

15.0 Wastewater

This section of the EIR assesses whether the proposed project has the potential to trigger the need to construct new wastewater collection and/or treatment facilities, the construction of which could result in significant environmental effects. The potential for the project itself to trigger such construction is based on several factors, the most significant of which are the new demand for collection and treatment service created by future development projects within the site, the capacity of existing McKinleyville Community Services District (MCSD) collection and treatment infrastructure to meet that demand, and MCSD plans for constructing new and expanded collection/treatment infrastructure.

The information in this section is based on the following sources:

- *Wastewater Facilities Plan Administrative Draft* (McKinleyville Community Services District 2012);
- *Sanitary Sewer Management Plan and Overflow Emergency Response Plan* (McKinleyville Community Services District 2023); and
- Email communications with Patrick Kaspari, General Manager of the McKinleyville Community Services District.

Additional sources of information are introduced where applicable.

Responses to the Notice of Preparation

There were no comments on the NOP regarding the wastewater scope of analysis.

15.1 Environmental Setting

Wastewater Management Facility

The MCSD operates the wastewater collection, treatment, and disposal facilities that serve McKinleyville. The McKinleyville Wastewater Management Facility is located at 675 Hiller Road, McKinleyville on a 68.4-acre parcel, with approximately 34 acres presently being used for the treatment facilities, an 18-acre wooded buffer, and 16-acre open parcel to the south (McKinleyville Community Services District 2024a).

The wastewater management facility consists of two primary oxidation ponds (11.2 acres), two secondary oxidation ponds (5.5 acres), two finishing treatment marshes (5.6 acres), and has a total pond area of 22.3 acres. The wastewater management facility upgrade design flow is 1.6 million gallons per day (mgd) and the wet weather design flow is 3.3 mgd (Patrick Kaspari, email message, June 24, 2024a).

All wastewater collected is from within the MCSD service area. Approximately 15 percent of residents within the service area are on septic systems (McKinleyville Community Services District 2021b). Treated wastewater is discharged to the Mad River during winter months when the river flow rate surpasses 200 cubic feet per second. During the summer months (May 15 through September 30) and low flow periods of the river, treated wastewater is discharged into two percolation ponds located adjacent to the river and is applied as irrigation water on dairy pastures in southwest McKinleyville.

The MCSD recently completed an electrical micro-grid project at its Hiller Park wastewater treatment plant site. The project includes a solar array with battery storage and associated equipment. The primary project purpose is to produce as much energy onsite as is needed to operate the wastewater treatment plant.

Wastewater Management Facility Upgrades

The MCSD completed a *Wastewater Facilities Plan Administrative Draft*, also known as the 20-year wastewater facilities plan, in January 2012. This plan identifies a series of optional upgrades to the existing wastewater management facility, including portions of the effluent disposal system. The improvements discussed are meant to address the needs for the facility through the year 2030. The major improvements include a new headworks facility; aeration basins; a blower/electrical/maintenance building; two new secondary clarifiers, including return activated sludge/waste activated sludge pumping; and a biosolids storage basin. All of these improvements were included as part of the wastewater management facility upgrade, which was completed in 2018 (Patrick Kaspari, email message, June 24, 2024b).

The ability for the MCSD to identify and project the effects of growth in central McKinleyville is dependent on Humboldt County's development planning for McKinleyville. In May 2011, Humboldt County provided MCSD with its development growth projection data set for the MCSD service area, which was used in the 20-year wastewater facilities plan when identifying and prioritizing upgrades to the wastewater management facility and collection system.

Recycled Water

The MCSD does not sell raw or recycled water to customers. Due to McKinleyville's proximity to the ocean, the climate, and abundance of precipitation, there is no demand for raw and recycled water with exception to agricultural beneficial uses. For calendar year 2020, 107

million gallons of recycled wastewater was utilized for beneficial agricultural irrigation. The wastewater management facility does not provide the level of treatment required for recycled wastewater use within parks or on lawns (McKinleyville Community Services District 2021b).

Wastewater Collection System

The MCSD operates and maintains the wastewater collection system. The collection system includes 92 miles of collection mains, five lift stations, a wastewater management facility, effluent disposal, and land reclamation systems (McKinleyville Community Services District 2021a).

The MCSD's *Sanitary Sewer Management Plan and Overflow Emergency Response Plan* (McKinleyville Community Services District 2023) notes that while the collection system is relatively young (less than 25 years) several capacity improvements needs have been identified. These projects will be completed in 2026/2027 (Patrick Kaspari, email message, June 24, 2024b).

Capital Improvement Plan

The MCSD has a 20-year Capital Improvement Plan (CIP) that that identifies planned improvement projects and their implementation schedule. The CIP is updated every year. Capacity constraint projects have been in the CIP for the last several years, such as the upsizing of pipes under U.S. Highway 101. The capacity constraints may be resolved before new development within the Town Center is initiated, but well before full buildout of the Town Center. A wastewater management facility upgrade study is also budgeted in the CIP for fiscal year 2030/31; the MCSD will prepare a detailed analysis and design in 2030 to plan for the next phase of upgrades. If the need for upgrades is required sooner than 2030, MCSD will move the item up on the priority list as part of its annual CIP review (Patrick Kaspari, email message, August 6, 2024).

15.2 Regulatory Setting

Federal

Clean Water Act

The Clean Water Act establishes the structure for regulating discharges of pollutants into the waters of the United States (waters of the U.S.), including from wastewater treatment plants, and regulating quality standards for surface waters. Its goals are to restore and maintain the chemical, physical, and biological integrity of the nation's waters. The U.S. Environmental Protection Agency (EPA) has implemented pollution control programs and established water quality standards. The National Pollutant Discharge Elimination System (NPDES) permit program under section 402 of the Clean Water Act and enabling regulations control water

pollution by regulating point sources that discharge pollutants into waters of the United States, including from wastewater treatment plants. The EPA has delegated authority for issuing NPDES permits in California to the State Water Resources Control Board, which has nine Regional Water Quality Control Boards. The North Coast regional board regulates water quality in the project area. Section 401 of the Clean Water Act requires that, prior to the issuance of a federal license or permit for an activity or activities that may result in a discharge of pollutants into navigable waters, the permit applicant must first obtain a certification from the state. A state certification indicates that the proposed activity or activities would not result in a violation of applicable water quality standards established by federal or state law, or that no water quality standards apply to the proposed activity.

Under the authority of Clean Water Act Section 303(d), the regional board and State board list water bodies as impaired when not in compliance with designated water quality objectives and standards. Section 303(d) also requires preparation of a Total Maximum Daily Load (TMDL) program for waters identified by the state as impaired. A TMDL is a quantitative assessment of a problem that affects water quality. The problem can include the presence of a pollutant, such as a heavy metal or a pesticide, or a change in a physical property of the water, such as reductions in dissolved oxygen or increases in temperature. A TMDL is established at the level necessary to implement the applicable water quality standards. A TMDL requires that all sources of pollution and all aspects of a watershed's drainage system be reviewed (both point and non-point sources) and establishes load allocations to sources to achieve water quality standards.

The regional board lists numerous water bodies within the Mad River Planning Watershed as impaired. TMDLs have been adopted on the Mad River, located south of the project site, for aluminum, sedimentation/siltation, temperature, water, and turbidity; and Norton Creek, located north of the project site, for indicator bacteria (California Water Boards 2024)

NPDES Waste Discharge Program

In California, the NPDES program is administered by the State Board through the Regional Water Quality Control Boards and requires point sources to obtain NPDES permits (also called Waste Discharge Requirements in California). Point sources include municipal and industrial wastewater facilities and stormwater. There are two types of NPDES permits: individual permits tailored to an individual facility and general permits that cover multiple facilities within a specific category. Effluent limitations serve as the primary mechanism in NPDES permits for controlling discharges of pollutants to receiving waters.

Local

Humboldt County General Plan

GP-P5. Connection to Public Wastewater Systems within Urban Service Areas. All new development within Urban Service Areas shall connect to public wastewater systems.

IS-S6. Water and Wastewater Service Commitment for Proposed Development Projects. Discretionary development served by public water and/or wastewater service shall receive written service commitments from the appropriate district or agency prior to receiving final approval from the County.

McKinleyville Community Plan

7. All major subdivisions and Planned Unit Developments resulting in parcels smaller than one (1) acre must be served by, or conditioned on the installation of, McKinleyville Community Services District water and sewer services.

Humboldt County Municipal Code

Title VI Division 1, Sewage and Onsite Wastewater Treatment

This Division of the Humboldt County Municipal Code states that the most appropriate means of sewage treatment for development within urban areas is the public sewer system. It states that every building or place which is within 300 feet of an approved public sewer shall be connected to the public sewer by the owner in accordance with and subject to requirements and/or conditions set forth by the public sewer authority.

15.3 Thresholds of Significance

CEQA Guidelines Appendix G is a sample initial study checklist that includes a number of factual inquiries related to the subject of wastewater, as it does on a whole series of additional topics. Lead agencies are under no obligation to use these inquiries in fashioning thresholds of significance on the subject of wastewater impacts, or on any subject addressed in the checklist. Rather, with few exceptions, CEQA grants agencies discretion to develop their own thresholds of significance. Even so, it is a common practice for lead agencies to take the language from the inquiries set forth in Appendix G and to use that language in fashioning thresholds. The County has done so here. Therefore, for purposes of this EIR, a significant impact would occur if implementation of the proposed project would:

- Require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction of which cause significant environmental effects; and

- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments, and that expansion of, or construction of, such treatment facilities would cause significant environmental effects.

15.4 Analysis, Impacts and Mitigation Measures

This section includes information and data regarding wastewater management facility and infrastructure construction and operation that are relevant to the proposed project based on the thresholds of significance described above. The information and data are used as a basis for determining impact significance and for mitigation measures as needed.

Construction of Expanded Wastewater Treatment

IMPACT 15-1	Need for Expanded Wastewater Treatment Capacity to Future Project Demand	Less than Significant
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The proposed project would generate wastewater that would place new demand on the capacity of the wastewater management facility. [Table 15-1, Wastewater Generation](#), illustrates the projected wastewater generation volume in million gallons per day (mgd), based on a data source provided by the MCSD.

Table 15-1 Wastewater Generation

Land Use	Dwelling Units/ Building Square Footage	Equivalent Dwelling Units	Wastewater Generation/Equivalent Dwelling Unit (gpd)	Wastewater Generation (mgd)
Residential	2,650	1,484 ¹	180	0.27
Retail/Commercial/Office	904,000	90% of water demand	See note 2	0.13 to 1.77
Total				0.40 to 2.04

SOURCE: Patrick Kaspari, email message, June 24, 2024a; ActionMfg and Supply, Inc. 2024

NOTES:

1. Multi-family = Number of units x 0.56
2. Given the uncertainty about specific future commercial use types that will be located within the site, a high-water usage factor (2.17 gallons per day per square foot) and a low water usage factor (0.16 gallons per day per square foot) were taken from a source recommended by the MCSD General Manager, then multiplied by 0.9 to determine a commercial use wastewater generation range.

The proposed project is expected to generate 0.40 to 2.04 mgd of wastewater. As previously stated, the wastewater management facility upgrade design capacity for dry weather flow is 1.6 mgd and the wet weather design capacity of 3.3 mgd.

The wastewater management facility is currently receiving 0.80 to 1.10 mgd of wastewater (dry weather) (Patrick Kaspari, email message, June 24, 2024a) and 1.3 to 2 mgd of wastewater (wet weather) (James Henry, email message January 6, 2025). When considering capacity of the wastewater treatment facility, the MCSD Operations Director recommends using the wet weather as worse-case scenario. Therefore, there is currently approximately 1.3 mgd of wet weather capacity remaining, which is not sufficient to accommodate the higher range of projected flow from future buildout of the site if full buildout were to occur in the short term.

As discussed previously, the 20-year wastewater facilities plan on which the 2018 wastewater management facility upgrades were based, identifies improvements to address projected population growth based on the forecasts in the McKinleyville Community Plan. Those forecasts would not have anticipated buildout of the project site prior to 2030.

The proposed project will not buildout by 2030. The MCSD General Manager indicates that its buildout will likely coincide with the next planned phase of wastewater management facility upgrades (Patrick Kaspari, email message, June 25, 2024). As discussed in Section 15.1, Environmental Setting, a wastewater management facility upgrade study is budgeted in the CIP for fiscal year 2030/31. At that time, the MCSD will prepare a detailed analysis and design to plan for the next phase of upgrades. The MCSD anticipates that the capacity of the wastewater management facility could be exceeded in approximately 2030, but is confident that capacity will remain well beyond the year 2030 based on growth trends and treatment efficiency (Patrick Kaspari, email message, June 25, 2024). As the Town Center develops, the MCSD will consider new upgrades that should be included in its CIP, which is updated annually. If the need for upgrades is required sooner than 2030, MCSD will accelerate upgrades as part of its annual CIP review (Patrick Kaspari, email message, August 6, 2024).

Should upgrades to the facility be required to accommodate the project and other cumulative development within the MCSD service area, the MCSD will act as Lead Agency to prepare CEQA documentation for the upgrade project once the project is defined. It would be speculative in the absence of a specific future facility upgrade study, to project what the scope of improvements and the associated environmental impacts of constructing the improvements might be.

No further discussion is required.

Construction of Expanded Wastewater Collection Infrastructure

IMPACT 15-2	Need for New Wastewater Collection Infrastructure to Serve Future Site Development	Less than Significant
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As discussed above, the 20-year wastewater facilities plan identifies improvements to address projected population growth based on the forecasts in the McKinleyville Community Plan. Those forecasts did not anticipate buildout of the project site prior to 2030. Because the site will build out over many years, it is uncertain whether the existing off-site wastewater collection system will accommodate demand at full buildout when additional demand from cumulative development within the MCSD service area is considered. Adequacy of the off-site wastewater collection system cannot be determined until it is known what specific uses will be proposed at the site.

As the Town Center site develops, the MCSD will consider new upgrades to the collection system that should be included in its annual CIP. If upgrades are required, MCSD will identify them as priority items in its annual CIP review (Patrick Kaspari, email message, August 6, 2024). To assure consistency of individual projects with General Plan Policy IS-S6, such projects would not be approved until MCSD can assure that the off-site collection system capacity is sufficient to accommodate them. If not, improvements to the system would be needed prior to the County issuing building or occupancy permits for such projects.

Constructing new off-site wastewater collection infrastructure would involve excavating soil and installing pump stations and pipes. Short-term construction effects could include, but may not be limited to: air quality degradation, loss of protected biological resources, increased GHGs, water quality degradation, noise impacts, etc.

Should upgrades to the off-site wastewater collection infrastructure be required to accommodate the project and other cumulative development within the MCSD service area, additional CEQA analysis will be conducted by the County at the time upgrade project locations and descriptions are known. No further discussion is required.

New on-site wastewater collection infrastructure must be constructed to serve future development. Construction activities are likely to include excavations, trenching, pipe installation, paving, etc. The short-term environmental effects of these activities would be the same as assumed for developing the site as a whole as evaluated in other environmental topic sections of this EIR. Mitigation measures for short-term construction activities as identified in other sections would reduce these effects to less than significant.

Life Plan Humboldt

As noted above, the wastewater generation projection for the site includes projected generation from the Life Plan Humboldt project. The analysis of potential impacts from constructing new wastewater treatment capacity and wastewater conveyance capacity, if either is needed to accommodate full buildout of the site, considers the contribution of the Life Plan Humboldt project to those potential impacts. The Life Plan Humboldt project would not result in new or more severe impacts than identified for the project as a whole.

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