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3.9 Utilities and Service Systems

3.9.1 Introduction

This section describes the existing conditions related to utilities and service systems (water supply, wastewater, stormwater, solid waste, electric power, natural gas, and telecommunications) within the respective utility service areas covering unincorporated and incorporated portions of Humboldt County, as well as the relevant regulatory framework. This section also evaluates the impacts related to such utilities and service systems that could result from implementation of the RCAP and CEQA GHG Emissions Thresholds.

3.9.2 Environmental Setting

Water Source, Treatment, Demand, and Use

Within Humboldt, community water supply services are provided by 29 water supply providers, including the following:

- Alderpoint County Water District (CWD)
- Big Lagoon Community Services District (CSD)
- Briceland CSD
- City of Arcata
- City of Blue Lake
- City of Eureka
- City of Fortuna
- City of Rio Dell
- City of Trinidad
- Del Oro Water Company
- Fieldbrook-Glendale CSD
- Garberville Sanitary District
- Humboldt Bay Municipal Water District
- Humboldt CSD
- Hydesville CWD
- Jacoby Creek CWD
- Loleta CSD
- Manila CSD
- McKinleyville CSD
- Miranda CSD
- Orick CSD
- Orleans CSD
- Palmer Creek CSD
- Phillipsville CSD
- Redway CSD
- Resort Improvement District #1
- Riverside CSD
- Scotia CSD
- Weott CSD
- Westhaven CSD
- Willow Creek CSD

The service area boundaries for the water supply providers are shown in Figure 3.9-1 through Figure 3.9-4. A description of each of these providers is provided below.

Figure 3.9-1 Water Districts in Humboldt County

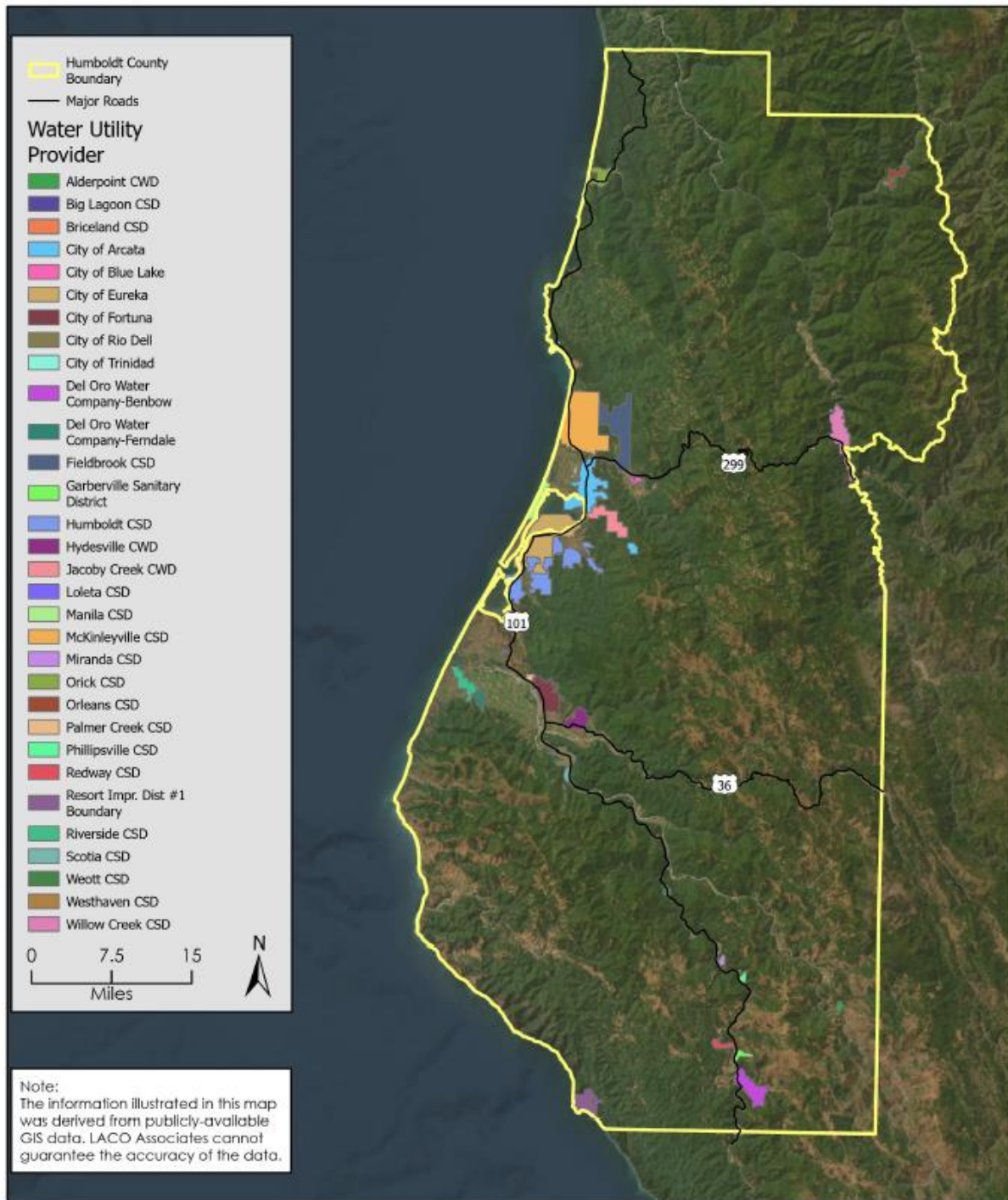


Figure 3.9-2 Water Districts in Humboldt County (Northern Humboldt County)

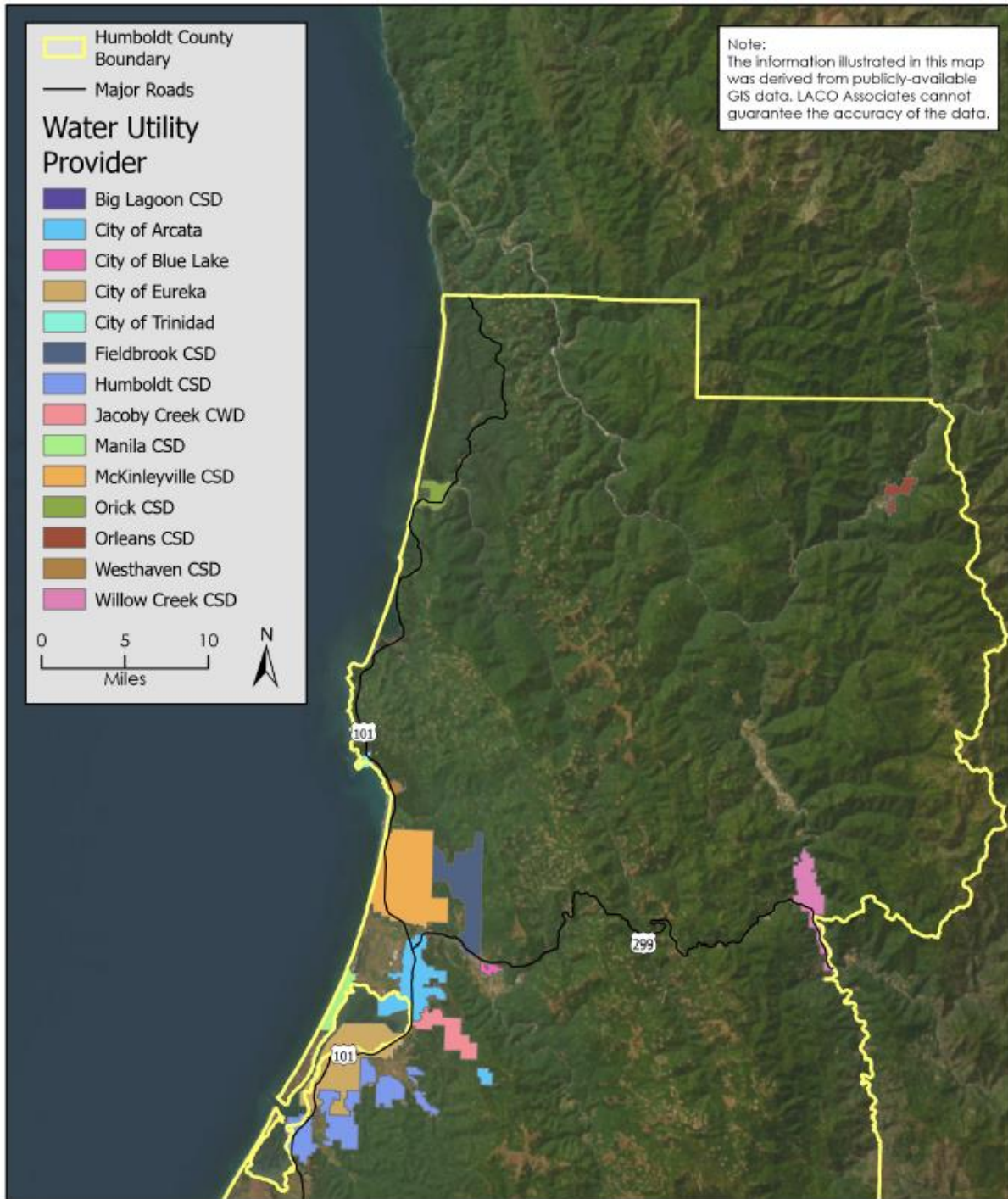


Figure 3.9-3 Water Districts in Humboldt County (Central Humboldt County)

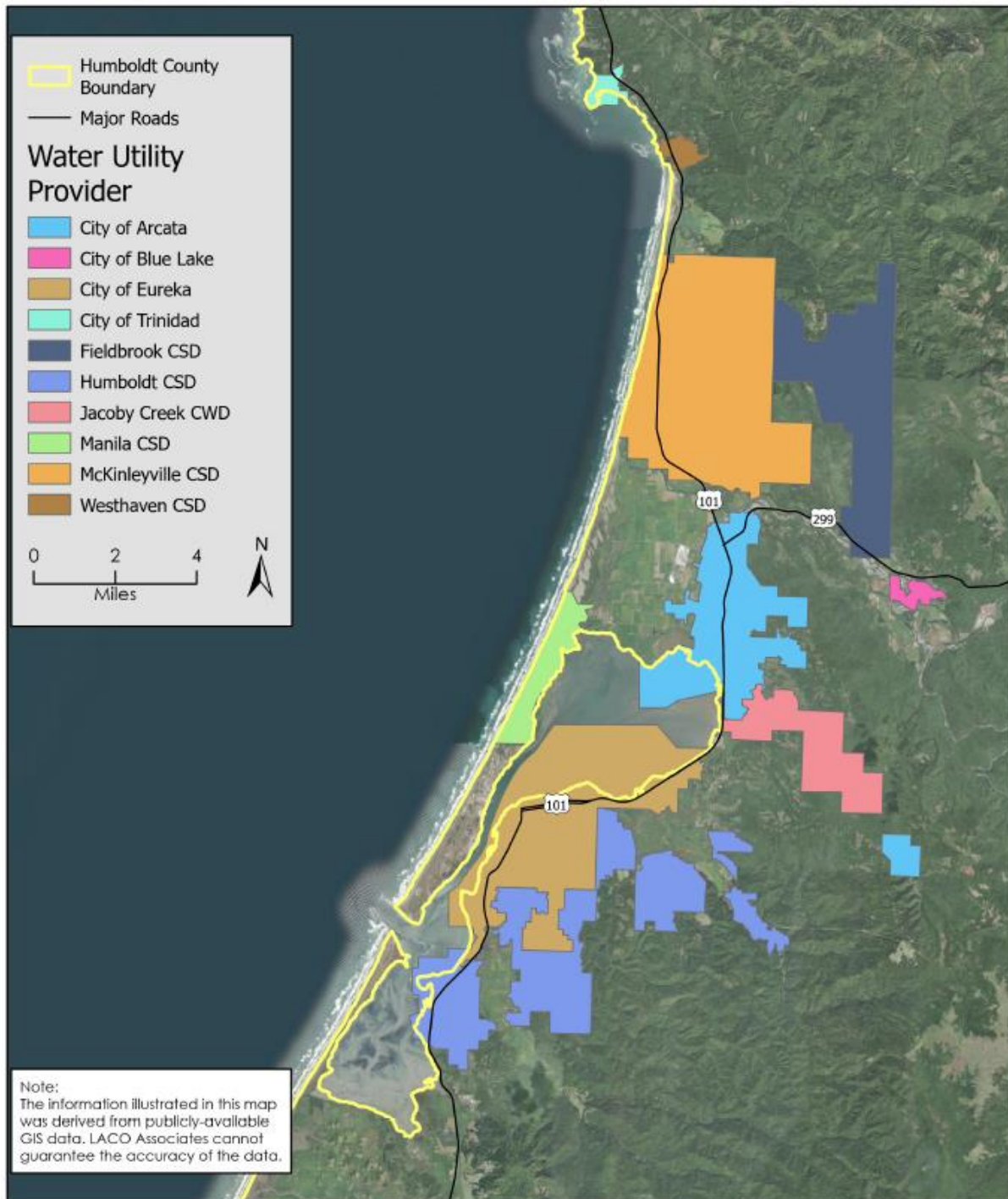
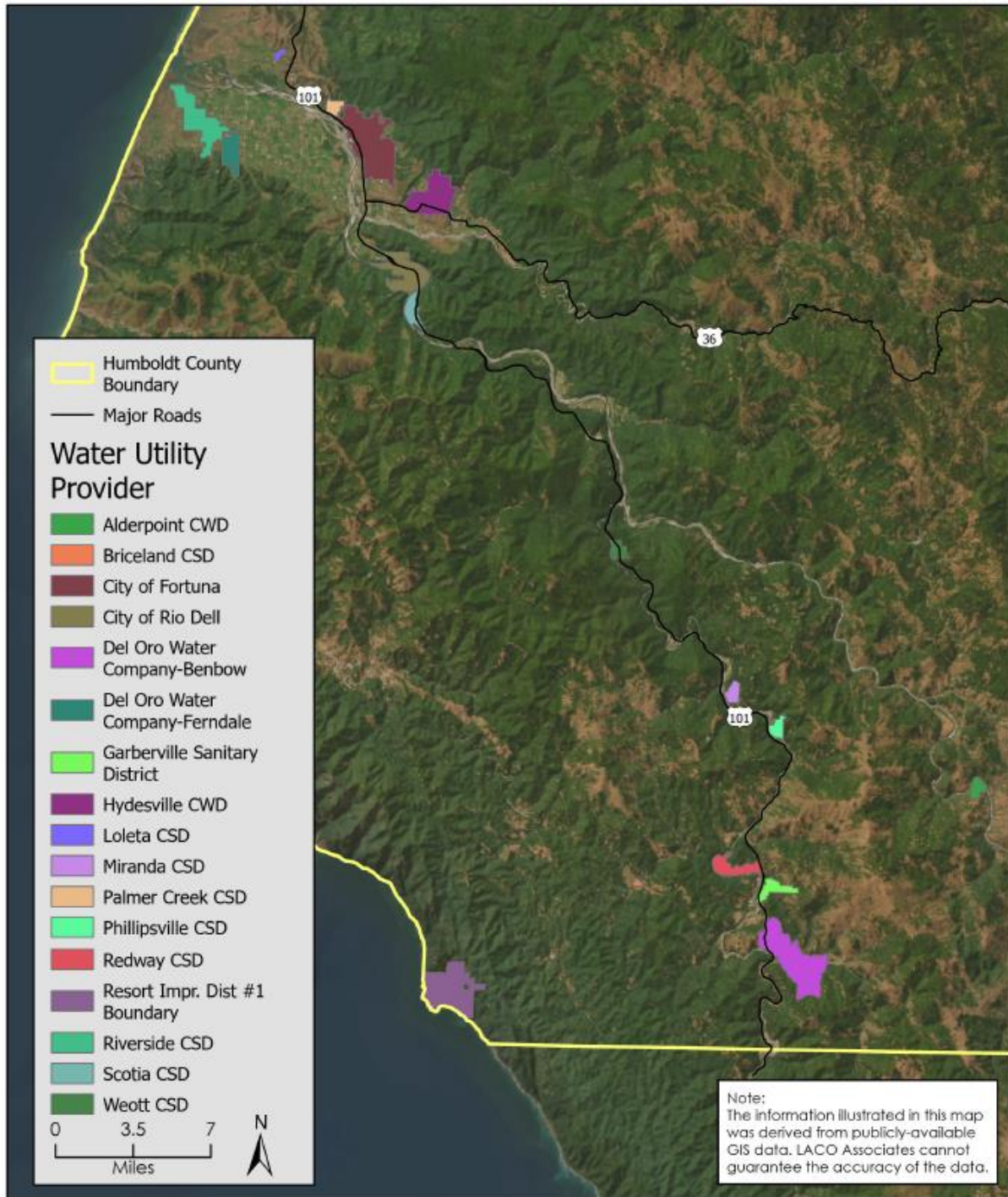


Figure 3.9-4 Water Districts in Humboldt County (Southern Humboldt County)



Unincorporated Humboldt County

ALDERPOINT COUNTY WATER DISTRICT

The Alderpoint County Water District’s (Alderpoint CWD) service boundary and adjacent Sphere of Influence encompass a total of 311 acres (0.49 square miles), with a total population served

estimated at approximately 283 residents in 2017 (87 total connections). Primarily the Alderpoint CWD serves small single-family residences, although larger agricultural parcels are also served.¹

Water for the Alderpoint CWD is derived from the Eel River via an infiltration gallery and wet well. The Alderpoint CWD has four storage tanks and one post-filter chlorine contact time tank, totaling 186,725 gallons. The main storage tank (welded steel), totaling 160,000 gallons, was constructed in 2016. The distribution system comprises asbestos cement (AC) and polyvinyl chloride (PVC) pipe. While the pipes are considered to be in fair condition, they are likely nearing the end of their useful life. The Alderpoint CWD is seeking funding to begin a full replacement of its distribution system.²

The Alderpoint CWD is permitted to divert up to 0.25 cubic feet per second (cfs) with a maximum annual diversion of 116 acre-feet per year (AFY) [approximately 3.78 million gallons per year (mgy)] per year. The Alderpoint CWD's maximum treatment capacity is limited to 100 gpm [144,000 gallons per day (gpd)]. As of the year 2020, the Alderpoint CWD had a reported annual usage of 57.33 acre-feet (18.68 mgy) with a maximum diversion of 110.30 gpm with an average of 71.88 gpm. Based on the source capacity of 0.25 cfs, Alderpoint CWD has the ability to pump up to 161,582 gallons in a 24-hour period. Based on these values, Alderpoint CWD is utilizing approximately 72 percent of its treatment capacity and 64 percent of its source capacity on average. At maximum demand, the Alderpoint CWD is exceeding its treatment capacity and utilizing 98 percent of its source capacity. These values indicate that Alderpoint CWD has adequate water to support current and future average demand but has reached its capacity for maximum demand. This combined with a past drought curtailment order issued by the State in 2014 indicates that there is a need for a secondary source of water to support emergency drought needs and high demand time periods.³

BIG LAGOON COMMUNITY SERVICES DISTRICT

Big Lagoon Community Services District (Big Lagoon CSD) serves 43 households and Big Lagoon School with municipal water service. Water is derived primarily from a single groundwater well. Although Big Lagoon CSD's system comprises three wells, only one of the wells primarily supports the water supply. An additional 8-inch well (Well 2) is available for emergency standby. The original 12-inch well (Well 1) is currently used as a monitoring well. Groundwater is treated through a chlorination process and stored in two 5,000-gallon plastic tanks which provide water to the community. It is noted that the Big Lagoon CSD's system is currently and has previously experienced water loss issues. The Big Lagoon CSD's treatment plant has the ability to process up to 24 gpm, which equates to approximately 33,900 gpd and 12.4 mgy. During 2019, the total amount of water pumped from the treatment plant to the storage tanks was reported at 1,792,500 gallons. Additionally, in 2019, average water use was approximately 121 gpd per household, which equates to 0.4 percent of Big Lagoon CSD's daily treatment capacity. These values indicate that Big Lagoon CSD's water system has ample capacity to serve additional demand should it arise.⁴

BRICELAND COMMUNITY SERVICES DISTRICT

The Briceland Community Services District (Briceland CSD) serves approximately 25 existing service connections and a population of approximately 75 residents. Briceland CSD's water supply is derived

¹ Humboldt Local Agency Formation Commission (LAFCo). 2023. South County Regional Water and Wastewater Municipal Services Review and Sphere of Influence Update. <https://humboldtlafo.org/south-county-water-wastewater-msr-soi-update-2023/> (accessed November 2024).

² Ibid.

³ Ibid.

⁴ LAFCo. 2022. Big Lagoon Community Services District Municipal Services Review and Sphere of Influence Update. https://humboldtlafo.org/wp-content/uploads/Big-Lagoon-MSR_Adopted-3-17-21-Modified-Nov-2022.pdf (accessed November 2024).

from a spring located on private property through agreement with the landowner and deeded access. The Briceland CSD receives 90 percent of the spring's flow. Although the spring's flow varies and is dependent on rainfall, the spring typically produces between 5 to 7 gpm (7,200 to 10,080 gpd) during the summer months. In 2005, approximately 3.88 million gallons of drinking water were produced by the Briceland CSD in 2005, with average daily use estimated at 10,630 gpd and peak daily use estimated at 40,000 gpd.⁵

Water treatment for the Briceland CSD uses two sand filter bays with an intermediate settling basin. The distribution system consists of two pressure zones that are supplied from a single 42,000-gallon concrete storage tank. The storage tank is connected to the distribution system via approximately 1,600 feet of AC pipe.⁶

The Briceland CSD Municipal Services Review (MSR) notes several deficiencies associated with the current system, including:

- Source capacity is unable to meet current maximum day demands;
- The treatment system is unable to meet turbidity performance standards during winter months;
- Storage capacity barely meets one day of maximum day demands; and
- Recommended fire suppression storage is not available.⁷

Existing peak daily use is approximately 400 percent of available source capacity during dry periods. While source capacity has been identified as a significant problem, Briceland CSD has no other options for additional sources of water. The Briceland CSD currently has a moratorium on new connections.⁸

GARBERVILLE SANITARY DISTRICT

The Garberville Sanitary District (GSD) provides water service to approximately 420 active service connections. Water is sourced from surface water from the South Fork Eel River and a shallow well in downtown Garberville. The well has a limited capacity and is only used as a backup source. Total storage capacity for the system is 260,000 gallons, with a maximum daily demand for water reported at 427,780 gallons. As noted in the MSR for GSD, the California Department of Public Health has identified deficiencies in the GSD water system, including a lack of redundancy in pumping and filtration, and limited emergency power during power outages. GSD has identified five major capital improvement projects over the next twenty years to address these deficiencies.⁹

HUMBOLDT BAY MUNICIPAL WATER DISTRICT

The Humboldt Bay Municipal Water District (HBMWD) provides wholesale water to seven (7) municipalities within Humboldt County, including the Cities of Arcata, Blue Lake, and Eureka; Fieldbrook-Glendale CSD; Humboldt Community Services District (HCSD); Manila CSD; and McKinleyville CSD. Water supplied by HBMWD is derived from the Mad River. The HBMWD has appropriative water rights permits for surface water storage and diversion through 2029, with a total water right of 75 million gallons per day (MGD) (84,000 AFY). The HBMWD currently delivers

⁵ LAFCo. 2008. Briceland Community Services District Municipal Services Review. <https://humboldtlafo.org/wp-content/uploads/Briceland-CSD-ADOPTED-MSR-September-2008.pdf> (accessed November 2024).

⁶ Ibid.

⁷ Ibid.

⁸ Ibid.

⁹ LAFCo. 2013. Garberville Sanitary District Municipal Service Review. https://humboldtlafo.org/wp-content/uploads/Adopted-MSR-SOI_03-20-2013.pdf (accessed November 2024).

an average of 11 MGD of treated water to its customers, with a peak daily use of 17 MGD. The HBMWD's water quality is consistently high. Additionally, HBMWD has devised a 20-year Capital Improvement Plan (CIP) to guide infrastructure improvements and ensure reliable water service.¹⁰

HUMBOLDT COMMUNITY SERVICES DISTRICT

The HCSD provides water service to 7,526 service connections, in which approximately 97 percent are residential and 3 percent are commercial customers. Water is derived from the Mad River and groundwater. The HCSD's infrastructure includes three wells, 426 fire hydrants, 13 booster pumping stations, 10 storage reservoirs with a total capacity of 5 MG, 87 miles of water mains, and three trailer-mounted generators. Approximately one-third of HCSD's potable water is purchased from HBMWD, another third from the City of Eureka, and the remaining third is pumped from HCSD-owned wells. The HCSD's peak daily water consumption is reported as 3.20 MG with an average daily consumption of 2.58 MG. While the HCSD water system has no significant deficiencies, some storage and fire flow improvements are anticipated to accommodate future development. The HCSD is also limited by treatment and disposal capacity at its Elk River Wastewater Treatment Plant (WWTP).¹¹

HYDESVILLE COUNTY WATER DISTRICT

The Hydesville County Water District (HCWD) supplies water to approximately 450 service connections, which equates to a population of approximately 1,200 residents. HCWD water is derived from two wells and HCWD's distribution system spans a total of 14 miles. The wells pump water into two storage tanks with a combined capacity of 600,000 gallons, enough to meet approximately seven days of normal usage. The HCWD typically operates one well at a time, keeping the second as a backup. Average daily water usage is around 100,000 gpd, with peak demand reaching 300,000 gpd. It is noted that the current system is operating at approximately 58 percent capacity, which would allow for an additional 326 connections. However, it is noted in the 2008 MSR that increasing demand may necessitate drilling a third well to maintain sufficient reserves.¹²

JACOBY CREEK COUNTY WATER DISTRICT

Jacoby Creek Community Water District (JCCWD) serves the community of Jacoby Creek, which includes a population of 326 residents, with 323 residential and 7 commercial/institutional connections. The JCCWD relies on the City of Arcata for water supply, distribution, and maintenance. Arcata purchases wholesale water from HBMWD. The JCCWD system includes four water storage tanks totaling 189,000 gallons, which can support water needs for up to three days in case of an emergency. It is noted that water infrastructure is primarily gravity-fed and consists of approximately 7.8 miles of water mains, 73 percent of which are asbestos concrete pipes that need to be replaced.¹³

¹⁰ LAFCo. 2014. Municipal Service Review for the Humboldt Community Services District Sphere of Influence Report. https://humboldtlafo.org/wp-content/uploads/Humboldt_CSD_Final-MSR.pdf (accessed November 2024).

¹¹ SHN Consulting Engineers & Geologists, Inc. 2014. Municipal Service Review for the Humboldt Community Services District Sphere of Influence Report. https://humboldtlafo.org/wp-content/uploads/Humboldt_CSD_Final-MSR.pdf (accessed November 2024).

¹² LAFCo. 2008. Hydesville County Water District Municipal Service Review. <https://humboldtlafo.org/wp-content/uploads/Hydesville-CWD-Adopted-MSR.pdf> (accessed November 2024).

¹³ LAFCo. 2020. Jacoby Creek County Water District Municipal Services Review and Sphere of Influence Update. https://humboldtlafo.org/wp-content/uploads/Jacoby-Creek-MSR_Adopted-9-16-2020.pdf (accessed November 2024).

LOLETA COMMUNITY SERVICES DISTRICT

The Loleta Community Services District (LCSD) provides water service to approximately 226 homes, 11 businesses, and 2 industrial sites. Water is derived from two wells with a total production capacity of 369,600 gpd, with a target production rate of 144,000 gpd. The current estimated peak usage is 157,000 gpd. The LCSD has a total storage capacity of 225,000 gallons, which provides approximately 1.4 days of storage based on peak daily usage. It is estimated that the LCSD has capacity to accommodate approximately 60 to 70 additional homes.¹⁴

MANILA COMMUNITY SERVICES DISTRICT

The Manila Community Services District (Manila CSD) serves approximately 357 water service connections, primarily residential. Potable water is obtained from the HBMWD. Manila CSD's current peak rate allocation is currently 0.15 MGD. Within its service area, the Manila CSD maintains approximately 6 miles of water mains, some of which are in need of repair or replacement. Water storage consists of a 100,000-gallon redwood tank, which is planned for replacement due to its age and inadequate capacity. It is noted the Manila CSD faces potential contamination risks from nearby industrial sites and has advocated for increased funding for remediation efforts to protect its drinking water source.¹⁵

MCKINLEYVILLE COMMUNITY SERVICES DISTRICT

The McKinleyville Community Services District (MCSD) provides community water to McKinleyville and Patrick's Creek. Potable water is purchased from HBMWD. MCSD currently has a peak demand allocation of 2.6 MGD from HBMWD, with average daily demand reported at approximately 1.23 MGD and total annual water demand of 450 MG in 2020, equating to approximately 47 of the total allocation from HBMWD. The water is transported to MCSD via a single 18-inch transmission line that is buried under the Mad River. Due to the seismic activity in the region, this line poses a risk of rupture in the event of a large earthquake. MCSD is working to mitigate this risk by developing additional emergency storage. MCSD maintains approximately 88 miles of distribution mains over four pressure zones. The system is generally in good condition, but portions were installed in the 1970s and are nearing the end of their useful life. MCSD's *Water Main Line Replacement and Rehabilitation Master Plan* outlines a 100-year plan to replace aging infrastructure within its service area.¹⁶

MIRANDA COMMUNITY SERVICES DISTRICT

The Miranda Community Services District (Miranda CSD) provides water for domestic needs, irrigation, sanitation, and fire protection. Their current water supply comes from two wells which draw from underground streams flowing through sand and gravel layers beneath the South Fork of the Eel River and have a combined capacity of 225 gpm. The Miranda CSD's infrastructure also includes distribution pipes and a 200,000-gallon water storage tank. Miranda CSD serves a population of approximately 300 and 135 service connections. Average daily water use is reported at approximately 55,000-60,000 gpd, with a maximum of 200,000 gpd during the late summer. While the existing system is sufficient for the current population, it is noted that the existing well

¹⁴ LAFCo. 2008. Loleta Community Services District Municipal Service Review. <https://humboldtlafo.org/wp-content/uploads/Loleta-CSD-ADOPTED-MSR-September-2008.pdf> (accessed November 2024).

¹⁵ LAFCo. 2022. Manila Community Services District Municipal Services Review and Sphere of Influence Update. https://humboldtlafo.org/wp-content/uploads/Manila-CSD-MSR_Adopted-01-19-22_reduced.pdf (accessed November 2024).

¹⁶ LAFCo. 2021. McKinleyville Community Services District Municipal Services Review and Sphere of Influence Update. https://humboldtlafo.org/wp-content/uploads/McKinleyville-CSD-Adopted-MSR-SOI_11-17-21.pdf (accessed November 2024).

capacity of the Miranda CSD may not be enough to accommodate anticipated future growth. Infrastructure maintenance and upgrades generally occur on an as-needed basis.¹⁷

ORICK COMMUNITY SERVICES DISTRICT

The Orick Community Services District (Orick CSD) serves approximately 450 individuals through 143 connections with community water. The Orick CSD operates two wells with a combined maximum production capacity of 415 gpm (597,600 gpd). Water storage includes two 100,000-gallon redwood storage tanks that are aging and experiencing leaks. The distribution system consists of approximately 4.1 miles of pipes made of various materials, including ductile iron, PVC, and asbestos-cement. Average annual water demand is approximately 40,979 gpd, with peak daily use reported at 68,700 gpd. The Orick CSD currently has sufficient water supply to meet current and projected demand. As noted in the July 2024 MSR, the Orick CSD has several planned improvements, including replacing both storage tanks, upgrading the water and electrical lines, installing a SCADA system, and replacing existing water meters, valve boxes, and curb stops.¹⁸

ORLEANS COMMUNITY SERVICES DISTRICT

The Orleans Community Services District (Orleans CSD) serves approximately 149 active connections, which includes large water users such as orchards, vineyards, and the U.S. Forest Service. The Orleans CSD infrastructure includes a 10,000-gallon water storage tank, filters, pipes, meters, pumps, and a fire hydrant system. Average daily water use is estimated at 71,000 gpd. The Orleans CSD is currently operating at approximately 79 percent of available treatment capacity but notes there are no available connections within the existing system due to treatment capacity, which is estimated at 49,500 gpd. The Orleans CSD plans to upgrade its water system by adding a new water tank, filter, and apparatuses, and extending the main water line to install three new fire hydrants. Additionally, approximately one mile of the water pipes within the Orleans CSD have been identified as undersized for adequate fire flows and needing to be replaced.¹⁹

PALMER CREEK COMMUNITY SERVICES DISTRICT

The Palmer Creek Community Services District (PCCSD) provides water services to a population of approximately 400 residents within the community of Palmer Creek, with a total of 133 residential service connections. PCCSD obtains water from two groundwater wells. Total water storage is 210,000 gallons. The PCCSD's treatment plant can process up to 80 gpm or 115,200 gpd. Average daily water use is approximately 16,700 gpd. PCCSD has several planned projects for the system, including installing new SCADA and SCADA telemetry in addition to 150 new water meters.²⁰

PHILLIPSVILLE COMMUNITY SERVICES DISTRICT

The Phillipsville Community Services District (Phillipsville CSD) serves approximately 300 residents.²¹ The Phillipsville CSD relies on a 140-foot deep well as its primary source of water, with a backup

¹⁷ LAFCo. 2009. Miranda Community Services District Municipal Service Review. <https://humboldtlafo.org/wp-content/uploads/Miranda-CSD-Approved-MSR-2009.pdf> (accessed November 2024).

¹⁸ LAFCo. 2024. Orick Community Services District Municipal Services Review and Sphere of Influence Update. https://humboldtlafo.org/wp-content/uploads/Orick-CSD-MSR_Adopted_July-17-2024.pdf (accessed November 2024).

¹⁹ LAFCo. 2008. Orleans Community Services District Municipal Services Review. https://humboldtlafo.org/wp-content/uploads/Orleans-CSD-MSR-Sept-2008_v2.pdf (accessed November 2024).

²⁰ LAFCo. 2020. Palmer Creek Community Services District Municipal Services Review and Sphere of Influence Update. https://humboldtlafo.org/wp-content/uploads/Palmer-Creek-MSR_7-15-2020-Adopted.pdf (accessed November 2024).

²¹ California State Water Resources Control Board. 2024. *CA Drinking Water Watch Water System Details*. https://sdwis.waterboards.ca.gov/PDWW/JSP/WaterSystemDetail.jsp?tinwsys_is_number=1024&tinwsys_st_code=CA (accessed November 2024).

spring serving as a secondary source. The Phillippsville CSD's facilities include a well treatment plant, a storage tank, and a distribution system that extends throughout the community. While the Phillippsville CSD's water supply has historically been sufficient to meet demand, recent droughts and increased population growth have raised concerns about future water availability. To address these concerns, the Phillippsville CSD has implemented water conservation measures and is exploring options for expanding its water supply, such as drilling additional wells or purchasing water from neighboring agencies.²²

REDWAY COMMUNITY SERVICES DISTRICT

The Redway Community Services District (Redway CSD) operates a public water system that serves approximately 600 customers. The system relies on two water sources (an infiltration gallery sourced from the South Fork of the Eel River and an unnamed spring), a conventional filter water treatment plant, two storage facilities (totaling 375,000 gallons), two pressure reduction vaults, one booster pump station, and approximately 25 miles of distribution piping consisting of iron, cement, and plastic piping. The infiltration gallery has a capacity of 550 gpm (792,000 gpd) with a total source capacity of 838,000 gpd; however, the water treatment plant can only process up to 770,000 gpd. The system faces challenges such as undersized piping and aging infrastructure but is able to meet water demand. Average daily use is approximately 175,000 gpd with a peak daily use of 475,000 gpd. The Redway CSD is currently developing a long-term plan to address infrastructure deficiencies and improve the water system.²³

RESORT IMPROVEMENT DISTRICT #1

The Resort Improvement District #1 (RID) serves approximately 577 water connections within Shelter Cove. Water is primarily sourced from Telegraph Creek and secondarily from one ground water well, Rick Spring, and two active surface water creek intakes from Upper Telegraph Creek. The RID is permitted to withdrawal up to 0.775 cubic feet per second (cfs). The RID's water treatment plant has a capacity of 0.350 mgd and the RID maintains approximately 2.1 million gallons of storage in 12 storage tanks. The distribution system consists of approximately 44 miles of water main, primarily AC pipe. In 2008, peak daily use was reported at 166,082 gpd. Based on current usage and capacity of the system, RID estimates it has capacity to serve a total of 900 service connections. The RID is evaluating multiple new well sources to supplement its primary source and prepare for future growth.²⁴

RIVERSIDE COMMUNITY SERVICES DISTRICT

The Riverside Community Services District (Riverside CSD) provides service to approximately 99 connections and an approximate population of 219 residents and daily demand of approximately 29,000 gpd. The primary water source is a well that supplies 30 gpm of water. It is reported that the treatment plant produced 5,996,470 gallons of water in 2018. Based on the primary well's capacity, it is estimated that the Riverside CSD is utilizing approximately 44 to 68 percent of its capacity. While there is adequate water to support the current and future demand of the service area, the

²² Phillippsville Community Services District. 2021. Phillippsville Community Services District Water System Improvements Initial Study/Mitigated Negative Declaration. https://files.ceqanet.opr.ca.gov/269022-1/attachment/56zvmAwPvg3ml_k8JrDSWW6w5_YfmvCdeCYHIN9tjzbsYJvOAVFx4CJW5TM2Mdmwv3B-Ftcj5k27Uh_I0 (accessed November 2024).

²³ LAFCo. 2008. Redway Community Services District Municipal Service Review. <https://humboldtlaico.org/wp-content/uploads/Redway-CSD-ADOPTED-MSR-July-2008.pdf> (accessed November 2024).

²⁴ LAFCo. 2009. Resort Improvement District #1 Municipal Service Review. <https://humboldtlaico.org/wp-content/uploads/RID-No1-Adopted-MSR-2009.pdf> (accessed November 2024).

Riverside CSD does not have a reliable back-up source of water supply. The Riverside CSD has been unable to secure funding to construct a new well. The Riverside CSD faces several challenges, including a limited water supply, insufficient funding, and regulatory compliance issues.²⁵

SCOTIA COMMUNITY SERVICES DISTRICT

The Scotia Community Services District (Scotia CSD) was formed in 2014 to provide water, wastewater, parks and recreation, streets and street lighting, and storm drainage services to the unincorporated community of Scotia.²⁶ The water system includes a domestic Water Treatment Facility (WTF), a distribution system, and a fire suppression system. Water is sourced from the Eel River, with existing diversion entitlements of approximately 4.59 million gpd for drinking water, mill processes, and fire supply. Maximum daily water usage is approximately 601,000 gpd, with an average of 484,400 gpd, indicating sufficient capacity for any reasonably foreseeable development within the service boundary. However, it is noted that the existing water system experiences a significant unaccounted water loss, with over 40 percent (or approximately 192,000 gpd) of its average treated water production of 405,350 gpd going unaccounted for. Several upgrades are proposed, including replacement of over 9,500 feet of main water lines and installation of meters at every residential and commercial service connection in the domestic water system. It is expected that the proposed upgrades will result in decreased water loss, therefore adding additional capacity within the system.²⁷

WEOTT COMMUNITY SERVICES DISTRICT

The Weott Community Services District (Weott CSD) has an approximate population of 288 residents and provides service to approximately 143 connections. Water supply is sourced from two springs within Humboldt Redwoods State Park. Total water storage is 169,000 gallons in two water storage tanks. Due to the seasonal nature of the springs, the Weott CSD has experienced water supply fluctuations in the past, particularly during dry summer months. Source capacity is estimated at 253,000 gpd if pumps operate 24 hours per day and treatment capacity is limited to 113,000 gpd if the filters operate 22 hours per day. Average daily water use is approximately 129,000 gpd. Recent conservation efforts implemented by the Weott CSD, including installation of water meters and repairs to leaks, have dramatically reduced average daily water use to 25,000-30,000 gpd. It is further noted that the Weott CSD's water distribution system does not meet current fire flow standards set by the California Fire Code.²⁸

WESTHAVEN COMMUNITY SERVICES DISTRICT

The Westhaven Community Services District (Westhaven CSD) serves 232 connections (229 are residential and three are public facility/commercial), which includes an approximate population of 517. Westhaven CSD's water source includes a combination of surface water and groundwater sources, including two unnamed springs, an unnamed stream, and a well. Water is treated through slow sand filtration and disinfection and stored in a 100,000-gallon storage reservoir and a 95,000-gallon glass-fused bolted steel tank. The Westhaven CSD has a permitted supply of 34.4 mgd. In 2020, 7.7 million gallons of water was delivered to customers, with another 2 million gallons lost (20

²⁵ LAFCo. 2022. Riverside Community Services District Municipal Services Review and Sphere of Influence Update. https://humboldtlafo.org/wp-content/uploads/Riverside-MSR_Adopted-5-18-2022.pdf (accessed November 2024).

²⁶ Scotia Community Services District. 2024. Welcome Scotia Residents. <https://scotiacsds.com/> (accessed November 2024).

²⁷ LAFCo. 2010. Town of Scotia Community Services District Municipal Services Review. <https://humboldtlafo.org/wp-content/uploads/MSR-October-2010-wo-Attachments.pdf> (accessed November 2024).

²⁸ LAFCo. 2012. Weott Community Services District Municipal Service Review. <https://humboldtlafo.org/wp-content/uploads/Weott-CSD-Adopted-MSR.pdf> (accessed November 2024)

percent of total produced). The Westhaven CSD has had a waitlist of 70 homes since formation of the CSD in 1988 due to the system's limited supply, and has a moratorium on new connections. However, the Westhaven CSD is working to increase its water supply, including drilling of new wells. Additionally, the District is exploring additional options, such as possible connection to the City of Trinidad water system and/or connecting to the HBMWD water line, should this be extended to the Trinidad area in the future.²⁹

WILLOW CREEK COMMUNITY SERVICES DISTRICT

The Willow Creek Community Services District (WCCSD) serves a total of approximately 1,710 residents and 930 service connections, comprising 792 residential connections, 13 multi-family connections, 82 commercial connections, 32 agricultural connections, ten (10) landscape connections, and one (1) industrial connection. There are also 79 inactive connections. Water is sourced from Willow Creek, a tributary of the Trinity River. The WCCSD's treatment facility can produce up to 3 mgd of water at peak production. Total water storage is 1.08 million gallons in three storage tanks. In 2019, the monthly average demand for water was approximately 18.13 million gallons. Total water use in 2019 was reported as 667.8-acre feet, which equates to 28 percent of the WCCSD's permitted diversion amount.³⁰

FIELDBROOK-GLENDALE COMMUNITY SERVICES DISTRICT

The Fieldbrook-Glendale CSD currently provides water services to approximately 536 customers. Water is purchased from Humboldt Bay Municipal Water District (HBMWD), in which the contract allows for up to 430,000 mgd. The water system includes two booster pump stations and two water storage tanks totaling 420,000 gallons. In 2014, the CSD reports that an average of 159,000 gpd, with a peak of 240,000 gpd, was utilized. The CSD currently uses about 56 percent of its contracted water allotment during peak demand. It is noted that some customers have experienced localized pressure issues.³¹

City of Arcata

The City of Arcata Environmental Services Department (Arcata ESD) provides municipal water service to the areas mapped within the Urban Services and Water Services Only boundaries, which extends beyond the city limits and includes the Jacoby Creek area. Specifically, in addition to serving the City of Arcata (Arcata), the Arcata ESD also operates, maintains, and provides water to the Jacoby Creek County Water District's (JCCWD) water distribution system. The Arcata ESD's Water Service Area includes approximately 6,567 total service connections, of which 6,237 are located within Arcata limits and 330 within Jacoby Creek. The Arcata ESD's water system includes 87 miles of transmission mains, fire hydrants, valves, and the water services from the mains to individual water meters. The Arcata ESD has approximately 4.4 million gallons of storage capacity spread over 17 tanks ranging in size from 15,000- to 1.5 million gallons.³²

The primary source of water for Arcata is water purchased from the Humboldt Bay Municipal Water District (HBMWD) as well as a groundwater source (Heindon Well). Several interconnections are also

²⁹ LAFCo. 2021. Westhaven Community Services District Municipal Service Review and Sphere of Influence Update. https://humboldtlafo.org/wp-content/uploads/Westhaven-MSR_Adopted-05-19-2021.pdf (accessed November 2024).

³⁰ LAFCo. 2021. Willow Creek Community Services District Municipal Services Review and Sphere of Influence Update. https://humboldtlafo.org/wp-content/uploads/Willow-Creek-MSR_Adopted-5-19-21.pdf (accessed November 2024).

³¹ LAFCo. 2015. Fieldbrook Glendale Community Services District Municipal Service Review. https://humboldtlafo.org/wp-content/uploads/FGCSD-Final-MSR_Adopted-07-15-15.pdf (accessed November 2024).

³² LAFCo. 2020. City of Arcata Municipal Services Review. https://humboldtlafo.org/wp-content/uploads/Arcata-MSR_Adopted-11-18-20.pdf (accessed November 2024).

maintained with other nearby water service providers to allow water to be shared in the event of an emergency.³³

According to the Arcata’s *2020 Urban Water Management Plan*³⁴, the Service Area population in 2020 is estimated at 20,095 residents and is expected to increase by a rate of 0.81 percent per year; by the year 2045, the Service Area population is anticipated to increase to 24,572 residents. Total demand for water in 2020 was noted as 583 MG and is expected to increase to 800 MG by the year 2045 (a 37 percent increase). The Arcata ESD has a peak rate allocation of 3.25 MGD from HBMWD. In 2020, the Arcata ESD utilized 615 MG (52 percent of its allocation). In 2045, when projected demand is anticipated to reach 800 MG, it is expected the City of Arcata will be utilizing less than 70 percent of its peak rate allocation (see Table 3.9-1, below). Additionally, the Arcata ESD has determined that they can safely withdrawal 0.5 MGD from the groundwater basin through use of the Heindon Well.³⁵

Table 3.9-1 City of Arcata and Jacoby Creek CWD Projected Water Use and Supply (2020-2040)³⁶

Year	2020	2025	2030	2035	2040
Usage (MGY)	730	786	815	847	880
Supply	1,369	1,369	1,369	1,369	1,369

City of Blue Lake

The City of Blue Lake (Blue Lake) obtains all of its domestic water supply through a contract with HBMWD. The City’s daily use allotment is currently 400,000 gallons. During fiscal year 2017-18, Blue Lake reported an average usage of 204,712 gpd (51 percent of their daily allotment from HBMWD), with peak usage reported for the same year in the month of August at 244,900 gpd (61 percent of the daily allotment).³⁷

Water is delivered to Blue Lake via a booster pump station northwest of Blue Lake on Glendale Drive, which is owned and operated by Blue Lake. The system includes two redwood water storage tanks with a total storage capacity of 900,000 gallons, in addition to transmission mains, fire hydrants, valves, and the water services from the mains to individual water meters. The distribution system consists of 51,050 feet of pipeline (predominately AC pipe), which was installed in 1973. Blue Lake has two redwood storage tanks with a total storage capacity of 900,000 gallons.³⁸

City of Eureka

The City of Eureka (Eureka) provides water to customers within the city limits of Eureka, as well as a few customers located outside of the city boundary. Eureka obtains its potable water from HBMWD. As Eureka maintains an 8 MGD water right on the Mad River, HBMWD is authorized to deliver up to 8 MGD of water, if needed. Per the City of Eureka MSR, average annual daily system demand is 4.0

³³ Ibid.

³⁴ City of Arcata. 2021. City of Arcata Urban Water Management Plan 2020. <https://www.cityofarcata.org/DocumentCenter/View/10965/City-of-Arcata-2020-Urban-Water-Management-Plan> (accessed November 2024).

³⁵ Ibid.

³⁶ LAFCo. 2020. City of Arcata Municipal Services Review. https://humboldtlafo.org/wp-content/uploads/Arcata-MSR_Adopted-11-18-20.pdf (accessed November 2024).

³⁷ LAFCo. 2019. City of Blue Lake Municipal Service Review. <https://humboldtlafo.org/wp-content/uploads/Blue-Lake-MSR-ADOPTED-7-17-19.pdf> (accessed November 2024).

³⁸ Ibid.

MGD (50 percent of total water right allotment), with average peak month daily demand reported at 5.23 MGD (approximately 65 percent of the City's total allotment).³⁹

Water received from HBMWD is filtered and chlorinated by HBMWD before it is distributed via a pipeline to the Eureka's water storage and treatment complex. Total storage capacity of the Eureka's system is 22.3 MG, comprised of a 20-MG raw water storage reservoir, a 1-MG ground-level steel tank, a 500,000-gallon ground-level steel tank, a 500,000-gallon elevated steel tank, and a 300,000-gallon clear well. Eureka's distribution system is noted to have normal deficiencies for a system of its age, including an aging piping system and low-pressure and fire-flow issues.⁴⁰

City of Fortuna

As provided in the City of Fortuna MSR and Sphere of Influence Update, the City of Fortuna (Fortuna) serves approximately 12,000 individuals and 5,727 service connections (5,170 residential and 557 commercial/other) with water from five Fortuna-owned and operated groundwater wells. Fortuna's Public Works Department maintains and operates the water pumping and treatment facilities and equipment. Current water rights allow Fortuna to extract up to 1,642 acre-feet of groundwater (approximately 535.1 million gallons) per year. Average daily demand is approximately 1.16 MGD (42 percent of the total daily treatment capacity). Usage has increased by approximately 7 percent from 395.3 MG in 2015 to 423.54 MG in 2019. Fortuna is using approximately 79 percent (1,300-acre feet) of its total annual groundwater allocation. It is anticipated Fortuna's yearly demand could increase to 457 MG (or approximately 85 percent of the Fortuna's water rights allocation) by the year 2025 (see Table 3.9-2, below). The City is also noted to be supported by adequate fire flow capacity.⁴¹

³⁹ LAFCo. 2014. City of Eureka Municipal Service Review. https://humboldtlafo.org/wp-content/uploads/Eureka-Adopted-MSR_1-15-14.pdf (accessed November 2024).

⁴⁰ Ibid.

⁴¹ LAFCo. 2021. City of Fortuna Municipal Services Review and Sphere of Influence Update. https://humboldtlafo.org/wp-content/uploads/Fortuna-MSR-Adopted_1-20-21.pdf (accessed November 2024).

Table 3.9-2 City of Fortuna Projected Water Demand (2019-2025)⁴²

Year	Demand (MG)	
	Monthly	Annually
2019	35.30	423.60
2021	35.86	430.32
2022	36.42	437.04
2023	36.99	443.88
2024	37.55	450.60
2025	38.12	457.44

Fortuna’s distribution system includes 40 miles of piping, four reservoirs with a total storage capacity of 8.25 million gallons of water, and eight pump stations. The system comprises both new and old piping, with a mix of older AC and cast-iron pipe, and newer PVC pipe. The Fortuna-owned reservoirs and pump stations are inspected on a daily basis. Based on the average daily demand (detailed above), it is anticipated that Fortuna’s reservoirs could provide up to seven days of water in the event water supply is interrupted.⁴³

City of Rio Dell

The City of Rio Dell’s (Rio Dell) water system serves approximately 1,450 customers and includes a network of water mains, valves, and storage tanks that deliver treated water from the Rio Dell’s plant. Rio Dell currently produces approximately 90 MG of potable water annually. Average daily use is estimated at 0.267 MGD, with peak daily use estimated at approximately 0.474 MGD.⁴⁴

Raw (untreated) water is pumped from infiltration galleries under the Eel River to the Rio Dell’s water treatment plant. The production capacity of the gallery is tied to water levels within the river. Specifically, in the winter months, the pumps can deliver around 700 GPM; however, during the summer, production falls to about 550 GPM (0.792 MGD). Water is pumped to treatment for filtration and disinfection before entering Rio Dell’s distribution system. The distribution system includes almost 20 miles of pipes, as well as valves, fire hydrants, and water meters. Aging lines are noted to be an ongoing challenge for Rio Dell, some of which are of insufficient size to provide adequate fire protection. Rio Dell’s water storage includes four tanks, ranging in size from 100,000 gallons to 500,000 gallons, for a combined total of 1.1 million gallons of storage capacity.⁴⁵

City of Trinidad

The City of Trinidad (Trinidad) supplies water to residential and commercial customers within city limits, as well as several rural residential properties outside the city limits. In total, Trinidad currently serves 252 service connections within city limits and 102 connections outside city limits, equating to approximately 1,000 residents. Trinidad has an average annual demand of 36,325 gpd with a peak demand of 57,779 gpd. Water is supplied via a surface water diversion from Luffenholtz Creek. Trinidad also has water rights associated with Mill Creek, although water from this creek is

⁴² LAFCo. 2021. City of Fortuna Municipal Services Review and Sphere of Influence Update. https://humboldtlafo.org/wp-content/uploads/Fortuna-MSR-Adopted_1-20-21.pdf (accessed November 2024).

⁴³ LAFCo. 2021. City of Fortuna Municipal Services Review and Sphere of Influence Update. https://humboldtlafo.org/wp-content/uploads/Fortuna-MSR-Adopted_1-20-21.pdf (accessed November 2024).

⁴⁴ LAFCo. 2018. City of Rio Dell Municipal Service Review. https://humboldtlafo.org/wp-content/uploads/City-of-Rio-Dell-MSR-SOI_Adopted-11.14.18.pdf (accessed November 2024).

⁴⁵ Ibid.

not currently utilized and additional water infrastructure would be required. Trinidad's water system infrastructure includes an infiltration gallery, water treatment plan, storage tanks totaling 285,000 gallons, and water distribution piping. Under Trinidad's water right, Trinidad is allowed to extract a maximum of 0.56 cubic feet per second (cfs) (or 251 gpm) from Luffenholtz Creek. In total, Trinidad can produce 252,000 gpd as long as there is sufficient flow in Luffenholtz Creek to meet the demand and bypass requirements. It is noted that complete built-out of the entire water service area as allowed under the General Plan would create a total average demand of 88,980 gpd and a total peak demand of 143,486 gpd which exceeds the current treatment capacity of the water system; however, full build-out during the 20-year planning horizon of the Trinidad's General Plan is not anticipated, since Trinidad has averaged about one new house every two years over the last 10 years.⁴⁶

City of Ferndale

As provided in the City of Ferndale MSR, the Del Oro Water Company (Del Oro) provides water service to 19 districts in California⁴⁷, and currently services the City of Ferndale as well as the unincorporated community of Benbow. It is understood that Del Oro acquired the Benbow Water Company in 2016.⁴⁸

The Del Oro Ferndale District serves approximately 759 customers in the City of Ferndale (Ferndale) and adjacent areas. Ferndale's system comprises a well, a 990,000-gallon concrete storage tank, a distribution system comprising 65,155 feet of mains, and a water treatment plant. Ferndale has capacity to supply 518,000 gpd. In 2012, maximum daily demand was reported at approximately 208,000 gpd, or approximately 40 percent of the system's capacity.⁴⁹ At this time, details pertaining to Benbow's water system, capacity, and current demand are unknown.

Wastewater Generation, Infrastructure, Collection, and Treatment

Within Humboldt, community wastewater service is provided by the following wastewater utility providers (18 in total):

- City of Arcata
- City of Blue Lake
- City of Eureka
- City of Ferndale
- City of Fortuna
- City of Rio Dell
- Garberville Sanitary District
- Humboldt Community Services District (CSD)
- Loleta CSD
- Manila CSD
- McKinleyville CSD
- Miranda CSD
- Palmer Creek CSD
- Redway CSD
- Resort Improvement District #1
- Scotia CSD
- Weott CSD

⁴⁶ Humboldt Local Agency Formation Commission (LAFCo). Adopted March 17, 2021. *City of Trinidad Municipal Services Review and Sphere of Influence Update*. https://humboldtlafo.org/wp-content/uploads/Trinidad-MSR-SOI-Adopted_03-17-2021.pdf.

⁴⁷ Humboldt Local Agency Formation Commission (LAFCo). Adopted November 14, 2018. *City of Ferndale Municipal Service Review*. https://humboldtlafo.org/wp-content/uploads/City-of-Ferndale-MSR-SOI_Adopted-11-14-18.pdf.

⁴⁸ California Water Association. November 1, 2016. *Del Oro Water Company Improves Newly Acquired Water Districts*. <https://calwaterassn.com/del-oro-water-company-improves-newly-acquired-water-districts/>.

⁴⁹ Humboldt Local Agency Formation Commission (LAFCo). Adopted November 14, 2018. *City of Ferndale Municipal Service Review*. https://humboldtlafo.org/wp-content/uploads/City-of-Ferndale-MSR-SOI_Adopted-11-14-18.pdf.

The areas not within a community wastewater service district, typically the more rural areas within the County, are generally served by individual on-site septic systems. Although the Orick Community Services District (Orick CSD) does not currently provide wastewater services to the community of Orick, a community wastewater system is planned for the area. However, as of May 2024, negotiations were still underway regarding potential land acquisitions for the treatment and disposal systems. Once this process is complete, assessment of potential treatment and disposal options can continue as well as design of the proposed wastewater treatment system.⁵⁰ Additionally, properties located within the service boundaries of the Fieldbrook Glendale CSD utilize on-site septic systems in Fieldbrook and a wastewater collection system in Glendale, with effluent then treated by the City of Arcata. While the Fieldbrook area's septic systems are currently operational, the soil conditions pose challenges to their long-term effectiveness due to poor soil leaching characteristics.⁵¹ The Willow Creek Community Services District (WCCSD) does not currently provide wastewater services to the community of Willow Creek. However, a wastewater treatment system is being planned for the community and the treatment plant will be a recirculating gravel filter. Furthermore, the City of Trinidad does not have a community wastewater system, with existing development supported by individual on-site wastewater treatment systems (septic).⁵²

The service area boundaries for the wastewater utilities are shown in Figure 3.9-5 through Figure 3.9-7. A description of each of these providers is provided below.

⁵⁰ LAFCo. 2024. Orick Community Services District Municipal Services Review and Sphere of Influence Update.

https://humboldtlafo.org/wp-content/uploads/Orick-CSD-MSR_Adopted_July-17-2024.pdf (accessed November 2024).

⁵¹ LAFCo. 2015. Fieldbrook Glendale Community Services District Municipal Service Review. https://humboldtlafo.org/wp-content/uploads/FGCSD-Final-MSR_Adopted-07-15-15.pdf (accessed November 2024).

⁵² LAFCo. 2021. City of Trinidad Municipal Services Review and Sphere of Influence Update. https://humboldtlafo.org/wp-content/uploads/Trinidad-MSR-SOI-Adopted_03-17-2021.pdf (accessed November 2024).

Figure 3.9-5 Wastewater Providers in Humboldt County

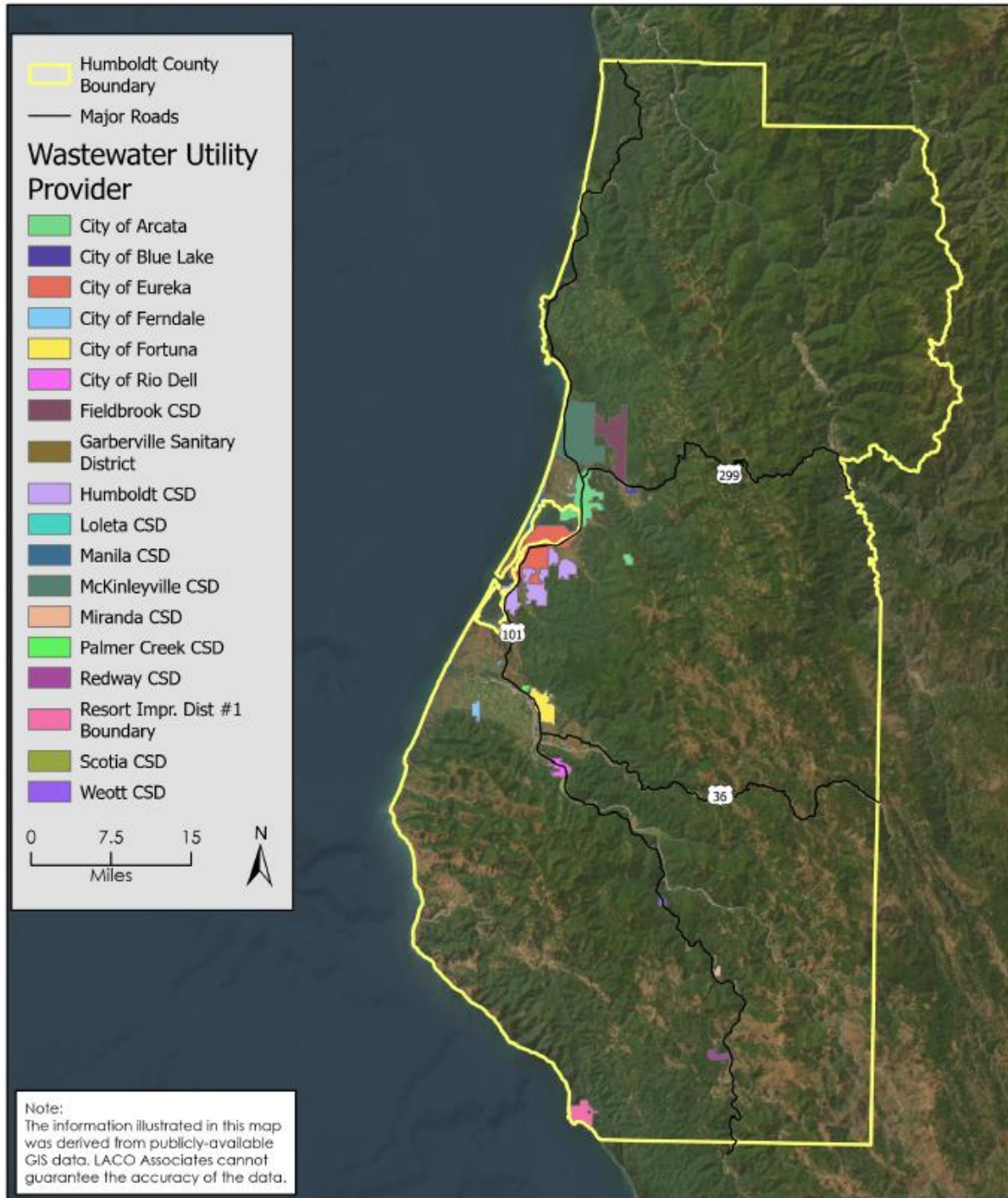


Figure 3.9-6 Wastewater Providers in Humboldt County (Central Humboldt County)

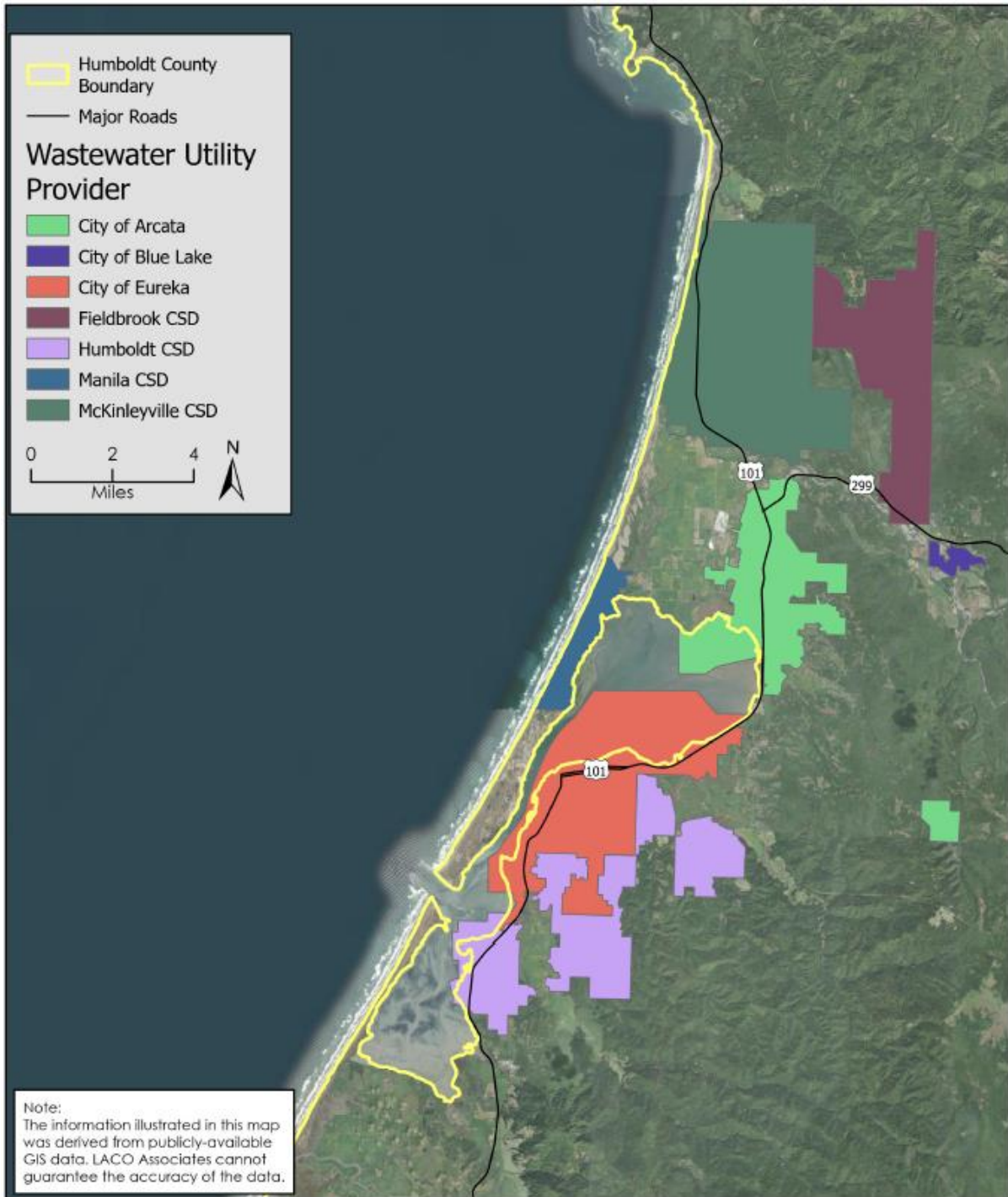
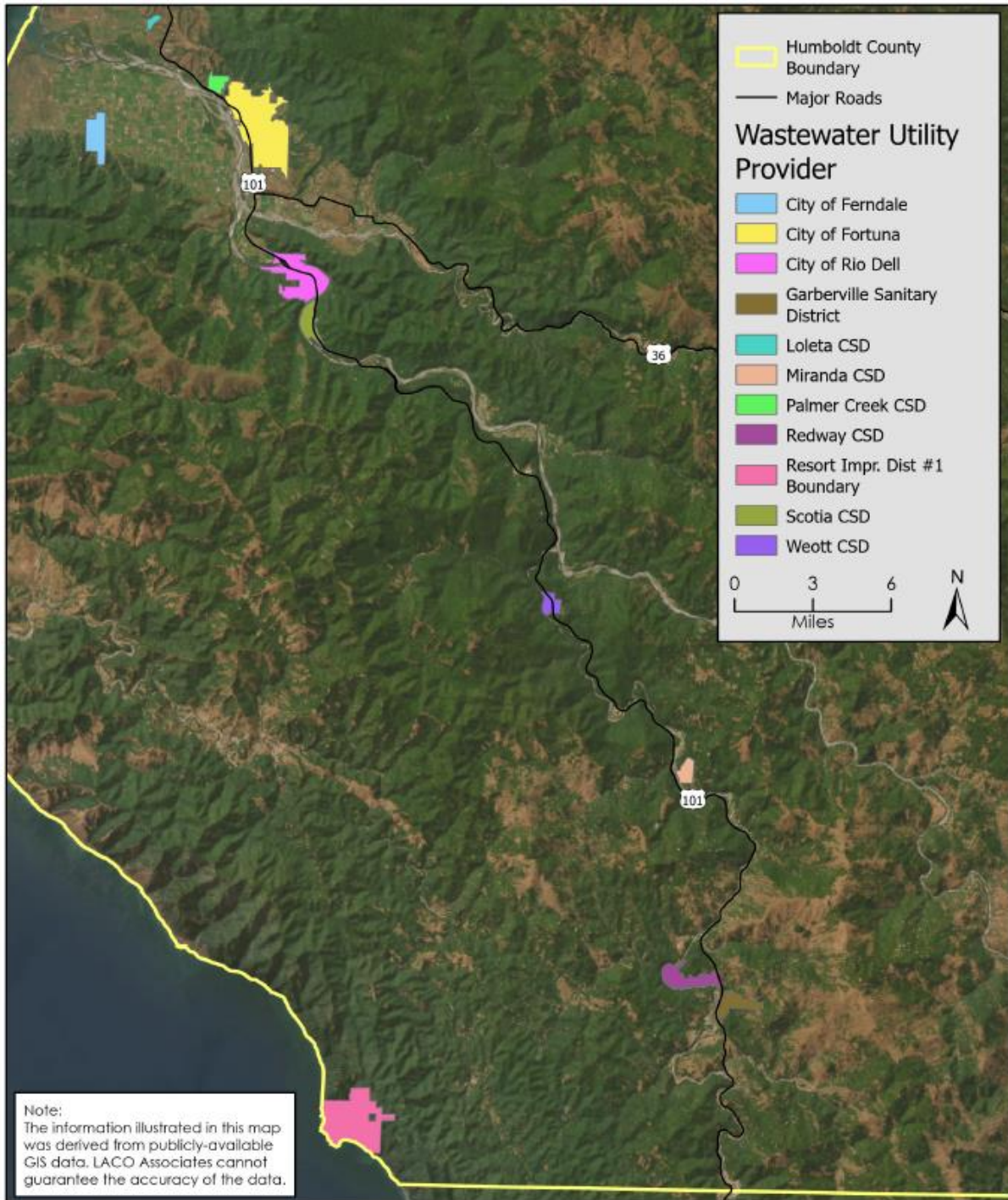


Figure 3.9-7 Wastewater Providers in Humboldt County (Southern Humboldt County)



Unincorporated Humboldt County

GARBERVILLE SANITARY DISTRICT

The Garberville Sanitary District (GSD) provides wastewater collection, treatment, and disposal for the unincorporated community of Garberville, serving approximately 353 existing connections.

GSD's wastewater system includes collection and transmission lines, two headworks stations, two pumping stations, and a WWTP, which utilizes natural processes). Major upgrades to the system occurred in 2003 and 2011, enhancing the facility's capacity and efficiency, as well as addressing inflow and infiltration issues. It is noted that GSD's wastewater system has the capacity to treat 160,000 gpd (dry weather day) and 250,000 gpd (wet weather day) and currently treats an average dry weather flow (ADWF) of approximately 59,000 gpd and an average wet weather flow of approximately 130,000 gpd.⁵³

HUMBOLDT COMMUNITY SERVICES DISTRICT

The HCSD provides wastewater service to approximately 6,326 connections, of which 97 are commercial and 6,229 are residential uses. HCSD's wastewater system encompasses 29 pump stations and approximately 78 miles of sewer mains. Peak daily wastewater flow is approximately 1.92 MG, with an annual average of 0.92 MG. Treated wastewater is discharged to the City of Eureka's Elk River WWTP, where the HCSD has ownership of 30 percent of the Elk River WWTP's capacity. The HCSD wastewater system is noted to not have significant deficiencies, although HCSD is limited by treatment and disposal capacity at the WWTP. Additionally, the District has been working to reduce inflow and infiltration in the collection system.⁵⁴

LOLETA COMMUNITY SERVICES DISTRICT

The Loleta Community Services District (Loleta CSD) serves the unincorporated community of Loleta (population of approximately 750 residents) with wastewater service. The system includes a WWTP and approximately 4.1 miles of pipe. Wastewater is conveyed through gravity to the WWTP. Sludge is hauled away for disposal and treated wastewater is pumped to a local ranch for irrigation. The WWTP has a design capacity of 100,000 gpd. However, the average daily flow reported in December 2022 was 222,000 gpd, exceeding the design capacity of the WWTP. During the dry season, the average daily flow decreases to 55,000 gpd.⁵⁵

MANILA COMMUNITY SERVICES DISTRICT

The Manila Community Services District (Manila CSD) utilizes a Septic Tank Effluent Pump (STEP) system, developed in 1995, for wastewater management. The system extracts liquid effluent from residential septic tanks, channeling it through a force main to a centralized treatment facility, which utilizes three free surface wetlands, two surface aerated facultative ponds, and four percolation ponds for effluent disposal. The system has a dry weather design capacity of 0.14 MGD. The system currently treats an ADWF of 0.052 MGD and a wet weather flow of 0.066 MGD, which indicates the system is operating well below its capacity. Manila CSD currently serves 444 connections and, based upon existing capacity, it is anticipated the system could accommodate an additional 500 connections. However, such expansion is unlikely due to constraints such as available buildable land and land use regulations.⁵⁶

⁵³ LAFCo. 2013. Garberville Sanitary District Municipal Service Review. https://humboldtlafo.org/wp-content/uploads/Adopted-MSR-SOI_03-20-2013.pdf (accessed November 2024).

⁵⁴ SHN Consulting Engineers & Geologists, Inc. 2014. Municipal Service Review for the Humboldt Community Services District Sphere of Influence Report. https://humboldtlafo.org/wp-content/uploads/Humboldt_CSD_Final-MSR.pdf (accessed November 2024).

⁵⁵ LAFCo. 2008. *Loleta Community Services District Municipal Service Review*. <https://humboldtlafo.org/wp-content/uploads/Loleta-CSD-ADOPTED-MSR-September-2008.pdf> (accessed November 2024).

⁵⁶ LAFCo. 2022. Manila Community Services District Municipal Services Review and Sphere of Influence Update. https://humboldtlafo.org/wp-content/uploads/Manila-CSD-MSR_Adopted-01-19-22_reduced.pdf (accessed November 2024).

McKINLEYVILLE COMMUNITY SERVICES DISTRICT

The McKinleyville Community Services District (MCS D) provides wastewater service to approximately 6,280 service connections, which includes residential, commercial, and business properties. The system includes a WWTP and approximately 73 miles of sewer mains. The WWTP was last upgraded in 2017 and has a current dry weather capacity of 1.37 MGD, wet weather capacity of 1.69 MGD, and peak capacity of 3.08 MGD. Demand varies seasonally, with peak demand occurring during the wet weather months (February – April). In 2019, a total of 356.7 MG of effluent was treated by the WWTP, with the month of March (the highest reported month) having 41.023 MG of treated effluent. MCS D indicates there is sufficient capacity to handle current and future demand within its service area. Additionally, much of the system is reported to be in good condition, although some sections, including those constructed in the 1970s, are nearing the end of their useful life. Per MCS D’s *Sanitary Sewer Main Line Replacement and Rehabilitation Master Plan*, there is a need for annual investments of approximately \$1 million to maintain adequate service levels and prevent major system issues.⁵⁷

MIRANDA COMMUNITY SERVICES DISTRICT

The Miranda Community Services District (Miranda CSD) serves approximately 88 residents. Its wastewater treatment system collects and treats effluent from individual septic tanks within the community. Collected effluent is conveyed to community septic tanks, is treated, then is chlorinated and stored in a settling pond, where the treated effluent seeps into the underlying gravel layers of the Eel River. Miranda CSD’s system has a design capacity of 46,000 gpd ADWF, of which approximately 44 percent (26,400 gallons) is currently being utilized. As such, it is anticipated the system could accommodate an additional 112 sewer connections. Additionally, there are no known infrastructure needs or deficiencies, and the Miranda CSD has not planned upgrades to its system. All septic tanks are inspected annually and pumped as necessary. Replacements and upgrades are implemented on an as-needed basis.⁵⁸

PALMER CREEK COMMUNITY SERVICES DISTRICT

The Palmer Creek Community Services District (PCCSD) wastewater collection system was established in the late 1980s to mitigate pollution issues arising from individual on-site septic systems. Collected wastewater is transported to the City of Fortuna’s WWTP via a network of collection pipes and a lift station. It is noted that the system currently serves 166 connections, with a moratorium on new connections due to the agreement with the City of Fortuna. Wastewater flows associated with the PCCSD average 13,000 gpd in dry weather and 32,000 gpd in wet weather. In 2019, a total of 6.996 MG of wastewater from the PCCSD was conveyed to Fortuna for treatment, which equates to approximately 46 percent of the contracted capacity for dry months. Based on this, PCCSD’s system has sufficient capacity to accommodate existing connections. Regular maintenance and minor projects are ongoing and occur as needed and funding permits.⁵⁹

⁵⁷ LAFCo. 2021. McKinleyville Community Services District Municipal Services Review and Sphere of Influence Update. https://humboldtlafo.org/wp-content/uploads/McKinleyville-CSD-Adopted-MSR-SOI_11-17-21.pdf (accessed November 2024).

⁵⁸ LAFCo. 2009. Miranda Community Services District Municipal Service Review. <https://humboldtlafo.org/wp-content/uploads/Miranda-CSD-Approved-MSR-2009.pdf> (accessed November 2024).

⁵⁹ LAFCo. 2020. Palmer Creek Community Services District Municipal Services Review and Sphere of Influence Update. https://humboldtlafo.org/wp-content/uploads/Palmer-Creek-MSR_7-15-2020-Adopted.pdf (accessed November 2024).

REDWAY COMMUNITY SERVICES DISTRICT

The Redway Community Services District's (Redway CSD) wastewater system serves approximately 545 residential connections and 15 commercial establishments. The collection system is comprised of gravity mains, lift stations, and an aerial crossing, and treatment occurs at the Redway WWTP. Treated effluent is primarily discharged to percolation ponds, but excess flow during winter is diverted to the Eel River. Sludge is buried on Redway CSD-owned land. On average, Redway CSD treats an average flow that ranges from 140,000 gpd in dry weather to 430,000 gpd in wet weather. The facility's permitted design flow is 186,000 gpd for dry weather and 615,000 gpd for peak wet weather. As such, the WWTP is currently operating at approximately 75 percent capacity.⁶⁰

RESORT IMPROVEMENT DISTRICT #1

The Resort Improvement District #1 (RID) serves the unincorporated community of Shelter Cove, with a total service area of approximately 2,640 acres. RID provides wastewater service, including collection, treatment, and disposal, to approximately 89 percent of homes within its service area. In total, RID provides wastewater service to 464 connections (95 percent are residential and 5 percent are commercial). RID's system includes gravity mains, nine lift stations, and a WWTP. Year-round, treated effluent is discharged into the Pacific Ocean. In the spring and summer, RID supplies treated wastewater for irrigation of RID's golf course. Sludge is transported to the Humboldt County solid waste transfer station for landfill disposal.⁶¹

The WWTP has a design capacity to support an ADFW of 0.17 MGD, an average wet weather flow of 0.27 MGD, and a peak wet weather flow of 0.77 MGD. Currently, wastewater flows within the service area range between 0.1 MGD (dry weather) and 0.5 MGD (wet weather), indicating that RID's system is operating at approximately 59 percent of its dry weather capacity and 78 percent of its wet weather capacity. RID notes its collection system experiences inflow and infiltration during winter storms.⁶²

WEOTT COMMUNITY SERVICES DISTRICT

The Weott Community Services District's (Weott CSD) wastewater system, constructed between 1989 and 1991, currently serves most areas within its jurisdiction, providing service to approximately 134 residential connections. The wastewater system includes a network of gravity mains, lift station, and centralized septic tank. Disposal of treated wastewater is through a community leach field and direct discharge into the South Fork Eel River, when necessary. Generated sludge is transported to the Humboldt County solid waste transfer station for landfill disposal. The system's permitted dry weather capacity is 30,000 gpd, with average flows ranging from an average of 14,000 gpd during dry weather to 30,000 gpd during wet weather. Significant upgrades were made to the wastewater system in 2000 under a USDA grant. The system is operating well and does not require any planned upgrades currently.⁶³

⁶⁰ LAFCo. 2008. Redway Community Services District Municipal Service Review. <https://humboldtlaico.org/wp-content/uploads/Redway-CSD-ADOPTED-MSR-July-2008.pdf> (accessed November 2024).

⁶¹ LAFCo. 2009. Resort Improvement District #1 Municipal Service Review. <https://humboldtlaico.org/wp-content/uploads/RID-No1-Adopted-MSR-2009.pdf> (accessed November 2024).

⁶² LAFCo. 2009. Resort Improvement District #1 Municipal Service Review. <https://humboldtlaico.org/wp-content/uploads/RID-No1-Adopted-MSR-2009.pdf> (accessed November 2024).

⁶³ LAFCo. 2012. Weott Community Services District Municipal Service Review. <https://humboldtlaico.org/wp-content/uploads/Weott-CSD-Adopted-MSR.pdf> (accessed November 2024).

City of Arcata

The City of Arcata (Arcata) owns and operates their wastewater collection, treatment, and disposal system, which serves a total population of approximately 16,800 residents. Arcata's wastewater system consists of approximately 63 miles of pipe, ranging from 6 inches to 22 inches in diameter and eight sewage lift stations, with processing occurring at the Arcata WWTP. Much of the sewer collection system was installed in the late 1950s and consists primarily of asbestos cement pipe with some vitrified clay pipe. Over the past decade, Arcata has proactively rehabilitated portions of the collection system.⁶⁴

The Arcata WWTP employs a multi-stage treatment process involving headworks, primary clarification, oxidation ponds, treatment wetlands, enhancement wetlands, and chlorine disinfection. Solids extracted during primary clarification are further processed in anaerobic digesters and solids drying beds. The system discharges treated wastewater to Humboldt Bay, which has occurred since 1949. The Arcata WWTP faces challenges due to stormwater inflow and infiltration (inflow and infiltration), rainfall in the treatment ponds, and potential impacts associated with sea level rise. The latter is expected to affect the WWTP's capacity and treatment effectiveness in the coming decades.⁶⁵

Additionally, while the Fieldbrook-Glendale CSD owns and operates a wastewater collection and conveyance system in Glendale, Arcata provides wastewater treatment and disposal services under a contract with the Fieldbrook-Glendale CSD. It is noted that the Glendale area has approximately 177 wastewater connections. The current contract with Arcata allows for a maximum average dry weather flow of 71,200 gpd. On average, the Glendale area's wastewater flow averages 31,600 gpd (approximately 44 percent of current contract) in dry weather and increases to 62,400 gpd (approximately 88 percent of contract) during wet conditions. No deficiencies have been identified in Fieldbrook-Glendale CSD's existing wastewater collection and conveyance infrastructure. To accommodate future development in the area, the Fieldbrook-Glendale CSD would need to explore alternative treatment and disposal solutions or increase its allocation from Arcata; however, Arcata is not interested in expanding its contract for additional treatment. The Fieldbrook-Glendale CSD has approached the City of Blue Lake regarding potential interconnection.⁶⁶

City of Blue Lake

The City of Blue Lake's (Blue Lake) wastewater system serves approximately 1,255 customers within a 0.6-square-mile service area, including within the city limits, as well as 45 customers located outside the city limits. The system encompasses a WWTP, sewer mains, manholes, lift stations, two pump stations, and over 16 miles of pipe.⁶⁷ Blue Lake's WWTP includes a 4-cell secondary treatment lagoon system, a chlorine disinfection system, and two effluent disposal percolation ponds. The WWTP's treatment capacity is 1 MGD, designed for average flows of 0.25 MGD and peak flows of 1.54 MGD. On average, the City's WWTP has an ADWF of 0.18 MGD. In 2023, the City determined its sewer system has a remaining capacity to support an additional 100 residential equivalent units allocations.⁶⁸

⁶⁴ LAFCo. 2020. City of Arcata Municipal Services Review. https://humboldtlafo.org/wp-content/uploads/Arcata-MSR_Adopted-11-18-20.pdf (accessed November 2024).

⁶⁵ Ibid.

⁶⁶ LAFCo. 2015. Fieldbrook Glendale Community Services District Municipal Service Review. https://humboldtlafo.org/wp-content/uploads/FGCSD-Final-MSR_Adopted-07-15-15.pdf (accessed November 2024).

⁶⁷ LAFCo. 2019. City of Blue Lake Municipal Service Review. <https://humboldtlafo.org/wp-content/uploads/Blue-Lake-MSR-ADOPTED-7-17-19.pdf> (accessed November 2024).

⁶⁸ Ibid.

City of Eureka

The City of Eureka's (Eureka) wastewater infrastructure comprises approximately 125 miles of sewer mains, 9,500 service laterals, 18 lift stations, four major pump stations, and ancillary components, and handles between 1.6 and 1.8 billion gallons of wastewater annually. The Elk River WWTP, developed in 1981, serves the residents of Eureka, as well as the surrounding unincorporated areas under the purview of the HCSD, and is estimated to serve approximately 45,000 total residents. The Elk River WWTP was designed to treat 6 MGD but is currently permitted to treat 5.24 MGD. Treated wastewater is released into Humboldt Bay during low tide, and excess wastewater is temporarily held in a pond and marsh during heavy rains. The sludge from the wastewater is treated and stored in lagoons before being processed and used as a soil conditioner. It is reported that Eureka's wastewater collection system experiences certain age-related deficiencies, including inflow and infiltration, pipe deterioration, aging pumping systems, and occasional capacity limitations during heavy rainfall.⁶⁹

City of Ferndale

The City of Ferndale (Ferndale) provides community wastewater service to approximately 660 connections (638 residences and 33 commercial customers), including 31 connections outside of the city limits in Arlynda Corners. Ferndale's WWTP, built in 2012, employs tertiary treatment utilizing extended aeration, nutrient removal, filtration, and ultraviolet disinfection. Ferndale's system has a treatment capacity of up to 1.0 MGD; however, with use of a holding storage pond, Ferndale's WWTP can manage a total flow of up to 6.0 MGD. Ferndale implements a water recycling program and while treated wastewater is discharged into Francis Creek during specific periods, treated wastewater is also sometimes utilized for agricultural irrigation.⁷⁰

City of Fortuna

The City of Fortuna's (Fortuna) wastewater system comprises eight pumping stations, a collection system, and a WWTP. Fortuna's wastewater system primarily serves residential and commercial users, accounting for approximately 90 percent of connections, while industrial users comprise the remaining 10 percent. Fortuna's wastewater collection system is generally considered adequate to meet existing needs. In 2007, the WWTP underwent upgrades and expansion, which increased overall capacity and added new equipment. The Fortuna WWTP can treat 1.5 MGD (average annual flow) and 421.3 MGD (maximum monthly flow). In 2019, ADWF was 0.827 MGD, while the average influent flow during the wet season was 1.498 MGD. Fortuna has also implemented a long-term solid handling plan, which includes composting biosolids for reuse as a soil conditioner by residents and agricultural producers.⁷¹

City of Rio Dell

The City of Rio Dell (Rio Dell) provides wastewater collection, treatment, and disposal services to approximately 1,448 connections. Rio Dell's wastewater system comprises a network of pipes, manholes, cleanouts, and pumps that convey to Rio Dell's WWTP. In 2013, upgrades were conducted to the WWTP, which included replacing the old conventional WWTP with a modern

⁶⁹ LAFCo. 2014. City of Eureka Municipal Services Review. https://humboldtlafo.org/wp-content/uploads/Eureka-Adopted-MSR_1-15-14.pdf (accessed November 2024).

⁷⁰ LAFCo. 2018. City of Ferndale Municipal Service Review. https://humboldtlafo.org/wp-content/uploads/City-of-Ferndale-MSR-SOI_Adopted-11-14-18.pdf (accessed November 2024).

⁷¹ LAFCo. 2021. City of Fortuna Municipal Services Review and Sphere of Influence Update. https://humboldtlafo.org/wp-content/uploads/Fortuna-MSR-Adopted_1-20-21.pdf (accessed November 2024).

activated sludge process to address nutrient removal, in addition to construction of a flood irrigation field. The WWTP has a design capacity of 2 MGD with an average daily flow of 0.25 MGD. Under Rio Dell's treatment process, sewage sludge is separated from the liquid. Once treated, the liquid portion is discharged into the Eel River (October-May) or the flood irrigation fields (May-October). The separated sludge is dried on-site and made available to residents as a soil amendment. Rio Dell has identified several wastewater facility improvement projects, including addressing high amounts of inflow and infiltration, and is seeking grant funding for the improvements.⁷²

City of Trinidad

The City of Trinidad does not offer community wastewater service. Existing development is supported by individual on-site wastewater treatment systems (septic).

Stormwater Generation, Infrastructure, and Collection

Stormwater drainage facilities within Humboldt generally include curbs, gutters, drop-inlets, culverts, underground drainage conduit, and roadside ditches. Such constructed drainage facilities are typically provided within city cores, including the Cities of Arcata, Blue Lake, Eureka, Ferndale, Fortuna, Rio Dell, and Trinidad. Stormwater drainage within Humboldt County primarily follows or is directed to natural drainage courses (without treatment or filtration), including creeks, streams, and rivers, infiltrates, or is retained on-site.

Electric Power Source, Supply, Demand, and Use

Unincorporated County and Incorporated Cities

PACIFIC GAS AND ELECTRIC COMPANY

Pacific Gas and Electric Company (PG&E) provides electric power and natural gas service to northern and central California, including unincorporated and incorporated portions of Humboldt County. PG&E's service area totals approximately 70,000 square miles, bounded by Eureka in the north, Bakersfield in the south, the Pacific Ocean in the west, and the Sierra Nevada. The company supports approximately 16 million people, including 5.5 million electric customer accounts system-wide, and maintains approximately 106,700 circuit miles of electric distribution lines and 18,500 circuit miles of transmission lines.⁷³

PG&E produces and purchases energy from multiple sources, including both conventional and renewable sources. PG&E produces power through hydropower, gas-fired steam, and nuclear energy. PG&E also acquires electricity from more than 400 power facilities owned by independent power producers or qualified facilities, which is then transmitted and sold to its customers.⁷⁴ Based on PG&E's 2024 Corporate Sustainability Report, PG&E owns 7,820 mega-watts of hydroelectric, nuclear, natural gas, battery energy storage, and solar generation to serve their customers, with

⁷² LAFCo. 2018. City of Rio Dell Municipal Service Review. https://humboldtlafo.org/wp-content/uploads/City-of-Rio-Dell-MSR-SOI_Adopted-11.14.18.pdf (accessed November 2024).

⁷³ Pacific Gas and Electric Company (PG&E). 2024. Company Profile. [https://www.pge.com/en/about/company-information/company-profile.html#:~:text=The percent20company percent20provides percent20natural percent20gas,in percent20northern percent20and percent20central percent20California](https://www.pge.com/en/about/company-information/company-profile.html#:~:text=The%20company%20provides%20natural%20gas,in%20northern%20and%20central%20California) (accessed November 2024).

⁷⁴ PG&E. 2024. PG&E's Electric System. <https://www.pge.com/assets/pge/docs/about/pge-systems/pge-electric-system.pdf>. (accessed November 2024).

over 3.5 giga-watts of energy storage capacity.⁷⁵ In addition, PG&E notes it delivered 100 percent greenhouse gas (GHG)-free electricity (comprised of 53 percent nuclear, 33 percent renewable sources, and 14 percent large hydroelectric) in 2023 to its residential and commercial customers to whom they directly sell power. PG&E has a goal for achieving a net-zero energy system by 2040 (5 years before the State of California's current carbon neutrality goal) and exceeded its annual GHG reduction goals for 2023. PG&E also offers numerous programs to support sustainability and climate resiliency, including but not limited to a variety of electrification programs, rebate programs, and programs which allow customers to purchase up to 100 percent of their electricity from renewable resources. It is further reported that as of mid-2021, PG&E is working to increase wildfire safety of its systems, including undergrounding of 10,000 miles of its electric distribution power lines. In 2023, PG&E exceeded its target of undergrounding 350 line miles, in which 364 line miles were undergrounded, with a target for 2024 to underground another 250 line miles of electric lines.⁷⁶

Additionally, PG&E works with several Community Choice Aggregation (CCA) programs within their service area, which allow cities and counties to purchase and/or generate electricity for residents and businesses in the territories they serve. Specifically, PG&E partners with CCAs to deliver the electricity over PG&E's transmission and distribution system, while also continuing to provide meter reading, billing, maintenance, and outage response services. There are currently 12 CCAs operating within PG&E's jurisdiction, including the Redwood Coast Energy Authority, a joint powers agency located in Humboldt County, described below.⁷⁷

It is important to note that power deficiencies have been identified within the County, particularly within southern Humboldt, including the Cities of Fortuna and Rio Dell and unincorporated community of Garberville. In August 2022, PG&E identified electric power capacity concerns for southern Humboldt, noting that areas within Fortuna, Rio Dell, and the Garberville areas had or nearly reached capacity for further development. It was further noted that necessary transmission, substation, and distribution line work required to address the identified issues would take a minimum of seven years to address.⁷⁸ In a statement issued by PG&E in September 2022, it was noted that projects including a line reconductoring project and upgrades to the Rio Dell substation and transmission and distribution system line reconductoring and upgrades at the Garberville substation would increase capacity for Fortuna, Rio Dell, and Garberville. Further, it was confirmed that shorter-term projects would ensure the new planned Jerold Phelps Community Hospital project in Garberville (comprising an approximately 30,000 square foot hospital and 15,000 square foot community clinic, anticipated to be completed in late 2028⁷⁹) could be adequately served and able to move forward.⁸⁰

⁷⁵ PG&E. 2024. 2024 Corporate Sustainability Report. https://www.pgecorp.com/sustainability/corporate-sustainability/corporate_sustainability_report_2024.html (accessed November 2024).

⁷⁶ Ibid.

⁷⁷ PG&E. 2024. Community Choice Aggregation (CCA). <https://www.pge.com/en/account/alternate-energy-providers/community-choice-aggregation.html#accordion-1d9bb84ce2-item-ad8b92cacf> (accessed November 2024).

⁷⁸ Humboldt County. 2022. Board of Supervisors Staff Report – File No.: 22-1444.

<https://humboldt.legistar.com/View.ashx?M=F&ID=11368710&GUID=1FCCA9D5-DC4C-438C-8F71-3161A356172A> (accessed November 2024).

⁷⁹ Lost Coast Outpost. 2024. Behold! SoHum Health Reveals Draft Architectural Designs for New Garberville Hospital and Clinic. <https://lostcoastoutpost.com/2024/aug/23/behold-sohum-health-reveals-draft-architectural-de/> (accessed November 2024).

⁸⁰ Lost Coast Outpost. 2022. PG&E Releases Statement Addressing Electricity Transmission Lines, Says Short-Term Improvements Will Allow Garberville Hospital Project to Proceed. <https://lostcoastoutpost.com/2022/sep/20/pge-releases-statement-addressing-electricity-tran/> (accessed November 2024).

REDWOOD COAST ENERGY AUTHORITY

Redwood Coast Energy Authority (RCEA) is a local government Joint Powers Agency located in Humboldt County. Members include the County of Humboldt; the Cities of Arcata, Blue Lake, Eureka, Ferndale, Fortuna, Rio Dell, and Trinidad; the Blue Lake Rancheria; the Yurok Tribe; and the Humboldt Bay Municipal Water District (HBMWD). The purpose of RCEA is to “develop and implement sustainable energy initiatives that reduce energy demand, increase energy efficiency, and advance the use of clean, efficient and renewable resources available in the region for the benefit of the Member agencies and their constituents.”⁸¹

Power supplied by RCEA is sourced primarily from wind, solar, and hydropower from California and the Pacific Northwest, in addition to local biomass. RCEA offers two electric power sources: Repower, which is partially derived from renewable sources, with a goal of being 100 percent renewable by 2030; and Repower+, which is entirely derived from renewable and carbon-free energy sources. Table 3.9-3 provides a breakdown of RCEA’s energy program sources, compared to the statewide average power source mix.⁸²

⁸¹ Redwood Coast Energy Authority (RCEA). 2024. About RCEA. <https://redwoodenergy.org/about-rcea/> (accessed November 2024).

⁸² RCEA. 2024. Power Resources. <https://redwoodenergy.org/power-resources/> (accessed November 2024).

Table 3.9-3 RCEA Power Source Information (2022)⁸³

2022 POWER CONTENT LABEL						
Redwood Coast Energy Authority						
Redwoodenergy.org						
Greenhouse Gas Emissions Intensity (lbs CO ₂ e/MWh)			Energy Resources	REpower	REpower+	2022 CA Power Mix
REpower	REpower+	2022 CA Utility Average	Eligible Renewable ¹	50.0%	100.0%	35.8%
49	0	422	Biomass & Biowaste	20.4%	0.0%	2.1%
<p>A bar chart comparing the greenhouse gas emissions intensity of three power sources. The y-axis represents intensity in lbs CO₂e/MWh, ranging from 0 to 1000. The x-axis lists three categories: REpower (blue bar, 49), REpower+ (green bar, 0), and 2022 CA Utility Average (red bar, 422). The REpower bar is significantly lower than the utility average, and REpower+ is zero.</p>			Geothermal	0.0%	0.0%	4.7%
			Eligible Hydroelectric	1.0%	33.3%	1.1%
			Solar	21.5%	33.3%	17.0%
			Wind	7.1%	33.3%	10.8%
			Coal	0.0%	0.0%	2.1%
			Large Hydroelectric	45.0%	0.0%	9.2%
			Natural Gas	0.0%	0.0%	36.4%
			Nuclear	0.0%	0.0%	9.2%
			Other	0.0%	0.0%	0.1%
			Unspecified Power ²	5.0%	0.0%	7.1%
			TOTAL	100.0%	100.0%	100.0%
Percentage of Retail Sales Covered by Retired Unbundled RECs ³ :				0%	0%	
¹ The eligible renewable percentage above does not reflect RPS compliance, which is determined using a different methodology. ² Unspecified power is electricity that has been purchased through open market transactions and is not traceable to a specific generation source. ³ Renewable energy credits (RECs) are tracking instruments issued for renewable generation. Unbundled renewable energy credits (RECs) represent renewable generation that was not delivered to serve retail sales. Unbundled RECs are not reflected in the power mix or GHG emissions intensities above.						
For specific information about this electricity portfolio, contact:			Redwood Coast Energy Authority (707) 279-1700			
For general information about the Power Content Label, visit:			https://www.energy.ca.gov/programs-and-topics/programs/power-source-disclosure-program			

Since May 2017, RCEA reports their Community Choice Energy (CCE) program has served approximately 63,000 customers with approximately 700 million kilowatt-hours of annual load.⁸⁴

Natural Gas Supply, Demand, and Use

In addition to electric power, Pacific Gas and Electric Company (PG&E) provides natural gas service to its approximately 70,000-square-mile service area within northern and central California, including Humboldt.⁸⁵ PG&E’s natural gas system includes approximately 44,200 miles of gas distribution pipelines and 6,400 miles of gas transmission pipelines, in addition to three gas storage facilities and nine compression stations, which support approximately 4.6 million accounts system-wide.⁸⁶ On average, PG&E reports they provide approximately 970 billion cubic feet of natural gas to its customers, which equates to about 2.6 billion cubic feet per day. Currently, approximately 27 percent of PG&E’s power source is derived from natural gas.⁸⁷

⁸³ RCEA. 2024. About RCEA. <https://redwoodenergy.org/about-rcea/> (accessed November 2024).

⁸⁴ RCEA. 2024. Power Procurement. <https://redwoodenergy.org/power-procurement/> (accessed November 2024).

⁸⁵ PG&E. 2024. Gas Systems – Discover the Basics of Our System by the Numbers. <https://www.pge.com/en/about/pge-systems/gas-systems.html#tabs-fc6b80548f-item-94036063d6-tab> (accessed November 2024).

⁸⁶ PG&E. 2024. 2024 Corporate Sustainability Report. https://www.pgecorp.com/sustainability/corporate-sustainability/corporate_sustainability_report_2024.html (accessed November 2024).

⁸⁷ PG&E. 2024. Gas Systems – Discover the Basics of Our System by the Numbers. <https://www.pge.com/en/about/pge-systems/gas-systems.html#tabs-fc6b80548f-item-94036063d6-tab> (accessed November 2024).

In its 2024 Sustainability Report, it is noted that PG&E continues to “invest in the safety and reliability of our gas transmission pipeline system.”⁸⁸ Between 2011 and 2023, safe operating pressure testing has occurred on 1,614 miles of gas pipeline; 285 miles of gas transmission pipeline has been replaced; 405 valves have been automated, allowing for automatic or remote-control shut-off of gas in an emergency; and 2,237 miles of gas transmission lines have been retrofitted to allow for in-line inspections with technologically-advanced tools.⁸⁹

Telecommunications Demand, Infrastructure, and Distribution

Telecommunication services include telephone service (both landlines and mobile service) and community internet service. Telecommunications providers in Humboldt include several nationwide and local service providers, including the following:

Landline Phone Service

- Spectrum
- 101Netlink
- Stewart Telecommunications
(business/office phone systems)

Mobile Phone Service

- AT&T
- Optimum
- T-Mobile
- US Cellular
- Verizon

Internet Service

- Access Universal
- AT&T
- HughesNet
- Optimum
- Renaissance Internet
- Starlink
- T-Mobile
- US Cellular
- 101Netlink
- Vero

Telecommunications infrastructure within Humboldt includes underground optical fibers, cell towers, and standard phone equipment and internet routers owned and operated by telecommunications providers.

Solid Waste Generation, Collection, and Disposal

Humboldt is served by several solid waste service providers, including the following:

- Recology Humboldt County
- Eel River Recology
- Humboldt Sanitation
- Tom’s Trash
- Blue Lake Garbage

A description of these providers, existing solid waste generation and collection in Humboldt, and solid waste disposal facilities serving the County and cities are provided below.

⁸⁸ PG&E. 2024. 2024 Corporate Sustainability Report. https://www.pgecorp.com/sustainability/corporate-sustainability/corporate_sustainability_report_2024.html (accessed November 2024).

⁸⁹ Ibid.

Unincorporated Humboldt County

HUMBOLDT SANITATION

Humboldt Sanitation provides community solid waste collection from McKinleyville to Orick, including the communities of Trinidad, Westhaven, and Big Lagoon. Additionally, between McKinleyville and Big Lagoon, residential recycling collection is also provided. For residential services, garbage collection occurs weekly, while recycling collection occurs on a bi-weekly basis. North of Big Lagoon, automated service is not available, and customers must provide their own garbage can. Curbside recycling service is not available for customers residing north of Big Lagoon. Commercial refuse collection also occurs weekly, with commercial cardboard collection also available in McKinleyville and Trinidad (3 times per week, weekly, bi-weekly, or monthly).⁹⁰

Humboldt Sanitation also operates a full-service recycling center in McKinleyville (Humboldt Recycling) at its McKinleyville Transfer Station. Humboldt Recycling accepts a variety of recyclable materials, including aluminum, glass, plastics, cardboard, newspaper, shredded office paper, mixed paper, mattress and box springs, oil, batteries, sharps/needles, and electronic waste.⁹¹

The McKinleyville Transfer Station accepts most forms of non-hazardous waste, including but not limited to residential, commercial, construction, e-waste, and green waste, bulky items, metals, tires, and automotive products. Humboldt Sanitation also operates four additional transfer stations within the county, located in Orick, Orleans, Willow Creek, and Redwood Valley.⁹²

HUMBOLDT WASTE MANAGEMENT AUTHORITY

Humboldt Waste Management Authority (HWMA) was established by a Joint Powers Agreement comprised of the County of Humboldt and the Cities of Arcata, Blue Lake, Eureka, Ferndale, and Rio Dell in 1999. Several solid waste and recycling facilities are operated with the county. Solid waste transfer sites within Humboldt County are located in Alderpoint, Blocksburg, Eureka, Fortuna, Fruitland, McKinleyville, Orick, Orleans, Petrolia, Redway, Redwood Valley, Shelter Cove, Whitethorn, and Willow Creek. In addition, HWMA operates the Hawthorne Street Transfer State, Eureka Recycling Center, and Household Hazardous Waste Facility within Eureka. Additionally, HWMA is responsible for the 30-year post-closure maintenance and monitoring activities associated with the Cummings Road Landfill, which ceased landfill operations in June 2000, with construction closure activities completed in 2016. HWMA does not provide or oversee curbside pick-up services, previously described under the prior subsection.

No operational landfills are currently located within Humboldt. After waste is collected and sent to respective transfer stations and/or solid waste is taken to transfer stations by individuals, solid waste collected within Humboldt is hauled out of the area to two landfills, including the Potrero Hills Landfill in Solano County, California and the Dry Creek Landfill near Medford, Oregon. An overview of the landfills that accept waste from Humboldt is summarized in Table 3.9-4, below.

⁹⁰ Humboldt Sanitation. 2024. Curbside Collection. <https://humboldtsanitation.com/curbside-collection/> (accessed November 2024).

⁹¹ Humboldt Sanitation. 2024. Humboldt Recycling. <https://humboldtsanitation.com/recycling-information/> (accessed November 2024).

⁹² Humboldt Sanitation. 2024. Transfer Station. <https://humboldtsanitation.com/transfer-station/> (accessed November 2024).

Table 3.9-4 Estimated Humboldt Landfill Capacities and Closure Dates

Facility Name	Estimated Remaining Life (years)	Maximum Permitted Capacity (cubic yards)	Estimated Remaining Capacity (tons)	Permitted Daily Intake (tpd)
Potrero Hills Landfill ¹ (Suisun City, CA)	24	83,100,000	13,872,000	4,330
Dry Creek Landfill ² (White City, Oregon)	76	90,090,201	*	*

* = Information not available; tpd = tons per day

Sources:

¹ California Department of Resources Recycling and Recovery (CalRecycle). 2024. Solid Waste Information System (SWIS) Facility/Site Activity Details: Potrero Hills Landfill (48-AA-0075). <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1194?siteID=3591> (accessed November 2024).

² U.S. Environmental Protection Agency. 2023. GHG Facility Details – Dry Creek Landfill. <https://ghgdata.epa.gov/ghgp/service/facilityDetail/2023?id=1005652&ds=E&et=&popup=true> (accessed November 2024).

Approximately one-third of Humboldt County’s waste is trucked north to the Dry Creek landfill near Medford, Oregon, with two-thirds of the County’s solid waste hauled by Solid Waste of Willits to the Potrero Hills landfill in Solano County, California.⁹³

TOM’S TRASH

Tom’s Trash offers community solid waste collection service to Willow Creek and Hoopa, as well as areas within Trinity County. Additionally, weekly curbside recycling service is also available to Willow Creek and the areas served within Trinity County.⁹⁴

City of Arcata

The City of Arcata provides a universal curbside solid waste and recycling collection program. Garbage, recycling, and yard waste is collected curbside weekly by Recology Arcata.⁹⁵

City of Blue Lake

Blue Lake Garbage company provides weekly garbage and bi-weekly recycling pick up within the Blue Lake area.⁹⁶

City of Eureka

Recology Humboldt County has provided residential and commercial solid waste, recycling, and yard waste collection services within the City of Eureka and outlying areas for over 45 areas.⁹⁷

⁹³ Humboldt County. 2017. General Plan. <https://humboldt.gov/205/General-Plan> (accessed November 2024).

⁹⁴ Tom’s Trash. 2024. Commercial & Residential Trash Service. <https://tomstrash.com/#> (accessed November 2024).

⁹⁵ City of Arcata. 2024. Arcata General Plan Update Draft Environmental Impact Report. https://www.cityofarcata.org/DocumentCenter/View/13935/Arcata-GP-DEIR_20240126 (accessed November 2024).

⁹⁶ City of Blue Lake. Not Dated. *Garbage Pick-Up & Curbside Recycling*. <https://bluelake.ca.gov/city-services/new-residents/>.

⁹⁷ Recology Humboldt County. 2024. Your Carts. <https://www.recology.com/recology-humboldt-county/eureka/your-carts/> (accessed November 2024).

City of Ferndale

Eel River Resource Recovery provides weekly curbside garbage pickup and bi-weekly curbside recycling and green waste pickup.⁹⁸

City of Fortuna

Eel River Recology (formerly known as Eel River Disposal) serves the City of Fortuna with solid waste and recycling services through a franchise agreement. Such services have been provided since the 1990s. Collection services are offered weekly. Recology Eel River also provides curbside single-stream recycling and green waste totes. Pick-up for recycling and green waste totes alternate weeks.⁹⁹

City of Rio Dell

Eel River Recology provides solid waste, recycling, and green waste hauling services to Rio Dell on a weekly basis. Residents may also elect to self-haul waste to the Eel River Recology transfer station in Fortuna.¹⁰⁰

City of Trinidad

Humboldt Sanitation provides solid waste services in Trinidad. For residential services, garbage collection occurs weekly, while recycling collection occurs on a bi-weekly basis. Commercial refuse collection also occurs weekly, with commercial cardboard collection also available (3 times per week, weekly, bi-weekly, or monthly).¹⁰¹

3.9.3 Regulatory Framework

Federal Regulations

Clean Water Act

The federal Clean Water Act (CWA), enacted by Congress in 1972 and amended several times since, is the primary federal law regulating water quality in the United States and forms the basis for several State and local laws throughout the country. The CWA established the basic structure for regulating discharges of pollutants into the waters of the United States and regulates surface water quality standards. Under the CWA, it is unlawful to discharge any pollutant from a point source (e.g., pipes, man-made ditches, etc.) into navigable waters unless a permit is first obtained.

At the federal level, the Clean Water Act is administered by the U.S. Environmental Protection Agency (EPA) and U.S. Army Corps of Engineers (USACE), where the U.S. EPA is primarily responsible for controlling water pollutants, while USACE regulates dredged and fill material. At the State and regional levels in California, the Act is administered and enforced by the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCB), including the

⁹⁸ City of Ferndale. 2024. Info for Residents. [https://ci.ferndale.ca.us/documents/info-for-residents/#:~:text=Eel%20River%20Resource%20Recovery%2C%20\(707,other%20week%20of%20each%20month](https://ci.ferndale.ca.us/documents/info-for-residents/#:~:text=Eel%20River%20Resource%20Recovery%2C%20(707,other%20week%20of%20each%20month). (accessed November 2024).

⁹⁹ City of Fortuna. 2024. Solid Waste – Recology Eel River. https://www.friendlyfortuna.com/departments/public_works/general_services_department/solid_waste/index.php (accessed November 2024).

¹⁰⁰ City of Rio Dell. 2024. Recycling. <https://www.cityofriodell.ca.gov/recycling> (accessed November 2024).

¹⁰¹ Humboldt Sanitation. 2024. Curbside Collection. <https://humboldtsanitation.com/curbside-collection/> (accessed November 2024).

North Coast Regional Water Quality Control Board (NCRWQCB; Region 1), which comprises Del Norte, Glenn, Humboldt, Lake, Marin, Mendocino, Modoc, Siskiyou, Sonoma, and Trinity Counties.

SECTION 303(D)

Section 303(d) of the CWA requires states to periodically prepare a list of surface waters in the state for which beneficial uses of the water – such as drinking, recreation, aquatic habitat, and industrial use – are impaired by pollutants. These are estuaries, lakes, streams, and groundwater basins that fall short of state surface water quality standards and are not expected to improve within the next two (2) years. States are also required to develop Total Maximum Daily Loads (TMDLs) for the contaminant(s) of concern, specifying the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and allocating pollutant loadings among point and non-point pollutant sources.

SECTION 401

Section 401 of the CWA addresses water quality by regulating the discharge of dredged or fill materials to waters of the State. In California, the EPA has delegated authority of Section 401 of the CWA to the SWRCB and the nine RWQCB. If a project may result in a discharge of dredged or fill material to waters of the State, an application for a 401 Water Quality Certification must be submitted to the State or Regional Water Board prior to initiating construction.

SECTION 402

Section 402 of the CWA established the National Pollutant Discharge Elimination System (NPDES) permit program in 1972 to address water pollution by regulating point sources that discharge pollutants to waters of the United States. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. Section 402 of the CWA requires that all construction sites on an acre or greater of land, as well as municipal, industrial and commercial facilities discharging wastewater or stormwater directly from a point source, such as a pipe, ditch, or channel, into a surface water of the United States must obtain permission under the NPDES permit. All NPDES permits are written to ensure that the surface water receiving discharges will achieve specified water quality standards. NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

SECTION 404

Section 404(e) of the CWA regulates activities that involve discharging dredged or fill materials to waters of the United States, including wetlands. The U.S. Army Corps of Engineers (USACE) issues permits to authorize such activities. Activities proposed below the mean high tide line in tidal waters or below the ordinary high-water mark in fresh waters are considered waters of the United States, as defined by USACE, and, therefore, are subject to a permit review process under Section 404 of the CWA.

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA; 42 U.S.C. §300f et seq.) was passed by Congress in 1974 and amended in 1986, 1996, and 2018 to protect the quality of drinking water in the United States. Specifically, the SDWA regulates public drinking water systems that serve at least 15 service connections or 25 persons. Public drinking water supplies are regulated through the Public Water System Supervision (PWSS) program, which establishes, implements, and enforces health protection standards. In California, the SWRCB Division of Drinking Water (DDW) regulates public drinking water systems.

Energy Policy Act

The U.S. Department of Energy (DOE) is the federal agency responsible for establishing policies regarding energy conservation, domestic energy production, and infrastructure. The Federal Energy Regulatory Commission (FERC), created under the Department of Energy Organization Act of 1977, is an independent federal agency, officially organized as part of the DOE, which is responsible for regulating interstate transmission of natural gas, oil, and electricity; reliability of the electric grid; and approving of construction of interstate natural gas pipelines and storage facilities. The Energy Policy Act of 2005 granted FERC additional responsibilities, including overseeing the reliability of the nation's electricity transmission grid and supplementing state transmission siting efforts in national interest electric transmission corridors.

FERC has authority to oversee mandatory reliability standards governing the nation's electricity grid. FERC has established rules on certification of an Electric Reliability Organization which establishes, approves, and enforces mandatory electricity reliability standards. The North American Electric Reliability Corporation has been certified as the nation's Electric Reliability Organization by FERC to enforce reliability standards in all interconnected jurisdictions in North America. Although FERC regulates the bulk energy transmission and reliability throughout the United States, the areas outside of FERC's jurisdictional responsibility include State-level regulations and retail electricity and natural gas sales to consumers which falls under the jurisdiction of State regulatory agencies.

The Federal Communications Commission requires all new cellular tower construction to be approved by the State or local authority for the proposed site and comply with Federal Communications Commission rules involving environmental review. Additionally, the Telecommunications Act of 1996 requires construction of new cellular towers to comply with the local zoning authority.

Resource Conservation and Recovery Act

The Resource and Recovery Act (RCRA) [Part 258, Subtitle D of Title 40 of the Code of Federal Regulations (CFR)] is the principal federal law governing solid and hazardous waste disposal. The RCRA contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs incorporating the federal landfill criteria. The federal regulations address the location, operation, design, groundwater monitoring, and closure of landfills.

State Regulations

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (California Water Code, Section 7) was enacted in 1969 and serves as the primary law governing water quality regulation in California. The Act includes

provisions to address requirements of the federal Clean Water Act (CWA), including National Pollutant Discharge Elimination System (NPDES) permitting, dredge and fill programs, and civil and administrative penalties. The Porter-Cologne Act is broad in scope and addresses issues relating to the conservation, control, and utilization of the water resources of the State. Additionally, the Porter-Cologne Act states that the quality of all the waters of the State, including groundwater and surface water, must be protected for the use and enjoyment by the people of the State.

In California, the NPDES program is administered by the SWRCB through the nine (9) RWQCBs and requires municipalities to obtain permits that outline programs and activities to control wastewater and stormwater pollution. The federal Clean Water Act prohibits discharges of stormwater from construction projects unless the discharge is in compliance with an NPDES permit. The SWRCB is the permitting authority in California, and adopted an NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities, otherwise known as the Construction General Permit (Order 2009-0009, as amended by Orders 2010-0014-DWQ and 2012-006-DWQ). The Order applies to construction sites that include one or more acre of soil disturbance. Construction activities include clearing, grading, grubbing, excavation, stockpiling, and reconstruction of existing facilities involving removal or replacement. The Construction General Permit requires that the landowner and/or contractor file permit registration documents (including notice of intent, risk assessment, site map, SWPPP, and signed certification statement) prior to commencing construction and then pay a fee annually through the duration of construction. The Construction General Permit also specifies minimum BMP requirements for stormwater control based on the risk level of the site.

California Sustainable Groundwater Management Act

In September 2014, Governor Brown signed legislation requiring that California's critical groundwater resources be sustainably managed by local agencies. The Sustainable Groundwater Management Act (SGMA; AB 1739, SB 1168, and SB 1319) gives local agencies the power to sustainably manage groundwater and requires groundwater sustainability plans to be developed for medium- and high-priority groundwater basins.

California Senate Bills 610 and 221 (Water Supply Assessment and Verification)

Senate Bills (SB) 610 and 221 amended State law, effective January 1, 2002, to improve the link between the information on water supply availability and certain land use decisions made by cities and counties. Both statutes require detailed information regarding water availability to be provided to city and county decision-makers prior to approval of specified large development projects with greater than 500 dwelling units or 500,000 square feet of commercial space. Both statutes also require this detailed information to be included in the administrative record that serves as the evidentiary basis for an approval action by the city or county on such projects. Under SB 610 water assessments must be furnished to local governments for inclusion in any environmental documentation for certain projects as defined in Water Code 10912 subject to CEQA. Under SB 221 approval by a city or county of certain residential subdivisions requires an affirmative written verification of sufficient water supply.

California Water Plan

The California Department of Water Resources (DWR) is responsible for preparing and updating the California Water Plan, which is a policy document that guides the development and management of State water resources. The plan was last updated in December 2023 and is updated every five years

to reflect changes in resources and urban, agricultural, and environmental water demands. The California Water Plan suggests ways of managing demand and augmenting supply to balance water supply with demand.

California Urban Water Management Planning Act

In 1983, the California Legislature enacted the California Urban Water Management Planning Act (CUW; Water Code Section 10610–10656). The Act states that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet annually, should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. The Act requires that urban water suppliers adopt an urban water management plan (UWMP) at least once every five years and submit them to the Department of Water Resources. Noncompliant urban water suppliers are ineligible to receive funding pursuant to Division 24, commencing with Section 78500, or Division 26, commencing with Section 79000, or receive drought assistance from the State until the UWMP is submitted and deemed complete pursuant to the Urban Water Management Planning Act.

Water Conservation Act of 2009 (Senate Bill X7-7)

In November 2009, the California State Legislature passed, and the Governor approved, a comprehensive package of water legislation, including the Water Conservation Act of 2009 (SB X7-7; CA Water Code Sections 10608-10688.44) addressing water conservation. In general, SB X7-7 required a 20 percent reduction in per capita urban water use by 2020, with an interim 10 percent target in 2015. California exceeded the required per capita reduction, in which per capita urban water use was reduced by 32 percent¹⁰². The legislation also requires urban water users to develop consistent water use targets and to use those targets in their UWMPs.

State Water Resources Control Board General Waste Discharge Requirement

The SWRCB adopted a General Waste Discharge Requirement (Order No. 2006-0003) for all publicly owned sanitary sewer collection systems in California with more than 1 mile of sewer pipe. The order provides a consistent statewide approach to reducing sanitary sewer overflows (SSOs) by requiring public sewer system operators to take all feasible steps to control the volume of waste discharged into the system, to prevent sanitary sewer waste from entering the storm sewer system, and to develop a Sewer System Management Plan. The General Waste Discharge Requirement also requires that storm sewer overflows be reported to the SWRCB using an online reporting system.

The SWRCB has delegated authority to the nine RWQCBs to enforce these requirements within their region. NPDES permits allow the RWQCB to regulate where and how the waste is disposed, including the discharge volume and effluent limits of the waste and the monitoring and reporting responsibilities of the discharger. The North Coast RWQCB issues and enforces NPDES permits in Humboldt County.

¹⁰² California Department of Water Resources. 2023. Status of 2020 Urban Water Management Plans – A Report to the Legislature pursuant to Section 10644 of the California Water Code. <https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Water-Use-And-Efficiency/Urban-Water-Use-Efficiency/Legislative-Reports/Status-of-2020-Urban-Water-Management-Plans-Report-to-Legislature.pdf> (accessed November 2024).

Senate Bill 1389

Senate Bill 1389 (Public Resources Code Sections 25300–25323), adopted in 2002, requires the development of an integrated plan for electricity, natural gas, and transportation fuels. Under the bill, the California Energy Commission must adopt and transmit to the Governor and Legislature an Integrated Energy Policy Report every two years and update every other year. An Integrated Energy Policy Report (IEPR) was last prepared in 2023 (adopted in February 2024), with updates currently in progress for 2024. The 2023 IEPR¹⁰³ provides an update on the current status of renewable energy supply and infrastructure, what is still needed, and recommendations for how to achieve the State’s target of 100 percent renewable and zero-carbon electricity by 2045.

Senate Bill 1020

Senate Bill 1020 (SB 1020), signed into law on September 16, 2022, requires renewable energy and zero-carbon resources to supply 90 percent of all retail electricity sales by 2035, 95 percent by 2040, and 100 percent by 2045. All State agencies facilities must be served by 100 percent renewable and zero-carbon resources by 2030. SB 1020 also requires the Public Utilities Commission, Energy Commission, and California Air Resources Board to issue a joint progress report outlining the reliability of the electrical grid with a focus on summer reliability and challenges and gaps. Additionally, SB 1020 requires the Public Utilities Commission to define energy affordability and use energy affordability metrics to develop protections, incentives, discounts, or new programs for residential customers facing hardships due to energy or gas bills.

Senate Bills 529 and 1174

SB 529 and SB 1174 included measures to streamline transmission system upgrade approvals, with the intent to reduce obstacles related to bringing new clean energy supply into operation.

California Integrated Waste Management Act (Assembly Bill 939)

The California Integrated Waste Management Act (CIWMA), also known as AB 939 (Public Resources Code 41780), requires cities and counties to prepare integrated waste management plans and to divert 50 percent of solid waste from landfills beginning in calendar year 2000 and each year thereafter. AB 939 also requires cities and counties to prepare Source Reduction and Recycling Elements as part of their integrated waste management plans. These elements are designed to develop recycling services to achieve diversion goals, stimulate local recycling in manufacturing, and stimulate the purchase of recycled products.

California's Short-Lived Climate Pollutant Reduction Strategy (Senate Bill 1383)

SB 1383 was adopted in September 2016 and aims to reduce methane and other GHG emissions statewide. SB 1383 establishes targets to achieve a 75 percent reduction from 2014 levels in the amount of organic waste across the State sent to landfills by 2025. The law grants CalRecycle the regulatory authority required to achieve the organic waste disposal reduction targets and establishes an additional target that not less than 20 percent of currently disposed edible food is recovered for human consumption by 2025. Specifically, SB 1383 requires entities that provide food donate excess food instead of simply discarding. In addition, SB 1383 regulations require that

¹⁰³ The 2023 California Energy Commission’s (CEC) Integrated Energy Policy Report (IEPR) as well as previous years’ reports and updates are available for review at the CEC’s website at the following link: <https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report>.

jurisdictions conduct education and outreach on organics recycling to all residents, businesses, haulers, solid waste facilities, and local food banks and other food recovery organizations.

Assembly Bill 1826

AB 1826 requires jurisdictions to implement an organic waste recycling program for businesses, including outreach, education, and monitoring of affected businesses. AB 1826 defines “organic waste” as food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. It also defines a “business” as a commercial or public entity, including, but not limited to, a firm, partnership, proprietorship, joint stock company, corporation, or association that is organized as a for-profit or nonprofit entity, or a multi-family residential dwelling consisting of five or more units. As of January 1, 2017, businesses that generate 4 cubic yards or more of organic waste per week are subject to this requirement. Commencing January 1, 2019, businesses that generate 4 cubic yards or more of commercial solid waste per week also are required to arrange for organic waste recycling services. In September 2020, CalRecycle reduced this threshold to 2 cubic yards of solid waste (i.e., total of trash, recycling, and organics) per week generated by covered businesses.

Regional and Local Regulations

Redwood Coast Energy Authority (RCEA) Repower Humboldt Action Plan for Energy

The RCEA 2019 Update to the Comprehensive Action Plan for Energy (also known as “RePower Humboldt”) is a plan focused on the development and implementation of sustainable energy initiatives in Humboldt. RCEA will help address Humboldt’s supply-side energy needs through its existing Community Choice Energy (CCE) program and development of new programs and initiatives. RePower Humboldt includes the following goals:

- By 2025: 100 percent of RCEA’s power mix will be from a combination of State-designated renewable energy sources (solar, wind, biomass, small hydroelectric, and geothermal) and state-designated net-zero-carbon-emission existing large hydroelectric facilities.
- By 2030: Humboldt County will be a net exporter of renewable electricity and the RCEA power mix will consist of 100 percent net-zero-carbon-emission renewable sources.

Humboldt County General Plan

The Humboldt County General Plan contains the following goals and policies related to utilities and service systems¹⁰⁴:

- **Policy FR-P16: Public Utilities on TPZ Lands.** Where feasible avoid locating federal, state, or local public improvements and utilities in TPZ where the project or land acquisition will have a significant adverse effect on the production of timber or ecosystem services.
- **Goal IS-G1: Adequate Infrastructure and Services.** Well maintained public infrastructure and services supporting existing development.
- **Policy IS-P1: Coordination with Service Providers.** The County shall work cooperatively with cities and service providers to identify needs and service limitations, secure funding, and implement infrastructure and public service projects consistent with this Plan and capital improvement plans.

¹⁰⁴ Humboldt County. 2017. Humboldt County General Plan. <https://humboldt.gov/DocumentCenter/View/61984/Humboldt-County-General-Plan-complete-document-PDF> (accessed December 2024).

- **Policy IS-P2: Public Infrastructure and Service Standards.** Use objective public infrastructure and service standards to:
 - Assess service conditions;
 - Identify deficiencies; and
 - Rank priorities.
- **Policy IS-P4: Fiscal Impact Assessment.** The fiscal impacts of discretionary development (i.e. projects that require the preparation of an Environmental Impact Report that may have significant impacts on existing and planned public infrastructure and services) shall be considered during the project review process. Significant adverse effects shall be mitigated to the extent feasible.
- **Policy IS-P5: Mitigation of Cross-jurisdictional Impacts.** The County shall work with the cities to ensure impacts associated with new development are mitigated for each affected jurisdiction.
- **Policy IS-P6: Infrastructure and Services Capacity.** In coordination with service providers, the County shall periodically monitor the capacities of infrastructure and services in relation to existing and planned demand.
- **Policy IS-P7: Capacity of Facilities and Land Use Decisions.** The County shall evaluate the capacity and sizing of road and drainage facilities in coordination with water and wastewater service providers to determine adequacy for proposed land uses and discretionary development.
- **Policy IS-P8: State and Federal Advocacy.** Coordinate with local service providers' efforts to influence legislation or regulations to achieve outcomes consistent with the goals and policies of this Plan.
- **Policy IS-P9: District Boundaries, Spheres of Influence, and Community Plans.** District boundaries, spheres of influence, municipal service reviews, and community plans shall be mutually compatible and support the orderly development and timing of infrastructure and services.
- **Policy IS-P10: Changes in District Boundaries.** Support the adjustment of service district or city boundaries to eliminate service area gaps, align district boundaries with already served areas, consolidate districts, improve service delivery, or to address an existing or impending threat to the public health or safety of the residents of the affected territory, consistent with this Plan.
- **Policy IS-P12: Road and Drainage System Funding Sources.** Develop funding mechanisms and sources to support the construction and maintenance of road and drainage facilities consistent with the policies and standards of the Circulation and Water Resources elements.
- **Policy IS-P13: Drainage and Flood Control.** Develop and maintain a countywide drainage and flood control plan to guide capital improvements and maintenance and serve as a basis for long-term sustainable funding mechanisms.
- **Policy IS-P16: Water and Wastewater System Capital Improvement Programs.** Support the efforts of service providers to develop and maintain capital improvement programs for construction of water and wastewater systems.
- **Policy IS-P17: On-Site Sewage Disposal Requirements.** Maintain regulations governing construction and maintenance of on-site sewage disposal systems to protect health and safety and to reflect changes in state law and advances in treatment technologies. Recognize and allow the use of alternative onsite sewage disposal systems that meet state standards.

- **Policy IS-P21: County Facilities.** Proposed County capital projects and facilities shall be analyzed for consistency with this Plan and applicable city general plans.
- **Goal T-G1: Deployment and Availability.** Communications, including high speed broadband, available to every resident, business, and institution in Humboldt County at a level of service and at a price comparable to urban communities.
- **Goal T-G2: Broadband Access.** A broadband internet infrastructure that reliably connects Humboldt to national networks and extends throughout urbanized areas to our most rural communities.
- **Goal T-G4: Communication Facilities.** Orderly planning and appropriate development of communication facilities within the County to achieve reliable access while protecting public health and safety; minimizing visual blight; and preserving the County's rural character including the protection of scenic, natural, and cultural resources.
- **Policy T-P6: Communications Facilities Within County Rights of Way.** Strongly encourage communications service providers to size underground and overhead facilities to accommodate future expansion, changes in technology, and, where possible, the facilities of other communications providers.
- **Policy T-P14: Joint Telecom Planning.** Work with local governments, utilities, schools, medical facilities, communications and other service providers, neighboring counties, tribes, state and federal entities to unify and coordinate communication infrastructure planning on a local, regional, and global basis.
- **Goal ED-G9: Telecommunications.** Reliable, redundant and modern telecommunications infrastructure and services that can attract and retain businesses.
- **Goal ED-G10: Public Water and Wastewater.** Adequate public water and wastewater facilities to accommodate the needs of the community. Utilize available industrial water resources to provide jobs, revenue, economic resources, and economic enhancement to the county.
- **Policy ED-P8: Public Infrastructure.** Assist local service providers in the pursuit of state and federal funding and development of land use assessment, rates and connection fee programs to upgrade and enhance infrastructure, including water, wastewater and recreational facilities.
- **Goal WM-G1: Comprehensive System.** A flexible system for the management of solid wastes and waste resources on a countywide basis, which encompasses storage, collection, separation, processing, reduction, reuse and repair, recycling, recovery, marketing, and, when necessary, landfill disposal.
- **Goal WM-G2: Environment, Health, and Safety.** A solid waste management system that protects and improves the county's environment, public health, safety, and economy.
- **Goal WM-G4: Management Strategy Hierarchy.** An integrated waste management hierarchy that first emphasizes source reduction, followed by reuse and repair, recycling, composting, materials recovery, environmentally safe energy recovery, environmentally safe transformation, and, as a last resort, landfill disposal.
- **Goal WM-G5: Maximize Achievement of Objectives.** Successful achievement or exceedance of integrated waste management objectives through education, economic incentives, and increased participation in waste reduction programs.
- **Goal WM-G6: Convenient, Widespread Participation.** High participation rates of recycling and waste diversion programs by making options convenient and widely available, such as through curbside recycling collection.

- **Goal WM-G7: Recovered Materials for Local Industry.** Growth in local businesses using previously discarded materials as a resource for value added manufacturing.
- **Goal WM-G8: Coordination.** An integrated waste management strategy emphasizing cooperation and coordination among local jurisdictions, waste haulers, and recyclers consistent with state and federal regulations and programs.
- **Goal WM-G9: Self-sufficient Disposal Practices.** Disposal capacity within the county or a contingency plan to develop local disposal capacity in order to achieve self-sufficiency and to hedge against increasing transportation, or waste export costs, and deal with catastrophic events.
- **Policy WM-P1: Implementation of Waste Reduction Programs.** Waste reduction, re-use and recycling programs should be implemented countywide on a continuous basis to achieve the maximum possible waste diversion rate using the following criteria for program prioritization and selection:
 - Achieves the maximum feasible reduction in volume and/or weight of waste requiring landfill disposal;
 - Supports regional efforts that maximize the reduction and diversion of additional materials in a consistent fashion for affected parties; such as local bans on the use of plastic bags or mandatory recycling of construction and demolition debris;
 - Ensures the feasibility of expanding diversion programs by requiring that, in addition to solid waste collection bins, new commercial and multifamily land use plans include on-site space for diversion collection bins, such as recycling and organics;
 - Maximizes the economic value of materials heretofore discarded;
 - Benefits the environment and health and safety of county citizens;
 - Is able to be implemented on a timely, practical, and cooperative basis;
 - Is supported by and is sustainable over the long-term by residents, businesses, and jurisdictions; and
 - Allows cost-effective achievement of the above criteria.
- **Policy WM-P3: Joint Facility Planning.** Facilities that are intended to serve all county residents should be jointly planned and implemented by all affected stakeholders. Priority facilities recommended for joint planning are:
 - County disposal facility: local new landfill, expansion, or export;
 - Centralized composting facility: materials to be processed, size, location, design, and cost; and,
 - Household hazardous waste transfer facility: ownership, operation, funding, and liability issues.
 - Centralized organic waste processing facility: reliable feedstock sources, design, size and cost.
- **Policy WM-P7: Countywide Integrated Waste Management Plan (IWMP).** The County shall abide by and participate in revisions to the CIWMP lead by the HWMA, per HMWA's current contract with the County, and consider the need to amend this General Plan to maintain consistency.
- **Policy WM-P8: Support for Waste Diversion and Recycling Operations.** The County shall recognize the importance of siting waste diversion and recycling operations within the County to attain state mandated waste reduction goals. Permitting processes and decisions should

balance this public interest with the health, safety and welfare of those living in the vicinity of proposed facilities.

- **Goal WR-G6: Public Water Supply.** Public water systems able to provide adequate water supply to meet existing and long-term community needs in a manner that protects other beneficial uses and the natural environment.
- **Goal WR-G10: Storm Drainage.** Storm drainage utilizing onsite infiltration and natural drainage channels and watercourses, while minimizing erosion, peak runoff, and interference with surface and groundwater flows and storm water pollution.
- **Policy WR-P3: Proactive Protections.** Focus regulatory attention and educational efforts in specified watersheds where limited water supply or threats to water quality have potentially significant cumulative effects on the availability of water for municipal or residential water uses or the aquatic environment.
- **Policy WR-P4: Critical Municipal Water Supply Areas.** The Board of Supervisors shall designate all or portions of watersheds as “Critical Water Supply Areas” if cumulative impacts from land uses within the area have the potential to significantly impact the quality or quantity of municipal water supplies. Water resources within Critical Water Supply Areas shall be protected by the application of specific standards for such areas.
- **Policy WR-P10: Erosion and Sediment Discharge.** Ministerial and discretionary projects requiring a grading permit shall comply with performance standards adopted by ordinance and/or conditioned to minimize erosion and discharge of sediments into surface runoff, drainage systems, and water bodies consistent with best management practices, adopted Total Maximum Daily Loads (TMDLs), and non-point source regulatory standards.
- **Policy WR-P11: County Facilities Management.** Design, construct, and maintain County buildings, roads, bridges, drainages, and other facilities to minimize erosion and the volume of sediment in stormwater flows.
- **Policy WR-P13: Small and Micro Hydroelectric.** Encourage small and micro hydroelectric development when impacts to surface water flows, aquatic species, and habitat have been adequately mitigated and are in conformance with state and federal permits and standards.
- **Policy WR-P26: Sufficient Water Supply.** Support the actions and facilities needed by public water systems to supply the water demands projected in this Plan.
- **Policy WR-P27: Critical Water Supply Areas.** Coordinate with public water systems in the designation and regulation of water resources in Critical Water Supply areas.
- **Policy WR-P28: Conservation and Re-use Strategy.** Promote the use of water conservation and re-use as a strategy to lower the cost, minimize energy consumption, and maximize the overall efficiency and capacity of public and private water systems. Encourage the installation of water storage, rain catchment and graywater systems to support domestic and outdoor water needs. Encourage and support conservation for agricultural activities that increase the efficiency of water use for crop irrigation and livestock. Support the use of treated water for irrigation, landscaping, parks, public facilities, and other appropriate uses and coordinate with cities and other wastewater treatment entities in planning uses and minimizing impacts for treated water in unincorporated areas. Avoid water reuse that could adversely affect the quality of groundwater or surface water.
- **Policy WR-P36: Natural Stormwater Drainage Courses.** Natural drainage courses, including ephemeral streams, shall be retained and protected from development impacts which would alter the natural drainage courses, increase erosion or sedimentation, or have a significant

adverse effect on flow rates or water quality. Natural vegetation within riparian and wetland protection zones shall be maintained to preserve natural drainage characteristics consistent with the Biological Resource policies. Stormwater discharges from outfalls, culverts, gutters, and other drainage control facilities that discharge into natural drainage courses shall be dissipated so that they make no significant contribution to additional erosion and, where feasible, are filtered and cleaned of pollutants.

- **Policy WR-P37: Downstream Stormwater Peak Flows.** Peak downstream stormwater discharge shall not exceed the capacity limits of off-site drainage systems or cause downstream erosion, flooding, habitat destruction, or impacts to wetlands and riparian areas. New development shall demonstrate that post-development peak flow discharges will mimic natural flows to watercourses and avoid impacts to Beneficial Uses of Water.
- **Policy WR-P38: New Drainage Facilities.** Where it is necessary to develop additional drainage facilities, they shall be designed to be as natural in appearance and function as is feasible. All drainage facilities shall be designed to maintain maximum natural habitat of streams and their streamside management areas and buffers. Detention/retention facilities shall be managed in such a manner as to avoid reducing stream flows during critical low-flow periods.
- **Policy WR-P43: Storm Drainage Design Standards.** Drainage design standards for new development shall be adopted by ordinance. The design standards shall ensure that storms of specified intensity, frequency, and duration can be accommodated by engineered drainage systems and natural drainage courses.
- **Policy WR-P44: Storm Drainage Impact Reduction.** Develop and require the use of Low-Impact Development (LID) standards consistent with Regional Water Board requirements to reduce the quantity and increase the quality of stormwater runoff from new development and redevelopment projects in areas within the County's MS4 boundary or as triggered under other Regional Water Board permits. For all other watersheds, develop storm drainage development guidelines with incentives to encourage LID standards to reduce the quantity and increase the quality of stormwater runoff from new developments.
- **Policy WR-P45: Reduce Toxic Runoff.** Minimize chemical pollutants in stormwater runoff such as pesticides, fertilizers, household hazardous wastes, and road oil by supporting education programs, household hazardous waste and used oil collection, street and parking lot cleaning and maintenance, use of bioswales and other stormwater best management practices described in the California Stormwater Best Management Practices Handbooks or their equivalent.
- **Goal E-G1: Countywide Strategic Energy Planning.** An effective energy strategy based on self-sufficiency, development of renewable energy resources and energy conservation that is actively implemented countywide through Climate Action Plans, General Plans and the Redwood Coast Energy Authority's Comprehensive Energy Action Plan.
- **Goal E-G2: Increase Energy Efficiency and Conservation.** Decrease energy consumption through increased energy conservation and efficiency in building, transportation, business, industry, government, water and waste management.
- **Goal E-G3: Supply of Energy from Local Renewable Sources.** Increased local energy supply from a distributed and diverse array of renewable energy sources and providers available for local purchase and export.
- **Policy E-P3: Local Renewable Energy Supply.** The County shall support renewable energy development projects including biomass, wind, solar, "run of the river" hydroelectric, and ocean energy, consistent with this Plan that increases local energy supply.

- **Policy E-P4: Transportation Energy Conservation and Alternative Fuels Substitution.** Support revitalization and infill projects within Urban Development Areas as a means to reduce long-term vehicle miles traveled as an energy conservation strategy. Support the development and implementation of Electric Vehicle (EV) charging stations and other alternative fueling infrastructure.
- **Policy E-P5: Regional Energy Authority.** Recognize the Redwood Coast Energy Authority (RCEA) as the regional energy authority, which will foster, coordinate, and facilitate countywide strategic energy planning, implementation and education through a Comprehensive Action Plan for Energy.
- **Policy E-P6: County Government Energy Consumption.** The County government shall reduce building and transportation energy consumption by implementing energy conservation measures and purchasing renewable energy and energy efficient equipment and vehicles whenever cost-effective. Conservation and renewable energy investments should be planned and implemented in accordance with performance-based action plans and County Greenhouse Gas Emission Reduction goals.
- **Policy E-P7: County Building Design Standards.** Design, construct and operate all new and renovated County-owned facilities to U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) "Silver" or better energy efficiency standards consistent with State Executive Order S-20-04, or to similar California Green Building Standards.
- **Policy E-P8: Electrical Transmission.** Promote PG&E funded capacity upgrades to electric distribution lines to facilitate distributed renewable energy production and electricity export from the county.
- **Policy E-P9: Electricity Buyback.** Support revisions to the electricity buyback program that encourages more distributed local generation and more equitably compensates such generation.
- **Policy E-P13: Incentives for Using Alternative Energy.** Encourage the use of renewable energy and environmentally preferable distributed energy generation systems in the county.
- **Policy E-P15: Land Use Planning and Compatibility.** Coordinate with local agencies, communities, and landowners to assess potential wind and offshore renewable energy development. Such an assessment shall consider site suitability, energy potential, and potential impacts to biological and cultural resources.
- **Policy E-P16: Sustainable Biomass Energy Production.** Coordinate with local agencies, communities, and landowners to develop biomass energy plans that are consistent with forest management, hazardous fuels reduction, and restoration needs and priorities.

Eureka General Plan

The Eureka General Plan contains the following goals and policies related to utilities and service systems¹⁰⁵:

- **Goal E-5.** Infrastructure to meet the needs of existing and future businesses and industries.
- **Policy E-5.1: Access, Infrastructure and Services.** Ensure that convenient access to major transportation facilities, adequate utility and telecommunications infrastructure, high speed

¹⁰⁵ City of Eureka. 2018. 2040 General Plan. <https://www.eurekaca.gov/DocumentCenter/View/1190/2040-General-Plan-PDF?bidId=> (accessed December 2024).

broadband, and sufficient public services are available and/or programmed to support commercial and industrial areas.

- **Policy E-5.7: Wastewater Treatment Capacity.** Ensure that the City’s Wastewater Treatment Plant has sufficient capacity to meet the needs of industrial and agricultural users. Wastewater capacity shall be sufficient to support the planned growth of breweries, dairy manufacturing, and other high impact users.
- **Policy E-5.9: Support for Open Broadband.** Encourage and support the expansion and delivery of redundant, open broadband internet service throughout the City, and support the use of public resources to serve as community anchors such as court houses, schools, libraries, civic and media access centers, public safety and health care facilities.
- **Policy NR-1.7 Groundwater Protection.** Continue to encourage septic system users to connect to City services, and prevent onsite disposal of toxic substances per local and State regulations to reduce groundwater contamination.
- **Policy AQ-1.2: GHG Reduction.** Continue to work with Redwood Coast Energy Authority to implement appropriate measures to reduce regional greenhouse gas emissions in Eureka, such as incentivizing the use of alternative energy sources, and periodically update the City’s greenhouse gas inventory and reduction plan, consistent with State reduction targets and regulations.
- **Policy AQ-1.4: Off-Street Parking.** Encourage and incentivize premium parking spaces for carpool, vanpool, and alternative energy vehicles, and encourage the development and addition of electric vehicle charging stations in parking lots.
- **Policy CS-2.2: Facility Standards.** Ensure that water main size, water flow, fire hydrant spacing, and other fire facilities meet City standards.
- **Goal U-1.** Availability of an adequate, safe, and sustainable water supply and maintenance of an efficient water system for all residents and visitors.
- **Goal U-2.** Sustainable and adequate wastewater collection, treatment, and disposal for existing and future development.
- **Goal U-3.** A comprehensive stormwater collection and conveyance system that reduces or prevents flooding, and protects public safety and the environment.
- **Goal U-4.** Safe and efficient disposal or recycling of solid waste generated in Eureka.
- **Goal U-5.** Increased renewable energy provision and overall energy efficiency and conservation throughout the City.
- **Goal U-6.** Safe, efficient, and accessible communication systems that help catalyze economic development, government services, and an informed citizenry.
- **Policy M-5.5. Alternative Fuel Vehicle Parking.** Support parking for Electric Vehicles (EVs), carpools, and hybrids, including the development of local charging stations in both public and private parking lots and large commercial parking lots.
- **Policy U-1.1: Water Access and Distribution.** Continue to provide high quality water through a cost-effective distribution system, satisfying both normal and emergency water demands, for all segments of the community.
- **Policy U-1.2: Adopted Plans.** Regularly review and update the City’s Urban Water Management Plan, along with capital improvement plans, to ensure adequate provision of water supply, infrastructure, maintenance, rehabilitation, funding and conservation strategies.

- **Policy U-1.5: Green Infrastructure.** Continue to encourage the use of green infrastructure that promotes efficient water use and reduced water demand by requiring water-conserving design and equipment in new construction and encouraging the retrofitting of existing development with water-conserving devices.
- **Policy U-1.6: Water Conservation Programs.** Collaborate with federal, State, and local water agencies and providers to create and enhance long-term water conservation programs as necessary to address drought conditions affecting the Mad River watershed.
- **Policy U-2.1: Adequate Infrastructure.** Continue efforts to maintain and improve the City's wastewater collection and treatment system capacity for all segments of the community to satisfy dry and wet weather conditions while also detecting and correcting infiltration/inflow (I/I) issues, in accordance with applicable discharge standards. Continue to explore the feasibility of relocation of the wastewater outfall.
- **Policy U-2.2: Sewer System Management Plan.** Regularly review and update the City's Sewer System Management Plan and other wastewater planning tools and capital improvement plans to ensure adequate wastewater collection, treatment, infrastructure, maintenance, rehabilitation, and funding.
- **Policy U-2.5: On-Site Sewage Treatment.** Except in Natural Resource and Agricultural lands, continue to prohibit the development of new on-site sewage treatment and disposal systems within the City limits, but encourage the development of on-site pre-treatment systems, especially for industrial facilities.
- **Policy U-2.6: Extension of Sewer Services.** Prohibit extension of sewer service outside of the City limits or sphere of influence, except in limited circumstances to resolve a public health hazard resulting from existing development, or where there is a substantial overriding public benefit.
- **Policy U-2.7 Best Management Practices.** Identify and implement, where feasible, best practices and technologies for wastewater collection and treatment, including strategies that reduce wastewater demand, maintain maximum energy efficiency, and reduce costs and greenhouse gas emissions.
- **Policy U-3.1: Adequate Infrastructure.** As funding allows, continue efforts to maintain and improve the City's storm drainage system throughout Eureka to adequately accommodate stormwater runoff and prevent flooding.
- **Policy U-3.2: Storm Drain Master Plan.** Regularly review and update the City's Storm Drain Master Plan and capital improvement plans to ensure adequate capacity, infrastructure, treatment, maintenance, and, as available, funding.
- **Policy U-3.4: Natural Drainage.** Encourage and maintain the use of natural stormwater drainage systems in a manner that preserves and enhances natural features such as the sloughs, greenways and gulches, and along the rivers and creeks, while also allowing for maximum water reclamation and reuse.
- **Policy U-3.5: Manmade Drainage.** Allow manmade drainage systems to be dredged, cleared, and maintained to preserve the drainage capacity for which they were designed, even those classified as wetlands, consistent with State and federal regulations.
- **Policy U-3.7: Stormwater Flows along the Waterfront.** Continue to use best available information to identify any necessary improvements to drainage or water control structures to effectively manage stormwater flows and quality in Old Town and along the waterfront.

- **Policy U-3.8: New Development.** Require new development to prepare drainage studies and to retain and infiltrate stormwater runoff in compliance with City and regional regulations, plans and standards. Ensure that new development constructs, dedicates and/or pays its fair share contribution to the storm drainage system necessary to serve the demands created by the development.
- **Policy U-3.11: Stormwater Quality.** Require new development and redevelopment to minimize stormwater runoff and pollutants entering drainage facilities and drainage courses by incorporating Low Impact Development (LID) measures and appropriate Best Management Practices (BMPs) consistent with the City's NPDES permit and the North Coast Regional Quality Control Board regulations.
- **Policy U-3.12: Minimize Drainage Through Design.** Encourage new project designs that minimize impervious surfaces and maintain, to the extent feasible, natural site drainage conditions, while also employing techniques aimed at retaining and reusing runoff and other water used onsite.
- **Policy U-3.13: Runoff Damage Management.** Cooperate with Humboldt County, affected landowners, and other stakeholders to minimize potential damage and economic loss arising from stormwater runoff, consistent with other policies of this General Plan.
- **Policy U-4.1: Adequate Services.** Continue to support solid waste facility operators and service providers in local solid waste collection, disposal, and recycling efforts.
- **Policy U-4.3: Increase Waste Diversion.** Promote maximum use of solid waste source reduction, recycling, composting, and environmentally-safe transformation of wastes, maximizing solid waste diversion opportunities.
- **Policy U-4.4: Composting Programs.** Support programs and facilities that divert residential, commercial, and industrial food, vegetation, and other organic waste from the landfill and continue to work with regional composting facilities to continue and increase composting services for residents and businesses.
- **Policy U-4.5: Solid Waste Management per State Mandated Diversion Goals.** Continue to partner with Humboldt Waste Management Authority and City-designated franchise hauler to further plan for and document compliance with State-mandated source reduction, diversion, and recycling requirements.
- **Policy U-4.6 Recycling for Residential Uses.** Continue to encourage residential uses to increase the solid waste diversion from landfills through participation in recycling programs and organic waste diversion, consistent with State-mandated diversion goals and the City's goals to reduce greenhouse gas emissions.
- **Policy U-4.7: Recycling for Commercial and Industrial Uses.** Continue to encourage the development of regional and community-based recycling facilities in heavy industrial areas while also establishing more waste reduction requirements for commercial and industrial uses.
- **Policy U-4.8 Reduced Materials Consumption.** Conserve natural resources through reduced materials consumption and regularly update the City's Zero Waste Action Plan.
- **Policy U-5.1: Energy Conservation.** Promote energy conservation, and development of alternative, nonpolluting, renewable energy sources for community power in both the public and private sectors
- **Policy U-5.2: Energy Conserving Land Use Practices.** Implement energy conserving land use practices that include compact and mixed-use development, provision of bikeways and pedestrian paths, and the incorporation and enhancement of transit routes and facilities.

- **Policy U-5.5: Renewable Energy.** Encourage new development to install renewable energy systems and facilities (e.g., solar and wind energies) consistent with the City’s greenhouse gas emission reduction goals.
- **Policy U-5.6: Community Energy Efficiency.** Identify and promote programs, funding opportunities, and rebates from utility providers to increase energy conservation in existing buildings and require new buildings to implement additional energy efficient measures that are consistent with the City’s greenhouse gas emission reduction goals.
- **Policy U-5.7: Community Aggregation.** Encourage property owners and residents to participate in Community Choice Aggregation programs to allow lower electric rates and local control of energy sources.
- **Policy U-5.8: City Energy Efficiency.** Promote energy conservation for all City-owned facilities, vehicles, and equipment, and implement additional energy efficient measures that are consistent with the City’s goal of reducing greenhouse gas emissions.
- **Policy U-5.9: Green Buildings and Businesses.** Explore providing incentives for development that generates renewable energy and uses sustainable and energy-efficient technologies that result in minimized carbon footprints.
- **Policy U-5.10: Underground Utilities.** Continue promoting the undergrounding of overhead utility lines whenever feasible, particularly in recreational facilities, the Core Area, and new residential development, working closely with electricity and telecommunication providers. Identify new Underground Utility Districts, evaluate the feasibility of undergrounding utilities during street and road construction projects, and continue to require the undergrounding of overhead utility lines in existing Underground Utility Districts.
- **Policy U-5.11: Energy Education and Outreach.** Encourage a public understanding of the importance of renewable energy and energy efficiency through partnerships with energy-related organizations.
- **Policy U-6.1: Access.** Coordinate with local internet, cellular, and other telecommunications service providers to ensure access to and availability of a wide range of high-quality telecommunication systems and services, including internet redundancy within the City and County.
- **Policy U-6.2: Service Equity.** Work with local telecommunications service providers to retrofit areas currently lacking telecommunication technologies and pursue strategic long-range planning of facilities for new development.
- **Policy U-6.4: Co-location.** Require co-location of telecommunication facilities in a manner that maximizes compatibility and minimizes visual impacts on surrounding uses.

Arcata General Plan

The Arcata General Plan contains the following goals and policies related to utilities and service systems¹⁰⁶:

- **Policy LU-5: Public Facilities - Objective.** Provide appropriate locations and sites for water storage and delivery; wastewater collection and treatment; drainage; solid waste management; fire protection; parks and recreation; civic and institutional uses; and education (public and private) facilities.

¹⁰⁶ City of Arcata. 2024. General Plan 2045, <https://www.cityofarcata.org/160/General-Plan> (accessed December 2024).

- **Policy GM-4: Urban Services and Urban Services Boundary - Objective.** Define the boundary or City services and urban uses, within the City’s incorporated area and Sphere of Influence. Extend City services only when they will not exceed the City’s planned system capacities.
- **Policy PF-1: Water Supply and Delivery – Objective.** Manage the City’s potable water resources to ensure adequate quantities for community use, to promote water conservation, to maintain water quality, and not to deplete source supplies.
- **Policy PF-2: Wastewater Collection, Treatment, and Disposal – Objective.** Collect and treat wastewater to achieve safe water quality standards, utilizing the City’s internationally renowned marsh treatment facility.
- **Policy PF-3: Stormwater Management – Objective.** Implement the City’s Drainage Master Plan and abide by the Municipal Separate Storm Sewer System (MS4) Permit to utilize natural drainage systems; minimize increases in stormwater runoff, flooding, and erosion; maintain the integrity of stream hydrology; and reduce pollutant loads.
- **Policy PF-4: Integrated Waste Management – Objective.** Reduce solid waste generation at the source; maximize re-use and repair of appropriate items and material; promote composting and recycling; and properly transport non-recyclable solid waste to approved disposal sites. Coordinate with regional bodies to develop effective regional solid waste management systems. Ensure new development is adequately sited and designed, including adequate physical space for solid waste bins.
- **Policy PF-1a: Water Supply.** Surface and subsurface water quantities that supply the City are dependent on rainfall and adequate upstream storage. The City shall continually monitor the water quantity and quality in its system and adhere to the Humboldt Bay Municipal Water District’s rationing system to ensure that adequate supplies reach all users.
- **Policy PF-1b: Capacity and Management of City Water Delivery System.** The City shall update its Urban Water Management Plan at least every five years to maintain current projections, management, and contingency programs for water delivery. The City water system shall not be extended beyond the Urban Services Boundary (except as provided for in Policy GM-4b of the Growth Management Element). The City shall continue to assess through its annual Capital Improvement Program update needed water delivery system improvements and storage capacity to meet demand and capacity to respond to emergencies including fire and disruption in water service from Humboldt Bay Municipal Water District.
- **Policy PF-1c: Water Conservation.** The City shall use a combination of economic incentives, educational programs, and auditing to promote water conservation and shall remain in compliance with Humboldt Bay Municipal Water District policy regarding its Five Stage Water Rationing System. Continue to encourage the use of infrastructure and practices that promote efficient water and energy use such as rain barrels, green roofs, and retention structures. Encourage reduced water demand by requiring water conserving design and equipment in new construction and encouraging the retrofitting of existing development with water-conserving devices, along with water capture and conservation practices.

Water rates will continue to be higher for consumption above baseline usage. Information about conservation devices such as flow restrictors and practices such as off-peak irrigation will be made available to the public. Building and site development permits that require connections to the City’s water system shall incorporate water conservation design features and best management practices.

The City shall also implement water conservation measures through the water, wastewater, and drainage master plans, and through leak detection and inflow and infiltration reduction programs.

In response to water shortages, the City will work cooperatively with the regional water supplier and the supplier's other municipal customers to implement an effective water shortage contingency plan that defines response actions based on the severity of the water shortage. End use prohibitions shall be determined based on current conditions, recommendations of a regional task force, and historic water use data and trends, and will be considered for mandatory penalties, charges and other escalating enforcement actions including education and outreach, issuing a verbal/written warning, penalty assessment, and water service termination. The City may consider imposing sharply graduated excessive use rates and/or excessive use fines, additional forms of water rationing, warnings, and physical flow restrictions to water users who fail to respond to less severe sanctions.

Continue to encourage the use of infrastructure and practices that promote efficient water and energy use such as rain barrels, green roofs, and retention structures. Encourage reduced water demand by requiring water-conserving design and equipment in new construction and encouraging the retrofitting of existing development with water-conserving devices, along with water capture and conservation practices.

- **Policy PF-1e: Water Loss.** The City shall perform annual water loss audits to identify and better understand the type of and quantity of water losses occurring in the water distribution system. The City shall ensure that it meets any water conservation/water loss standards promulgated by the State Water Resources Control Board.
- **Policy PF-2a: Capacity and Management of City Wastewater Collection System.** The wastewater collection system is designed to transport community sewage to the treatment plant. The City shall update its Sewer System Management Plan (last updated in 2023) at least every five years, to maintain current projections, management, and contingency programs for wastewater collection. The Plan shall identify needed collection system improvements and anticipated extensions, so that they can be budgeted for in the City's Capital Improvement Program. The City shall continue to monitor groundwater infiltration and surface water inflow and take necessary action to ensure that these sources do not cause the collection system or the treatment plant to exceed capacity. The City shall also consider adopting building and land use code policies that provide incentives for design, operation, and technology for buildings and sites to minimize wastewater as well as stormwater loads. The City wastewater collection system shall not be extended beyond the Urban Services Boundary except as provided in Policy GM-4b.
- **Policy PF-2b: Arcata Wastewater Treatment System.** The City shall review and update its Arcata Wastewater Treatment Facility Operations and Maintenance Manual at least every five years to evaluate the entire system; reflect any changes in treatment standards; ensure wastewater treatment is meeting current standards; verify that there is adequate treatment system capacity; and ensure adequate water flows to maintain habitat. The City shall ensure ongoing treatment system planning and investments are consistent with mid- and long-range climate change adaptation goals, which balance preserving the City's existing investments with habitat restoration and sea level adaptation priorities. Goals, priorities, planning assumptions, and the best available science on which they are based, shall be reviewed publicly through City committees and the Planning Commission at the discretion of the City Council.

- **Policy PF-3a: Utilization of City Streams and Watercourses as Natural Drainage Systems.** Arcata’s network of creeks provides a natural drainage system; however, this system is very susceptible to damage from urban pollutants carried by stormwater runoff, and from drainage facilities that alter creek flows and natural functions. The City shall utilize creeks for urban drainage only when the basic natural functions of the creeks will not be degraded.
- **Policy PF-3b: Control of Stormwater Runoff, Flooding, and Erosion.** Stormwater runoff, especially at peak flows, can cause significant flooding and erosion if adequate precautions have not been taken. As stated in the Drainage Master Plan, the City shall manage the storm and surface water system in Arcata to maintain a hydrologic balance to protect water quality, prevent property damage, provide for the safety and enjoyment of citizens, and preserve and enhance habitat and sensitive areas.
- **Policy PF-3c: Stormwater Quality.** Implement the City’s Phase II MS4 Permit to reduce the discharge of pollutants to the maximum extent practicable and protect water quality. Manage surface water controls, facilities such as detention basins and natural infiltration areas, and education programs to protect surface and ground-water quality
- **Policy PF-3d: City Drainage System.** The City shall take a comprehensive approach to drainage system management to effectively control the quantity of stormwater runoff, protect water quality, and reduce potential flood damage from peak flows. As stated in the City Drainage Master Plan, the City shall gradually expand the City managed drainage system to:
 - Continue maintenance of all drainage facilities within public right-of-way regardless of size.
 - Extend responsibility onto private property only when permanent easements are dedicated or otherwise available from the private property owner, and need is established based on technical criteria.
 - Define service limits upstream of the City as the point at which runoff from a publicly (not County) dedicated street enters the drainage system, or when a drainage feature needs repairs/improvements which have public benefits that exceed the cost of said repairs/improvements.
 - Integrate green stormwater infrastructure into streets and public spaces to create attractive public areas while also capturing and treating runoff to meet water quality requirements. In this context “Green Infrastructure” is defined as the range of measures that use plant or soil systems, permeable pavement or other permeable surfaces or substrates, stormwater harvest and reuse, or landscaping to store, infiltrate, or evapotranspiration stormwater and reduce flows to sewer systems or to surface waters.
- **Policy PF-3e: Easements and Properties for Drainage Management.** The City shall secure the easements and properties necessary to complete and maintain the drainage system identified in the Drainage Master Plan
- **Policy PF-4a: Source Reduction.** Source reduction and materials re-use are the most cost-effective ways to minimize solid waste. Source reduction, or waste prevention, reduces the growing costs of collection, recycling, and disposal systems. Source reduction and reuse shall be promoted through educational programs and incentives. Examples of effective source reduction and re-use activities that shall be promoted are:
 - Backyard composting, landscaping with low water needs, and grass mulching.
 - Purchasing durable re-usable goods instead of disposable items (e.g., cloth diapers, rechargeable batteries).
 - Repairing equipment and appliances.

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- Purchasing goods from second-hand stores, flea-markets and swap meets.
- Reducing the use of packaging by buying in bulk or purchasing fresh food at farmers markets.
- Eliminating paper copies for as much City business as possible by working with electronic mail, forms, and agendas, and re-using scrap paper, if possible, when copying is necessary.
- Reusable coffee cups and beverages provided in dispensers.
- Termination of unwanted mail.
- Incentives such as on-call garbage collection and differential solid waste fees shall be used to encourage source reduction.
- **Policy PF-4b: Recycling.** The City’s recycling program shall continue and expand unless a more efficient and cost-effective method of collecting and reusing materials is identified. The City shall continue to contract for recycling, collection, and processing to help meet and exceed the State diversion goal. The following programs shall also be promoted:
 - Collection of commercial corrugated cardboard.
 - Collection of office paper.
 - Collection of organic waste.
 - City procurement policies and practices reflecting State requirements for purchasing recycled content paper products.
 - Implementation of density bonuses for buildings designed to promote recycling.
 - The City’s active involvement in the Humboldt County Recycling Market Development Zone.
 - Public education to “close the loop” and buy locally made products with recycled content.
 - Public education on recycling which includes self-haul services for recyclable materials not collected curbside.
 - Support for development and expansion of recycling-based manufacturing.
 - To minimize increases in solid waste volumes and maximize the amount of material returned to productive use, the City shall continue these programs with a target of reducing landfill volumes as specified in the Zero Waste Action Plan.
- **Policy PF-4c: Collection, Transport and Disposal of Non-Recyclable Solid Waste.** The City shall continue to contract for solid waste and recycling collection, transport, and disposal and will amend relevant Franchise Agreements to include the collection and transport of organic waste in the future to comply with state waste and organics regulations (e.g. SB 1383). The City is supportive of organic processing and will work with regional partners to develop an in-County organics processing facility. The City will provide educational materials about proper use and disposal of household hazardous waste, non-toxic alternatives to household hazardous waste, and recycling of materials (e.g., motor oil, anti-freeze, paint, batteries) in conjunction with local governmental and businesses partners.
- **Policy PF-6d: Telecommunications Facilities.** Telecommunication towers, commercial dishes and antenna, monopoles, and other transmitting and receiving facilities shall be co-located (grouped together) to minimize the number of facilities and shall be screened to reduce impacts. Placement of commercial (serving more than a single user) telecommunication facilities shall require a use permit and shall be limited to the zoning designations outlined in the City’s Zoning Ordinance. These facilities shall be screened from view and associated equipment rooms and switching devices shall be designed and landscaped to blend with their surroundings. In approving a use permit, findings must be made that the proposed location is the most

appropriate for the neighborhood, that the facility is of the minimum size necessary for the intended use, and that it is set back and screened to reduce visual and safety impacts. Any proposed city construction projects involving trenching shall be reviewed for opportunities to extend high speed networking infrastructure.

- **Policy PF-6f: Energy Conservation and Decarbonization of City Facilities.** Continue reducing City facility energy consumption, including conservation and weatherization measures exceeding building code standards, electric only appliances, HVAC, water heating systems and renewable energy sources. Consider Greenhouse Gas Reduction measures in all new facility, renovations, site design and connectivity decisions. Develop and implement City practices to increase electrification equity and affordability for all residents.
- **Policy PF-6g: Align Utility Infrastructure within Circulation System.** To the degree possible, locate new utility infrastructure within existing and planned circulation system rights-of-way.
- **Policy PF-6h: Plan Utility Infrastructure to Accommodate Envisioned Growth.** In planning for improvements to the overall utility infrastructure, including wastewater and electrical demand, design the systems to accommodate the planned amount of growth outlined in other policies and consider the impacts of locating new infrastructure on potential future habitat restoration sites. Plan for future infrastructure needs due to conversion of uses (e.g., electrification). Infrastructure will be developed over time as needed, and the City's Capital Improvements Program (CIP) will reflect near term infrastructure needs through the annual update process.
- **Policy RC-2g: Maintenance of Streams as Natural Drainage Systems.** Arcata's creeks carry a significant amount of the City's stormwater runoff. Drainage controls shall be enforced through implementation of the Drainage Master Plan, to protect water quality, and to minimize erosion, sedimentation, and flood impacts to City creeks. A comprehensive stream maintenance program shall be prepared to augment stormwater utility rehabilitation projects designed to maintain or improve flow capacity, trap sediment and other pollutants that impair water quality, minimize channel erosion, prevent new sources of pollutants from entering the stream, and enhance instream and riparian habitat.
- **Policy D-1e: Promote Energy Efficiency and Solar Access.** Site and building design shall emphasize energy efficiency, solar orientation and consider shading of adjacent structures, balancing development needs with solar access.
- **Policy D-1i: Renewable Green Building.** Site and building design shall incorporate green building concepts including recycled materials use, energy efficiency, solar access, insulation, energy efficiency, use of toxic-free materials, natural lighting, native landscaping, permeable surfaces around structures, and minimizing construction waste disposal.
- **Policy D-1l: Utility Screening.** Minimize visual impacts from utility boxes, utility meters, backflow preventers, and other similar devices. Utility devices must be underground or located to the side or rear of buildings and screened from public view by landscaping. Exceptions may be granted through a discretionary review process.
- **Policy D-8l: Incentivize Energy Efficiency and Electrification as Community Amenities.** Through the community benefit program, allow increased development intensity and simplified development processes for projects that exceed Title 24 and other State or local energy efficiency requirements and all new construction to be electric only, with limited commercial cooking exceptions.

Blue Lake General Plan

The Blue Lake General Plan Land Use Element contains the following goals and policies related to utilities and service systems¹⁰⁷:

- **Utilities and Services Policy 1:** The City shall make provision of the following services a priority: police protection, fire protection, water service, sewer service, public transit to Arcata, garbage service, maintenance of City property, [and] adequate circulation system (streets and trails).
- **Utilities and Services Policy 3:** Solid waste, whether public or private, shall be properly collected, stored and transported to protect public health and safety and to ensure a clean community appearance.
- **Utilities and Services Policy 4:** The City shall not allow development which would exceed the City's sewage treatment capacity; nor shall the City knowingly allow development which could adversely affect water quality in the Mad River.
- **Utilities and Services Policy 5:** Development should be encouraged to achieve efficient use of existing public utilities and services.
- **Utilities and Services Policy 7:** The City shall provide adequate supply of good quality water to all current users; new users shall be accommodated without diminishing existing levels of service.
- **Utilities and Services Policy 11:** Due to limited remaining sewer capacity, large water users/dischargers shall be required to use alternative treatment/pre-treatments, where feasible, rather than the City sewage treatment system.
- **Utilities and Services Policy 13:** Undergrounding of utility lines shall be required for all new development.
- **Environmental Protection Policy 4:** The City shall encourage site design that maximizes on-site retention of stormwater and minimizes discharge to the City's storm water system.

Fortuna General Plan

The Fortuna General Plan contains the following goals and policies related to utilities and service systems¹⁰⁸:

- **Policy ED-4.6: Energy Distribution Capacity.** The City shall identify and seek resolution of bottlenecks in the electricity and natural gas distribution network that limit economic development in and around Fortuna.
- **Policy ED-6.2: Telecommunications Infrastructure.** To encourage and attract e-commerce, non-store retail, and broadband-dependent businesses, the City shall pursue installation of current and emerging technological infrastructure in new and existing development.
- **Policy H-6.3.** Encourage the use of solar energy within the City.
- **Policy NCR-6.1: Site Design Standards.** The City shall strive to incorporate cost-effective, energy-efficient construction techniques and materials.
- **Policy NCR-6.4: Energy Education and Training.** The City shall support the Redwood Coast Energy Authority (RCEA) in its effort to provide community education on energy issues,

¹⁰⁷ City of Blue Lake. 2021. General Plan Land Use Element. https://bluelake.ca.gov/wp-content/uploads/2023/05/Blue-Lake-Land-Use-Element-Update_Amended-4-27-21.pdf (accessed December 2024).

¹⁰⁸ City of Fortuna. 2010. General Plan. https://cms8.revize.com/revize/fortunaca/Document%20center/Department/Planning%20Division/General%20Plan%20and%20EIR%20Documents/Fortuna%20General%20Plan%202030%20-%20Policy%20Document_web.pdf (accessed December 2024).

including the benefits of reduced energy consumption and increased energy efficiency. This includes collaborating with schools and colleges on energy-related research, education, and management practices.

- **Policy NCR-6.5: Solar Access.** The City shall encourage maximized solar access (active and passive) in site planning and design. Where possible, lots and buildings in subdivisions and new development should be oriented and designed to maximize and protect solar exposure.
- **Policy NCR-6.6: Municipal Purchasing and Procurement.** The City shall purchase and use administrative supplies and building materials made from recycled materials and renewable resources.
- **Policy NCR-6.7: Energy Star® Equipment.** The City shall purchase or operate Energy Star® electrical equipment (considering life-cycle costs) to follow principles of energy-efficient source reduction and resource recovery for its own operations and promote these principles in the community.
- **Policy NCR-6.9: Retrofitting for Energy Efficiency.** The City shall promote retrofitting of existing energy-inefficient buildings to meet or exceed the most-current energy efficiency standards (i.e., LEED certification).
- **Policy NCR-6.10: Energy Recovery Systems.** The City shall require, whenever economically and physically feasible, the use of energy recovery systems in projects greater than one single-family residential unit.
- **Policy NCR-6.11: Recycling and Waste Diversion.** The City shall comply with all mandatory State Recycling and waste diversion standards.
- **Policy NCR-6.12: Construction and Waste Diversion.** In order to meet State’s mandated waste diversion requirements, the City shall promote the diversion of construction waste by requiring contractors to recycle as much construction debris as feasible.
- **Policy NCR-6.14: Explore Energy Efficiency Standards for Existing Buildings.** Explore and, if appropriate, adopt energy efficiency standards for existing residential and commercial buildings upon substantial remodel.
- **Goal PFS-1.** To ensure the efficient and cost effective delivery of services and well maintained infrastructure systems, commensurate with the City’s ability to finance and operate.
- **Goal PFS-2.** To ensure that adequate facility and service standards are achieved and maintained through equitable funding methods.
- **Goal PFS-3.** To ensure the adequate, reliable, and safe provision of water to all existing and future development within the city.
- **Goal PFS-4.** To ensure adequate wastewater collection, treatment, and disposal to protect the public health, safety, and welfare.
- **Goal PFS-5.** To collect and dispose of stormwater in a manner that protects the city’s residents, businesses, and property from the hazards of runoff and flooding, manages stormwater in a manner that is safe and environmentally sensitive, and enhances the environment.
- **Goal PFS-6.** To ensure the safe and efficient disposal or recycling of solid waste generated in Fortuna, protect the public health and safety, and reduce impacts on landfills.
- **Goal PFS-7.** To promote adequate private utility service levels and to ensure they do not adversely impact surrounding development.
- **Goal PFS-8.** To expand the use of information technology as a communication tool in order to improve personal convenience, reduce dependency on nonrenewable resources, take

advantage of the ecological and financial efficiencies of new technologies, and develop a better-informed citizenry.

- **Policy PFS 1.1: Public Facility Monitoring.** The City shall monitor water, wastewater and storm drain system capacities on an annual basis, and make capacity improvements as needed.
- **Policy PFS-1.2: Adequate Public Facilities to Serve New Development.** The City shall ensure through the development review process that adequate public facilities and services are available to serve new development when required. The City shall not approve new development where existing facilities are inadequate to support the project, unless the applicant can demonstrate that all necessary public facilities (including water, sewer, storm drainage, transportation, police and fire protection services) will be installed or adequately financed and maintained (through fees, special taxes, assessments, or other means).
- **Policy PFS-1.3: Infrastructure Coordination.** The City shall ensure that the provision of streets, sewer, water, drainage, and other necessary infrastructure is coordinated in a logical manner, so as to reduce design, construction, and maintenance costs.
- **Policy PFS-1.4: Ultimate Capacity Needs.** The City shall ensure through the development review process that public facilities and infrastructure are designed and constructed to meet ultimate capacity needs, pursuant to a master plan, to avoid the need for costly retrofitting.
- **Policy PFS-1.5: Necessary Infrastructure.** The City shall require all new development and major modifications to existing development to construct necessary on-site infrastructure to serve the project in accordance with City standards.
- **Policy PFS-1.6: Project Impacts on Infrastructure.** When reviewing applications for land use designation changes (i.e., General Plan amendments, specific plan), the City shall analyze the impacts of the proposed land use designation changes on all aspects of the infrastructure system within the city and require mitigation as legally required. This shall include consultation with other service providers who have infrastructure within the city.
- **Policy PFS-1.8: Water Rights Allocation.** The City of Fortuna shall monitor its water use on an annual basis. At such time as annual water use equals annual permitted water allocation, additional water supply must be obtained by the city prior to approving new development in the city.
- **Policy PFS-1.9: City Service Extensions to Annexation Areas.** Upon LAFCo approval, City water, wastewater conveyance and treatment, storm drainage and police service shall be extended to the Riverwalk, Strongs Creek, Carson Woods, and Rohnerville annexation areas. The City shall not approve new development in these areas until services are available.
- **Policy PFS-3.1: Water Main Extensions.** The City will comply with State law regarding extension of water utilities beyond the City's boundaries.
- **Policy PFS-3.2: Efficient Water Use.** The City shall promote efficient water use and reduced water demand by:
 - Requiring all new construction to comply with State and local water conservation requirements;
 - Encouraging water-conserving landscaping and other conservation measures; and
 - Encouraging retrofitting of existing development with water-conserving devices.
- **Policy PFS-3.3: Regulatory Compliance.** The City shall construct, operate, and maintain its municipal water system to meet all County Department of Environmental Health regulatory requirements including employment of certified operators.

- **Policy PFS-3.4: Completion of Water System Improvements.** The City through its Capital Improvements Program (CIP), shall complete the recommended water system improvements as identified and prioritized in the most recent Water System Improvements Study.
- **Policy PFS-3.5: Water System Production, Treatment and Distribution Facilities and Components.** The City shall continue to identify through its Capital Improvement Program, significant components of the water system that will require replacement or improvement during their useful lifecycle.
- **Policy PFS-3.6: Water System User Rate Structure.** The City shall continue to review and analyze the full operational, maintenance, and capital improvement costs as well as the cost of developing future capacity of the municipal water system. The City shall maintain a rate and fee structure that is sufficient to generate sufficient revenues to offset these costs, thereby assuring future viability of the system.
- **Policy PFS-3.7: Water System Capacity.** The City shall maintain an adequate water system capacity to meet domestic and commercial water demands, including adequate fire flow capacity and water storage reserves.
- **Policy PFS-3.8: Water Rights Allocation.** The City shall renew or amend existing permitted water right allocations to accommodate existing and projected future municipal water usage.
- **Policy PFS-4.1: Public Sewer Infrastructure.** The City shall require all new urban development to construct sewer infrastructure according to the City's municipal standards and incorporate it into the city's sewer collection system.
- **Policy PFS-4.4: Sewer Capacity.** The City shall maintain sufficient wastewater collection treatment and disposal capacity to serve the residents of Fortuna.
- **Policy PFS-4.5: Wastewater System Collection and Treatment Facilities and Components.** The City shall continue to identify through the Capital Improvement Program all significant components of the wastewater system that will need to be replaced or improved during the useful life cycle.
- **Policy PFS-4.9: Regulatory Compliance.** The City shall construct, operate, and maintain the City's municipal wastewater system to meet all regulatory requirements of the North Coast Regional Water Quality Control Board and the City's NPDES permit, including the employment of appropriately certified operators.
- **Policy PFS-5.1: Drainage Facilities Maintenance.** The City shall require the regular inspection and maintenance of all drainage facilities, including detention basins and both natural and manmade channels, to ensure that their full carrying capacity is not impaired.
- **Policy PFS-5.2: Natural Drainage.** The City shall encourage the use of natural stormwater drainage systems in a manner that preserves and enhances natural features.
- **Policy PFS-5.3: Adequate Drainage Facilities to Avoid Flooding.** The City shall ensure that adequate drainage facilities are provided in new development to adequately convey 25-year storm event runoff without on-site or downstream flooding.
- **Policy PFS-5.6: Future Drainage Compliance.** The City shall require future drainage system to comply with applicable State and Federal non-point source pollutant discharge requirements.
- **Policy PFS-5.7: On-Site Drainage Treatment.** The City shall implement on-site storm drainage treatment facilities in City projects wherever feasible.
- **Policy PFS-5.8: Detention Facilities.** The City shall use stormwater detention facilities to mitigate drainage impacts and reduce stormwater drainage system costs. To the extent practical, stormwater detention facilities should be designed for multiple purposes, including

environmental, recreational, and/or stormwater quality improvement and the City shall provide low impact development (LID) drainage models for private development to follow.

- **Policy PFS-5.13: Storm Drain Master Plan Implementation.** The City shall monitor the implementation of the Storm Drain Master Plan as development occurs, to ensure that the improvements are not being oversized nor undersized.
- **Policy PFS-5.14: Drainage Studies.** The City shall require site-specific studies including erosion control, watershed management, and flooding for all major developments that have the potential to create erosion, watershed, or flooding problems.
- **Policy PFS-5.16: County Developments.** The City shall monitor development in the County to ensure that drainage impacts from new projects do not impact the City's drainage system. If any impacts are projected to occur from developments in the County, the City shall require, as feasible, the County or developer to install adequate improvements to mitigate the anticipated impacts.
- **Policy PFS-5.19: Peak Runoff Detention.** The City shall require any increase in runoff beyond the peak 25-year event resulting from new development to be retained or detained on-site or mitigated through off-site improvements to other streams or outlets.
- **Policy PFS-5.20: Low Impact Development Techniques.** The City shall encourage neighborhood parks, subdivisions, commercial development, and redevelopment to incorporate Low Impact Development (LID) techniques, such as bioswales and permeable pavement, to minimize stormwater runoff in the city and comply with the NPDES permit.
- **Policy PFS-6.1: Waste Disposal Reduction.** The City shall promote maximum use of solid waste reduction, recycling, composting, and environmentally-safe transformation of wastes and strive for an annual reduction in commercial and industrial waste disposal.
- **Policy PFS-6.2: Recycled Materials.** Where economically feasible, the City shall use recycled materials and products.
- **Policy PFS-6.3: New Development.** The City shall ensure that all new development has appropriate provisions for solid waste storage, handling, and collection.
- **Policy PFS-6.4: City-County Coordination.** The City shall work with the County to eliminate litter and other illegal solid waste disposal practices.
- **Policy PFS-6.5: Industrial Recycling Facilities.** The City shall encourage the development of regional and community-based recycling facilities in industrial areas.
- **Policy PFS-6.6: Construction Waste Recycling.** The City shall require the recycling of construction waste, to reduce the impact on landfills in accordance with State regulatory requirements.
- **Policy PFS-7.1: Energy Conservation.** The City shall require that new construction take advantage of energy conservation techniques and that buildings are oriented and designed to take advantage of solar heating.
- **Policy PFS-7.2: Renewable Energy.** The City shall support the use of renewable energy sources, such as solar, in residential, commercial, and industrial developments and municipal facilities.
- **Policy PFS-7.3: Utility Companies.** The City shall communicate its major development plans to utility companies and coordinate planning for the extension of those utilities.
- **Policy PFS-7.5: Underground Utilities.** The City shall require underground installation of electrical distribution utility lines in new developments and areas that are redeveloped, except where infeasible for operational reasons.

- **Policy PFS-7.6: Environmental Impacts.** The City shall coordinate with electricity service providers to locate and design gas and electric systems to minimize impacts to current and future residents.
- **Policy PFS-7.7: Alternative Energy Sources.** The City shall encourage the use of alternative energy technologies as they become commercially available and demonstrate reduced operating costs throughout the life cycle of the technology.
- **Policy PFS-8.4: Regional Telecommunication Infrastructure.** The City shall work with the County and other pertinent agencies to coordinate telecommunication infrastructure planning on a regional basis for both telephone and data.
- **Policy PFS-8.5: Wireless Communication Facilities.** To minimize the visual impact of wireless communication facilities (e.g., cell towers), the City shall require that they meet the following conditions:
 - Are located away from residential and open space areas;
 - Are not visibly intrusive to residential neighborhoods or public rights-of-way;
 - When possible, are co-located with other wireless facilities on existing buildings, towers, poles, or other existing support structures; and
 - Are painted, camouflaged, or textured in a manner as to reduce their visual impacts.

Ferndale General Plan

The Ferndale General Plan Land Use and Unique Resources Element contains the following goals and policies related to utilities and service systems¹⁰⁹:

- Energy efficient design should be encouraged for subdivisions, new construction, and retrofitting of existing residences, commercial structures and public buildings.
- Utility lines serving new buildings and utility connections to existing poles should be undergrounded for all new construction where appropriate.

Trinidad General Plan

The Trinidad General Plan contains the following goals and policies related to utilities and service systems¹¹⁰:

- Evidence that adequate water is available should be required before new parcels are created for development purposes.
- The City should promote an active, on-going water conservation program to help keep user charges as low as possible. The City conservation program should extend to upgrading outdated portions of the system to eliminate leakage.
- The City shall continue to monitor water consumption. In addition, the City should pursue a program to monitor water quality and quantity both within the City system and in Luffenholtz Creek. The City shall implement well-defined, quality programs of operation and maintenance.
- The City shall plan on regular maintenance and occasional upgrading of the water system, as feasible. The City shall develop a program to periodically upgrade existing distribution lines to current standards. To keep the City up to date on the condition of the water system, need for

¹⁰⁹ City of Ferndale. 1986. General Plan Land Use and Unique Resources Element. <https://ci.ferndale.ca.us/wp/general-plan/Land%20Use%20Element%201986.PDF> (accessed December 2024).

¹¹⁰ City of Trinidad. 2021. General Plan. <https://www.trinidad.ca.gov/media/5491> (accessed December 2024).

improvements and level of uses, an annual water report shall be prepared and presented to the City Council

- In the event of a proposal to expand the City water system, prospective customers shall provide by agreement with the City the necessary funds in whole or in part to defer the cost of system improvements. This policy shall be implemented by provisions of the City Water Ordinance.
- Water service extensions shall not remove water system capacity needed to serve Coastal Act priority uses within the North Trinidad Service Area described in policy 26.
- The General Plan should be based on the use of individual wastewater disposal systems throughout the planning area. Subdivision and development proposals throughout the planning area should be carefully reviewed and adequate standards should be used to ensure that water quality and public health are protected.
- The city and Humboldt County should undertake a joint wastewater facilities study in the developed area between Mill Creek and McConnahas Fiill Creek to determine if septic tanks are presently creating pollution problems and what sewage disposal method is the most feasible long-term method for the area.
- Individual waste treatment systems shall be consistent with Water Quality Control Board standards. Existing lots which are smaller than the prescribed minimum lot size may be considered developable provided an acceptable individual waste treatment system can be provided.
- Utility lines serving new buildings and utility connections to existing power poles should be undergrounded for all new construction within the Planned Development, Commercial and Special Environment categories. Undergrounding of utility lines should be encouraged in other areas particularly where scenic views are involved. If undergrounding is not proposed in such areas the design review committee shall require reasonable conditions on the nature and location of overhead utility lines and supports to minimize the visual impact.
- Proceed with a study of septic tank pollution and long-range septic tank feasibility within the intensive development area in cooperation with Humboldt County. Ordinance 150 Section 1B should be amended if septic tanks are to be considered the long-range waste disposal system for the city. If the recommendations of the study are otherwise inconsistent with Ordinance 150 or supporting resolution 375A appropriate amendments to these adopted policies should be considered.
- Develop a water conservation program to reduce unnecessary summertime consumption.
- Periodically review water consumption data to determine when no additional hookups should be allowed. Provide those interested in increasing the capacity of the system with current cost estimates.
- Establish review criteria to determine when annexation should be a prerequisite to provision of water service outside the city.
- Review all proposed subdivisions in the intensive growth areas to ensure that street and drainage improvements are adequate and will not involve unnecessary public maintenance.

Rio Dell General Plan

The Rio Dell General Plan Land Use Element contains the following goals and policies related to utilities and service systems¹¹¹:

- **Goal:** To improve public facilities and systems to maintain a safe and efficient system of public services, including emerging technologies as a component of the City's infrastructure.
- **Goal:** To provide an adequate, consistent, and safe supply of water to meet our domestic, commercial, and fire safety requirements.
- **Policy LU-30:** Require all new development within the City boundaries to connect to existing city services and infrastructure.
- **Policy LU-31:** Explore additional techniques for reducing solid waste-and complying with AB 939 waste diversion goals.
- **Policy LU-32:** Periodically evaluate water supply and demand, and water conservation measures, to plan for future water needs of the community, using a combination of incentives, educational programs, and ongoing system audits to promote water conservation.
- **Policy LU-33:** Periodically evaluate the wastewater system to plan for future wastewater needs of the community.
- **Policy LU-34 and P1.3.3-9:** Require underground utilities throughout the neighborhoods as public improvements and new developments are planned and approved.
- **Policy P1.2.2-2:** Identify improvements that can be made to municipal drainage facilities so they can better convey runoff and minimize flood impacts.
- **Policy P1.2.2-3:** Require new development projects to incorporate on-site drainage features such as retention and infiltration systems to reduce runoff and maximize infiltration.
- **Policy P1.2.2-4:** Use a combination of incentives, educational programs, and ongoing system audits to promote water conservation.
- **Policy P1.2.5-1:** Coordinate with energy suppliers and agencies to educate residents, property owners, and business operators about the need for and benefits of conserving energy.
- **Policy P1.2.5-2:** Maintain and distribute current information about building insulation, energy efficient appliances, lighting, and heating; other conservation measures and materials; and home power alternatives.
- **Policy P1.2.5-3:** Require that new construction and retrofits comply with energy efficient construction codes including high-energy windows, water heaters, and furnaces, to reduce energy consumption.
- **Policy P1.3.3-6:** Evaluate water supply and demand, and water conservation measures, to plan for future water needs of the community.
- **Policy P1.3.3-7:** Evaluate the wastewater system to plan for future wastewater needs of the community.
- **Policy P1.3.3-8:** Use a combination of incentives, educational programs, and ongoing system audits to promote water conservation.

¹¹¹ City of Rio Dell. 2015. 2015 General Plan Land Use Element.
https://www.cityofriodell.ca.gov/sites/g/files/vyhlif8526/f/uploads/city_of_rio_dell_2015_general_plan_intro_and_land_use_0.pdf
(accessed December 2024).

Humboldt County Code

Humboldt County Code (HCC) Division 1 *Sewage and Onsite Wastewater Treatment* of Title VI *Water and Sewage* provides policies and standards regarding sewage and on-site wastewater treatment systems within the County. Chapter 1 *Codes: Building, Plumbing, Electrical and Others* of Division 3 *Building Regulations* of the HCC includes policies pertaining to water supply requirements. Section 326-5 *Utilities Placement* of Chapter 2 *Subdivision Requirements* of Division 2 *Subdivision Regulations* of Title III *Land Use and Development* includes standards pertaining to the placement of utilities, specifically requiring that utilities shall be placed as directed by the affected utility companies and approved by the Department of Public Works. Requirements pertaining to drainage facilities are included in Section 10 *Drainage Facilities* of Title III Division 2 of the HCC. Standards pertaining to solid waste are included in Division 2 *Solid Waste and Source Separated Materials* of Title V *Health and Safety* of the HCC.

Arcata Municipal Code

The City of Arcata Municipal Code Chapter 5400 *Solid Waste Management* provides policies and controls regarding collection and processing of solid waste. Title VII *Public Works* includes policies and controls regarding utilities and service systems. Sewer collection, development and on-site wastewater treatment systems policies are described in Section 7400. Water policies are described in Section 7600. Underground utilities policies and controls are described in Section 7980. Finally, stormwater management policies are described in Section 7993.

Blue Lake Municipal Code

The City of Blue Lake Chapter 13 provides policies and controls regarding solid waste, water service, cross-connection control, sewer, floodplain, well standards, solar energy program, cable systems and open video systems, and underground utility districts.

Eureka Municipal Code

The City of Eureka Municipal Code Title V *Public Works* includes policies and controls regarding utilities and service systems. Sewer collection, development and on-site wastewater treatment systems policies are described in Section 50. Chapter 51 *Solid Waste* provides policies and controls regarding collection and processing of solid waste. Underground utility district policies and controls are described in Section 52. Water policies are described in Section 53. Storm water quality management and discharge control policies are described in Section 54. Finally, Section 55 *Energy* describes policies and controls regarding energy, specific to community choice aggregation.

Trinidad Municipal Code

The City of Trinidad Municipal Code Chapter 13, Sections 3.04 *Water Service Systems*, 3.08 *Water Rationing*, and 3.12 *On-site Wastewater Treatment System*, provide policies and controls regarding water service, water rationing and on-site wastewater treatment systems.

Ferndale Code of Ordinances

The City of Ferndale Ordinance Number 94-01 provides policies and controls regarding the City's drainage systems. Additionally, the City of Ferndale Ordinance Number 03-05 provides policies and controls regarding the City's sewer system.

3.9.4 Impacts and Mitigation Measures

Significance Criteria

Humboldt County utilizes the following 2024 CEQA Guidelines Appendix G significance criteria questions related to Utilities and Service Systems.

Would the RCAP and CEQA GHG Emissions Thresholds:

- a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?
- b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?
- c) Result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
- d) Generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?
- e) Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?

Approach to Analysis

Environmental impacts to utilities and service systems have been assessed using impact significance criteria from federal, State, and local regulations. The impact analysis is based on available literature regarding the existing plans, policies, and resources in Humboldt County. Methodological approaches used for this analysis are described below:

Water Supply

The water service providers in Humboldt were identified and the MSRs for each water supplier were reviewed to identify water source, existing infrastructure, total number of service connections served, available water supply, current water use, system deficiencies, and planned upgrades in order to assess ability for each water service provider to provide service.

Wastewater

The wastewater service providers in Humboldt were identified and the MSR for each wastewater service provider were reviewed to identify existing infrastructure, total number of service connections served, service amounts provided, system deficiencies, and planned upgrades in order to assess ability for each wastewater service provider to provide service.

Stormwater

MSRs and webpages for the local jurisdictions, as well as street view imagery, were reviewed to determine existing stormwater infrastructure and potential deficiencies within the Planning Area.

Electric Power

Several publicly available resources, including PG&E and RCEA websites and local news outlets, were reviewed for information such as service area, persons served, current usage and demand, ability to serve, identified deficiencies, and planned upgrades.

Natural Gas

PG&E's website was reviewed to gather information pertaining to service area, persons served, current usage and demand, ability to serve, identified deficiencies, and planned upgrades.

Telecommunications

The telecommunications providers in Humboldt were identified and ability to provide service verified.

Solid Waste

Publicly available information was reviewed to determine current solid waste providers in Humboldt, status and location of solid waste and recycling facilities within the County, and remaining capacity of landfills which serve the County. Such resources included local jurisdictions' General Plans, websites, and MSRs; local solid waste provider, Humboldt Waste Management Authority (HWMA), and Humboldt County Solid Waste Local Task Force websites; and CalRecycle's Solid Waste Information System (SWIS).

EIR Scoping Comments Consideration

No comments relevant to CEQA were received in response to the EIR NOP specific to utilities and service systems.

CEQA GHG Thresholds Analysis and RCAP EIR Focus Approach

The CEQA GHG Emissions Thresholds is a guidance document and does not propose development or changes to land use designations and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in direct construction or operational impacts related to utilities and service systems. Therefore, the analysis in this section focuses on the potential for the RCAP to result in impacts related to utilities and service systems in Humboldt County.

Specific Thresholds of Significance

For purposes of this analysis, the following thresholds are used to evaluate the significance of utilities and service systems impacts resulting from implementation of the RCAP:

- Create a need for relocated, new, or expanded water supply, wastewater treatment, stormwater drainage facilities, electric power, natural gas, or telecommunications facilities, the construction of which would result in significant construction-related environmental impacts (e.g., aesthetics, air quality, biological resources, agriculture/forestry resources, cultural/tribal cultural resources, GHG emissions, energy, noise, and transportation). If new or altered facilities are proposed or determined to be needed, then determination of significance of construction-related environmental impacts is based on the respective specific thresholds of significance listed in Section 3.1, *Aesthetics*, through Section 3.8, *Transportation*;

- Result in insufficient water supply to serve the proposed plan's potable water demand during normal, dry, and multiple dry years;
- Result in inadequate capacity at the wastewater treatment and conveyance facilities serving the County and cities;
- Result in insufficient daily capacity or permitted daily capacity at the landfills serving the County and cities; or
- Conflict with the solid waste policies and objectives of the State or the General Plans of Humboldt County or Cities of Arcata, Blue Lake, Eureka, Ferndale, Fortuna, Rio Dell, and Trinidad.

Impact Evaluation

Water, Wastewater, Stormwater, Electric Power, Natural Gas, and Telecommunication Facilities

Significance Criterion a: Would the proposed plan require or result in the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Impact UTL-1 IMPLEMENTATION OF THE PLAN IS NOT ANTICIPATED TO REQUIRE THE RELOCATION OR CONSTRUCTION OF NEW OR EXPANDED STORMWATER, NATURAL GAS, OR TELECOMMUNICATION FACILITIES, BUT MAY REQUIRE THE RELOCATION OR CONSTRUCTION OF NEW OR EXPANDED WATER SUPPLY, WASTEWATER, AND/OR ELECTRIC POWER INFRASTRUCTURE AND FACILITIES WITHIN HUMBOLDT, WHICH WOULD INVOLVE GROUND DISTURBING ACTIVITIES THAT COULD RESULT IN SIGNIFICANT ENVIRONMENTAL EFFECTS. MITIGATION MEASURES WOULD LIMIT THESE IMPACTS, BUT ELECTRIC POWER IMPACTS WOULD REMAIN SIGNIFICANT AND UNAVOIDABLE.

Construction

WATER

Measure WW-2 of the RCAP specifically seeks to reduce per capita potable water consumption by 15 percent by 2030, and would encourage expansion of the recycled water network in the region. Construction activities associated with recycled water expansion may include installing purple pipe when constructing new buildings or completing major remodels, expanding existing water treatment facilities with recycled water infrastructure, and installing recycled water pipelines throughout Humboldt. Implementation of mitigation measures included throughout this Draft EIR, including for aesthetics (Mitigation Measures AES-1 through AES-3), air quality (Mitigation Measures AQ-1 through AQ-3), biological resources (Mitigation Measures BIO-1 to BIO-7), cultural and tribal cultural resources (Mitigation Measures CR-1 to CR-3), and noise (Mitigation Measures NOI-1 and NOI-3) as well as implementation of Best Management Practices (BMPs) required by State, regional, and local policies would minimize the potential for impacts associated with construction of infrastructure facilitated by Measure WW-2. However, without specific water infrastructure plans and project sites proposed, it cannot be concluded with certainty that the mitigation included in this Draft EIR would fully reduce all potential impacts associated with construction or expansion of the recycled water system to a less than significant level. Subsequent environmental review would be required at the time future discretionary water infrastructure projects or plans are developed to

assess the related environmental impacts and need for additional mitigation, if applicable. Therefore, the RCAP construction impacts related to water infrastructure and facilities would be significant and unavoidable.

WASTEWATER

RCAP Measure WW-1 specifically seeks to expand regional opportunities for installation of wastewater decarbonization technologies, such as anaerobic digesters at existing facilities. While these technologies would not reduce current demand on the existing wastewater treatment facilities within Humboldt, the technologies would be expected to reduce GHG emissions associated with wastewater treatment processes and generate renewable fuel sources. It is further noted that the technologies could even expand wastewater treatment capabilities to process organic waste that would otherwise be sent to a landfill for disposal, thereby increasing solid waste diversion away from landfills and further reducing GHG emissions.

Construction associated with Measure WW-1 may involve the addition of anaerobic digesters at existing wastewater processing facilities and home septic system upgrades for areas not served by community wastewater. Implementation of mitigation measures included throughout this Draft EIR, including for aesthetics (Mitigation Measures AES-1 through AES-3), air quality (Mitigation Measures AQ-1 through AQ-3), biological resources (Mitigation Measures BIO-1 to BIO-7), cultural and tribal cultural resources (Mitigation Measures CR-1 to CR-3), and noise (Mitigation Measures NOI-1 and NOI-3) as well as implementation of BMPs required by State, regional, and local policies would minimize the potential for impacts associated with construction of infrastructure facilitated by Measure WW-1. However, without specific wastewater infrastructure plans and project sites proposed, it cannot be concluded with certainty that the mitigation included in this Draft EIR would fully reduce all potential impacts associated with construction or expansion of the recycled water system to a less than significant level. Subsequent environmental review would be required at the time future discretionary water infrastructure projects or plans are developed to assess the related environmental impacts and need for additional mitigation, if applicable. Therefore, the RCAP construction impacts related to wastewater infrastructure and facilities would be significant and unavoidable.

STORMWATER

Implementation of the RCAP is not anticipated to result in the construction of new or expanded stormwater drainage facilities. Therefore, no RCAP construction impacts related to stormwater infrastructure and facilities would occur.

ELECTRIC POWER

RCAP Measures BE-1, BE-2, BE-3 Urban and Rural, BE-4, BE-6, BE-7, and BE-8 would expand regional opportunities for implementation of renewable energy generation, microgrids, battery energy storage, electrical transmission, and other technologies to improve grid capacity and reliability in Humboldt. Implementation of such improvements would enable Humboldt to achieve goals related to decarbonization of buildings and vehicles, as well as increase the procurement and use of carbon-free electricity. While measures and actions have been identified in the RCAP related to electric power improvements within Humboldt, no specific details or locations have been identified. The size and scale of the anticipated future electric power system improvements, including utility-scale renewable energy projects, renewable fuel production facilities, and grid expansion projects, would

ultimately determine the amount of ground disturbance necessary to construct these upgrades and improvements.

Implementation of mitigation measures included in various sections of this Draft EIR, including for aesthetics (Mitigation Measures AES-1 through AES-3), air quality (Mitigation Measures AQ-1 through AQ-3), biological resources (Mitigation Measures BIO-1 to BIO-7), cultural and tribal cultural resources (Mitigation Measures CR-1 to CR-3), and noise (Mitigation Measures NOI-1 and NOI-3) as well as implementation of BMPs required by State, regional, and local policies during construction of the anticipated improvements would reduce the potential for impacts. However, the size, magnitude, and locations of future projects associated with utility scale renewable energy generation systems, renewable fuel production facilities, and other electrical system improvements may make it infeasible for future individual projects to fully reduce impacts to a less than significant level. Subsequent environmental review would be required at the time future projects are developed to assess the related environmental impacts and need for additional mitigation, if applicable. Therefore, RCAP construction impacts related to electric power utilities and infrastructure would remain significant and unavoidable.

NATURAL GAS

As described in the RCAP, 13 percent of Humboldt's overall GHG emissions from 2022 were from natural gas usage in buildings (including heating and usage associated with appliances). It is further noted in the RCAP that approximately 92 percent of GHG emissions from building energy usage are related to natural gas consumption. As shown in Table 3.9-3, above, approximately 36 percent of California's electricity was derived from natural gas in 2022.

RCAP Measures BE-1 through BE-8 would increase the development and use of renewable and carbon-free energy sources within the RCAP area, as well as reduce natural gas consumption through building electrification. As such, there would be no need for the construction of new or expanded natural gas facilities. Therefore, no RCAP construction impact related to natural gas infrastructure and facilities would occur.

TELECOMMUNICATIONS

Implementation of the RCAP is not anticipated to result in the construction of new or expanded telecommunications facilities. No RCAP construction impact related to telecommunications infrastructure and facilities would occur.

Operation

WATER SUPPLY, WASTEWATER, STORMWATER, NATURAL GAS, AND TELECOMMUNICATIONS

While there would be no habitable development associated with implementation of the RCAP, new renewable energy, renewable fuel production, and organic waste processing facilities per RCAP Measures BE-1, BE-2, T-10, and SW-1 may require the use of water, wastewater, stormwater, natural gas, and telecommunications infrastructure during operation. However, future projects would be anticipated to be served by existing utilities in the area and not require the need for the ongoing expansion of water supply, wastewater, stormwater, natural gas, or telecommunications infrastructure. In addition, implementation of water efficiency upgrades and recycled water infrastructure per RCAP Measure WW-2 would reduce potable water use. Furthermore, RCAP Measures BE-1 through BE-8 would reduce natural gas consumption. Therefore, RCAP operational

impacts related to potential need for new or expanded water, wastewater, stormwater, natural gas, and telecommunications facilities and infrastructure would be less than significant.

ELECTRIC POWER

The RCAP includes measures to aid Humboldt in achieving electric power-related targets consistent with SB 1020. Such targets require renewable energy and zero-carbon resources to supply 90 percent of all retail electricity sales by 2035, 95 percent by 2040, and 100 percent by 2045. As previously discussed, Humboldt’s electric service providers (PG&E and RCEA) currently provide options for its customers in which the power purchased is derived from various levels of renewable sources. As discussed under Section 3.9.2, *Environmental Setting*, PG&E has a goal for achieving a net-zero energy system by 2040 (5 years before the State of California’s current carbon neutrality goal), with RCEA on track to provide all customers with 100 percent renewable sources by 2030 (15 years before the State’s 2045 target).

Related measures of the RCAP seek to increase carbon-free electricity, increase building electrification to decarbonize existing buildings and new construction, and increase infrastructure to support zero-emissions vehicles. Specific measures include the following:

- Measure BE-1: By 2030, source 90 percent of grid-supplied electricity from renewable and carbon-free sources.
- Measure BE-2: Increase the development of micro-grids and energy storage across the region to support RCEA’s RePower Humboldt goals of enhancing grid capacity and facilitating the electrification of buildings and transportation.
- Measure BE-5: Decarbonize 95 percent of new residential building construction by 2027.
- Measure BE-6: Decarbonize 95 percent of new nonresidential building construction by 2027.
- Measure BE-7: Decarbonize 30 percent municipal buildings and facilities by 2030.
- Measure BE-8: Advocate for Off-shore Wind developers and PG&E to build electrical infrastructure to supply Humboldt with energy produced by the future off-shore wind project which will increase regional supply and resilience.
- Measure T-6: Decarbonize 15 percent of passenger vehicle miles traveled by 2030 and 100 percent by 2045 through increased adoption of low and zero-emission vehicles and development of a regional electric vehicle charging and hydrogen fueling network.
- Measure T-7: Increase commercial zero-emission vehicle use and adoption to 10 percent by 2030 and 100 percent by 2045 through a regional charging network and development of hydrogen hubs.
- Measure T-8: Electrify or otherwise decarbonize 12 percent of applicable small off-road engines (SOREs) off-road equipment by 2030 and 100 percent by 2045 and replace fossil diesel consumption with renewable diesel in 55 percent of applicable large diesel in alignment with EO N-79-20 by 2030.
- Measure T-10: Work with the State and renewable fuel industry to establish a renewable fuel network within Humboldt thereby funding new green industry and job growth to support the decarbonization of the transportation sector.
- Measure T-11: Lead by example and electrify or otherwise decarbonize 50 percent of municipal fleets by 2030 in alignment with the State’s Advanced Clean Fleet Rule.

Electric power and infrastructure deficiencies have been identified within the southern portions of the County (namely, the Cities of Fortuna and Rio Dell and unincorporated community of Garberville), where these areas have been identified as having or nearly reaching capacity for further development. PG&E notes that transmission, substation, and distribution line work would be required to address the identified issues, and such upgrades are expected to require a minimum of seven years to address.¹¹²

It is anticipated that extensive investment and improvements would need to be made to the current electrical system in Humboldt in order to achieve the building and transportation decarbonization targets and measures within the RCAP. For example, as described in the California Independent System Operator's (ISO) 2023-2024 Transmission Plan¹¹³, the need for additional electrical generation in California over the next 10 years "has escalated rapidly". In the report, 26 new reliability and policy related transmission projects, anticipated to generate an additional 85 gigawatts (GW)¹¹⁴ of energy by 2035, have been identified, totaling \$6.1 billion in investment, to meet projected load demands associated with electrification and increased electric vehicle use. Notably, several projects are proposed within the North Coast region, to integrate off-shore wind, including: 1) a new 500-kilovolt (kV) substation in Humboldt; 2) a new high-voltage direct current line to interconnect the new Humboldt 500 kV substation to the Collinsville 500 kV substation (approximately 260 miles); 3) a new 500 kV alternating current line to interconnect new Humboldt 500 kV substation to the Fern Road 500 kV substation (approximately 140 miles); 4) a 115 kV line from the new Humboldt 500 kV to existing Humboldt 115 kV substation, and a 115 kV/115 kV phase shifting transformer at Humboldt 115 kV substation; and 5) smaller upgrades improving supply of load and access to other smaller resource zones.¹¹⁵

Overall, an extensive amount of operational electric power generation and distribution need is not anticipated to be covered by the existing electric power system, and the ongoing improvement and expansion of electrical infrastructure would be required as energy demands increase in Humboldt due to increased electrification of buildings and vehicles under the RCAP. Implementation of mitigation measures included in various sections of this Draft EIR, including for aesthetics (Mitigation Measures AES-1 through AES-3), air quality (Mitigation Measures AQ-1 through AQ-3), biological resources (Mitigation Measures BIO-1 to BIO-7), cultural and tribal cultural resources (Mitigation Measures CR-1 to CR-3), and noise (Mitigation Measure NOI-2) as well as implementation of BMPs would reduce the potential for impacts. However, the size, magnitude, and locations of projects associated with energy utility improvements may make it infeasible for future individual projects to fully reduce impacts to a less than significant level. Therefore, RCAP operational impacts related to potential need for new or expanded electric power facilities and infrastructure would be significant and unavoidable.

Mitigation Measures

Implement Mitigation Measures AES-1 through AES-3, AQ-1 through AQ-3, BIO-1 to BIO-7, CR-1 to CR-3, and NOI-1 through NOI-3.

¹¹² Humboldt County. 2022. , Board of Supervisors. Staff Report – File No.: 22-1444. <https://humboldt.legistar.com/View.ashx?M=F&ID=11368710&GUID=1FCCA9D5-DC4C-438C-8F71-3161A356172A> (accessed December 2024).

¹¹³ California Independent System Operator (ISO). 2024. 2023-2024 Transmission Plan. <https://www.aiso.com/documents/iso-board-approved-2023-2024-transmission-plan.pdf> (accessed December 2024).

¹¹⁴ A gigawatt equates to 1,000 megawatts (MW) or 1 million watts. On average, one MW of energy has the ability to power approximately 1,000 homes for a year.

¹¹⁵ California Independent System Operator (ISO). 2024. 2023-2024 Transmission Plan. <https://www.aiso.com/documents/iso-board-approved-2023-2024-transmission-plan.pdf> (accessed December 2024).

Level of Significance

Significant and Unavoidable

Water Supply Availability

Significance Criterion b: Would the proposed plan have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Impact UTL-2 IMPLEMENTATION OF THE PLAN WOULD NOT BE ANTICIPATED TO SUBSTANTIALLY INCREASE POPULATION IN HUMBOLDT OR THE DEMAND FOR WATER SERVICES DURING NORMAL, DRY, AND MULTIPLE DRY YEARS. THE RCAP WOULD RESULT IN AN OVERALL REDUCTION IN WATER DEMAND, AND AS SUCH, THERE WOULD BE NO IMPACT.

Construction

While the projects and infrastructure facilitated by the RCAP could necessitate the occasional use of limited quantities of water for dust control, mixing concrete, and washing equipment and vehicles, impacts related to water supplies are primarily limited to operational effects. Therefore, RCAP construction impacts related to the need for new water supply as a result of water demand would be less than significant.

Operation

The RCAP does not include site-specific infrastructure designs or project proposals that would be expected to significantly impact or increase the demand on existing water supplies. As discussed under Section 3.9.2 *Environmental Setting*, above, most of the local water providers within Humboldt are able to adequately meet current water demands within their respective services areas, many of which have the capacity to serve additional service connections. However, it is important to note there are several smaller districts (including but not limited to Alderpoint CWD, Briceland CSD, Miranda CSD, Orleans CSD, and Westhaven CSD) that have either reached service capacity limits or have nearly reached capacity, a few of which have current moratoriums in place for new service connections. For those located outside of service district boundaries and not supplied by community water services, it is the responsibility of the respective landowner to ensure they have the appropriate infrastructure and/or water rights to obtain an adequate supply of water.

New renewable energy, renewable fuel production, and organic waste processing facilities per RCAP Measures BE-1, BE-2, T-10, and SW-1 would require the use of water during operation. However, RCAP Measure WW-2 seeks to reduce per capita potable water consumption by 15 percent by 2030 by encouraging water conservation, as well as increasing access to and use of recycled water within the Planning Area. By encouraging reduced water consumption and increasing use of recycled water, the RCAP would be anticipated to reduce the overall demand on potable water supplies and local water service providers within Humboldt. As such, projects and infrastructure facilitated by the RCAP are expected to result in overall benefits related to water supply when considered with the overall RCAP water use reductions. Therefore, no RCAP operational impact related to the need for new water supply would occur.

Mitigation Measures

No mitigation is required.

Level of Significance

Less Than Significant without Mitigation

Wastewater Treatment Capacity

Significance Criterion c: Would the proposed plan result in a determination by the wastewater treatment provider, which serves or may serve the plan, that it has adequate capacity to serve the plan's projected demand in addition to the provider's existing commitments?

Impact UTL-3 IMPLEMENTATION OF THE PLAN WOULD NOT BE ANTICIPATED TO SUBSTANTIALLY INCREASE WASTEWATER TREATMENT DEMAND WITHIN HUMBOLDT SUCH THAT THE RESPECTIVE WASTEWATER TREATMENT PROVIDERS WOULD NOT HAVE SUFFICIENT CAPACITY TO SERVE THE PLAN'S PROJECTED DEMAND IN ADDITION TO THE PROVIDERS' EXISTING COMMITMENTS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Construction

Impacts related to adequate wastewater treatment capacity are limited to operational impacts. No RCAP construction impacts related to wastewater treatment capacity would occur.

Operation

As discussed under Section 3.9.2 *Environmental Setting*, above, there are 18 individual wastewater treatment providers within Humboldt, the majority of which have additional capacity within their existing systems for additional connections (although the Loleta CSD indicated wet weather flows exceeded the design capacity of its WWTP in 2022 by over 200 percent). For those areas not located within an existing community wastewater service district, properties are generally served by individual onsite septic systems.

While there would be no habitable development associated with implementation of the RCAP, new renewable energy, renewable fuel production, and organic waste processing facilities per RCAP Measures BE-1, BE-2, T-10, and SW-1 may produce wastewater requiring treatment by one of the sanitary districts described in Section 3.9.2 *Environmental Setting*, above, or by onsite wastewater treatment (e.g., septic). However, RCAP Measure WW-2 includes several actions to increase water conservation and greywater use, which would result in a decrease in the overall amount of wastewater requiring treatment in Humboldt. In addition, RCAP Measure WW-1 seeks to expand regional opportunities for implementation of wastewater decarbonization technologies, such as anaerobic digesters, and wastewater treatment improvements and upgrades. While these technologies would not reduce demand on the existing wastewater treatment facilities within Humboldt, the technologies would be expected to reduce GHG emissions associated with wastewater treatment processes and generate renewable fuel sources. It is further noted that the technologies could even expand wastewater treatment capabilities to process organic waste that would otherwise be sent to a landfill for disposal, thereby increasing solid waste diversion and further reducing GHG emissions. As such, implementation of the RCAP is not anticipated to result in significant increases in wastewater generation or wastewater treatment within Humboldt. Therefore, RCAP operational impacts related to adequate wastewater treatment capacity would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance

Less Than Significant without Mitigation

Landfill Capacity and Solid Waste Reduction Regulations Consistency

Significance Criterion d: Would the proposed plan generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Significance Criterion e: Would the proposed plan comply with federal, State, and local management and reduction statutes and regulations related to solid waste?

Impact UTL-4 IMPLEMENTATION OF THE PLAN WOULD NOT BE ANTICIPATED TO SUBSTANTIALLY INCREASE SOLID WASTE GENERATION SUCH THAT STATE OR LOCAL STANDARDS OR CAPACITY OF LOCAL INFRASTRUCTURE WOULD BE EXCEEDED, OR OTHERWISE IMPACT THE ATTAINMENT OF SOLID WASTE REDUCTION GOALS. ADDITIONALLY, THERE IS NO ELEMENT OF THE PLAN THAT WOULD RESULT IN NONCOMPLIANCE WITH FEDERAL, STATE, AND LOCAL MANAGEMENT AND REDUCTION STATUTES AND REGULATIONS RELATED TO SOLID WASTE. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Construction

Construction facilitated by the RCAP would involve the development of energy, renewable fuel, organic waste processing, recycled water, and transportation infrastructure per RCAP Measures BE-1, BE-2, T-10, WW-2, SW-1, T-1 Urban and Rural, T-2 Urban and Rural, and T-4. This would result in the generation of solid waste from construction activities. Future projects developed under the proposed plan that would entail construction and generate solid waste would be subject to County and cities municipal code policies, as well as CALGreen Code Section 5.408. 1, which require the diversion of a minimum of 65 percent of construction waste. Compliance with existing regulations would ensure that construction-generated solid waste is not in excess of State or local standards or the capacity of local landfills, or otherwise impair the attainment of solid waste reduction goals. Therefore, RCAP construction impacts related to landfill capacity and solid waste reduction goals consistency would be less than significant.

Operation

As noted in the RCAP, approximately two percent of Humboldt’s regional GHG emissions is associated with solid waste, primarily associated with the decomposition of organic material in landfills. Under the RCAP, the primary strategy for reducing GHG emissions attributable to solid waste generation is diversion from landfills and reuse of materials. Section 3.9.2 *Environmental Setting*, above, discusses the current solid waste providers and facilities located within Humboldt, as well as the capacity of the out-of-area landfills where waste from Humboldt is currently transported. As Humboldt does not currently have a local organic waste processing facility, RCAP Measure SW-1 includes actions to develop such a facility with the goal to reduce the amount of waste sent to landfills by 75 percent by 2030. The establishment of such a facility would allow for organic waste to be sorted and then further produced into other usable materials, such as compost

and/or green energy. In addition, RCAP Measure SW-1 includes actions to reduce waste production within Humboldt, minimize food waste, and explore options for processing organic waste at existing wastewater treatment facilities to produce green energy. With less waste going to landfill, Humboldt would be able to achieve SB 1383 requirements that require a 75 percent reduction in organic waste disposal by 2025 and donating at least 20 percent of currently disposed surplus food. The reduction of solid waste production and increased solid waste diversion would also align with the County and individual city general plan goals related to solid waste. Furthermore, operation of the organic waste processing facility, as well as continued operation of existing solid waste facilities within Humboldt, would be required to comply with federal, State, and local regulations pertaining to solid waste, including those summarized in Section 3.9.3, *Regulatory Framework*, above. As the RCAP would reduce the production of solid waste in Humboldt and aid in the region's overall solid waste reduction goals, the RCAP would result in no operational impacts related to solid waste.

Mitigation Measures

No mitigation is required.

Level of Significance

Less Than Significant without Mitigation

3.9.5 Cumulative Impacts

The geographic scope of the cumulative utilities and service systems analysis includes the entirety of Humboldt, including the service boundaries of the individual service districts that serve Humboldt. Because of differences in the nature of the utility and service system topical areas, they are discussed separately. The cumulative analysis considers the population, employment, households, and service population forecasts identified in the RCAP through 2030 (refer to Cumulative Scenario Setting in Chapter 3.0, *Environmental Impact Analysis*).

Water Supply Infrastructure and Facilities

As discussed under Section 3.9.2, *Environmental Setting*, above, most of the local water providers within Humboldt are able to adequately meet current water demands within their respective services areas, many of which have the capacity to serve additional service connections. However, it is important to note there are several smaller districts (including but not limited to Alderpoint CWD, Briceland CSD, Miranda CSD, Orleans CSD, and Westhaven CSD) that have either reached service capacity limits or have nearly reached capacity, a few of which have current moratoriums in place for new service connections. Therefore, cumulative development occurring within the service districts with water supply capacity limits would result in cumulative impacts related to water supply infrastructure and facilities.

Projects facilitated by the RCAP have the potential to encourage and result in construction of new water supply infrastructure and facilities to achieve water conservation and recycling goals within Humboldt. Implementation of the RCAP is anticipated to lessen per capita water consumption and increase use of recycled water within the region. Nonetheless, construction and/or expansion of water and/or water recycling facilities is anticipated to occur under the RCAP, which has the potential to result in significant and unavoidable environmental impacts as addressed under Impact UTIL-1. Although mitigation measures would be implemented to reduce impacts to the extent feasible, the potential remains for cumulatively considerable environmental impacts from future

water infrastructure-related RCAP projects. Therefore, the cumulative impact related to water supply infrastructure and facilities would be significant and unavoidable.

Wastewater Infrastructure and Facilities

As discussed under Section 3.9.2, *Environmental Setting*, above, there are 18 individual wastewater treatment providers within Humboldt, the majority of which have additional capacity within their existing systems for additional connections (although the Loleta CSD indicated wet weather flows exceeded the design capacity of its WWTP in 2022 by over 200 percent). Therefore, cumulative development occurring within the Loleta CSD would result in cumulative impacts related to wastewater supply infrastructure and facilities.

Projects facilitated by the RCAP have the potential to encourage and result in construction of new wastewater infrastructure and facilities to achieve water conservation and recycling goals within Humboldt. While implementation of the RCAP is anticipated to lessen wastewater generation within Humboldt, construction and/or expansion of wastewater treatment and/or recycling facilities is anticipated to occur, which has the potential to result in significant and unavoidable environmental impacts as addressed under Impact UTIL-1. Although mitigation measures would be implemented to reduce impacts to the extent feasible, the potential remains for cumulatively considerable environmental impacts from future wastewater infrastructure-related RCAP projects. Therefore, the cumulative impact related to wastewater infrastructure and facilities would be significant and unavoidable.

Stormwater Infrastructure and Facilities

Cumulative development within Humboldt would be served by existing municipal storm drainage systems in urbanized areas, and natural stormwater management and drainage features in rural areas. Consistent with measures in the Humboldt County Code and City Municipal Codes, cumulative development would be required to incorporate stormwater control plans, LID features, and/or stormwater collection systems that would in turn reduce the volume and velocity of stormwater runoff that cumulative development would generate. As addressed under Impact UTIL-1, implementation of the Plan is not anticipated to require the relocation or construction of new or expanded stormwater drainage facilities within Humboldt. Therefore, the cumulative impact related to stormwater infrastructure and facilities would be less than significant.

Electric Power Infrastructure and Facilities

Existing electric power infrastructure and supply deficiencies have been identified by PG&E in Humboldt. Implementation of the RCAP is anticipated to increase electrification and use of renewable and carbon-free energy within the County, which in turn would exacerbate electric power infrastructure demands. The RCAP would be expected to result in and require the construction and/or expansion of electric power infrastructure and facilities. Construction and/or expansion of such facilities has the potential to result in environmental impacts. Although mitigation measures would be implemented to reduce impacts to the extent feasible, the potential remains for cumulatively considerable environmental impacts from future electric power-related RCAP projects. Therefore, the cumulative impact related to electric power infrastructure and facilities would be significant and unavoidable.

Natural Gas Infrastructure and Facilities

Cumulative development within Humboldt has the potential to result in increased natural gas demand. However, as described in Section 3.9.2, *Environmental Setting*, above, PG&E maintains extensive natural gas facilities, supply, and infrastructure within Humboldt. Therefore, cumulative development is not anticipated to result in the need for substantial new or expanded natural gas facilities in Humboldt. In addition, implementation of the RCAP is expected to result in a decrease in natural gas usage, thereby reducing the need for the relocation or construction of new or expanded natural gas facilities. As such, the cumulative impact related to natural gas infrastructure and facilities would be less than significant.

Telecommunications Infrastructure and Facilities

Cumulative development within Humboldt has the potential to result in increased demand for telecommunications services. However, as described in Section 3.9.2 *Environmental Setting*, above, existing telecommunications providers maintain extensive infrastructure and facilities within Humboldt. Therefore, cumulative development is not anticipated to result in the need for substantial new or expanded telecommunications facilities in Humboldt. Implementation of the Plan is not anticipated to require the relocation or construction of new or expanded telecommunications infrastructure or facilities within Humboldt, as addressed under Impact UTIL-1. As such, the cumulative impact related to telecommunications infrastructure and facilities would be less than significant.

Solid Waste Generation and Facilities

Cumulative development in Humboldt would increase the generation of solid waste and the demand on solid waste facilities to receive, process, and store solid waste. Humboldt is currently served by two landfills: Potrero Hills Landfill and Dry Creek Landfill. These landfills have an estimated remaining capacity of 24 years and 76 years, respectively, and are anticipated to have sufficient capacity to serve the anticipated regional growth in Humboldt through 2030. Furthermore, as addressed under Impact UTIL-4, the RCAP is anticipated to reduce overall solid waste production, as well as increase the diversion of organic waste and recyclables through implementation of Measure SW-1. As such, the cumulative impact related to solid waste generation and facilities would be less than significant.

Overall Level of Cumulative Significance

Significant and Unavoidable

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