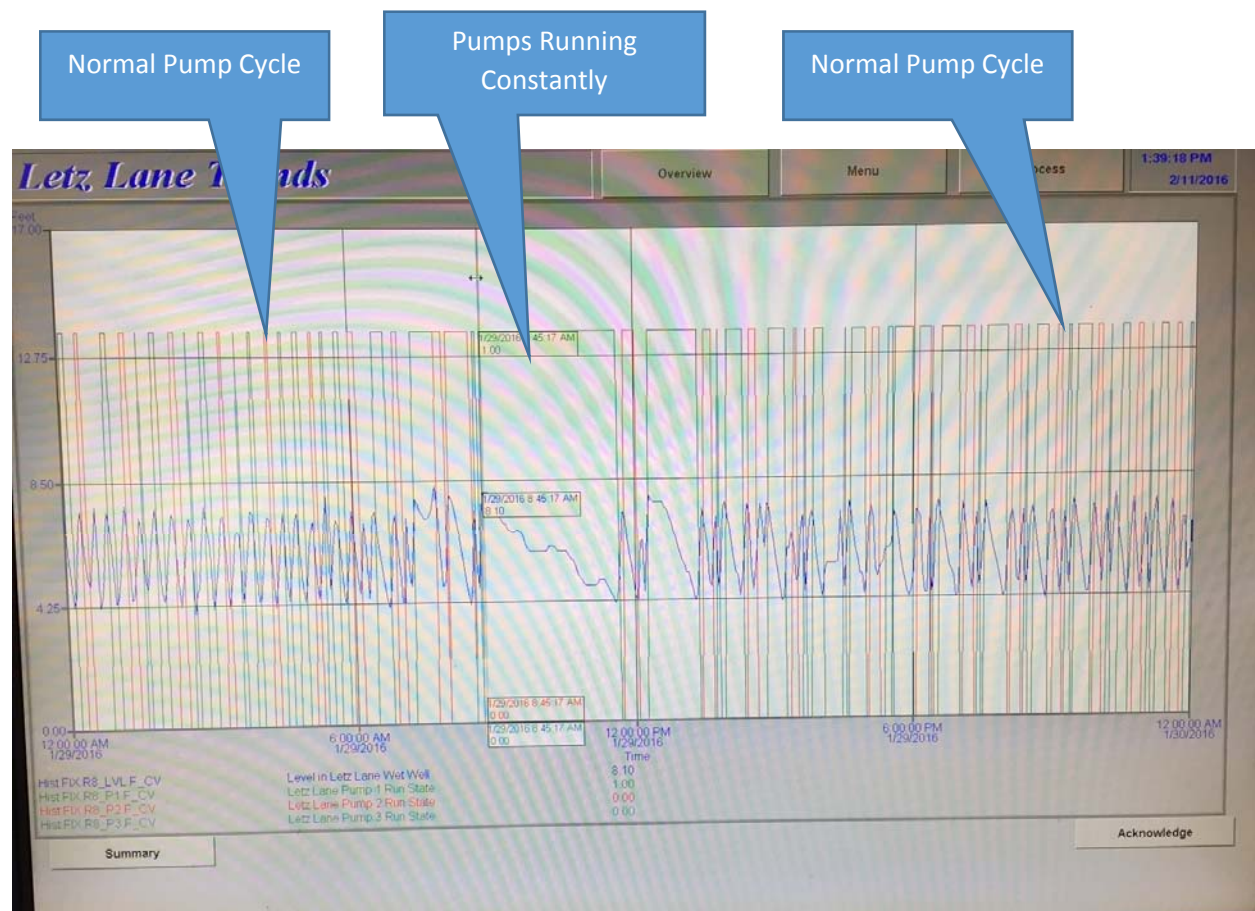
To: Rebecca Crow

From: James Henry, MCSD Operations Director

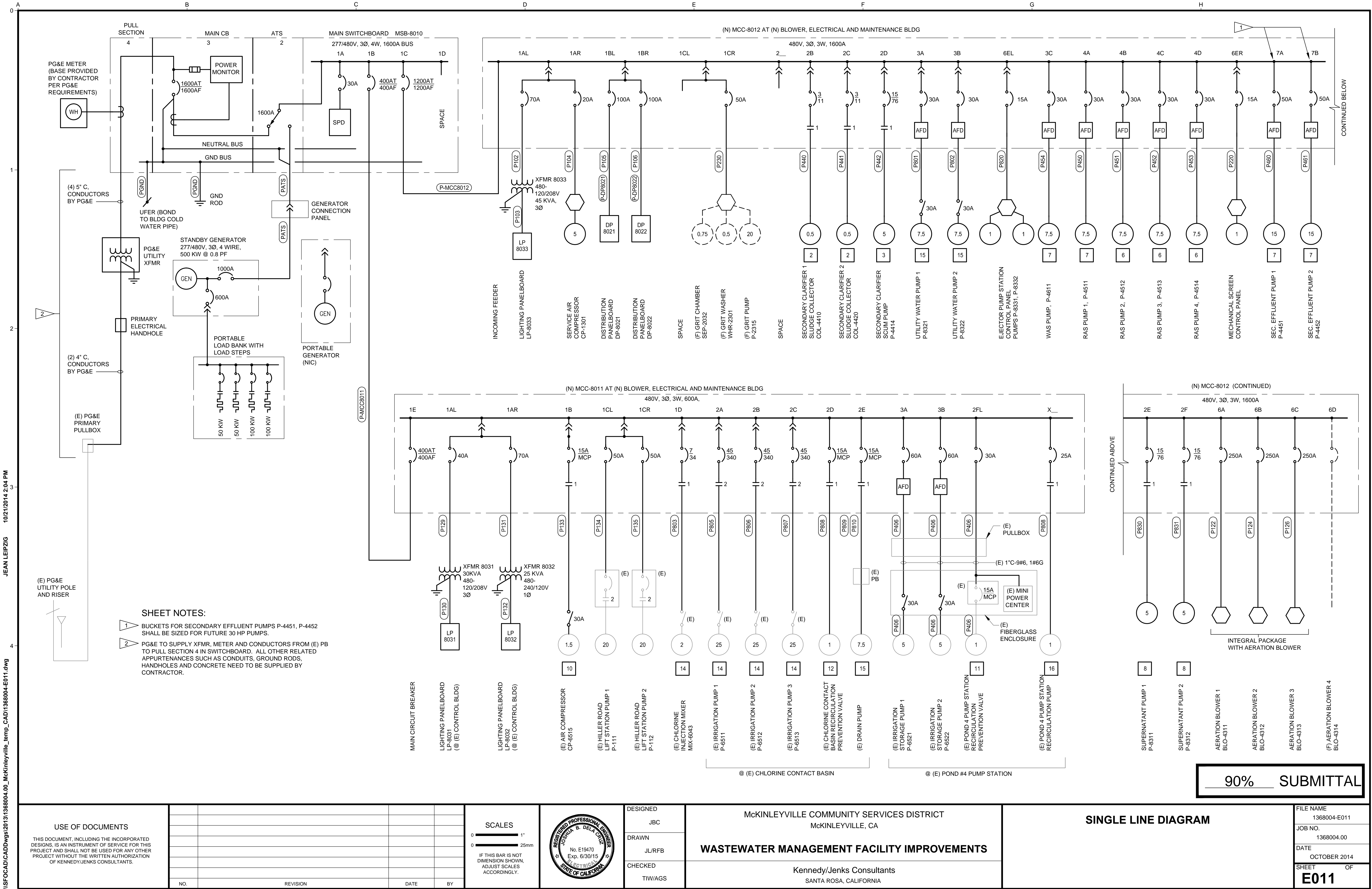
Re: Flow Totalizers

Hello Rebecca,

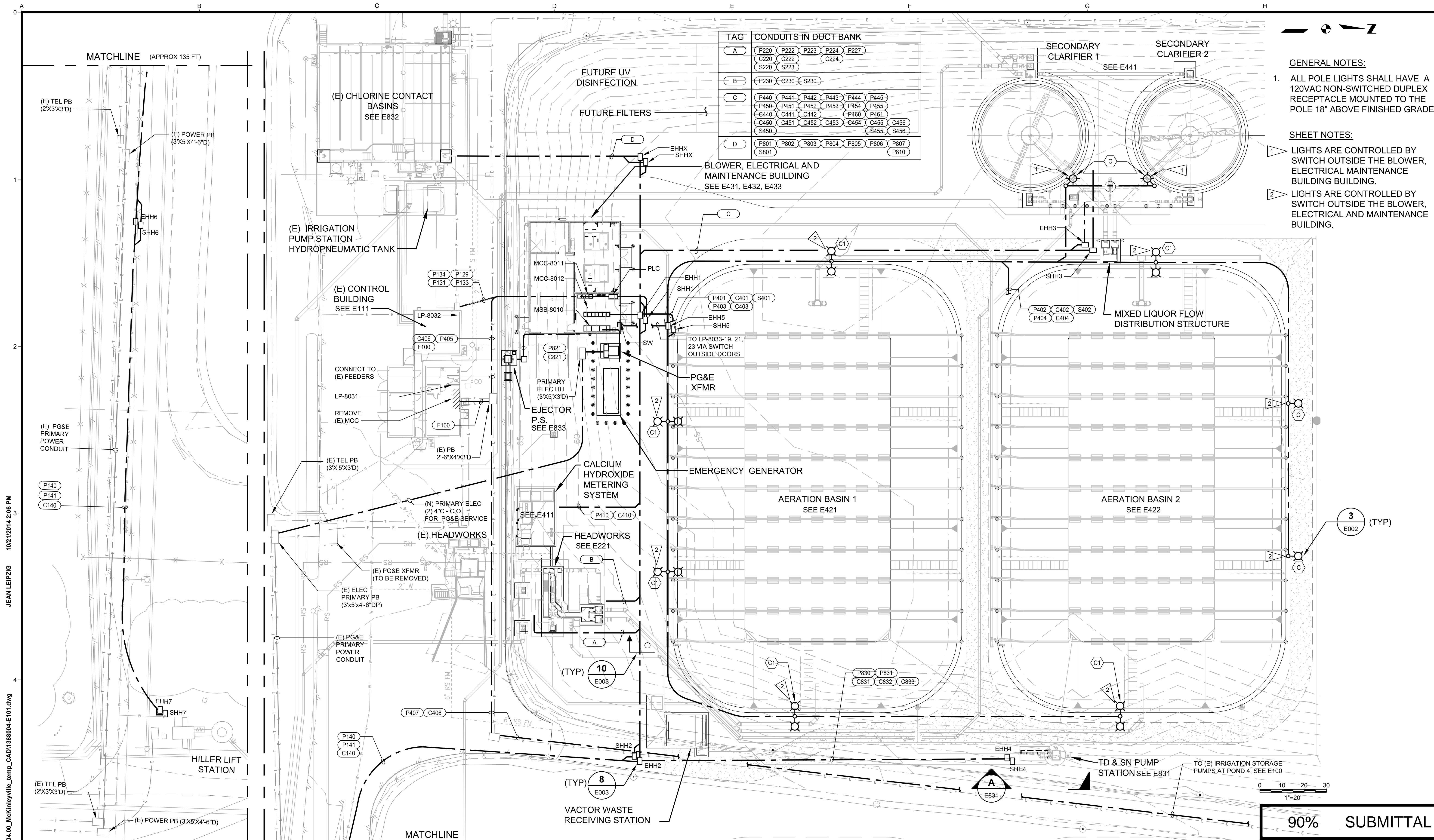
Here is a screen shot of one single event at our Letz Lane pump station pump trends during a 1.11-inch rain event. From 12:00 AM to 6:00 AM the pumps are operating at a normal cycle. Around 8:00 AM the pumps begin to run constantly to keep up with the additional infiltration and inflow. During these heavy rain events the District spends numerous hours looking inside manholes in an effort to track the source of the additional flows. The more I&I that comes through the harder it is for the pumps to keep up. Having flow totalizers in numerous locations will isolate the areas of concern.



## Appendix C – Solar Schematic







TAG	CONDUITS IN DUCT BANK				
A	P220	P222	P223	P224	P227
	C220	C222		C224	
	S220	S223			
B	P230	C230	S230		
C	P440	P441	P442	P443	P444
	P450	P451	P452	P453	P454
	C440	C441	C442	P460	P461
	C450	C451	C452	C453	C454
				S455	C456
	S450				S456
D	P801	P802	P803	P804	P805
	S801			P806	P807
					P810

- GENERAL NOTES:**
- ALL POLE LIGHTS SHALL HAVE A 120VAC NON-SWITCHED DUPLEX RECEPTACLE MOUNTED TO THE POLE 18" ABOVE FINISHED GRADE.
- SHEET NOTES:**
- LIGHTS ARE CONTROLLED BY SWITCH OUTSIDE THE BLOWER, ELECTRICAL MAINTENANCE BUILDING.
  - LIGHTS ARE CONTROLLED BY SWITCH OUTSIDE THE BLOWER, ELECTRICAL AND MAINTENANCE BUILDING.

10/21/2014 2:06 PM  
JEAN LEIPZIG  
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NO.	REVISION	DATE	BY								



## Appendix D – Project Cost Estimate

**MCSD – Wastewater System Energy Efficiency and Renewable Energy Project**  
**Engineers Planning Level Opinion of Probable Construction Cost**

Construction Cost Breakdown:						
Item Description			Unit Cost	Unit	Quantity	Total
Solar Upgrades	WWTP	Equipment	\$ 1,814,000	LS	1	\$1,814,000
		Installation	\$ 1,067,100	LS	1	\$1,067,100
Generators	Letz Sewer Lift Station	Equipment	\$ 45,000	LS	1	\$45,000
		Materials	\$ 2,500	LS	1	\$2,500
		Installation	\$ 8,000	LS	1	\$8,000
		Start Up	\$ 3,500	LS	1	\$3,500
	Fischer Sewer Lift Station	Equipment	\$ 50,000	LS	1	\$50,000
		Materials	\$ 3,000	LS	1	\$3,000
		Installation	\$ 9,000	LS	1	\$9,000
		Start Up	\$ 3,500	LS	1	\$3,500
Pump Station Upgrades	Upgrade the Hiller Lift Station with Submersible Pumps		\$ 200,000	LS	1	\$200,000
Construction Sub-Total						\$3,205,600
Estimating Contingency @ 30%						\$961,680
TOTAL OPINION OF PROBABLE CONSTRUCTION COST:						\$ 4,167,280
Equipment Cost Breakdown:						
Item Description			Unit Cost	Unit	Quantity	Total
I/I equipment	Flow Totalizers		\$ 16,000	EA	8	\$128,000
TOTAL OPINION OF PROBABLE EQUIPMENT COST:						\$ 128,000
Planning Design/ Administration						
Item Description			Unit Cost	Unit	Quantity	Total
Project Administration			\$ 10,000	LS	1	\$10,000
CEQA NOE/ Federal Cross cutters			\$ 10,000	LS	1	\$10,000
Solar Design and Permitting (Villara Quote)			\$ 66,500	LS	1	\$66,500
Preliminary solar design			\$ 30,000	LS	1	\$30,000
Engineering Support Generators			\$ 24,900	LS	1	\$24,900
Engineering Support Pump Station Upgrades			\$ 40,000	LS	1	\$40,000
Bidding Assistance			\$ 30,000	LS	1	\$30,000
Construction Management			\$ 60,000	LS	1	\$60,000
TOTAL OPINION OF PROBABLE ENGINEERING COST:						\$ 271,400
TOTAL OPINION OF PROBABLE PROJECT COST						\$ 4,566,680





GHD

718 Third Street



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Document Status

Revision	Author	Reviewer		Approved for Issue		
		Name	Signature	Name	Signature	Date
1	R. Crow & P. Rogers	R. Crow		R. Crow		03/08/2016

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**RESOLUTION 2016 - 08**

**A RESOLUTION AUTHORIZING THE GENERAL MANAGER TO SIGN AND FILE AN APPLICATION FOR GRANT FUNDING FROM THE STATE WATER RESOURCES CONTROL BOARD FOR THE PLANNING, DESIGN AND CONSTRUCTION OF THE MCSD WASTEWATER SYSTEM ENERGY EFFICIENCY AND RENEWABLE ENERGY PROJECT**

**WHEREAS**, the McKinleyville Community Services District is pursuing Clean Water State Revolving Funds to fund wastewater system renewable energy and energy efficiency projects.

**NOW, THEREFORE, BE IT RESOLVED** that the Board of Directors of the McKinleyville Community Services District (the "Entity"), does hereby authorize as follows:

The General Manager (the "Authorized Representative") or designee is hereby authorized and directed to sign and file, for and on behalf of the Entity, a Financial Assistance Application for a financing agreement from the State Water Resources Control Board for the planning, design, and construction of the McKinleyville Community Services District Wastewater System Energy Efficiency and Renewable Energy Project (the "Project").

This Authorized Representative, or his/her designee, is designated to provide the assurances, certifications, and commitments required for the financial assistance application, including executing a financial assistance agreement from the State Water Resources Control Board and any amendments or changes thereto.

The Authorized Representative, or his/her designee, is designated to represent the Entity in carrying out the Entity's responsibilities under the financing agreement, including certifying disbursement requests on behalf of the Entity and compliance with applicable state and federal laws.

**ADOPTED, SIGNED AND APPROVED** at a duly called meeting of the Board of Directors of the McKinleyville Community Services District on April 6, 2016 by the following polled vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

---

George Wheeler, Board President

Attest:

---

Becky Schuette, Board Secretary

# McKinleyville Community Services District

## BOARD OF DIRECTORS

April 6, 2016

TYPE OF ITEM: **ACTION**

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**ITEM: E.7**                      **Approve Resolution 2016-07 nominating Gregory Orsini for election to the California Special Districts Association (CSDA) 2016 Board of Directors Seat B**

**PRESENTED BY:**              **Gregory Orsini, General Manager**

**TYPE OF ACTION:**          **Roll Call Vote**

### **Recommendation:**

Staff recommends that the Board consider nomination of General Manager Gregory Orsini for election to the CSDA 2016 Board of Directors Northern Network Seat B; take public comment and approve Resolution 2016-07.

### **Discussion:**

CSDA is seeking Independent Special District Board Members, or their General Managers, who are interested in leading the direction of the California Special Districts Association for the 2017-2019 term.

CSDA leadership is elected from six geographical networks, each having three seats on the Board with staggered 3-year terms. Candidates must be CSDA Regular members located within the geographic network they seek to represent.

Serving on the CSDA Board requires one's interest in the issues confronting special districts statewide, a great deal of commitment and comes with numerous expectations such as:

- Attendance at all Board meetings, held every other month as the CSDA office in Sacramento
- Participation on at least one committee, meets 3-5 times a year at the CSDA office in Sacramento  
*(CSDA reimburses Directors for their related expenses for Board and committee meetings as outlined in Board policy).*
- Attendance at CSDA's two annual events: Special District Legislative Days (held in the spring) and the CSDA Annual Conference (held in the fall).
- Complete all four modules of CSDA's Special District Leadership Academy within two years  
*(CSDA does not reimburse for expenses for the two conferences or the Academy classes even if a Board or committee meeting is held in conjunction with the events).*

A copy of the Resolution and the Candidate Information Sheet must be received by CSDA no later than May 20, 2016.

**Alternatives:**

Staff analysis consists of the following potential alternative

- Take No Action

**Fiscal Analysis:**

No Direct Cost to the District other than General Manager Orsini's time away to attend meetings.

**Environmental Requirements:**

Not applicable

**Exhibits/Attachments:**

- Attachment 1 – CSDA Elections and Bylaws Committee Memo regarding Call for Nominations
- Attachment 2 – Resolution 2016-07



**California Special  
Districts Association**  
*Districts Stronger Together*

RECEIVED

FEB 24 2016

McK. C.S.D.

**DATE:** February 19, 2016

**TO:** CSDA Voting Member Presidents and General Managers

**FROM:** CSDA Elections and Bylaws Committee

**SUBJECT: CSDA BOARD OF DIRECTORS CALL FOR NOMINATIONS  
SEAT B**

---

The Elections and Bylaws Committee is looking for Independent Special District Board Members or their General Managers who are interested in leading the direction of the California Special Districts Association for the 2017 - 2019 term.

The leadership of CSDA is elected from its six geographical networks. Each of the six networks has three seats on the Board with staggered 3-year terms. Candidates must be affiliated with an independent special district that is a CSDA Regular member located within the geographic network that they seek to represent. (See attached Network Map)

The CSDA Board of Directors is the governing body responsible for all policy decisions related to CSDA's member services, legislative advocacy, education and resources. The Board of Directors is crucial to the operation of the Association and to the representation of the common interests of all California's special districts before the Legislature and the State Administration. Serving on the Board requires one's interest in the issues confronting special districts statewide.

**Commitment and Expectations:**

- Attend all Board meetings, held every other month at the CSDA office in Sacramento.
- Participate on at least one committee, meets 3-5 times a year at the CSDA office in Sacramento.  
*(CSDA reimburses Directors for their related expenses for Board and committee meetings as outlined in Board policy).*
- Attend CSDA's two annual events: Special Districts Legislative Days (held in the spring) and the CSDA Annual Conference (held in the fall).
- **Complete all four modules of CSDA's Special District Leadership Academy within 2 years.**  
*(CSDA does not reimburse for expenses for the two conferences or the Academy classes even if a Board or committee meeting is held in conjunction with the events).*



**Nomination Procedures:** Any Regular Member is eligible to nominate one person, a board member or managerial employee (as defined by that district's Board of Directors), for election to the CSDA Board of Directors. **A copy of the member district's resolution or minute action and Candidate Information Sheet must accompany the nomination. The deadline for receiving nominations is May 20, 2016.** Nominations and supporting documentation may be mailed or faxed.

Nominees will receive a Candidate's Packet in the mail. The packet will include campaign guidelines.

CSDA will mail ballots on June 3<sup>rd</sup>. The ballots must be received by CSDA no later than 5:00 p.m. August 5, 2016. The successful candidates will be notified no later than August 8<sup>th</sup>. All selected Board Members will be introduced at the Annual Conference in San Diego, CA in October.

### **Expiring Terms**

(See enclosed map for regional breakdown)

<b>Northern Network</b>	Seat B Greg Orsini, McKinleyville Community Services District*
<b>Sierra Network</b>	Seat B Ginger Root, Country Club Sanitary District*
<b>Bay Area Network</b>	Seat B Sherry Sterrett, Pleasant Hill Recreation & Park District
<b>Central Network</b>	Seat B Tim Ruiz, East Niles Community Services District*
<b>Coastal Network</b>	Seat B N/A
<b>Southern Network</b>	Seat B Bill Nelson, Orange County Cemetery District*
	Seat B Kathy Tiegs, Cucamonga Valley Water District

(\* = Incumbent is running for re-election)

If you have any questions, please contact Charlotte Lowe at 877-924-CSDA or [charlottel@csda.net](mailto:charlottel@csda.net).



**California Special  
Districts Association**  
*Districts Stronger Together*

## 2016 BOARD OF DIRECTORS NOMINATION FORM

Name of Candidate: \_\_\_\_\_

District: \_\_\_\_\_

Mailing Address: \_\_\_\_\_  
\_\_\_\_\_

Network: \_\_\_\_\_ (see map on back)

Telephone: \_\_\_\_\_  
(PLEASE BE SURE THE PHONE NUMBER IS ONE WHERE WE CAN REACH THE CANDIDATE)

Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

Nominated by (optional): \_\_\_\_\_

Return this form and a Board resolution/minute action supporting the candidate  
and Candidate Information Sheet by fax or mail to:

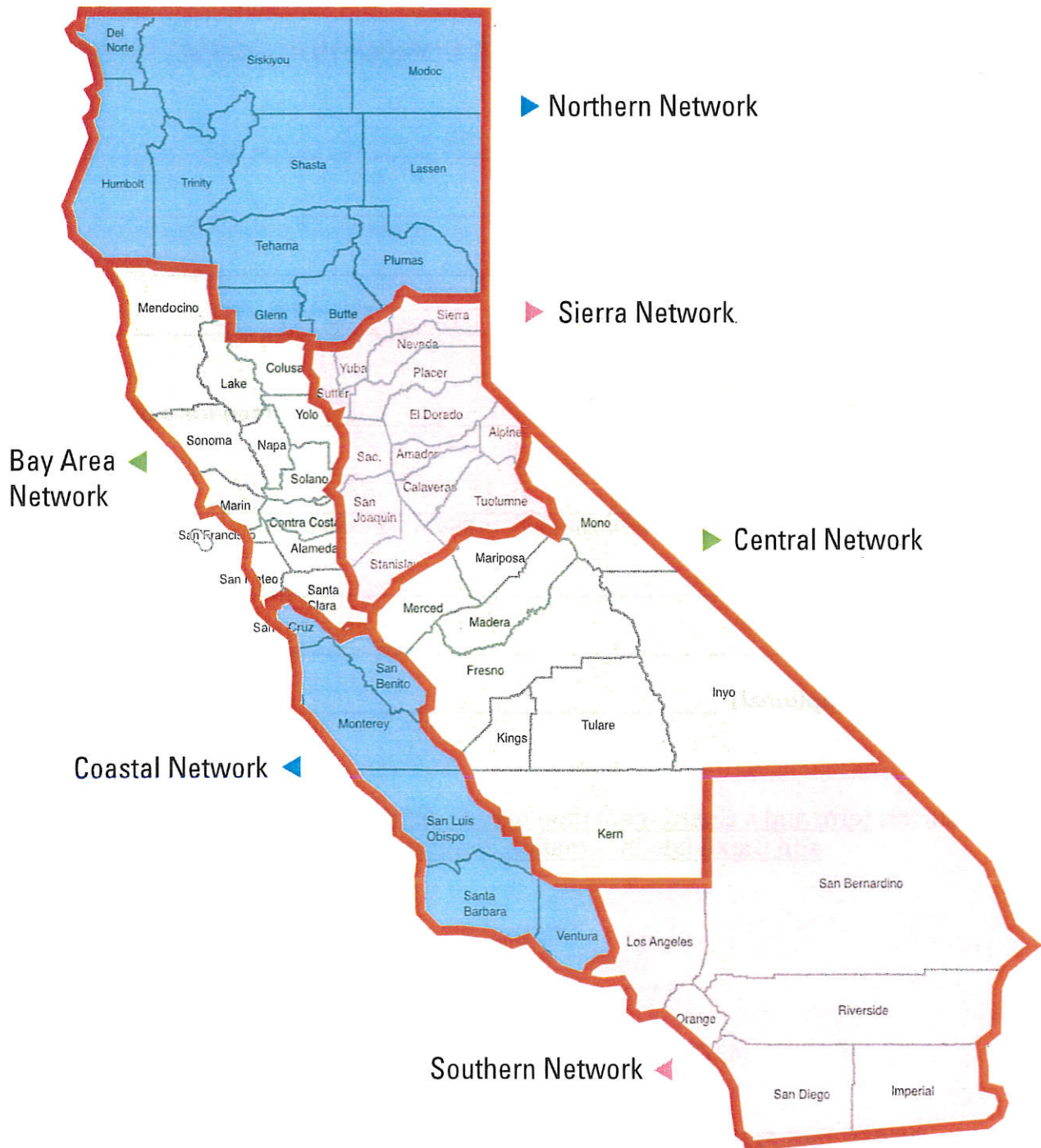
CSDA  
Attn: Charlotte Lowe  
1112 I Street, Suite 200  
Sacramento, CA 95814  
(877) 924-2732 (916) 442-7889 fax

***DEADLINE FOR RECEIVING NOMINATIONS – May 20, 2016***



California Special Districts Association

## DISTRICT NETWORKS





California Special  
Districts Association  
*Districts Stronger Together*

## 2016 CSDA BOARD CANDIDATE INFORMATION SHEET

The following information **MUST** accompany your nomination form and Resolution/minute order:

Name: \_\_\_\_\_

District/Company: \_\_\_\_\_

Title: \_\_\_\_\_

Elected/Appointed/Staff: \_\_\_\_\_

Length of Service with District: \_\_\_\_\_

1. Do you have current involvement with CSDA (such as committees, events, workshops, conferences, Governance Academy, etc.):

---

---

2. Have you ever been associated with any other state-wide associations (CSAC, ACWA, League, etc.):

---

---

3. List local government involvement (such as LAFCo, Association of Governments, etc.):

---

---

4. List civic organization involvement:

---

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**\*\*Candidate Statement** – Although it is not required, each candidate is requested to submit a candidate statement of no more than 300 words in length. **Any statements received in the CSDA office after June 2, 2016 will not be included with the ballot.**

**RESOLUTION 2016 - 07**

**A RESOLUTION NOMINATING GREGORY ORSINI FOR ELECTION TO THE CALIFORNIA SPECIAL DISTRICT ASSOCIATION BOARD OF DIRECTORS**

**WHEREAS**, Gregory Orsini has served the McKinleyville Community Services District (MCSD) with knowledge and commitment from November 26, 1990 to present; and

**WHEREAS**, the MCSD Board of Directors nominated then Interim General Manager Orsini to fill the vacancy on the CSDA Board for the remainder of the 2012-2013 term, via Resolution 2013-02; and

**WHEREAS**, having served as Interim General Manager to fulfill the duties left by the passing of General Manager Norman Shopay, Gregory Orsini was hired as full-time General Manager in May of 2013; and

**WHEREAS**, Gregory Orsini has been serving on the Board of Directors for CSDA since election to his first full term in 2014.

**NOW, THEREFORE, BE IT RESOLVED** that the Board of Directors of the McKinleyville Community Services District does hereby nominate Gregory Orsini for election to the California Special Districts Association Board of Directors.

**ADOPTED, SIGNED AND APPROVED** at a duly called meeting of the Board of Directors of the McKinleyville Community Services District on April 6, 2016 by the following polled vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

---

George Wheeler, Board President

Attest:

---

Becky Schuette, Board Secretary



# McKinleyville Community Services District

## BOARD OF DIRECTORS

April 6, 2016

TYPE OF ITEM: **INFORMATIONAL**

---

**ITEM: E.8**                      **Discussion of 2015 Wastewater Management Facility Annual Report to the Regional Water Quality Control Board (RWQCB)**

**PRESENTED BY:**              **James Henry, Operations Director**

**TYPE OF ACTION:**              **None**

### **Recommendation:**

Staff recommends that the Board review report, air questions and take public comment.

### **Discussion:**

The District reports annually to the Regional Water Quality Control Board by February of each year. The report reviews the performance of the treatment plant for the past year, the progress of any projects, provides details of our required discharge testing results, makes note of any compliance failures, and provides a general discussion of performance and future expansions or projects.

The District was in compliance throughout the year with all testing except for Chronic and Acute Toxicity testing. The acute toxicity testing requires 96-hour testing of 100% effluent using 2 test species: larval rainbow trout (*Oncorhynchus mykiss*) and water flea (*Ceriodaphnia dubia*) and must achieve a 70% survival single test minimum or a 90% median for the three sample retest. After the first discharge season, acute toxicity monitoring was to be conducted using the most sensitive species which resulted in being the *Ceriodaphnia dubia*. Table 4 of Attachment 1 displays the results from the Acute testing. The District has no problem with getting over 70% survival when using the Larval Rainbow Trout but sometimes struggles with getting those results using *Ceriodaphnia dubia*. Acute Toxicity *Ceriodaphnia dubia* testing was able to meet compliance with only needing repeat (accelerated) testing in March. MCSD continues to perform larval rainbow trout acute toxicity testing as a control to demonstrate that the toxicity identified in the water flea testing can be attributed to unionized ammonia. (Unionized ammonia (NH<sub>3</sub>) is the toxic form of ammonia, and unionized ammonia concentrations increase with increased pH and temperature (EPA, 1979)).

The Chronic Toxicity monitoring bioassay criteria requires a 96-hour static renewal or 96-hour static non-renewal testing which cannot exceed the chronic toxicity trigger of 1.0 Chronic Toxic Unit (TUC). Test species for chronic testing are a vertebrate, the fathead minnow, *Pimephales promelas* (larval survival and growth test), an invertebrate, the water flea, *Ceriodaphnia dubia* (survival and reproduction test), and a plant, the green alga, *Selenastrum capricornutum*

(growth test). The District conducted chronic toxicity testing one time during the 2015 discharge season. The testing results for Chronic Testing are detailed in Table 4 of attachment 1 and show that this test had failed. Chronic Toxicity accelerated testing was not conducted due to it not being possible to pass the test due to high ammonia. A Toxicity Reduction Evaluation (TRE) was required to identify the toxicant and was conducted in 2009 by SHN which confirmed that chronic failure was due to high ammonia.

The new WWMF upgrade will provide reliable ammonia removal as part of the upgrade. Once the facility improvements have been completed, we anticipate that the acute and chronic toxicity test results will be in compliance.

The complete 88 page report can be viewed on the District website or at the District office. The 9 page summary is attached as Attachment 1.

**Alternatives:**

Take Action

**Fiscal Analysis:**

Not applicable

**Environmental Requirements:**

Not applicable

**Exhibits/Attachments:**

- Attachment 1 – Summary of 2015 Wastewater Management Facility Annual Report



**PHYSICAL ADDRESS:**

1656 SUTTER ROAD  
McKINLEYVILLE, CA 95519

**MAILING ADDRESS:**

P.O. BOX 2037  
McKINLEYVILLE, CA 95519



mckinleyvillecsd.com

**MAIN OFFICE:**

PHONE: (707) 839-3251  
FAX: (707) 839-8456

**PARKS & RECREATION OFFICE:**

PHONE: (707) 839-9003  
FAX: (707) 839-5964

February 12, 2016

Regional Water Quality Control Board, North Coast Region  
5550 Skylane Blvd., Suite A  
Santa Rosa, California 95403

**McKINLEYVILLE COMMUNITY SERVICES DISTRICT  
WASTEWATER MANAGEMENT FACILITY ANNUAL REPORT, FOR 2015**

The McKinleyville Community Services District operates the wastewater collection, treatment, and disposal facilities that serve 6391 customer units in the unincorporated area of McKinleyville in Northern Humboldt County. The system operates under Order Number WQ 2011-0008-DWQ, National Pollution Discharge Elimination System (NPDES) Permit No. CA0024490, WDID No. 1B820840HUM and issued by the California State Water Resources Control Board.

Tables 1 and 2 summarize the existing permit elements for reference.

Table 1. Effluent Limitations for Discharge Point 001

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Biochemical Oxygen Demand 5-day @ 20°C	mg/L	45	65			
	lbs/day	604	873			
Total Suspended Solids	mg/L	83				
	lbs/day	1108				
pH	pH Units				6.5	8.5
Settleable Matter	mg/L	0.1		0.2		
Chlorine Residual	mg/L	0.01		0.02		
Nitrate as Nitrogen	mg/L	10				
4,4'-DDT	ug/L	0.00059		0.0027		
bis(2-ethylhexyl) phthalate	ug/L	1.8		3.6		

Table 2. Summary of Monitoring Location Names and Descriptions.

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
	M-INF	Treatment facility headworks
All	M-001	Chlorine contact chamber following dechlorination
001	M-002	Outfall to the Mad River under the Hammond Trail railroad bridge
002	M-003	Outfall to Mad River percolation ponds
003	M-004	Recycled wastewater irrigation of Lower Fisher Ranch
004	M-005	Discharge to land on Upper Fisher Ranch
005	M-006	Recycled wastewater irrigation of Hiller Storm Water Treatment Wetland
006	M-007	Recycled wastewater irrigation of Pialorsi Ranch
	M-008	Overflow from the Hiller Storm Water Treatment Wetland
	R-001	Mad River at Highway 101 Bridge
	R-002	North bank of Mad River as close as possible to the discharge point under the Hammond Trail Bridge
	W-001	Well M-1 adjacent to Fisher Road
	W-002	Well M-2 on the SW corner of the intersection of School and Fisher Roads
	W-006	Well M-6 south of W-9 and west of W-7
	W-007	Well M-7 in the upper portion of the Fisher parcel
	W-008	Well M-8 400 feet west of the intersection of School and Fisher Roads
	W-009	Well M-9 adjacent to School Road
	W-014	Well down gradient of the Hiller Storm Water Treatment Wetlands
	W-015	Well within the Lower Fisher Ranch irrigation area
	W-016	Well within the Pialorsi Ranch irrigation area

### Compliance:

#### Biochemical Oxygen Demand (BOD) Testing:

Discharge Point 001 requirement for BOD are 45 mg/L, 604 lbs/day and 65% removal for the monthly average and a weekly average limit of 65 mg/L and 873 lbs/day. Discharge Point 002 requirement for BOD is 45 mg/L monthly average and a weekly average limit of 65 mg/L. Discharge Point 003- 006 requirements for BOD are 45 mg/L monthly.

BOD limitations for 2015 were not exceeded.

#### Total Suspended Solids Testing (TSS):

Discharge Point 001 requirement for TSS is 83 mg/L, 1108 lbs/day and 65% removal for the monthly average. Discharge Points 002- 006 requirements are 83 mg/L for the monthly average.

TSS limitations for 2015 were not exceeded.

#### 3x5 Total Coliform/ Disinfection Testing:

The effluent limitations for coliform 3x5 testing is a maximum monthly median, a most probable number (MPN) of 23 per 100 milliliters and a daily maximum of 230 MPN and are the same for Discharge Point 001- 006. Coliform limitations for Monthly Median and Daily Maximum were in compliance in 2015.

#### Settleable Matter Testing:

The effluent limitations for settleable Matter testing are listed in Table 1 and are for Discharge Point 001. Settable Matter limitations for 2015 were not exceeded.

#### Chlorine Residual Testing:

The effluent limitations for Chlorine Residual testing are listed in Tables 1 and are for Discharge Point 001. Residual limitations for 2015 were not exceeded.

#### Nitrate as Nitrogen Testing:

The effluent limitations for Nitrate as Nitrogen testing are listed in Tables 1 and are for Discharge Point 001 and 002. Nitrate as Nitrogen limitations for 2015 were not exceeded.

#### 4,4'-DDT; bis(2-ethylhexyl) phthalate and carbon tetrachloride Testing:

The effluent limitations for these constituents are Table 1 and are for Discharge Point 001. The limitations for 2015 were in compliance.

#### Acute Toxicity Monitoring:

The acute toxicity monitoring bioassay criteria for Discharge Point 001 requires a 96-hour fish bioassay test conducted at M-001 in undiluted effluent. Two test species were required, Ceriodaphnia dubia (C.dubia) and Rainbow Trout. The method for conducting this test require the laboratory maintain the test sample the same pH as when the effluent sample was collected and that ammonia, pH and temperature be recorded on 24-hour intervals and reported with the bioassay test results.

It was determined that the C. dubia was too sensitive to the buffering agent used to maintain the pH and mortality rates were beyond the limits set forth in the permit so pH control of the C. dubia was discontinued. After the first year of testing the most sensitive species was to be determined and continue testing that species only but we have continued to conduct testing on both species.

During the year Pacific EcoRisk conducted the C. dubia testing using MOPS buffering to control the fluctuation of test solution pH over the course of the test. This made it possible to adjust the pH to the initial effluent pH at the time of sampling. This procedure has been working and isn't affecting the already sensitive C. dubia.

The minimum compliance for any one test is 70% survival. The median for all bioassays during any calendar month is at least 90%. If the results of any 96-hour bioassay test are not in compliance a follow up test is required within 7 day of notification. The results for Acute Testing were in compliance in 2015 with the exception of a March test for C. dubia that required follow up testing which was in compliance.

#### **Non-Compliance:**

##### Acute Toxicity Testing

The Requirement for Acute Toxicity testing is a minimum of 70% survival for any one test and median for all tests in one month of 90%. Acute Testing remained in compliance throughout the calendar year for Rainbow Trout and C. dubia remained in compliance from January to December with the exception of November. Please review Table 3 for results.

Table 3 Monthly and Accelerated Testing

Date Collected	Test	Trout Survival	Cerio Survival
1/6/2015		100%	
1/27/2015	Monthly		90%
2/3/2015	Monthly	100%	100%

3/3/2015	Monthly	100%	40%
3/18/2015	Accelerated		100%
4/6/2015	Monthly	95%	90%
12/9/2015	Monthly	85%	100%

### Conclusion

It has been a long standing observation that our ammonia levels are high and un-ionized ammonia cause toxicity in the right conditions. Due to the toxicity of the pH buffering agent and the high temperatures required for C. dubia test, pH fluctuations and temperatures far outside those characteristic in our effluent cause unionized ammonia to increase to become toxic.

The District, with concurrence of the Regional Board, has decided to run the acute toxicity as a side by side comparison with the second testing criteria at 20°C for C. dubia along with daily renewal of effluent which is consistent with the method. After running several side by side tests, it was chosen to use the 20°C criteria.

### Chronic Toxicity Monitoring:

The chronic toxicity monitoring bioassay criteria for Discharge Point 001 requires a 96-hour static renewal or 96-hour static non-renewal testing. The sample is a 24-hour composite and is representative of the volume and quality of the discharge. The sampling is conducted at M-001 WWMF Effluent. Test species for chronic testing are a vertebrate, the fathead minnow, *Pimephales promelas* (larval survival and growth test), an invertebrate, the water flea, *Ceriodaphnia dubia* (survival and reproduction test), and a plant, the green alga, *Selenastrum capricornutum* (growth test). The District conducted chronic toxicity testing one time during the 2015 discharge season. The testing results for Acute Testing are detailed in Table 4

Table 4 Chronic Toxicity Testing for 2015

Dilution Water	Date	Test Species				
		Flathead minnow		Water flea		Algae
		Survival	Growth	Survival	Reproduction	Growth
Diluted w/ Lab Control Water	January 2015	TUc = 1.3	TUc = 4	TUc = 1.3	TUc = 2	1

### Accelerated Monitoring Requirements:

If the result of any chronic toxicity test exceeds the chronic toxicity trigger of 1.0 TUc and the testing meets all test acceptability criteria, the District shall initiate accelerated monitoring. Accelerated monitoring shall consist of four additional effluent samples, one test conducted approximately every week, over a four-week period. Testing shall commence within 14 days of receipt of the sample results of the exceedance of the chronic toxicity effluent limitation. The following protocol was used for accelerated monitoring and the TRE implemented and detailed in a study submitted during the 2009 discharge season.

### Conclusion:

It was concluded that the mortality experienced in regular testing and verified in the monitoring study was due to ammonia. Ammonia toxicity has been addressed in the 20 Year Facility Plan and a preferred alternative has been identified for the plant upgrade that will reliably remove ammonia. Design began in early 2013 with construction beginning in February 2016. An interim solution for ammonia removal will also be explored.

## Other Projects and Commentary on the Treatment Process:

### Treatment Process Trends:

The success of a particular process can be gauged by tracking the removal of BOD and TSS. Chart 1 demonstrates average BOD concentration in mg/L from 2005 through 2015. The average BOD in 2015 was 22 mg/L and continues to remain well below 45mg/L, our current limit.

Chart 1 Annual Average BOD Concentrations

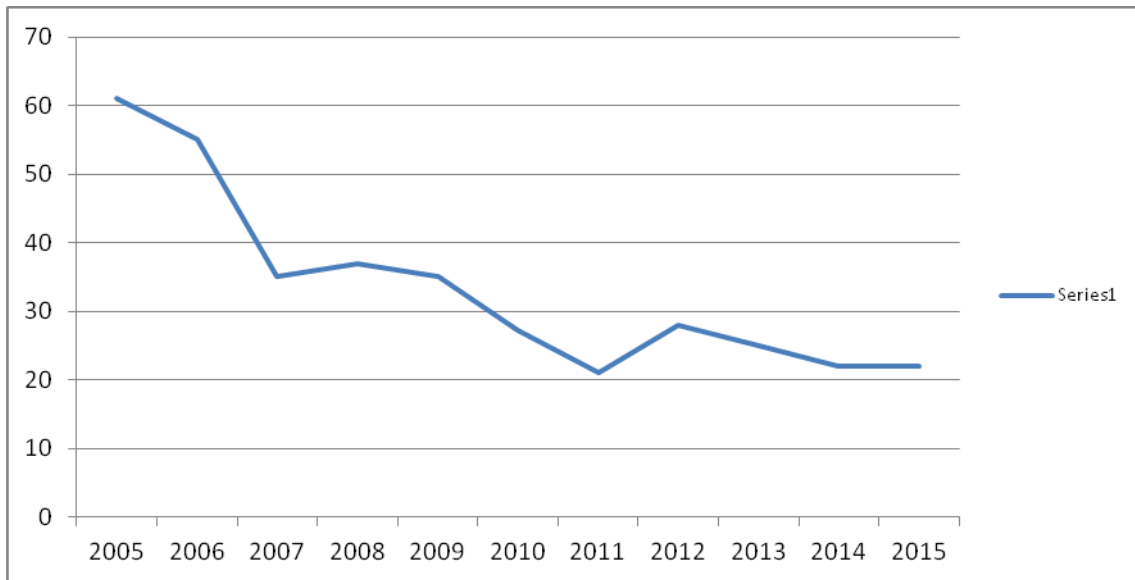


Chart 2 demonstrates average TSS concentration in mg/L from 2005 through 2015. The average TSS in 2015 was below 30 mg/L and is well below the level it was in 2005.

Chart 2 Annual Average TSS Concentrations

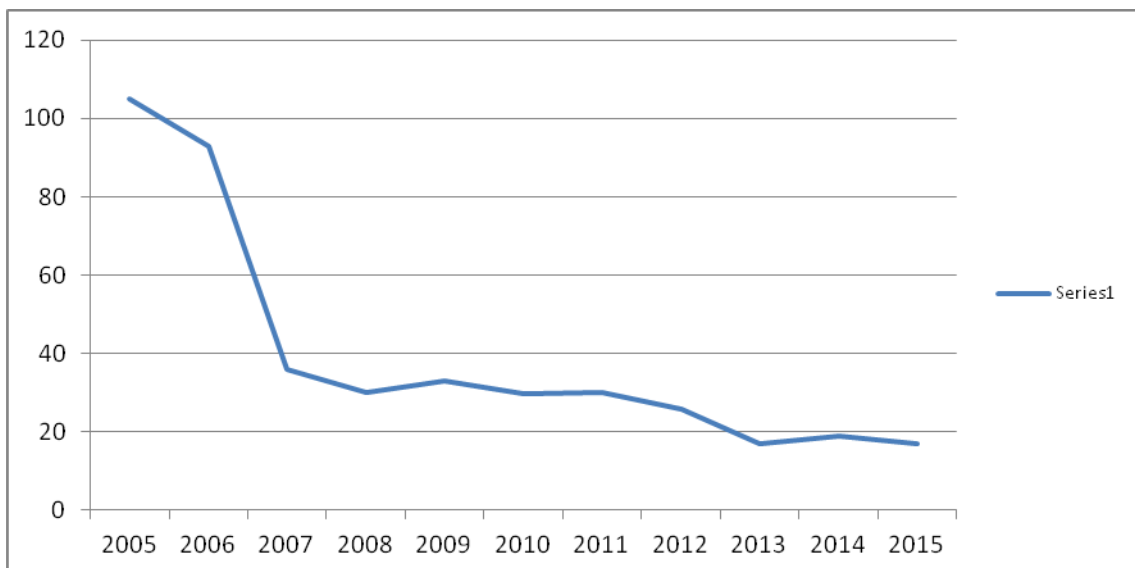
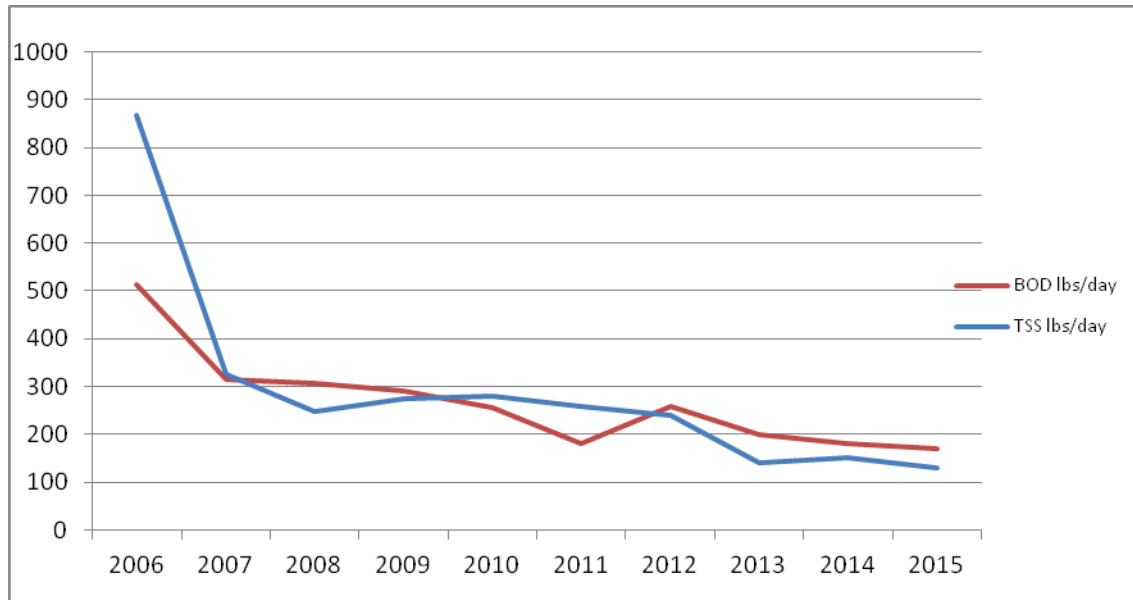


Chart 3 is the product of the flow and the concentration, is identified as mass loading and measured in pounds per day. BOD and TSS continue to trend lower.

Chart 3 Annual Average BOD and TSS Mass Loading



Charts 1-3 demonstrate the downward side of the spike of BOD and TSS from the 2005 treatment marsh upgrade project completion in 2006. From 2006 through 2007 the performance of the treatment process can be demonstrated by the drastic improvement. From 2007 through 2011 the efficiency of the process continues to trend down. The blip upward in BOD experience in 2012 but trended back down in 2014 and continued to trend down in 2015.

#### Main Area of Concern:

#### Nitrogen Removal

Ammonia has been identified as the main area of concern as demonstrated through biological testing and the appearance of Nitrate in the ground water adjacent to the irrigation sites. Though our permit does not directly limit ammonia we recognize the importance of addressing the concern. The District is committed to reversing the trend of ammonia toxicity in our effluent stream. The 20 Year Facility Plan directly addresses and is dedicated to the removal by treatment of this constituent. The District is also exploring other interim alternatives that have the potential to augment planned upgrades and are addressed in the WWMF Improvement Project Design.

#### Summary of Work Completed in 2015

##### Draining and Preparing Pond 1A for Construction: Attachment 1

To prepare the site for the WWMF upgrade, Pond 1A was pumped into Pond 1B at a slow rate. Once the pumping was completed, staff used heavy equipment to move the remaining sludge that was left over from the 2014 Biosolids removal. The material was relocated to the North end of the pond and sloped to allow rain water to run off the sludge and prevent it from turning into slurry. As the rainfall accumulates at the south end of the pond, it is then pumped over to Pond 1B. The Sludge will be removed as part of the first phase of the upgrade. A time lapse camera has been installed and will take pictures daily to capture the upgrade progress. (Displayed in attachment 1)

## Pipe Replacement From Headworks to Pond 1B: Attachment 2

The 12" ac pipe that delivers the influent from the WWMF head works to Pond 1B was collapsing due to years of hydrogen sulfide exposure. The pipe was dug up and replaced with C900 pipe to prevent blockage and future corrosion.

## WWMF Upgrade: Attachment 3

In 2013 MCSD contracted Kennedy/ Jenks to design the WWMF upgrade. The Design was completed in 2015 after several rounds of comment between the District and the engineers. Invitation to bidders went out and several were received. The low bidder, which was Auburn Contractors, was awarded the bid. The bids were reviewed by engineers and the State Revolving Fund. After the District received their approval, a notice to proceed was signed. Starting on January 4, 2016, the contractors have 521 days to complete the upgrade. The District has been attending weekly progress meeting discussing schedules and submittals. The contractors should break ground by the middle of March. A layout of the upgrade is provided as Attachment 3.

## 20 Year Facilities Plan

The District also completed significant work in 2011 on the 20-year facilities plan for the District WWMF. An initial draft of the facilities plan was published in August 2011 for a peer review by Kennedy Jenks. In October 2011 a revised draft was published and circulated for public review and comment. The final draft of the facilities plan was published in January 2012 and accepted by the District board on February 1, 2012. The full document can be located at the District web site by following this link.

<http://mckinleyvillecsd.com/document-library/20%20Year%20Facilities%20Plan>



## INDEX OF ATTACHMENTS and EXHIBITS

ATTACHMENT 1: Draining and Preparing Pond 1A for Construction **PG 10**

ATTACHMENT 2: Pipe Replacement From Headworks to Pond 1B **PG 14**

ATTACHMENT 3: WWMF Upgrade **PG 16**

EXHIBIT A: Tabular and Graphical Data **PG 17**

Influent and Effluent Monthly Totals  
Influent and Effluent Maximum Day

EXHIBIT B: Tabular **PG 19**

CFS, River Dilution, Effluent Flow and Effluent Distribution

EXHIBIT C: Tabular and Graphical Data **PG 24**

Monthly Totals for Effluent Flow and Discharge Disposal Locations  
Annual Effluent Distribution Pie Chart  
Daily Totals for Effluent Flow and Discharge Disposal Locations

EXHIBIT D: Tabular Data **PG 37**

Monthly Monitoring Report (Permit exceedances highlighted in yellow)

EXHIBIT E: Tabular Data **PG 49**

Influent and Effluent Testing Monthly Averages

EXHIBIT F: Tabular and Graphical Data **PG 62**

30-day Average BOD and NFR Worksheet  
30 Day BOD and NFR Maximum, Minimum and Average Chart  
BOD and NFR 30 Average Concentration Chart  
BOD and NFR 30 Average lbs/day Chart  
BOD and NFR 30 Day Average Removal Comparisons  
BOD Influent, Effluent and Terminal Pond Comparisons

EXHIBIT G: Tabular and Graphical Data **PG 69**

Monthly Averages for pH, temperature Ionized and Unionized Ammonia  
Influent and Effluent Average Total Ammonia Chart  
Relationship between Temperature and Ammonia Percent Removal Chart

EXHIBIT H: Tabular Data **PG 72**

Well Monitoring Data  
Discharge Data R-001, R-002 and M-001

EXHIBIT I: Tabular Graphical Data PG 62

Pond Sludge Depths  
Remaining Sludge Capacity Chart  
Monthly/ Annual Averages for Pond Ammonia  
Monthly/ Annual Averages for Pond Temperature  
Monthly/ Annual Averages for Pond pH  
Monthly/ Annual Averages for Pond Dissolved Oxygen  
Monthly/ Annual Averages for Pond Level

EXHIBIT J: Tabular and Graphical Data PG 69

Monthly Total Aerator Hours  
Monthly Total Aerator Hours versus Ammonia % Removal Chart  
Monthly Total Aerator Hours versus Effluent BOD Chart  
Monthly Total Aerator Hours versus BOD Percent Removal Chart

EXHIBIT K: Tabular Data PG 73

Monthly Total Electric, Cl<sub>2</sub>, SO<sub>2</sub>, and Rain Gage Data  
TKN, Alkalinity, and Nitrate Special Testing

If you have any questions, please contact this office.

"I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED, IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."



GREGORY ORSINI, GENERAL MANAGER

# McKinleyville Community Services District

## BOARD OF DIRECTORS

April 6, 2016

TYPE OF ITEM: **INFORMATIONAL**

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**ITEM: E.9**                      **Review Parks & General Fund DRAFT Operating Budget  
FY2016-17**

**PRESENTED BY:**              **Colleen M. R. Trask, Finance Director**

**TYPE OF ACTION:**          **None**

### **Recommendation:**

Staff recommends that the Board review the DRAFT Operating Budget for the Parks/General Fund and Measure B Fund.

### **Discussion:**

The budget was developed based on current costs, trends, and best estimates. Information from the Capital Improvements draft budget previously presented to the Board is incorporated into this budget. Questions from the Directors on any category item or on the budget overall are welcome and may be brought to the General Manager. The finalized budget will be presented to the Board for formal approval in June.

### **Alternatives:**

Take Action

### **Fiscal Analysis:**

See attached FY2016-17 Parks/General Fund and Measure B Fund DRAFT Operating Budgets.

### **Environmental Requirements:**

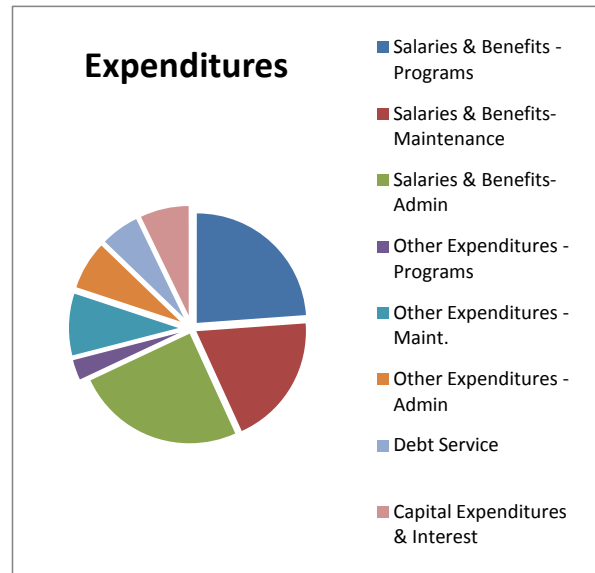
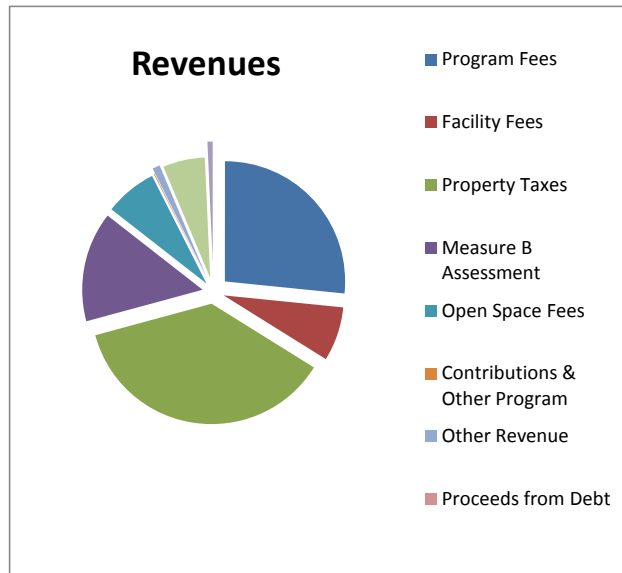
Not applicable

### **Exhibits/Attachments:**

- Attachment 1 - FY2016-17 DRAFT Operating Budget for the Parks/General Fund and for Measure B Fund.

**McKinleyville Community Services District**  
**Governmental Funds DRAFT Operating Budget**  
**FY 2016-17**

Description	Parks/General Fund		Measure B		Total (Memorandum Only)	
			Assessment Fund			
Revenues						
Program Fees	378,289	31%	-	-	378,289	27%
Facility Fees	103,300	9%			103,300	7%
Property Taxes	525,000	43%	-	-	525,000	37%
Measure B Assessment	-	-	210,000	98%	210,000	15%
Open Space Fees	99,500	8%	-	-	99,500	7%
Contributions & Other Program	1,500	0%	-	-	1,500	0%
Other Revenue	10,932	1%	3,500	2%	14,432	1%
Proceeds from Debt	-	-	-	0%	-	0%
Quimby Fees/ Grants/Loans	80,000	7%	-	0%	80,000	6%
Interest Revenue	10,000	0.8%	-	-	10,000	0.7%
Total Revenues	1,208,521	100%	213,500	100%	1,422,021	100%
Expenditures						
Salaries & Benefits - Programs	338,962	28%	-		338,962	24%
Salaries & Benefits- Maintenance	218,865	18%	55,759	26%	274,624	19%
Salaries & Benefits- Admin	352,649	29%	-		352,649	25%
Other Expenditures - Programs	42,130	3%	-		42,130	3%
Other Expenditures - Maint.	99,266	8%	30,250	14.2%	129,516	9%
Other Expenditures - Admin	101,270	8%	-	0.0%	101,270	7%
Debt Service	-	-	79,968	37.5%	79,968	0.06
Capital Expenditures & Interest	54,320	4%	47,483	22%	101,803	7%
Total Expenditures	1,207,462	100%	213,461	100%	1,420,922	100%
Excess (Deficit)	1,059		39		1,099	



# McKinleyville Community Services District

## BOARD OF DIRECTORS

April 6, 2016

TYPE OF ITEM: **ACTION**

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**ITEM: E.10**                      **Approve and authorize Board President to sign and execute the Facility Use Agreement between McKinleyville Community Services District and the Boys & Girls Club of the Redwoods for the shared use of the McKinleyville Teen & Community Center**

**PRESENTED BY:**              **Lesley Frisbee, Recreation Director**

**TYPE OF ACTION:**          **Roll Call Vote**

### **Recommendation:**

Staff recommends that the Board review, discuss, approve and authorize Board President to sign and execute the Facility Use Agreement as presented in regards to the partnership between Boys & Girls Club of the Redwoods (BGCR) and McKinleyville Community Services District (MCSD) at the McKinleyville Teen & Community Center.

### **Discussion:**

MCSD, in partnership with BGCR, endeavor to provide dynamic space and programming to teens in the McKinleyville and surrounding communities. The partnership development between MCSD and BGCR began in 2013 when the SH Cowell Foundation committed to funding Youth Development in McKinleyville.

The two organizations have continuously worked over the last two and half years to build a strong foundation and relationship, participating collectively in teen engagement and in the creation of the components necessary to the success of the partnership. BGCR and MCSD have spent the last year developing business and financial plans to guide the sustainability of the partnership over time. Out of the plans and the shared vision for providing teen programming, staff of both organizations have drafted a Facility Use Agreement to guide and govern the ongoing partnership in the staffing, programming and shared facility use at the McKinleyville Teen & Community Center.

MCSD general counsel has reviewed the agreement as presented.

### **Alternatives:**

Take No Action

### **Fiscal Analysis:**

Not applicable

**Environmental Requirements:**

Not applicable

**Exhibits/Attachments:**

- Attachment 1 – Memorandum of Understanding

## **Facility Use Agreement**

### **McKinleyville Community Services District and Boys & Girls Club of the Redwoods Regarding Provision of McKinleyville Teen & Community Center Facility**

This Facility Use Agreement (this “Agreement”), bearing an effective date of May 1, 2016 (the “Effective Date”) is entered between the McKinleyville Community Services District (MCSD), a California Community Services District, and the Boys & Girls Club of the Redwoods (BGCR), a California not for profit corporation. Where collective reference is intended MCSD and BGCR are hereinafter referred to as the “Parties”.

### **Agreement**

For good and valuable consideration, the adequacy and receipt of which is hereby acknowledged, it is expressly understood and agreed by both MCSD and BGCR as follows:

**Section 1. Purpose.** The purpose of this Agreement is to establish and maintain an effective working relationship between both Parties as to BGCR’s use of the newly constructed McKinleyville Community Services District Teen and Community Center located at 1705 Gwin Rd. (the “Teen Center”).

**Section 2. Term.** The term of this Agreement shall commence on May 1, 2016, and shall extend through April 30, 2017. The term shall renew on an annual basis unless one party gives written notice of termination as provided herein. No party shall make changes to this Agreement during the term without the written consent of the other party.

**Section 3. Philosophy.** The Parties agree that there is a need to provide youth with safe, fun, affordable and healthy opportunities that build self-esteem and teach social harmony, conflict resolution, wellness, and an appreciation of education. The Parties agree that in order to provide necessary services, a cooperative use agreement is in the best interest of the community.

### **Section 4. MCSD Description of Duties and Obligations.**

During the term of this Agreement, McKinleyville Community Services District will:

- A. Provide facility space within the Teen Center and unilaterally bear the costs and expenses associated with maintenance of the Teen Center, excepting any repair and maintenance costs and expenses resulting from damage to the Teen Center for which BGCR must indemnify MCSD pursuant to this Agreement.
- B. Participate in collaborative charitable fundraising efforts to support the operation of the Teen Center including BGCR program operations.
- C. Promote within the community BGCR programs at the Teen Center.
- D. Provide BGCR with a janitorial and maintenance orientation and checklist.



- E. Work with BGCR to establish hours of operation during which BGCR shall fulfill the duties and obligations assigned to it under this Agreement to staff and operate the Teen Center Club, which is defined as the space and programming specific to youth in 6<sup>th</sup>-12<sup>th</sup> grades in accordance with Boys & Girls Clubs of America standards and practices.

### **Section 5. BGCR Description of Duties and Obligations.**

During the term of this Agreement, the Boys & Girls Club of the Redwoods will:

- A. Staff the Teen Center Club according to established Club hours.
- B. Develop and implement programs for teens during established Club hours.
- C. Participate in collaborative charitable fundraising efforts to support the operation of the Teen Center including facility maintenance costs.
- D. Provide adequate staff training for BGCR staff consistent with MCSD policies and procedures applicable to Teen Center use.
- E. Promote within the community MCSD programs in the Teen Center.
- F. Work to accommodate all MCSD use requests at the Teen Center facility provided those requests do not interrupt regularly scheduled BGCR programs.
- G. Serve as good building stewards adhering to MCSD's established rules and policies for janitorial maintenance and general Teen Center sanitation and cleanliness.

**Section 6. Facility Cleaning Policy.** Both Parties agree that all employees or representatives who shall be supervising, leading, or offering programs described, shall leave the Teen Center in a clean, safe manner and in the same condition in which it was found. The Parties agree to follow the following maintenance and janitorial checklist with respect to Teen Center use, which is hereby incorporated by reference: See Exhibit A: Maintenance and Janitorial checklist.

**Section 7. Asset Inventory.** All fixtures, furniture, cleaning supplies and other items within the Teen Center prior to the Effective Date belong to MCSD. Additional items acquired by MCSD or BGCR during the term of this Agreement will be labeled and documented in respective inventory lists.

**Section 8. Facility and Equipment Repairs/Damages Policy.** Both Parties agree to bear the repair costs for Teen Center and equipment damages in accord with the indemnity provisions stated in Section 15 of this Agreement, below. Payment for repair or replacement shall be due thirty (30) days after presentation of bill by the party sustaining such damages.

### **Section 9. Schedules of Use.**

- A. Monday through Saturday during BGCR operation hours, the Teen Center (with the exception of the commercial kitchen) will be available exclusively for youth programs.

- i. The commercial kitchen will be available for public use and adult classes any time it is not expressly reserved for BGCR programs. Adults using this space during BGCR program times will enter and exit the Kitchen through the McKinleyville Activity Center and will exclusively use Activity Center restrooms.
- B. BGCR program staff will not have access to the Teen Center outside of established BGCR program hours without express written approval from MCSD.
- C. BGCR use of the Teen Center outside of regular program hours will require prior express written MCSD approval.
- D. BGCR Saturday hours may be subject to cancellation or immediate termination by MCSD for Community Events upon written or oral notice to BGCR.

#### **Section 10. Facility Use Policy.**

- A. BGCR's use of the Teen Center will be governed by MCSD's established Guidelines, Rules & Regulations Governing the Use of District Facilities, and BGCR will follow said Guidelines, Rules & Regulations at all times while in or operating at the Teen Center.
- B. MCSD staff will manage all reservations and calendars for rentals and use of the Teen Center. BGCR shall not share space within the Teen Center with any person or entity, or assign or attempt to assign any rights to occupy the Teen Center under this Agreement to any person or entity.

#### **Section 11. Funds Policy.**

- A. BGCR and MCSD will work together on joint fundraising strategies, including grant writing, special events and charitable gift solicitation.
- B. Both financial and in kind donations will be receipted and acknowledged by the respective organization; acknowledgements and charitable gift receipt issuance will follow financial policies and procedures.
- C. BGCR and MCSD will ensure all donations received are appropriately tracked according to the donor's request. BGCR and MCSD will equally share in the cost of an annual audit tracking donations to both organizations.
- D. A monetary budget for operation of the Teen Center shall be reviewed and approved by both BGCR and MCSD on an annual basis, no later than July 1 of each calendar year during the term of this Agreement. Monies raised over and above what is designated in the annual budget will be utilized for the benefit of the programs at and/or improvements to the Teen Center at the discretion of the respective organizations.

**Section 12. Termination.** This Agreement may be terminated at any time by either BGCR or MCSD by providing a thirty (30) day written notice of cancellation to the other party. This Agreement cannot be assigned, in whole or in part, by either party without the express written consent of the other party.

**Section 13. Legal Reporting Requirements.** Each party shall comply with any and all reporting requirements adopted by the respective organizations and agrees to abide by all other applicable reporting requirements created by law.

**Section 14. BGCR Independent Contractor, No Landlord Tenant Relationship.** It is expressly understood and agreed to by the Parties that MCSD, while carrying out and complying with any terms and conditions of this Agreement, is not an employer or landlord of BGCR and further that the BGCR is not an employee or tenant to MCSD. It is expressly agreed that, for all purposes under this Agreement, BGCR is and shall be deemed an “independent contractor” and **not** an agent, employee or representative of MCSD. BGCR shall exclusively control and supervise its employees, agents and representatives while at the Teen Center and control the method and manner BGCR fulfills its obligations under this Agreement. No employee, agent or representative of BGCR shall be deemed and employee, agent or representative of MCSD.

**Section 15. Indemnity.**

- A. BGCR agrees to indemnify, defend and hold harmless MCSD, its officers, directors, agents, employees, and volunteers, from and against any and all claims, causes of action, damages, losses, costs, expenses or liabilities of every type and nature (collectively “Claims”) arising out of or in any way connected with BGCR’s operations at the Teen Center under this Agreement including, without limitation, Claims for loss or damage to any property or for death or injury to any person or persons, arising out of or in connection with the use of the Teen Center by BGCR, its officers, agents, employees, representatives or contractors.
- B. MCSD agrees to indemnify, defend and hold harmless BGCR, its officers, directors, agents, employees, and volunteers, from and against any and all claims, causes of action, damages, losses, costs, expenses or liabilities of every type and nature (collectively “Claims”), including, without limitation, Claims for loss or damage to any property or for death or injury to any person or persons, to the extent such Claims arise out of the negligent or intentional acts or omissions of MCSD, its officers, agents, employees, representatives or contractors.

**Section 16. Insurance.** BGCR shall maintain throughout the period of this Agreement, comprehensive General Liability insurance with a minimum coverage of \$1,000,000 combined single limit; Employer Liability equal to \$1,000,000.00; Business Automobile with a combined single limit of not less than \$1,000,000.00; and Workers’ Compensation as required by California law. BGCR insurance policies shall provide for thirty (30) days written notice of cancellation to MCSD. Said coverages shall include MCSD as additional insured.

**Section 17. Attorney’s Fees.** In the Event of any litigation arising between the parties regarding the terms of this Agreement, the prevailing party shall be entitled to recover reasonable attorney’s fees in addition to other relief provided by law.

McKinleyville Community Services District

Boys & Girls Club of the Redwoods

\_\_\_\_\_  
George Wheeler, Board President  
McKinleyville Community Services District

\_\_\_\_\_  
Name: \_\_\_\_\_

Title: \_\_\_\_\_

Attest:

Attest:

\_\_\_\_\_

\_\_\_\_\_

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

## McKinleyville Community Services District

### BOARD OF DIRECTORS

April 6, 2016

TYPE OF ITEM: **INFORMATION**

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**ITEM: F.2.A**                      **Support Services - March 2016 Report**

**PRESENTED BY:**              **Colleen M. R. Trask, Finance Director**

**TYPE OF ACTION:**          **None**

### **FINANCIAL, AUDIT, & BUDGET INFORMATION**

The District has deposited \$547,944.09 to date into the Trust Account for reserves recovery as of February 29, 2016.

The District has \$140,451.77 to date into the Trust Account for the next Biosolids Disposal project.

Budget Update: The Draft Operating budget for Parks and Measure B is part of this month's Board Packet. The Draft operating budget for Water, Wastewater, and Streetlights will be presented next month.

Treasurer's Report Highlights: Water Fund capacity fees collected during February bring the total up to \$57,105. Wastewater Fund capacity fees now total \$114,648 year-to-date. Neither Capital Contributions nor Capacity fees are included in the income vs. expenses graphs.

The Activity Summaries by Fund provides information on revenues and expenses or expenditures for each Fund, both current month and year-to-date. There is also a column showing the year-to-date budget and amounts and percents over or under. Lines that deviate from the calculated budget by more than 10% have an explanatory note. Often, this is no more than a reminder that, while the budget is divided evenly across twelve months, actual expenses often do not follow the same pattern. Other time, there are specific reasons for a deviation, such as contributed construction or the collection of unexpected capacity fees.

The Water and Wastewater Funds are listed first, followed by the graphs showing revenue versus expenses versus budgets. Parks, Measure B, and Streetlights information is given next, with accompanying graphs for each.

Parks has set up a PayPal Account to collect donations for the Teen & Community Center. Those funds are included in the cash on the Balance Sheet page, and shown as part of Petty Cash and Change Funds in the Investment and Cash Flow Report. If Parks elects to keep the account active once Teen Center fundraising is complete, the PayPal account will be given its own line on the Investment and Cash Flow Report.

## **OTHER UPDATES**

The State Revolving Fund loan has asked for additional information and copies of sub-contractor invoices for our planning and design cost reimbursement request. These are being reviewed for compliance with the SRF requirements. Reimbursement will follow as soon as the new information has been reviewed.

At the General Manager's request, responding to a concern expressed by a member of the Board, staff made inquiries to our current health insurance provider, ACWA/JPIA, about any unfunded health insurance liabilities. This is specifically different information from the standard OPEB liability, actuarially calculated per GASB 45 and currently tracked under Restricted Net Assets. ACWA/JPIA indicated that no unfunded health insurance liability exists for the District.

Employee Individual Development Plans are complete for the coming year. Training schedules and certifications have been updated in the Target Solutions database.

A refund for streetlight charges on Nursery Way has been processed for charges made in error by PG&E.

Estimated payroll costs for FY2016-17 have been submitted to the District's liability insurance carrier, along with the list of District properties and fixed assets that has been reviewed and revised.

CalPERS representative Kimberly Calija made a presentation to District employees on 18 March, 2016. She explained the current processes and forms required for an employee to file for retirement with CalPERS. She provided a thorough explanation of service credits, and answered individual questions.

# McKinleyville Community Services District

## BOARD OF DIRECTORS

April 6, 2016

TYPE OF ITEM: **INFORMATION**

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**ITEM: F.2.B**                      **Operations Department – February 2016 Report**

**PRESENTED BY:**              **James Henry, Operations Director**

**TYPE OF ACTION:**            **None**

### **Water Department:**

#### **Water Statistics:**

The district pumped 31.3 million gallons of water in February.  
Six water quality complaint were investigated and rectified.  
Daily, weekly and monthly inspections of all water facilities were conducted.  
One new water service was installed on Pickett.

#### **Double Check Valve Testing:**

Annual routine testing was conducted in Route 2,3 and 4 along with a minimal number of retests. Customers with failed DCVs were notified to make repairs and call the office to schedule a retest.

#### **Average and Maximum Water Usage:**

The maximum water usage day was 1.4 million gallons and the average usage per day was 1.1 million gallons.

#### **Water Distribution Maintenance:**

Weekly Bacteria Samples were collected on Schedules 1, 2,4,5 and 6 which represent different locations in the water system. The schedules are made up of a sample taken in each pressure zone. Phase 3 of the meter replacement program is near completion (90% completed). The remainder of that phase will be completed in the next 3 months. Phase 4 will be developed and will start after July 1<sup>st</sup>. A water main leak was repaired on Gardenbrook. The leak was caused by a faulty glue fitting on the blow-off riser pipe. This was the second blow-off in that subdivision that has leaked. Due to the trend, staff scheduled a water main shut down and replaced the third blow-off riser in the subdivision as preventative maintenance. The semi-annual Pressure Reducing Valve (PRV) Station inspections were conducted. During the inspection, the valves are exercised, tubing is inspected, inlet and outlet pressures are recorded and adjustments are made if needed. The PRV stations are in place to adjust water main pressure as it climbs due to elevation changes. Several water main valves were raised on Bella Vista Drive due to recent paving of the road. During monthly inspections at the Norton Tank site, the seismic valve was not functioning properly. Troubleshooting led to a faulty switch that staff replaced on site. The high use side of the 4" combination meter for Ocean West has stopped working properly. Due to the age of the meter and the parts being obsolete, a new meter was ordered. Staff will schedule to replace meter when



new meter arrives. The annual hydrant inspections are back on the schedule. The inspections were put on hold due to Manhole inspections. The hydrants will be exercised and inspected. A report is conducted for each hydrant and placed in the appropriate binder. Any discrepancies are flagged to create service orders for repairs.

#### **Water Station Maintenance:**

Staff coordinated with HBMWD to have Northbank pumps turned off while they pulled their production meter to send in for calibration. The meter has been calibrated and put back into service. The Districts production meter data was supplied to their staff to use for billing and tracking purposes.

As of July 2014, the District is required to submit a Public Water Monthly Monitoring Report to compare water usage to last year's usage in the same month. I will keep the Board updated each month using the Table below.

#### **Water Usage Comparison in Million Gallons**

	<b>2013</b>	<b>2015</b>	<b>% Reduction</b>	<b>2015 Recycled</b>	R- GPCD
<b>January</b>	38.241	32.781	14	0	52
<b>February</b>	33.751	29.867	12	0	52
<b>March</b>	36.244	33.456	8	0	51
<b>April</b>	39.755	33.238	16	0	52
<b>May</b>	49.407	38.200	23	15.1	57
<b>June</b>	51.337	41.847	19	15.6	64
<b>July</b>	54.757	44.946	18	11.7	69
<b>August</b>	55.908	41.747	25	16.1	61
<b>September</b>	45.702	41.670	9	15.7	69
<b>October</b>	39.439	37.320	6	12.3	59
<b>November</b>	34.879	28.939	17	9.6	52
<b>December</b>	35.203	29.937	15	5.2	50
	<b>2013</b>	<b>2016</b>	<b>% Reduction</b>	<b>2016 Recycled</b>	R- GPCD
<b>January</b>	38.241	33.054	14	0	49

<b>February</b>	33.751	31.319	9	0	51
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\*Recycled water is reclaimed water that is used for irrigating crops.

### **New Construction Inspections:**

No new construction is active at this time.

### **Sewer Department:**

#### **Waste Water Statistics:**

31.8 million gallons of wastewater were collected and pumped to the W.W.M.F. 31 million gallons of wastewater were treated and discharged to land disposal or reclamation in February.

Daily, weekly and monthly inspections of all sewer facilities were conducted.

#### **Sewer Station Maintenance:**

The semi-annual pump shimming was completed. Pumps are checked for tolerance and adjusted as needed by adding or removing shims. Wear plates and impellers are inspected at this time to verify they are within tolerance and replaced if needed. High hours were noticed on pump 2 at the Hiller Lift Station. Staff responded and found that the pump was plugged with rags. Rags were removed and the pump returned to normal operating status.

#### **Sewer Collection System:**

Grease traps were inspected at required facilities. Customers that are out of compliance were notified to have their traps pumped and possibly shorten their pumping schedule. The collection system is monitored during wet weather conditions for flow discrepancies. If an increase in flow is noticed, then staff breaks into teams and starts lifting manhole lids to try to locate the reason for the increase. If a problem is found before the storm event ends, then staff either corrects the problem or informs their supervisor to schedule repairs. The annual manhole inspection is 100% completed. Staff lifted each manhole cover and took depth readings. They compared that information with the level from last year to see if there had been an increase. The information and condition of the manhole was entered onto an inspection sheet. During this time staff looked for infiltration, such as ground water, leaking in through manhole riser seams etc. Any discrepancies were flagged to generate a work order for repairs. The flow totalizer has also been installed in selected manholes to collect data to compare wet weather flow to dry weather flow in the same locations. The data collected will show if there is infiltration or inflow in the collection system. A sewer lateral was damaged on School Road due to a boring contractor drilling into the side of the 4" pipe. An apartment building was notified to cut back on flushing toilets until the problem was repaired the following morning. Staff worked alongside with the contractor to return sewer service back to customers in a quick manner. Customers were satisfied and sent in a letter thanking District staff for the quick response and repair. Two manholes were cleaned using the Vac-con due to partial blockages found during manhole inspections.

**Wastewater Management Facility:**

The Chlorine Contact Basin was drained and cleaned with fire hoses. An aerator was removed from Pond 1B, taken into the shop and rebuilt. The aerator was then put back into service. All work was conducted in house. Rain water that accumulated in Pond 1A was pumped into Pond 1B to keep pond floor prepped for construction. The Chlorine Contact Basin level indicator was repaired due to transmitting faulty levels. Goats were relocated from the WWMF to the Cochran Tank site due to construction taking place at the WWMF.

**Daily Irrigation and Observation of Reclamation Sites:**

Weekly well monitoring was conducted along with the Fischer Ranch tree farm as part of the tree farm pilot study. New wells were installed as part of the tree farm pilot study. They will be monitored weekly along with our existing wells.

**Street Light Department:**

One Streetlight photo cell was replaced.

**Promote Staff Training and Advancement:** Weekly tailgate meetings and training associated with job requirements. Kyle received First Aid and CPR refresher. Staff members attended flagger training. Drew completed confined space training.

**Special Notes:**

Drew Small passed the Class B written test.  
The semi-annual Amp and Meg checks were conducted on all station motors.  
Several staff members completed the ICS-100 and ICS-200 courses.  
Tractors, Dump Truck and Vac-con were greased and lubed to prevent wear.  
Monthly river samples were completed.  
Monthly Self Monitoring Reports (DMR/SMR) were submitted.  
Public Water Monthly Monitoring report was submitted.  
Monthly Water Quality report was sent to the Dept. of Health.  
Monthly Pesticide applicator report was submitted to Department of Agriculture.  
Daily inspections were conducted on the Teen Center construction project.  
Staff met to work on Parks operating budget.  
Staff met with little league to discuss scheduling and field changes.  
Staff met with Tyler to approve his Eagle Scout project, installing owl boxes at marsh.

**WWMF upgrade status:**

Rain water was pumped from pond 1A to pond 1B in order to keep the pond floor dry for construction. The time lapse camera footage is still being collected and will continue through the construction phase. Contractors have arrived on site and have set up construction trailers, built the temporary corporation yard and will be working in the pond next week. A site assessment including pictures and video were conducted to record the existing facility condition for damage. Weekly meetings have been held to discuss progress and scheduling.

## **Parks:**

The Facilities were mowed and cleaned as part of the weekly schedule along with rental events. Staff has been spending hours blasting gopher tunnels at the Hiller Sports Site. There has been a group effort between District staff and little league to prepare the fields for opening day. The ball fields have been aerated seeded and mowed. The fields are coming along nicely and are a big improvement from last year. Gopher management will still be an ongoing task but staff should have no problem staying on top of it. The Babe Ruth storage room was vandalized. Staff had to replace the door and lock. A hazardous tree was cut down in Pierson Park due to hanging branches and rot. Signs were installed at Hiller Park to remind people to keep their dogs on a leash until they get into the designated area. The playground fill that the District received a grant for arrived and is being placed in the selected areas. A schedule to build the new playground structure at Pierson Park has been agreed on and will take place on April 9<sup>th</sup>.

## **Teen Center:**

The teen center is nearing the finish line. PG&E finished the install of the electrical service to the building. The gas meter on the attached Activity Center was upgraded and the tech was waiting only for the electrical service to come online before he could unlock the gas to the Teen Center and check the HVAC units on the teen center roof.

Once the heat gets turned on, O&M can complete the rest of their work on the ducting, vents, and associated equipment to get the heat distributed throughout the building. The heat needs to be turned on for about 3 days to let the building acclimate before Orland Cabinets can install all the built in cabinetry / counters. After these units are installed, Eureka Flooring will be in to install the carpet and vinyl flooring in the appropriate areas.

The epoxy flooring in the kitchen and associated areas has been poured. The refrigeration / freezer units will be finalized now that they have power to the building. The swinging doors leading from the kitchen into the MAC are installed, the roll up window over the counter has not been.

Laminate flooring materials on designated walls was installed in the main lobby area.

The dumpster enclosure is waiting for the main gates and the walk-thru gate, as well as paint on the nearby handrail.

The dirt mound on the north side of the building and the landscaping has yet to be addressed, but I'd imagine they are waiting for the weather to break.

## **GIS:**

### **Urban Water Management Plan UWMP 2015**

Met with UWMP work group in Eureka

Calculated population numbers

Calculated GPCD numbers

Consulted with Gwen Huff of DWR to approve Service Unit method for determining 2015 population

Assembled and composed first draft of UWMP

Drafted and Mailed letters of notification and intent for the development of the UWMP

Completed all tables, spreadsheets and audits

**Maps:**

Created a map for Beau Pre heights showing distance to sewer facilities and drafted an RFP for the sewer feasibility Study.

Detention basin map for HSU students.

MCSD census area.

**Wet and Dry Weather Flow Data:**

Extracted flow data from laptop

Organized and renamed files associated with flow data.

Began exporting flow data into excel spreadsheets for further analysis

Brian has been trained and is responding to USA underground mark and locates.

## McKinleyville Community Services District

### BOARD OF DIRECTORS

April 6, 2016

TYPE OF ITEM: **INFORMATION**

**ITEM: F.2.C Parks & Recreation Director's Report for March 2016**

**PRESENTED BY: Lesley Frisbee, Recreation Director**

**TYPE OF ACTION: None**

#### **TEEN & COMMUNITY CENTER:**

Staff has continued to focus on fundraising for the furnishings and equipment for the interior of the Teen & Community Center. Staff released an RFP for the furnishing and equipping of the commercial kitchen in the facility on March 18, 2016. Proposals are due by April 8, 2016.

The McKinleyville Area Fund recently granted an addition \$2500 to the Teen & Community Center for the purchase of T.V.'s, mounting hardware and a blue ray player.

To date, the following funding has been secured for the Teen & Community Center:

<b>Organization</b>	<b>Amount</b>	<b>Purpose</b>
Mad River Rotary-Donation	\$25,000	Commercial Kitchen
Mad River Rotary-Grant (2015)	\$2,000	Commercial Kitchen
Mad River Rotary-Grant (2016)	\$3,000	Music equipment
McKinleyville Area Fund (2014)	\$3,000	Audio-Sound System
McKinleyville Area Fund (2016)	\$2,500	TV's and Blue Ray player
Humboldt Area Foundation	\$10,000	Tables & Chairs for Classrooms
Legacy Path & Giving Tree donations	\$12,000	Unrestricted
Karaoke Night event	\$593	Unrestricted
<b>TOTAL:</b>	<b>\$58,093</b>	

Fundraising through subsequent rounds of brick sales and Giving Tree Leaves will continue. The next deadline for brick purchases is set for May 6, 2016.

MCSD staff and Boys & Girls Club of the Redwoods staff are collaboratively coordinating the Ribbon Cutting Ceremony, scheduled for Friday, April 29, 2016 as well as a Pints for Non-Profits event at 6 Rivers Brewery on Thursday, May 12, 2016.

MCSD Staff and BGCR staff are working with an HSU intern on marketing strategies and materials to promote both the BGCR Club programs and the public use of the facility.

Staff continue to meet with MYLS participants regularly. They recently completed a survey of middle and high school students and will be presenting the survey results at the Ribbon Cutting Ceremony reception. They are currently planning a Grand Opening event for teens to take place in June.

### **HUMBOLDT STATE UNIVERSITY RECREATION ADMINISTRATION PROGRAM PROJECTS:**

Staff has been working with HSU Recreation students in the coordination and implementation of the Humboldt Hoops 3 on 3 Basketball Tournament. The student project culminates with the tournament on April 1-2, 2016.

### **RECREATION ADVISORY COMMITTEE:**

The Recreation Advisory Committee met on March 17, 2016. The notes from the meeting can be read in Attachment 1.

Staff would like to note the resignation of long time committee member Jim Fritz. He submitted his resignation at the beginning of the month as he was facing heart surgery and felt he could no longer keep his commitment to the committee.

The following are current vacancies on the RAC:

- 1-Regular voting member seat
- 2-Alternate member seats
- 1-Voting Student member seat

The current roster is listed as Attachment 2.

### **COMMUNITY GARDEN:**

The Community Garden Committee met on March 1, 2016 and also on March 22, 2016. Community volunteers are taking ownership of the garden again, and have made plans for improvements.

### **PLAYGROUND SAFETY SURFACING:**

The recycled tire playground safety surfacing has been delivered and is being placed at the existing swing set area at Pierson Park, the 2-5 playground area at Hiller Park and at Larissa Park the week of March 28-April 1, 2016. The last area to receive surfacing is a new swing set area to at Pierson Park. This swing set is scheduled for installation on April 9, 2016.

### **RECREATION UPDATES:**

Youth Basketball League—Season ended March 12. Season has run smoothly, part-time staff working as refs did a good job and compared to previous years, the number of complaints regarding teams and officiating were few.

Humboldt Hoops 3 on 3 Tournament—Enrollment for this tournament is down this year. There are 26 teams total spread out over 4 divisions. The largest division being the 5<sup>th</sup>-6<sup>th</sup> grades. The tournament is held at the McKinleyville Activity Center and the McKinleyville Middle School Gym on Friday, April 1 through Saturday, April 2, 2016. This tournament is a fundraiser for the Youth Fee Reduction Fund.



Pee Wee Basketball—Registration deadline is April 8, 2016. At the writing of this report enrollment is at 104 participants. 2015 served 135 participants.

Kids' Club After School Program—Currently serving 117 children per week in grades TK through 5<sup>th</sup>.

Playgroup—the Music program is very popular and attendance on music days is high. The program is averaging 20-30 families per meeting. Playgroup has been working with AmeriCorps member at the McKinleyville. Family Resource Center to provide time for 0-3 year olds to play and visit seniors at the Timber Ridge once per week.

KinderSports—The basketball session of KinderSports ended on March 19, 2016; The next session is Soccer and enrollment for that session which starts on April 9, 2016 is half full.

Breakout Vacation Day Camp—Staff is gearing up for the next session April 11-15, 2016.

Drop in Pickleball—Four weeks in to Pickleball, we have had steady attendance of 10-15 participants each Wednesday, 9:00am-12:00pm.

Drop in Basketball—Sunday night drop in continues to have attendance of 25-30 participants per week.

#### **OTHER UPDATES:**

Staff have been working with a local Jiu Jitsu instructor to schedule classes for both youth and adults through the Parks & Recreation Dept. We are excited that this program will begin on Monday, May 2, 2016 serving youth age 5-13 from 5:30pm-6:30pm and ages 14 and up 6:30pm-7:30pm. The instructor is a career Jui Jitsu instructor and has a local following. We anticipate this to be a successful program for the recreation department.

Staff attended the monthly meeting of the Senior Center Board on Friday, March 25, 2016. It was announced that they received a grant from the McKinleyville Area Fund for \$1000 to be spent on kitchen supplies and a new computer. Additionally, there is a meeting of the Senior Center Advisory Committee scheduled for Thursday, April 14, 2016 at 7:00am. The board thanked the staff at MCSD for the time and attention given to the senior center and the availability of staff to attend and report at their monthly meetings.

#### **ATTACHMENTS:**

- Attachment 1-Recreation Advisory Committee Notes from March 17, 2016 meeting
- Attachment 2-Recreation Advisory Committee Roster

**Thursday, March 17, 2016**

**6:30pm**

Recreation Advisory Committee Meeting

NOTES

**Members Present:** John Kulstad, Bill Prescott, Jeff Dunk, Chad Sefcik, George Wheeler, Addison O'Hanen, Charlie Caldwell.

**Members Absent:** Mary Burke, Stephanie Hartley

**Meeting Notes:**

- Communications:
  - Staff informed the committee that member Jim Fritz submitted his resignation due to health issues.
  - Staff communicated that the swing set structure at Hiller Park is still under warranty and the necessary repair falls within that warranty. The repair is currently waiting on the manufacturer to send the necessary parts.
  - Staff reported receiving a \$2500 grant from the McKinleyville Area Fund for T.V.'s and a blue ray player at the teen center.
- Public Comment:
  - None
- Botanical Garden:
  - Jeff Dunk reported a need for more mulch. John Kulstad is hoping to get a truck load of mulch and the labor to place it, at an upcoming auction he is attending.
    - Staff reported that another round of alder clearing from District open spaces will be coming up in the next month and the trees cut in the clearing will be chipped for mulch and placed at the garden.
- Community Garden:
  - Charlie Caldwell brought up the request for ADA access to the Community Garden from the parking lot at Azalea Hall. He said that the seniors at the senior may be more likely to participate in the garden if there was better access from that side of the garden.
  - Charlie Caldwell reported that the youth group from Church on the Rock will be building a raised bed for a current garden user who is wheelchair dependent.
- Pierson Park Swing Installation:
  - Playground surface has been ordered and will be delivered in the next couple of weeks. MCSD staff will coordinate with George Wheeler and Chad Sefcik to install the swings after staff have dug out the area and marked the specifications for the installation.
- RAC Vacancies:
  - There are currently 3 vacancies for regular voting members and 2 alternate vacancies.
  - It was suggested to advertise the vacancies at HSU in the Recreation Administration dept.
- Teen Center Update:
  - PG&E will be connecting the power to the facility the week of March 21-24.

- Staff is coordinating a Ribbon Cutting Ceremony for Friday, April 29, 2016 at 6:00pm
  - Grand Opening events are being planned to coincide with Pony Express Days events.
  - Bricks are still available for purchase. Staff will be establishing a due date for the second round of bricks. The first order of bricks netted approximately \$12,000
  - The All Ages Karaoke night raised \$593 for the Teen Center.
  -
- Update on Recreation Programs:
  - Youth Basketball League—ended March 12<sup>th</sup>.
  - Kids' Club After School Program—currently serving 117 students per week.
  - Playgroup—continues to have 20-30 families participating 3 days per week. Collaborated with MFRC to have 0-3 playtime at Timber Ridge Assisted living facility each Wednesday.
  - KinderSports—Basketball session is full and running smoothly. Soccer session will begin in April
  - Breakout Vacation Day Camp—February Breakout served 70 kids during President's week. We are currently taking registration for Spring Breakout April 11-15, 2016
  - Drop in Pickleball—currently averaging 10-12 participants every Wednesday morning.
  - Drop in Basketball—Averaging 25 participants every Sunday evening.
  - Adult Futsal—Spring league started Wednesday, March 16<sup>th</sup>
  - Humboldt Hoops 3 on 3—Early Bird registration ended March 14<sup>th</sup>. Registration will continue to be accepted thru March 25<sup>th</sup>
- Review of Board Actions:
  - Jeff Dunk spoke about the board's recent approval of Hiller Sports Site use agreements, stating that once upon a time the RAC had an opportunity to review and weigh in on such agreements as well as the fees associated with them. John Kulstad confirmed that historically that had happened, although it hadn't for the past few years. RAC members agreed that it they would like to provide recommendations to the board in regard to fees and agreements.
    - Staff explained the change in process due to staffing changes within the department over the last year. It is the intention of staff to implement annual fee increases commensurate with cost of living increases. These increases will be subject to board approval in June. Staff will bring the topic to the RAC at the April and May meetings.
- Ad Hoc Committee Reports:
  - Charlie Caldwell reported on the recent doings of the Humboldt Skate Park Collective. He reported that once the Teen Center is up and running the Skate Park Collective intends to approach MCSD again with a request for a property easement for a McKinleyville skate park.

- Charlie Caldwell volunteered to be the committee liaison for the BMX Bike Track committee.
- Agenda topics for next meeting:
  - Facility Fees
- Adjournment:
  - Jeff Dunk made a motion
  - Bill Prescott seconded
    - Meeting adjourned at 7:41pm

**MCKINLEYVILLE COMMUNITY SERVICES DISTRICT**  
**Recreation Advisory Committee Roster**

**Chairperson**

\*\* John B. Kulstad ..... [REDACTED]  
 1881 Bartow Rd., McKinleyville, CA 95519  
 e-mail: [jkulstad@sbcglobal.net](mailto:jkulstad@sbcglobal.net)

Term Ends  
 January 2016

**Vice-Chairperson**

Jeff Dunk ..... [REDACTED]  
 P.O. Box 4831, Arcata, CA 95518  
 e-mail: [jrd2@humboldt.edu](mailto:jrd2@humboldt.edu)  
 e-mail: [Jeffrey.Dunk@humboldt.edu](mailto:Jeffrey.Dunk@humboldt.edu)

January 2017

**Members**

\*George Wheeler .....  
 e-mail: [wheelerg@mckinleyvillecsd.com](mailto:wheelerg@mckinleyvillecsd.com)

January 2016

Charlie Caldwell ..... [REDACTED]  
 e-mail: [cecaldwell@sbcglobal.net](mailto:cecaldwell@sbcglobal.net)

January 2019

Chad Sefcik ..... [REDACTED]  
 1960 Jordan Ct, McKinleyville CA 95519  
 e-mail: [cmsefcik@sbcglobal.net](mailto:cmsefcik@sbcglobal.net)  
[chad.sefcik.nijg@statefarm.com](mailto:chad.sefcik.nijg@statefarm.com)

January 2017

Bill Prescott ..... xxx-xxxx  
 2895 Little Pond, McKinleyville, CA 95519  
 e-mail: [wcprescott333@gmail.com](mailto:wcprescott333@gmail.com)

January 2020

Addison O'Hanen ..... xxx-xxxx  
 e-mail: [thiluxrsingle6@gmail.com](mailto:thiluxrsingle6@gmail.com)

January 2020

Mary Burke ..... [REDACTED]  
 581 School Rd., McKinleyville, CA 95519  
 Email: [marybird59@gmail.com](mailto:marybird59@gmail.com)

January 2020

**Vacant** ..... xxx-xxxx  
 Address  
 Email:

TBD

**Alternate Members (2)**

**Vacant** ..... xxx-xxxx  
 Address  
 Email:

TBD

**Vacant** ..... xxx-xxxx  
 Address  
 Email:

TBD

**High School Student Members (2)**

Stephanie Hartley ..... [REDACTED]  
 Email: [candphartley@suddenlink.net](mailto:candphartley@suddenlink.net)

TBD

**Vacant**  
 Email:

TBD

District Staff Liaison to Committee

Lesley Frisbee .....(work) 707-839-9003; (cell) [REDACTED]

e-mail: [lesley@mckinleyvillecsd.com](mailto:lesley@mckinleyvillecsd.com)

Ad Hoc Committees

1. Hewitt Ranch (John Kulstad)
2. Skate Park (Charlie Caldwell)
3. Teen & Community Center (Jeff Dunk)
4. Property at School Road and Washington Ave (Vacant)
5. Riverfront property (Jeff Dunk)
6. Hiller Park Botanical Garden (Jeff Dunk)
7. BMX Bike Track (Charlie Caldwell)

\* MCSD Board Representative

\*\* McKinleyville Area Fund Representative

## McKinleyville Community Services District

### BOARD OF DIRECTORS

April 6, 2016

TYPE OF ITEM: **INFORMATION**

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**ITEM: F.2.D General Manager's Report for April 2016 Meeting**

**PRESENTED BY: Gregory Orsini, General Manager**

**TYPE OF ACTION: Information Only**

#### **A summary of activity for the month of February 2016**

**Cost Savings Related to District Activities** – The following is a review of some of the recent cost savings opportunities District staff identified for the previous month:

• Office Supplies	\$132
• Accountant Discount	\$31
• Corbin-Willits discount on Accounts Payable	
Direct Deposit module	\$750
• McKinleyville Area Fund Grant for Teen Center	\$2,500
• SWAP	\$4,408
• Northern Humboldt Employment Services	\$2,461
• Community Service Workers	\$3,335
• WWMF Dosage Room Heater in house repair	\$135
• In house motor rewind WWMF aerator	\$630
• Cochran Seismic Actuator repair	\$260
Total cost savings for March are \$14,642	

***The cumulative cost saving to the District to date  
from July 1, 2015 is \$195,472***

District staff are recognized and commended for their continued efforts in looking for cost savings, the use of internal labor and grant opportunities that result in real savings for the District, rate payers, and the community.

**Measure B** – The annual process that allows MCSD to collect in excess of \$200,000 per year was initiated in January and another milestone will be completed at the April Board meeting with resolutions approving the engineer's report and ordering the tax levy in a public hearing format. After the resolutions are approved, the next step will be submission of the tax role to the County of Humboldt in late July early August for inclusion in the coming property tax assessment.



**Chronic Toxicity Testing** – Ongoing excursions from limits set in our NPDES permit caused the failure of our annual Chronic Toxicity testing late last year. The cause of the toxicity has been attributed to MCSD having higher than normally accepted ammonia levels in our domestic wastewater. Even with stringent pretreatment standards and up to date local limits, source control has not reduced the ammonia levels and for this reason, we are upgrading our treatment process. North Coast Regional Board was notified per our permit requirements and has requested interim measures to lower effluent toxicity associated with the ammonia. Staff provided the Regional Board with a request to forgo interim action on the grounds that we have a \$12.5 million upgrade project underway. Staff has also requested a conference with Regional Board Staff to further discuss this matter.

**Teen Center** – Construction of the facility is nearing completion. As of March 30<sup>th</sup> completion is scheduled for the third week in April. A request for proposals was circulated to several kitchen equipment suppliers in the Northern California and Southern Oregon area. The closing date for return for the proposals is April 8, 2016. Staff met with the landscaping design consultant in March to consider the use of eatable perennial shrubs, bushes and trees for the landscaping. The Facility Agreement between MCSD and Boys & Girls Club was drafted and reviewed by staff in March. A team consisting of staff from both organizations drafted the agreement and it was thoroughly reviewed by management and MCSD General Counsel and is presented for approval at the April meeting.

**Flood Plain Rehabilitation (FPR) Design and Bio Filtration Pilot Study** – Design and permitting considerations for the FPR are well on their way. A meeting is scheduled for early April to meet with many of the permitting and regulatory agencies that will have a roll or oversight in the project. Flood plain channelization decisions and trail locations are the main area for consideration for our staff at this time. Our consultants are collecting ground water and river elevation data and determining best efforts for regulatory agency interaction. A public scoping meeting with an MCSD Board workshop included is on the horizon for the near future. The biosolids filtrations/tree farm will require a deer fence to limit tree predation and those materials have been purchased with grant funds and will be installed by MCSD staff as a cost share for the grants procured.

**WWMF Improvement Project** – Mobilization by the General contractor took place on schedule, March 21. This event included a safety meeting and site condition tour. A Construction Management consultant thoroughly examined and documented the site with video so the areas not being altered will be returned in the condition the site was in prior to construction. An equipment yard was created on the south fence line of the WWMF. Construction trailers were brought in for the engineers, construction management and contractors teams. Ground breaking will take place the first week in April with the installation of ground water removal wells so subgrade for the clarifiers can be excavated.

**Capacity Fee Renewal and Prop 218 Process** – As the Board is aware, capacity fees are an essential revenue source for capital improvements. By law, we must reassess our capacity fees every five years if we want to continue to incrementally adjust our capacity fees. This process is required by Prop 218 and includes an analysis of existing capacity, utilized capacity and future capacity needs. Future capacity and the Capital Improvement Plan are compared and costs are attributed to rates or capacity fees. Staff has provided our consultant with the information requested and a detailed model will be created for analysis. The Board will see the results of this analysis in the form of an engineer's report in the coming months and a proposal for a five-year plan for incremental adjustments to the capacity fees.

**Meetings** – The General Manager attended various meetings this month, all of the CSDA commitments were handled via phone conference including Audit, Fiscal and Executive Committee meetings.

**Exhibits/Attachments**

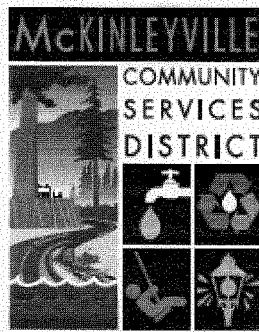
- Attachment 1 – WWMF Monthly Self Monitoring Report

**PHYSICAL ADDRESS:**

1656 SUTTER ROAD  
McKINLEYVILLE, CA 95519

**MAILING ADDRESS:**

P.O. BOX 2037  
McKINLEYVILLE, CA 95519



mckinleyvillecsd.com

**Attachment 1**

**MAIN OFFICE:**

PHONE: (707) 839-3251  
FAX: (707) 839-8456

**PARKS & RECREATION OFFICE:**

PHONE: (707) 839-9003  
FAX: (707) 839-5964

R.W.Q.C.B. NORTH COAST REGION  
5550 SKYLANE BLVD., SUITE A  
SANTA ROSA, CA 95403

March 28, 2016

**RE: MONTHLY MONITORING REPORT**

Dear Justin:

Enclosed is the Monthly Monitoring Report for February 2016 for McKinleyville Community Services District Wastewater Management Facilities WDID NO. 1B82084OHUM, operating under Order Number WQ 2011-0008-DWQ.

The normal discharge of effluent was 29 days to Discharge Point 001. The required monitoring and water quality constituents that were tested and reported were in compliance in February.

The requirement for BOD is 45 mg/L, 604 lbs/day and 65% removal for the monthly average with four weekly tests in February that represent eleven criteria. The BOD results for February are in compliance.

The requirement for TSS is 83 mg/L, 1108 lbs/day and 65% removal for the monthly average with four weekly tests in February which represent three criteria. The TSS results for February are in compliance.

The requirement for Nitrate as Nitrogen in the effluent is a monthly average of 10 mg/L. One test was conducted in February and was in compliance.

Total Coliform Organisms MPN/100 ml. The Monthly Median not to exceed MPN of 23 and the daily maximum not to exceed MPN of 230. The reported results for the month of February are as follows. Median was <1.8 and a Maximum of <1.8. Five samples were collected in the month of February and were in compliance.

Monthly River Monitoring was conducted in February.

Annual CTR Pollutants of Concern testing was conducted in February.

Acute testing for December was conducted using Rainbow Trout and C.Dubia. Rainbow Trout had a 100% survival and C.Dubia had a 95% survival.

WWMF Upgrade Status: The Contractors have shown up and started breaking ground on the construction. They are in the process of building a site to set-up trailers and equipment. Contractor trailers are being hauled in and they will start working inside the existing Pond 1A during the first week of April. Contractors have 521 days to complete the project. They have projected to be completed by February 2017.

**McKINLEYVILLE COMMUNITY SERVICES DISTRICT  
WASTEWATER MANAGEMENT FACILITY  
EFFLUENT DISCHARGE DISPOSAL**

**FEBRUARY 2016**

Discharge Monitoring	002 M-003	002 M-003	004 M-005	003 M-004	006 M-007	005 M-006	001 M-002				
DATE	INFLUENT MGD	EFFLUENT MGD	MAXIMUM GPM	N.POND MGD	S.POND MGD	FISCHER MGD UPPER	FISCHER MGD LOWER	PIALORSI MGD	HILLER MGD	IRRGATE TOTAL MGD	RIVER MGD
1	1.326	1.599	1499							0.000	1.599
2	1.265	1.573	1266							0.000	1.573
3	1.269	1.358	960							0.000	1.358
4	1.227	1.380	983							0.000	1.380
5	1.196	1.321	1004							0.000	1.321
6	1.219	1.150	810							0.000	1.150
7	1.252	1.137	807							0.000	1.137
8	1.169	1.109	789							0.000	1.109
9	1.106	1.047	739							0.000	1.047
10	1.082	1.023	718							0.000	1.023
11	1.080	1.024	718							0.000	1.024
12	1.070	1.023	723							0.000	1.023
13	1.093	1.025	729							0.000	1.025
14	1.098	1.022	717							0.000	1.022
15	1.094	0.824	707							0.000	0.824
16	1.038	0.648	487							0.000	0.648
17	1.048	0.750	618							0.000	0.750
18	1.122	0.877	625							0.000	0.877
19	1.184	0.871	622							0.000	0.871
20	1.175	0.875	634							0.000	0.875
21	1.204	0.892	636							0.000	0.892
22	1.127	1.040	948							0.000	1.040
23	1.058	1.360	961							0.000	1.360
24	1.040	1.357	960							0.000	1.357
25	1.031	1.353	958							0.000	1.353
26	1.028	1.166	951							0.000	1.166
27	1.070	1.125	797							0.000	1.125
28	1.132	1.129	798							0.000	1.129
29	0.969	1.122	796							0.000	1.122
TOTAL	31.803	31.058		0.000	0.000	0.000	0.000	0.000	0.000	0.000	31.058
AVERAGE	1.136	1.109	827	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.109
MAXIMUM	1.326	1.599	1499	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.599
MINIMUM	1.028	0.648	487	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.648
DAYS	29	29		0	0	0	0	0	0	0	29
DAYS WITH NO DISCHARGE = 1											



McKINLEYVILLE COMMUNITY SERVICES DISTRICT  
WASTEWATER MANAGEMENT FACILITY  
RIVER CFS - EFFLUENT FLOWS -

M-004

RIVER DILUTION

M-005

M-006

February 2016

DATE	M-INF INFLUENT MGD	M-001 EFFLUENT MGD	EFFLUENT MAXIMUM GPM	M-003 PERK PONDS MGD	M-007 IRRIGATE MGD	M-002 RIVER MGD	RIVER DILUTION 100:1	MAXIMUM G.P.M. DISCHARGE FOR 100:1	RIVER FLOW IN CFS	RIVER FLOW IN GPS
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1	1.326	1.599	1499			1.599	1952	29266	6520	48776
2	1.265	1.573	1266			1.573	1681	21276	4740	35460
3	1.269	1.358	960			1.358	1791	17191	3830	28652
4	1.227	1.380	983			1.380	1653	16249	3620	27081
5	1.196	1.321	1004			1.321	1377	13825	3080	23041
6	1.219	1.150	810			1.150	1485	12029	2680	20049
7	1.252	1.137	807			1.137	1340	10818	2410	18029
8	1.169	1.109	789			1.109	1240	9785	2180	16309
9	1.106	1.047	739			1.047	1118	8259	1840	13765
10	1.082	1.023	718			1.023	900	6464	1440	10773
11	1.080	1.024	718			1.024	819	5880	1310	9800
12	1.070	1.023	723			1.023	807	5835	1300	9725
13	1.093	1.025	729			1.025	708	5162	1150	8603
14	1.098	1.022	717			1.022	639	4578	1020	7631
15	1.094	0.824	707			0.824	604	4273	952	7122
16	1.038	0.648	487			0.648	806	3928	875	6546
17	1.048	0.750	618			0.750	601	3712	827	6187
18	1.122	0.877	625			0.877	948	5925	1320	9875
19	1.184	0.871	622			0.871	2049	12748	2840	21246
20	1.175	0.875	634			0.875	2648	16787	3740	27979
21	1.204	0.892	636			0.892	2047	13017	2900	21695
22	1.127	1.040	948			1.040	1136	10773	2400	17954
23	1.058	1.360	961			1.360	939	9022	2010	15037
24	1.040	1.357	960			1.357	804	7720	1720	12867
25	1.031	1.353	958			1.353	693	6643	1480	11072
26	1.028	1.166	951			1.166	618	5880	1310	9800
27	1.070	1.125	797			1.125	901	7182	1600	11970
28	1.132	1.129	798			1.129	765	6104	1360	10174
29	0.969	1.122	796			1.122	773	6149	1370	10249

TOTAL	32.772	32.180		0.000	0.000	32.180				
AVERAGE	1.130	1.110	826	#DIV/0!	#DIV/0!	1.110	1167	9879	2201	16464
MAXIMUM	1.326	1.599	1499	0.000	0.000	1.599	2648	29266	6520	48776
MINIMUM	0.969	0.648	487	0.000	0.000	0.648	601	3712	827	6187
DAYS	29	29	29	0	0					

DAYS WITH NO DISCHARGE TO THE MAD RIVER = 0

McKINLEYVILLE COMMUNITY SERVICES DISTRICT  
WASTEWATER MANAGEMENT FACILITY  
MONITORING DATA

YEAR: 2016

MONTH: FEBRUARY

DATE	INFLUENT FLOW M.G.D.	EFFLUENT FLOW M.G.D.	EFFLUENT MAXIMUM GPM	RIVER CFS	INFLUENT MONITORING B.O.D. mg/L	INFLUENT MONITORING N.F.R. mg/L	PH	(C°) TEMP	B.O.D. mg/L	NFR mg/L	AMMONIA	CL <sub>2</sub> RES.	RIVER CL <sub>2</sub> RES	SETTLABLE SOLIDS	3X5 TOTAL COLIFORM
1	1.326	1.599	1499	6520			7.0	10.4			26	4.9	0.00		<1.8
2	1.265	1.573	1266	4740			6.9	10.7			24	5.2	0.00		
3	1.269	1.358	960	3830			7.1	11.7			24	4.4	0.00		
4	1.227	1.380	983	3620			7.2	11.9			24	3.8	0.00		
5	1.196	1.321	1004	3080	280	270	7.2	11.3	24	19	24	4.2	0.00	<0.1	
6	1.219	1.150	810	2680			7.1	11.8				3.4	0.00		
7	1.252	1.137	807	2410			7.1	11.9				3.4	0.00		
8	1.169	1.109	789	2180			7.1	13.4			20	3.1	0.00		<1.8
9	1.106	1.047	739	1840			7.1	13.4			20	2.4	0.00		
10	1.082	1.023	718	1440			7.0	13.1			24	1.3	0.00		
11	1.080	1.024	718	1310			7.1	13.5			20	1.4	0.00		
12	1.070	1.023	723	1300	210	240	7.2	13.6	26	18	22	1.7	0.00	<0.1	
13	1.093	1.025	729	1150			7.0	12.9				3.2	0.00		
14	1.098	1.022	717	1020			7.1	13.4				5.1	0.00		
15	1.094	0.824	707	952			7.1	13.8				3.8	0.00		
16	1.038	0.648	487	875			7.3	14.4			26	3.4	0.00		<1.8
17	1.048	0.750	618	827			7.1	14.6			24	3.5	0.00		
18	1.122	0.877	625	1320			7.3	13.5			26	3.2	0.00		
19	1.184	0.871	622	2840	270	180	7.1	12.4	34	21	22	2.5	0.00	<0.1	
20	1.175	0.875	634	3740			7.3	11.8				1.5	0.00		
21	1.204	0.892	636	2900			7.1	12.0				1.4	0.00		
22	1.127	1.040	948	2400			7.0	11.7			22	1.5	0.00		<1.8
23	1.058	1.360	961	2010			7.2	12.2			24	0.5	0.00		
24	1.040	1.357	960	1720			7.1	12.7			24	2.2	0.00		
25	1.031	1.353	958	1480			6.8	12.8			24	1.1	0.00		
26	1.028	1.166	951	1310	230	130	7.1	13.2	24	14	28	2.4	0.00	<0.1	
27	1.070	1.125	797	1600			6.9	16.5				3.3	0.00		
28	1.132	1.129	798	1360			7.0	13.1				3.3	0.00		
29	0.969	1.122	796	1370			7.1	12.3			26	3.8	0.00		<1.8

SPILLS:

None to report
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DATE	TDS	AMMONIA	NITRATE	BORON
2/29/2016	220	26.0	ND	140

Semi-Annual Tests	Value in ug/l
Bis phthalate	N/A
alph-BHC	N/A
4,4'-DDT	N/A
carbon tetrachloride	N/A

Quarterly Tests	Value in ug/l
Dichlorobromomethane	N/A
Bromoform	N/A
Chlorodibromomethane	N/A
Chloroform	N/A

30 DAY AVERAGE	BOD mg/L	BOD LBS/DAY	BOD % Removal	NFR mg/L	NFR LBS/DAY	NFR % Removal
	27	242	89	18	163	91

ACUTE TOXICITY  
DATE 2/10/2016 100%  
2/10/2016 95%  
Rainbow Trout  
C. dubia

CHRONIC TOXICITY	SURVIVAL
TESTED	N/A
Mirnow	N/A
C. Dubia	N/A
Algae	N/A
	TUc

Total Coliform	Monthly
MEDIAN	<1.8
Daily	Maximum
	<1.8

REMARKS:

SIGNATURE:

Indicates Permit Exceedance