

Q. Utilities and Service Systems

Environmental Setting

Water Supply

Humboldt Bay Municipal Water District is a wholesale water agency that serves the greater Humboldt Bay area, including the cities of Eureka, Arcata and Blue Lake, as well as Community Service Districts that serve unincorporated areas within the county. The Humboldt Bay Water District serves a total population of about 65,000. The District has rights to divert 75 million gallons per day (mgd) of water from the Mad River, and has additional water supplies provided by the District's wells (up to 20 mgd), and other sources, such as Ruth Lake (a 48,000-acre-foot reservoir). The District maintains a delivery system of pumps, pipelines and treatment equipment (Humboldt Bay Municipal Water District, 2006; City of Eureka, 2005).

Current water demand in the City of Eureka is approximately 3.9 mgd; however, the City maintains water rights to the Mad River water equivalent to 5.8 mgd. Under the agreement between the District and the City of Eureka, deliveries from the District to the City up to 5.8 mgd are considered to be deliveries of the City's water, emanating from its own water rights not those of the District. Deliveries to the City in excess of the City's water rights are considered deliveries of the District's water (Humboldt Bay Municipal Water District, 2006; Yerby, 2006). The City has three water storage facilities: a 20-million gallon tank at the northern end of Walnut Drive and two smaller tanks with capacities of 0.5 million and one million gallons at Harris and K Streets. In addition, there is a water storage tank in the Lundbar Hills subdivision. The transmission pipe that transports water from the District to the City's storage facilities has a capacity of about 8 mgd (Yerby, 2006).

The project site is undeveloped and is not presently served by on-site water supply infrastructure. However, water supply infrastructure sufficient to serve the project exists along the project site boundaries.

Wastewater

The City of Eureka's Elk River Wastewater Treatment Plant (WWTP) is located in the southwest corner of the city along the shoreline of Humboldt Bay. The WWTP operates in accordance with North Coast Regional Water Quality Control Board (RWQCB) permit requirements. The WWTP provides for collection, conveyance, treatment, and disposal of wastewater flows from the city of Eureka, and the surrounding unincorporated areas within the Humboldt Community Services District (HCSO). The Elk River WWTP has a total average dry weather capacity of 6 mgd (however, the currently permitted capacity is 5.24 mgd)¹, with a permitted capacity of 8.6 mgd during peak dry weather and 32 mgd during peak wet weather. The WWTP operates at approximately 70 percent of the permitted capacity in dry weather conditions and at 100 percent of the permitted capacity during peak wet weather events. Secondary treatment is provided for all

¹ The 5.24-mgd-permitted capacity is anticipated to be updated to 6 mgd or more in the NPDES permit renewal process in 2008/2009 (Gierlich, 2008).

flows up to 12 mgd, while the WWTP blends primary and secondary treated flows above 12 mgd. The Elk River WWTP discharges into Humboldt Bay via a 48-inch pipeline on ebb tides only (City of Eureka, 2006; Yerby, 2006; Gierlich, 2008). During periods of high influent flows, the overflow is directed from the effluent holding pond to a temporary holding marsh. When flows subside, water is pumped from the marsh back into the holding pond (RWQCB, 2002).

The project site is undeveloped and is not presently served by on-site wastewater infrastructure. However, wastewater infrastructure sufficient to serve the project is present along the project site boundaries.

Solid Waste

The City of Eureka contracts with the City Garbage Company to provide solid waste collection and curbside recycling for residential and commercial uses in Eureka. The City Garbage Company collects and transports commercial and residential solid waste to the Humboldt Waste Management Authority (HWMA) Hawthorne Street transfer station at 1059 West Hawthorn Street. The HWMA then transports the solid waste for disposal at either the Anderson Landfill in Shasta County, or Dry Creek Landfill in Medford, Oregon (Hawkins, 2006).

The Anderson Landfill is located at 18703 Cambridge Road in the City of Anderson. The Anderson Landfill has a daily permitted disposal of about 1,018 tons/day, and a remaining capacity of about eight million tons. The Anderson Landfill is not expected to close until 2036 (California Integrated Waste Management Board (CIWMB, 2006). The Dry Creek Landfill has a remaining capacity of about 50 million tons. It is anticipated that the Dry Creek Landfill could provide disposal capacity for its current service area for another 75 to 100 years (Fortier, 2006).

Environmental Analysis

Significance Criteria

For the purposes of this EIR, implementation of the proposed project would have a significant effect on utilities and service systems if, based on Appendix G of the CEQA Guidelines, it would:

1. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
2. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
3. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
4. Have insufficient water supplies available to serve the project from existing entitlements and resources (i.e., new or expanded entitlements are needed);

5. Result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
6. Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs; or
7. Violate any federal, state, and local statutes and regulations related to solid waste.

Regulatory Framework

The following standards and regulations govern utilities and service systems and are used to measure impacts.

Regional Water Quality Control Board (RWQCB) Regulations

The North Coast Regional Water Quality Control Board (RWQCB) regulates the water quality in the project area. As discussed in the Setting section above, the City's Elk River WWTP operates in accordance with the National Pollutant Discharge Elimination System (NPDES) permit requirements administered by the North Coast RWQCB. The permit was issued in 2004 and is valid through March 2009. The permit sets limitations on the treated effluent quality and quantity discharged into Humboldt Bay.

Assembly Bill (AB) 939

The California Integrated Waste Management Act of 1989, or Assembly Bill (AB) 939, established the Integrated Waste Management Board, required the implementation of integrated waste management plans, and mandated that each city or county's source reduction and recycling element (SRRE) include the following implementation schedule: a 25 percent diversion of solid waste from landfill disposal or transformation by January 1, 1995, through source reduction, recycling, and composting activities, followed by a 50 percent reduction in the waste stream by January 1, 2000. Jurisdictions that fail to comply with the waste diversion implementation schedule could be subject to a formal Compliance Order which would charge up to \$10,000 per day in State fines.

In 1992, the City of Eureka adopted a SRRE. The City did not meet the 50 percent diversion goal by 2000 and the State granted the City an extension to December 2005 to meet its mandate. In an effort to meet the solid waste diversion goal, the City offers and participates in numerous recycling programs such as voluntary residential curbside recycling, two neighborhood drop sites, a recycling buyback center, home composting bins, zoo wastes composting, commercial cardboard collection and recycling and household hazardous waste collection. However, approximately 15 percent of potential residential customers in Eureka use the voluntary curbside recycling program and the current solid waste diversion rate for the City is only 45 percent.

City of Eureka Universal/Mandatory Collection Program Ordinance (Bill No. 787-C.S.)

On June 3, 2008 the City Council adopted an ordinance amending Eureka's existing solid waste ordinance to enable a mandatory and universal collection program in Eureka. Effective July 3,

2008, the ordinance is intended to meet the AB 939 waste diversion mandates and reduce illegal disposal by enabling 1) universal curbside garbage collection, 2) universal curbside recycling collection, 3) universal on-demand curbside bulky item collection (large appliances, furniture), and 4) voluntary curbside greenwaste collection. These programs will be implemented in phases with target dates of universal garbage collection by December 2008 and universal recycling collection by July 2009 for residential uses. The City anticipates implementation of universal garbage and recycling programs for commercial and multi-family uses by January 2010. It is anticipated that, through the phased implementation of programs detailed within this ordinance, Eureka will achieve the state-mandated 50 percent waste diversion goal (City of Eureka, 2008).

General Plan and Local Coastal Program

The City of Eureka's adopted General Plan and adopted Local Coastal Program together formalize a long-term vision for the physical evolution of Eureka and they outline the policies, standards, and programs that guide day-to-day decisions concerning Eureka's development in the coastal zone. The Policy Consistency Analysis, found in Section IV.I, *Land Use and Planning*, provides an evaluation of the Marina Center project's conformity with the policies of the adopted General Plan and Land Use Plan portion of the adopted Local Coastal Program.

Coastal Zoning Regulations

The Coastal Zoning regulations which implement the policies of the Land Use Plan portion of the adopted Local Coastal Program are codified in Chapter 156 of the Eureka Municipal Code (EMC), and are also referenced as Article 29, Part 1, Section 10-5.29 et. seq. of the zoning regulations of the City for the coastal zone.

Zoning Regulations

The Zoning Regulations of the City of Eureka are found in Chapter 155 of the EMC and are adopted pursuant to the City Charter to protect the public health, safety, peace, comfort, convenience, prosperity and general welfare.

Project Impacts

Impact Q-1: Would the Marina Center project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Implementation of the proposed project would result in an estimated 130,000 gallons per day of wastewater flows.² The City's WWTP currently operates at approximately 70 percent of its permitted capacity during dry weather conditions and at 100 percent of the permitted capacity during peak wet weather conditions. As discussed previously, the permitted capacity of the WWTP (5.24 mgd) is less than the design capacity (6 mgd); thus the WWTP has been operating

² For estimation purposes, wastewater flows are calculated as approximately 90 percent of estimated water use, based on information provided in *Water Quality* (Tchobanoglous and Schroeder, 1987).

at a lower capacity than its designed capacity. The renewed NPDES permit¹ would include the additional 0.76 mgd and would provide the City with approximately 0.53 mgd of additional capacity at the WWTP.³ The approximately 130,000 gallons per day of project wastewater (representing approximately 1.5 percent of dry weather flows and 0.4 percent of the wet weather flow capacity) would be accommodated within the permitted capacity of the WWTP (under the renewed permit). Therefore, given that the capacity exists to serve anticipated project's wastewater demands, implementation of the proposed project would not result in the construction of new or expanded wastewater treatment facilities. Wastewater from the proposed project would have characteristics typical of municipal wastewater that is treated at the WWTP and would not exceed the wastewater treatment requirements for the WWTP. The impact would be less-than-significant.

Mitigation

None recommended.

Finding of Significance

The potential for the Marina Center project to exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board is a *less-than-significant* impact.

Impact Q-2: Would the Marina Center project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

As the project site is largely vacant, the proposed development would increase water supply demands and wastewater flows. Additionally, the proposed project would require new connections to the City's water and wastewater infrastructure. In accordance with City of Eureka requirements, the project applicant would be required to integrate water conservation measures such as water-efficient appliances and drought-tolerant landscaping into the project design.

Water supplies for the project-specific elements would be required to meet demand associated with 313,500 square feet of retail uses, including 28,000 square feet of nurseries/garden supply uses; 104,000 square feet of office uses; 14,000 square feet of restaurant use; 12,500 square feet of museum; 70,000 square feet of light industrial uses; and 54 multi-family dwelling units.

Pursuant to SB 610, a Water Supply Assessment (WSA) was prepared for the proposed Marina Center project (SHN Consulting, 2006). SB 610 requires an assessment of available water supplies and their sufficiency to serve the demand generated by the proposed project. The WSA must also assess the water demands associated with all existing and reasonably foreseeable planned future uses (including industrial and agricultural uses) within the service area over the next 20 years under average normal year, single dry year, and multiple dry year conditions (SHN Consulting, 2006).

³ Approximately 0.23 mgd capacity is allocated for HCSD (Gierlich, 2008).

The WSA used two methods for estimating water demand from the project. The first method used a demand factor of 250 gallons per day (gpd) per 1,000 square feet of proposed building area, resulting in an estimated water demand of 146,500 gpd or 164 acre-feet per year (af/y). The second method used a demand factor of 100 gpd per employee and resident with an estimated employee and resident base of approximately 1,430 people.⁴ This methodology estimated a water demand of roughly 155 af/y, which would represent an approximate 3.7 percent increase in the existing water usage in the City of Eureka (SHN Consulting, 2006).

As noted in the Setting section, the City of Eureka maintains water rights to the Mad River water equivalent to 5.8 mgd, and current demand is approximately 3.9 mgd, or roughly 67 percent of the City's water rights. While water demand would increase as a result of the proposed project, it is expected that, based on the City's available water rights and the current level of citywide water demand, existing water supplies would be sufficient to serve the proposed project as well as existing and planned future uses under wet, normal, dry, and multi-dry years over the 20-year horizon, and no new or expanded entitlements would be needed (City of Eureka, *Urban Water Management Plan 2005 Update*, December 2005; Humboldt Bay Municipal Water District, *Urban Water Management Plan*, 2005). Additionally, the project applicant has received a "will serve" letter from the City of Eureka stating that the City has adequate capacity in its wastewater and potable water systems to support the proposed project (City of Eureka, 2006).

In accordance with the City of Eureka General Plan, the project applicant would be required to construct or finance any needed water system upgrades, including distribution, collection, and connection infrastructure in accordance with City of Eureka standards and adopted codes. The proposed project would be located in an area already served by utility infrastructure, and new or expanded off-site utility facilities would not be required to serve the project. Based upon estimated water supply needs, the City's water supply facilities would be capable of handling demands associated with the proposed project.

Project impacts on wastewater treatment facilities are discussed under Impact Q-1 above.

Mitigation

None recommended.

Finding of Significance

The potential for the Marina Center project to require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects, would be a *less-than-significant* impact.

⁴ The employee and resident population of approximately 1,430 persons analyzed for the water supply assessment is higher than estimated numbers of jobs on the site (1,246) and estimated resident population (112) that is anticipated under project build-out. Thus, the water supply and wastewater analyses represent a more conservative analysis.

Impact Q-3: Would the Marina Center project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

As discussed in Impacts H-3 through H-5 in Section 4H, *Hydrology and Water Quality*, the project applicant would incorporate erosion and sediment control practices during project construction and operation. A stormwater pollution prevention plan (SWPPP) would be prepared and implemented along with measures for protection of water courses, dust control, management of stockpiles onsite, and material delivery and use during construction. As a part of the project, local onsite stormwater drainage lines would be installed to convey stormwater from the site into the City's stormwater system. With regard to project operation, the project applicant would obtain an Erosion Control Permit from the City of Eureka and incorporate erosion control devices that would control sediment and runoff from the site. In addition, the project applicant would prepare a drainage plan that would ensure that the increase in stormwater runoff would remain within 1 cubic feet per second (cfs). In the event the runoff exceeds 1 cfs, a drainage or sediment basin would be installed to contain the runoff onsite. In addition storm runoff treatment measures such as grassy swales would be incorporated as a part of the site landscape plan or for runoff conveyance that would minimize any potential runoff increase. The increase in runoff from the proposed project is therefore not expected to be substantial. The proposed project would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities. The impact would be less-than-significant.

Mitigation

None recommended.

Finding of Significance

The potential for the Marina Center project to require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects, would be a *less-than-significant* impact.

Impact Q-4: Would the Marina Center project have insufficient water supplies available to serve the project from existing entitlements and resources (i.e., would new or expanded entitlements be needed)?

Please see discussion under Impact Q-2 above.

Mitigation

None recommended.

Finding of Significance

The potential for the Marina Center project to have insufficient water supplies from existing entitlements and resources (i.e., require new or expanded entitlements) would be a *less-than-significant* impact.

Impact Q-5: Would the Marina Center project result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Please see discussion under Impact Q-1 above.

Mitigation

None recommended.

Finding of Significance

The potential for the Marina Center project to result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments would be a *less-than-significant* impact.

Impact Q-6: Would the Marina Center project be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?

Construction and operation of proposed project would increase the volume of solid waste generated within the City of Eureka. Assuming the California Department of Finance reported average household size in Eureka of approximately 2.26 persons per household for each housing unit, the proposed 54 residential dwelling units could result in a population increase of approximately 122 persons. The proposed project would also result in approximately 1,246 new jobs on the project site. According to Marina Center's Utility Impact Analysis, the proposed project would produce an average of 2.6 tons of solid waste per day or 950 tons per year (Winzler, 2006).

As a conservative approach, it is assumed that all of the proposed project's solid waste would be disposed at the Anderson Landfill. (This approach is conservative because the Anderson Landfill has a remaining capacity of about eight million tons while the Dry Creek Landfill has a remaining capacity of about 50 million tons.) The project's solid waste could be accommodated by the Anderson Landfill and would represent about 0.26 percent of the landfill's maximum permitted daily capacity. The project's estimated peak waste generation would be 5.1 tons per day, which would represent 0.5 percent of Anderson Landfill's maximum permitted daily capacity. This peak total would be unlikely to occur, since all tenants would have to produce their peak waste at the same time (Winzler, 2006).

Mitigation

None recommended.

Finding of Significance

The potential for the Marina Center project to be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs would be a *less-than-significant* impact.

Impact Q-7: Would the Marina Center project violate any federal, state, and local statutes and regulations related to solid waste?

Currently, the City of Eureka diverts approximately 45 percent of its waste from landfills. As such, the City is not in compliance with AB 939 state-mandated recycling and waste diversion law which requires a 50 percent waste diversion rate. However, the project would comply with the provisions of the City of Eureka's 2008 Universal/Mandatory Collection Program Ordinance. In addition, adherence to the mitigation measures recommended below would reduce the potential project impact related to solid waste such that it would not contribute to the City of Eureka's existing noncompliance with AB 939.

Mitigation

Mitigation Measure Q-7a: The project applicant shall assure that commercial and residential solid waste is disposed of in containers sized to adequately handle the volume of waste generated at the facility.

Mitigation Measure Q-7b: The project applicant shall place waste receptacles of the appropriate size for the waste generated at all public open spaces. Special consideration shall be required for public events that would attract larger numbers of persons to the site.

Mitigation Measure Q-7c: The project applicant shall provide suitable storage locations and containers for recyclable materials in or around proposed buildings. The containers shall be designed and constructed to protect soils, water resources, biological resources and all other aspects of the environment.

Mitigation Measure Q-7d: The project applicant shall prepare and implement a recycling program to achieve at least a 50 percent diversion in waste generated from project operations through the use of recycling.

Finding of Significance

The recommended mitigation measures would avoid or minimize the potential for the Marina Center project to violate any federal, state or local statutes and regulations related to solid waste, reducing the impact to a *less-than-significant* level.

Cumulative Impacts

Impact Q-8: Would the Marina Center project, together with other development in the vicinity adversely affect the availability of utilities and service systems?

As discussed above, the project would not result in significant project-level impacts that would affect the ability of the City of Eureka and other service providers to effectively deliver public water supply, sanitary sewer (wastewater), or solid waste to the project site. Service demand from the proposed project would combine with demands from other foreseeable development, causing a cumulative increase in the demand for utility services. The proposed project and other reasonably foreseeable future development would be located in areas already served by utility infrastructure, and new or expanded off-site utility facilities would not be required as a direct result of the proposed project. Furthermore, the project and other reasonably foreseeable future development would be required to comply with all standards of Title 24 of the California Code of Regulations, and water conservation measures and waste minimization efforts in accordance with City of Eureka requirements. Overall, the project effect on utility services, in combination with other foreseeable development, would be less-than-significant.

Mitigation

See recommended Mitigation Measures Q-7a through Q-7d.

Finding of Significance

The recommended mitigation measures would reduce the potential impacts of the Marina Center project on utilities and services systems to *less- than- significant* levels, and the project would not make cumulatively considerable contribution to cumulative utilities and service systems impacts.

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