

14.0

Water Demand and Supply

This section of the EIR assesses the effects of the project on groundwater resources and whether adequate water supply is available to serve the project. Information in this section is taken primarily from the following sources:

- *2020 Urban Water Management Plan* (McKinleyville Community Services District 2021) (UWMP);
- Communications with the McKinleyville Community Services District (MCSD) staff; and
- *Urban Water Management Plan* (Humboldt Bay Municipal Water District 2020).

Additional sources of information are introduced where applicable.

Responses to the Notice of Preparation

Life Plan Humboldt requested that the EIR identify that project's reduced water demand due from incorporating conservation measures beyond MCSD requirements.

14.1 Environmental Setting

This environment setting section incorporates information contained in the UWMP and from communications with the MCSD staff.

Water Supply Sources

The project site is within the service area of the MCSD. Future development within the site would be served by MCSD via interties to existing MCSD water mains. As stated in its UWMP, the MCSD purchases all of its water supply from the Humboldt Bay Municipal Water District (HBMWD). The HBMWD supplies water to an array of regional entities, including the MCSD. The HBMWD obtains water by diverting it from the Mad River and impounding it in Ruth Reservoir, which is located in Trinity County. The HBMWD has a regional water supply rate capacity of 25-30 million gallons per day (MGD) with a maximum diversion capacity of 75 MGD.

HBMWD delivers about 11 MGD to its seven municipal customers. Of that volume, a peak flow rate of 2.6 MGD is committed to serve MCSD customers. This committed reserve can be increased annually by MCSD if desired or required. Up to this point, there has been no need to increase the 2.6 MGD peak allocation, but the allocation can be increased if required based on

new future demand from development in McKinleyville, including the Town Center project (Letter from Pat Kaspari, MCSD General Manager, March 21, 2024)

The HBMWD derives its water supply from surface water diverted from the Mad River and from pumping the aquifer beneath the Mad River. The water pumped from the aquifer is continually recharged by surface water from the Mad River. Therefore, the HBMWD does not pump or deliver groundwater (Humboldt Bay Municipal Water District 2020, p. 19), and therefore by extension, future development within the project site would not be served with water pumped from groundwater.

The MCSD also operates a wastewater management facility. The facility produces secondary treated wastewater. Some of the wastewater is used for agricultural irrigation, it does not meet standards for urban use.

Existing Water Demand within the MCSD

The 2023 Average Daily Demand (ADD) water usage for MCSD was 1.1 MGD in the wet weather period, and 1.7 MGD in dry weather period for an annual ADD of 1.4 MGD. This has decreased from a peak ADD of 1.52 MGD in 2012, largely due to the MCWD's conservation measures and pipe replacement program, and installation of low flow fixtures in new and existing homes. In 2023, peak daily demand in wet weather was 1.4 MGD, while the dry weather peak day was 2.1 MGD, well below the 2.6 MGD allocated to MCSD. The planned construction of a new 4.5-million-gallon water storage tank, a project not associated with the Town Center project, in conjunction with existing storage capacity will provide approximately seven days of storage, which will help to spread peak water usage out and ensure adequate supply (Letter from Pat Kaspari, MCSD General Manager, March 21, 2024).

Table 2, Water Use Types, Current and Projected Demand, in the MCSD UWMP summarizes year 2020 water demand within the MCSD and includes projections for demand in five-year increments out to the year 2040. Year 2020 demand for all customer connections and uses (e.g., residential, commercial, institutional/government, water transfers, landscaping, and bulk water sales totaled 450 million gallons. With a population of 17,190 within the MCSD in 2020, daily water demand for 2020 was 72 gallons per day per capita.

Water Supply Infrastructure

The MCWD operates all water supply infrastructure within its service area that is needed to supply its customers, including water distribution mains, water meters, storage facilities and other improvements. Water infrastructure located within and/or adjacent to the project site includes water mains in Central Avenue (16 inch), Hiller Road (6- and 8-inch), McKinleyville Avenue (10 inch), and Picket Road (6 inch).

14.2 Regulatory Setting

This section includes summaries of standards, regulations and plans that have been adopted or revised by local, regional, state, or federal agencies that bear on the evaluation of environmental impacts of the proposed project.

State

Urban Water Management Planning Act

California Water Code Section 10610 (et seq.) requires that all public water systems providing water for municipal purposes to more than 3,000 customers (connections), or supplying more than 3,000 AFY, must prepare an urban water management plan. Urban water management plans represent key water supply planning documents for municipalities and water purveyors in California. Urban water management plans must be updated at least every five years on or before December 31, in years ending in five and zero.

As noted above in Section 14.1, Environmental Setting, the MCWD would be the water purveyor for future development within the project site. Its current 2021 UWMP was adopted to meet requirements in California Water Code Section 10610 (et seq.), and is referenced as evidence for the analysis of water supply demand and availability in Section 14.4 below. Similarly, the HBMWD adopted an UWMP in 2020, which is also referenced above and utilized as evidence for identifying the sufficiency of water supply for the project as described in Section 14.4.

Local

Humboldt County General Plan

WR-P6. Subdivision Water Supply. Any subdivision of land shall be conditioned to require evidence of sufficient water supply during normal and drought conditions to meet the projected demand associated with the proposed subdivision. Sufficient water supply shall include the requirements of the proposed subdivision and existing and planned future uses. Written service letters from a public water system written in conformance with this policy is sufficient evidence. Subdivisions to be served through on-site water supplies or private water systems must provide evidence of sufficient water supply to the County Department of Environmental Health.

WR-S5. Subdivisions Demonstration of Sufficient Water Supply. Demonstration of sufficient water supply shall include the requirements of the proposed subdivision, existing uses, and planned future uses. Subdivisions for residential development subject to state requirements of SB 610 and SB221 shall make the appropriate demonstrations consistent with regulations (as amended) established by these acts. Written service letters from a public water system written in conformance with this policy is

sufficient evidence. Subdivisions to be served through on-site water supplies or private water systems must provide evidence of sufficient water supply to the County Department of Environmental Health.

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.

14.3 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 water supply, as it does on a whole series of additional environmental topics. Lead agencies are under no obligation to use these inquiries in fashioning thresholds of significance on the subject of water supply impacts, or indeed 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:

- Not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years;
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;
- Conflict with or obstruct implementation of a sustainable groundwater management plan; or
- Require or result in the relocation or construction of new or expanded water facilities, the construction of which could cause significant environmental effects.

Issues not Discussed Further in this Section

- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- Conflict with or obstruct implementation of a sustainable groundwater management plan.

As described in Section 14.1, Environmental Setting, water supply for future development within the project site would not be derived from groundwater, nor is the project site located within the boundary of a groundwater basin for which a sustainable groundwater management plan is required. Consequently, the proposed project would not impede implementation of or conflict with a sustainable groundwater management plan. No further discussion of this issue is required.

- Require or result in the relocation or construction of new or expanded water facilities, the construction of which could cause significant environmental effects.

As part of its early scoping of the proposed project, the MCSD projected daily project water demand based on information contained in the NOP. Its demand projection, which has since been modified as described in Section 14.4 below, was higher than the current projection. MCWD input its projected flow demand volume into the model of the water supply system to determine whether infrastructure upgrades would be required to serve the project site. The MCSD found that the additional supply demand does not present any problems with flow or pressure in the existing system and other than the addition of the necessary water mains and looped pipelines actually required for the development, no other improvements would be required in the rest of the system (Letter from Pat Kaspari, MCSD General Manager, March 21, 2024). The only facilities required would be an on-site water distribution system. Impacts of constructing the on-site system (e.g., construction effects associated with trenching and excavation to install water mains) would be similar to those for constructing residential, commercial, and/or office uses within the site, as evaluated in other sections of this EIR. Therefore, no further discussion is necessary.

14.4 Analysis, Impacts and Mitigation Measures

This section evaluates the impacts associated with water supply, sustainability of the groundwater basin, and whether the project would conflict with or obstruct implementation of a water quality control plan or groundwater sustainability management plan.

Water Supply Sufficiency

IMPACT 17-1	Sufficient Water Supplies are Available to Serve Future Development within the Site	No Impact
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Projected Water Demand

The proposed project would substantially increase water demand relative to baseline conditions within the project site. As described previously, the MCSD applies a water demand rate of 72 gallons per day per capita to new development to calculate its water demand. That rate is based on the cumulative demand of all land use types within the MCSD, including non-

residential uses. Table 4-2, Projected Population and Employment Generation, shows that at buildout, population capacity for the site is projected at 6,122. At 72 gallons per day per capita, water demand would be approximately 440,784 GPD.

Water Supply Sufficiency

As noted previously, the MCSD currently delivers approximately 2.1 MGD to its customers, which is about 0.5 MGD below its current allocation from the HBMWD. Consequently, it is possible that new demand from the project site could be accommodated under that current allocation. However, since the site will build out over many years, it is possible that combined with other interim development within the MCSD over time, MCSD will be required to purchase additional water from the HBMWD. Since the MCSD can increase its committed reserve from the HBMWD on an annual basis, the MCSD anticipates it will have the water supply to meet projected demand at buildout of the project site (Letter from Pat Kaspari, MCSD General Manager, March 21, 2024). Therefore, no impact from insufficient water supply availability is anticipated.

Life Plan Humboldt

As noted above, total projected water demand from new future development within the site, including the Life Plan Humboldt project, is based on an annual per capita rate of demand from all land use types within the MCSD, including residential and commercial uses. Consequently, projected water demand from the Life Plan project is included in the total projected demand for the project site as whole, for which no impact is anticipated from lack of water supply sufficiency. The Life Plan Humboldt project would have no new or more severe water supply impacts than assumed for the project as a whole.