IV.M.2 Utilities and Service Systems: Wastewater

1. Introduction

This section addresses the potential impacts of the proposed project on existing wastewater infrastructure and treatment facilities and whether sufficient capacity is available to meet the project's estimated wastewater generation. The following analysis is based in part on information from The Ontario Plan (TOP) EIR and the 2012 Old Model Colony and New Model Colony Sewer Master Plan Update (Sewer Master Plan Update). The Sewer Master Plan is located in Appendix K of this Draft EIR.

2. Environmental Setting

a) Regulatory Framework

1) City of Ontario Municipal Code

Article 7 (Section 6-7.701) of the Ontario Municipal Code (OMC) states that every person located within the City and served by a connection to the public sewer system is required to pay a sewer operation charge and any surcharge as established in the OMC. All funds and payments received from the collection of the sewer operation charges and applicable surcharges shall be deposited and maintained in a separate fund and account to be known as the "Sewer Operation Fund." The funds and payments are to be used as permitted by the California Health and Safety Code Section 5471, which includes repairs, replacements, operation, maintenance, construction, and reconstruction of the sewerage system.

b) Existing Conditions

Wastewater Generation and Infrastructure

The project area currently contains agricultural, dairy, and few residential uses. The project area currently utilizes septic tanks and subsurface disposal fields for wastewater collection and treatment. A 36-inch sewer main currently exists within Archibald Avenue along the western boundary of the project area.

Previously, the City's wastewater collection system in the NMC area contained six sewer pump stations that convey wastewater flows to Regional Plant No. 1 (RP-1). These pump stations were: the Archibald Ranch Pump Station, Haven Pump Station, Magnolia Pump Station, Riverside/Archibald Pump Station, Turner Pump Station, and the Whispering Lake Pump Station. Per the Sewer Master Plan Update, the City recently decommissioned four pump stations, namely Turner Pump Station, Riverside-Archibald Pump Station, Archibald Ranch Pump Station, and Whispering Lakes Pump Station. The flows tributary to these

pump stations have been diverted to the newly constructed Eastern Trunk Sewer which flows south through NMC to the IEUA Kimball Interceptor Sewer on Kimball Avenue.

Wastewater Treatment

The Inland Empire Utilities Agency (IEUA) developed a new wastewater treatment facility identified as Regional Plant No. 5 (RP-5), located on the south side of Kimball Avenue and east of El Prado Road. The RP-5 began operating in March 2004 and is designed to ultimately treat approximately 60 mgd of wastewater and process 68 mgd of solids combined from flows received from RP-5 and the Carbon Canyon Water Recycling Facility.[1] Biosolids flow streams from RP-5 and Carbon Canyon Water Recycling Facility is conveyed to Regional Plant No. 2 (RP-2) for treatment.[2] With the completion of RP-5, sufficient capacity for wastewater flow generated by the NMC will be provided.

3. Analysis of Project Impacts

a) Methodology

For the analysis of wastewater impacts associated with project operation, the wastewater generation of the proposed project was estimated using wastewater generation factors provided by IEUA within the Sewer Master Plan Update. The project's estimated wastewater generation was then compared with the available capacity within the City's sewer collection system.

b) Significance Thresholds

Appendix G of the CEQA Guidelines provides a checklist of questions to assist in determining whether a proposed project would have a significant impact related to various environmental issues including population and housing. Based on the following issue areas identified in Appendix G of the CEQA Guidelines, a significant impact to wastewater would occur if the project would:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board; or
- Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; or
- 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.

[1] Inland Empire Utilities Agency. Website: http://www.ieua.org/facilities/rp5.htmlaccessed July 13, 2012.
[2] Inland Empire Utilities Agency. Website: http://www.ieua.org/facilities/rp2.htmlaccessed July 13, 2012.

- 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.

2) Project Design Features

The project would include the implementation of off-site and on-site sewer improvements. A 15-inch sewer main within Merrill Avenue is proposed off-site, and would begin from the southeast portion of the project site at Haven Avenue and extend westerly to the Eastern Trunk Sewer located in Archibald Avenue. On-site sewer improvements would include a series of 8-inch, 10-inch, and 12-inch sewer mains located within the project area to serve the residential developments. Figure IV.M.2-1, further illustrates the proposed off-site and on-site sewer improvements, respectively.

c) Analysis of Project Impacts

1) Wastewater Generation and Infrastructure

As new development within the NMC and project area progresses, wastewater collection systems would be developed. Wastewater services would be provided to the NMC and the project area through an existing contract arrangement between the City and IEUA, which would be amended to include the service areas within the NMC. As stated above, the City's wastewater collection system is currently located in the NMC area and contains two sewer pump stations that convey wastewater flows.

The Sewer Master Plan Update estimated that the ultimate City-wide wastewater generation would be 45.03 mgd, of which the Old Model Colony would account for 18.75 mgd and the NMC would account for 26.28 mgd. The Sewer Master Plan Update assumed a full build-out and occupancy of the NMC. The project proposed would include new residential uses, the Grand Park, and two new school facilities to be used by the residents of the project area and surrounding communities within the NMC. Table IV.M.2 below presents the wastewater flow factors from the Sewer Master Plan Update to estimate the amount of wastewater generated from each developmental use.

Table IV.M.2-1: Wastewater Generation Factors

Land Use	Dry Weather Generation Factor[a] (measured in gpd/du)
Residential	
Low Density	240 gpd/du
Medium Density (NMC)	182 gpd/du
High Density	110 gpd/du

Table IV.M.2 1 (cont.): Wastewater Generation Factors

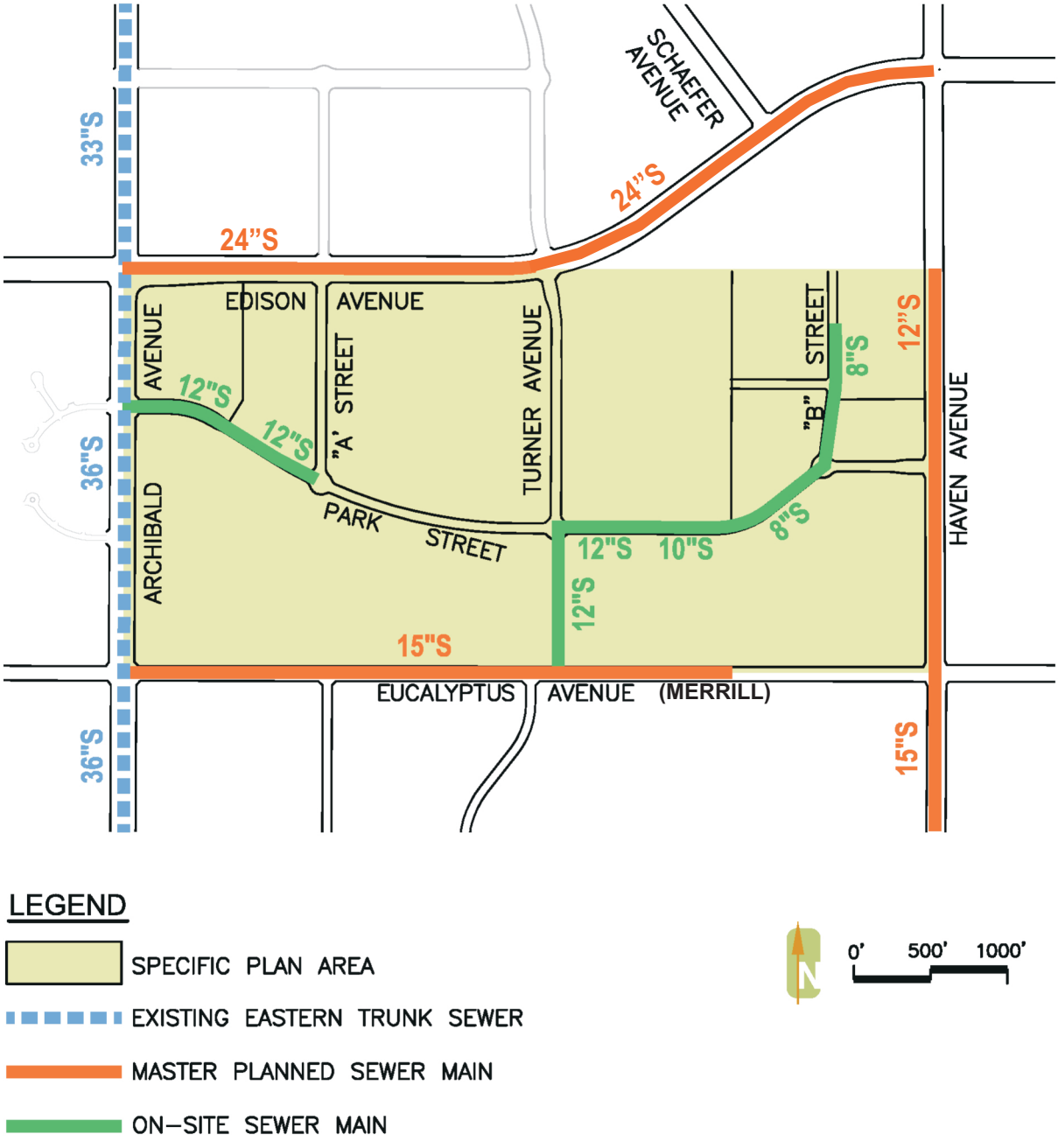
Land Use	Dry Weather Generation Factor[a] (measured in gpd/du)
School	
Elementary School	15 gpd/student
High School	20 gpd/student
Park	200 gpd/acre

[a] Wastewater generation factors are provided Table 4-3 in the Sewer Master Plan Update, 2012.
gpd = gallons-per-day
du = dwelling unit
Source: Michael Brandman Associates, 2012.

Utilizing the wastewater flow factors presented Table IV.M.2-1 above, the project is estimated to generate a total of approximately 316,172 gpd (0.32 million gallons per day [mgd]) of average daily wastewater flow and a peak dry weather wastewater flow of 581,757 gpd (0.58 mgd). The residential uses would generate a total of approximately 227,322 gpd (0.23 mgd), the elementary and high schools would generate approximately 62,750 gpd (0.06 mgd), and the Grand Park would generate approximately 26,100 gpd of wastewater (0.03 mgd). The project would contribute approximately 1.2 percent of the NMC estimated average wastewater dry weather flow and approximately 2.21 percent during peak dry weather wastewater flows, which is within the Sewer Master Plan Update estimate.

As part of the project, the existing septic tanks and subsurface disposal fields currently existing on site would be required to be removed in accordance with Department of Health and Safety (DHS) standards. Following the removal of the septic tanks and subsurface disposal fields, and as proposed as part of the NMC trunk sewer system plan consisting of 140,000 linear feet of sewer pipe, the Eastern Trunk Sewer would be built to provide sewer service to the project site, as identified in the Sewer Master Plan Update. This facility starts at the Turner Pump Station, extends west in Riverside Drive, south in Archibald Avenue, west in Merrill Avenue, and south in Baker Avenue to Kimball Interceptor Sewer in Kimball Avenue.

Off-site sewer improvements include a 15-inch sewer main within Merrill Avenue. The direction of the sewer main would begin from the southeast portion of the specific plan project area and extend to the west towards the Eastern Trunk Sewer located in Archibald Avenue. In addition, a series of 8-inch, 10-inch, and 12-inch sewer mains are proposed on-site to serve the residential development, as shown in Figure IV.M.2-1. As stated in the Sewer Master Plan Update, planned facilities within the NMC would provide adequate wastewater services to the planned NMC area. The project's projected wastewater generated flow of 316,172 gpd (0.32 mgd) and peak flow of 581,757 gpd (0.58 mgd) is considered minimal and well within the projected planned facilities' limits. Thus, impacts to the proposed wastewater infrastructure would be less than significant.



Source: LDKING, 2008.

NORTH

1000 500 0 1000 Feet

Michael Brandman Associates

Figure IV.M.2-1
Onsite Wastewater System

2) Wastewater Treatment

As further discussed in the Sewer Master Plan Update, future wastewater collection services would be provided from a system of gravity sewers that would convey wastewater generated from the NMC south to the IEUA Kimball Interceptor located at Kimball Avenue. The Kimball Interceptor would then convey wastewater flows in a western direction from the NMC to the RP-5 for wastewater treatment.

The Sewer Master Plan Update recommended a system of gravity sewers to convey the wastewater from NMC to Inland Empire Utilities Agency's (IEUA) Kimball Interceptor Sewer for further conveyance to and treatment at RP-5. During the preparation of the 2001 Master Plan, the Inland Empire Utilities Agency did not intend to act on a gravity system, which would bypass Regional Plant No. 1 (RP-1) flows to RP-5. Therefore, the facilities recommended for NMC did not include any capacity for RP-1 bypass flows.

Per the Sewer Master Plan Update, IEUA had originally planned to bypass an average flow of up to 20 mgd from RP-1 to RP-5 via the NMC sewer system and Kimball Interceptor Sewer located on Kimball Avenue west of Baker Street. The first NMC sewer constructed (Eastern Trunk Sewer) was designed to carry 9 mgd of bypass flow from RP-1. Currently, IEUA does not expect to pursue the remaining 11 mgd bypass capacity in the NMC sewer system. As previously discussed, the RP-5 was completed and operating as of March 2004 and is designed to ultimately treat approximately 60 mgd of wastewater and process 68 mgd of solids combined from flows received from RP-5 and the Carbon Canyon Water Recycling Facility. The first phase of RP-5 is designed to treat 15 million gallons per day (mgd) of wastewater. The project would generate a total dry weather wastewater flow of approximately 316,172 gpd (0.32 mgd) of wastewater, which would contribute to less than one percent of the total design capacity of the RP-5 and less than one percent of the first phase capacity (of 15 million gallons) of wastewater. Per TOP EIR, IEUA provides wastewater service to new developments in the City. They annually review treatment capacity connection fees for new development. Through the use of connection fees and agreements, the IEUA is able to maintain and expand its wastewater collection and treatment system as necessary, and is able to ensure that new developments pay their fair-share costs associated with increased demand. Per the Draft April 2012 Old Model Colony and Sewer Master Plan Update, sewage generated in NMC, as well as the wastewater flows diverted from the Old Model Colony sewer pump station tributary areas are treated at RP-5. The ultimate treatment capacity of RP-5 will be 60 million gallons per day. As such, sufficient capacity for wastewater treatment flow at RP-5 is anticipated and impacts to wastewater treatment facilities would be less than significant.

3) City of Ontario Municipal Code

The development and residents in the project area would be subject to Article 7 (Section 6-7.701) of the Ontario Municipal Code (OMC) requiring that every person or entity with property in the City and served by the City sewer connection pay a sewer service charge as set forth, which would be used as permitted by the California Health and Safety Code Section

5471, including repairs, replacements, operation, maintenance, construction, and reconstruction of the sewerage system Therefore, the project would be in compliance with Article 7 of OMC.

4. Cumulative Impacts

Implementation of the project in addition to the related projects in the NMC would increase the demand for wastewater treatment. However, as stated in the 2001 NMC Sewer Master Plan, proposed wastewater infrastructure and treatment facilities developed within the NMC would be designed to adequately serve the entire NMC planning area in that design standards were established for sizing adequate facilities that will collect the wastewater from the study area, and convey it to regional trunk sewers and treatment facilities. As stated in TOP EIR, future growth in accordance with TOP would result in increases in wastewater flow. These include increases in residential, commercial, and industrial effluent. With an increase in wastewater effluent, the planned construction of additional treatment facilities or expansion of these facilities would occur to increase treatment capacity. Expansion and/or capacity upgrades to the existing sewer collection lines is planned with the change in land use in areas like the NMC and increased development intensities in the OMC. Individual developments within the Specific Plan project area would be required to provide wastewater connections and payment of wastewater fees to support the provision of infrastructure and facility services within the NMC. Thus, cumulative impacts to wastewater services would be less than significant.

5. Mitigation Measures

Potential impacts related to wastewater due to construction and operation of the proposed project would be less than significant. Therefore, no mitigation measures are required.

6. Level of Significance After Mitigation

The proposed project would result in less than significant impacts with regard to wastewater.