

5.10 - UTILITIES: WATER, WASTEWATER, ELECTRICITY, NATURAL GAS, WASTE MANAGEMENT

5.10.1 - Water Service

Introduction

Information in this section is based upon the following documents:

- NMC Final EIR, City of Ontario, October 1997.
- Initial Study/Mitigated Negative Declaration, NMC Infrastructure Master Plans, City of Ontario, August 2002.
- Water and Recycled Water Master Plan, Final Report, MWH Americas, Inc., May, 2006.
- Water Supply Assessment and Written Verification of Sufficient Water Supply for the NMC, Albert A. Webb Associates, October 2004 and Revised Water Supply Assessment Compliance Letter for the Rich Haven Specific Plan, June 22, 2007 (Appendix J).

The Water and Recycled Water Master Plan (WMP) evaluated potential impacts to the increased demand for water that would result from development of the NMC. The WMP stated that buildout of the NMC would increase the demand for additional water by approximately 36,507 acre-feet per year (AFY). If the water-related policies contained in the NMC General Plan were implemented, the City would have the ability to develop a water supply in excess of the anticipated demand. These policies are related to the provision of water supply sources; storage; transmission and distribution mains; water infrastructure maintenance; and to ensure the costs of water infrastructure improvements are borne by those who benefit.

The Water Master Plan recommended expanding groundwater production from the Chino Groundwater Basin and the State Water Project Water that would be supplemented by other sources of water. Other water sources include the following: obtaining additional groundwater wells, obtaining Wellhead treatment of existing wells, obtaining use of the Galvin Water Treatment Plan, expand Water Facilities Authority (WFA) capacity, purchasing water from Central Valley Water District (CVWD), obtaining Bunker Hill Groundwater through the Baseline Feeder Extension, obtaining water from the Chino Basin Desalter Authority Phase 3, obtaining water from the Vulcan Gravel Pit north of WFA, obtaining water rights assignments, leasing water rights, obtaining use of the GE Flatiron Groundwater Treatment Facility, and water conservation.

Existing Conditions

The Chino Basin groundwater wells, owned and operated by the City, and the WFA Plant are the principle water sources for most of the territory of the City, which includes the NMC and, therefore, the project site. Water is derived from a combination of imported water and City-owned and operated groundwater extraction wells. Surface water imported into the City is from the Metropolitan Water District of Southern California (MWD) and the Inland Empire Utilities Agency. Groundwater is extracted from the Chino Groundwater Basin. This groundwater basin is an adjudicated basin and water rights are managed by the Chino Basin Watermaster (Watermaster), which was created on January 27, 1978, by the San Bernardino County Superior Court. The Watermaster is the entity charged with administering adjudicated water rights and managing groundwater resources within the Chino Groundwater Basin. The water rights, or production allocations, are divided among three interest groups referred to as “pools.” These pools are the Overlying Agricultural Pool, the Overlying Non-Agricultural Pool, and the Appropriative Pool.

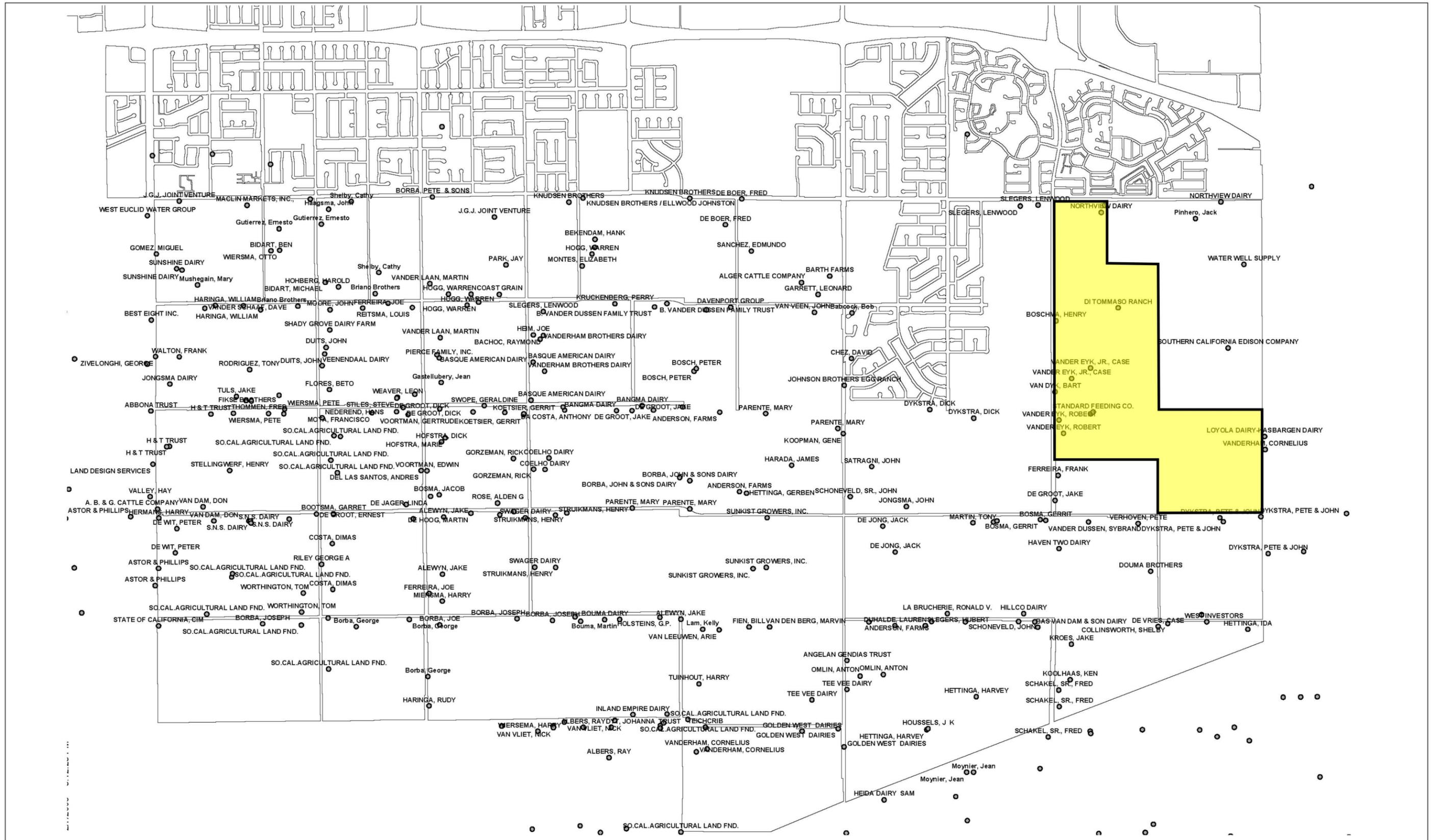
Water Supply and Distribution

According to the Water Master Plan of 2006, current City water use in the Old Model Colony (OMC) portion of the City is estimated at approximately 43,813 AFY. Ultimate water demand for the entire City, which includes the OMC portion of the City and the NMC, is estimated to be approximately 94,066 AFY by the year 2030. The buildout of the NMC represents approximately 38,113 AFY of this ultimate demand. Table 5.10-1 provides a summary of the existing and proposed demand within the City.

Table 5.10-1: Summary of Existing and Proposed AFY Water Demands in the City

	Existing (2005)	Proposed (2030)	Increase
OMC	43,813	55,353	11,540
NMC	600	38,713	38,113
Total	44,413	94,066	49,653
OMC = Old Model Colony AFY = Acre feet per year One acre-foot = 325,829 gallons Source: Albert A. Webb Associates, October 2004.			

The NMC currently does not have a domestic water supply system. All domestic water is supplied by onsite wells in various locations throughout the NMC which are shown on Exhibit 5.10-1 NMC Water Wells. The Water Master Plan estimates existing water use within the NMC at approximately 19,000 AFY. The NMC does not have a recycled water system.



Source: RBF Consulting, January 2007.


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 Michael Brandman Associates

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Exhibit 5.10-1
 NMC Water Well Locations

RICH HAVEN SPECIFIC PLAN DRAFT EIR

Pressure Zones

Rich-Haven's Water Master Plan shall conform to the Water Master Plan and will include both domestic (potable) and recycled water infrastructure. Water service will be provided by the City of Ontario as identified within the Water Master Plan for the NMC. The NMC Water Master Plan (Phases 1a-1e) water facilities are proposed to include two reservoirs, four wells, a treatment plant, and potable and recycled water lines. Construction of the Master Plan water service improvements are required prior to issuance of project related building permits for Rich Haven.

Regional Domestic Water Plan

The Rich Haven Specific Plan falls into two pressure zones, with the portion of the project north of Chino Avenue falling within the 1010 Pressure Zone, and the portion of the project south of Chino Avenue falling within the 925 Pressure Zone (see the Water Master Plan's Figure 4-1, Existing Water System Facilities).

1010 Pressure Zone Chino Loop. New domestic water mains to be constructed as part of the development of Rich-Haven include a 24-inch main from the 1010 Pressure Zone reservoir north of the project site to Riverside Drive and Milliken Avenue, an 18-inch main in Riverside Drive from Milliken Avenue to Mill Creek Avenue, an 18-inch main in Mill Creek Avenue from Riverside Drive to Chino Avenue, an 18-inch main in Chino Avenue from Mill Creek Avenue to Vineyard Avenue, and an 18-inch main in Vineyard Avenue from Chino Avenue to the existing 1010 Pressure Zone tie-in.

Smaller 12-inch water mains will be constructed adjacent to the project site that ultimately connects to the regional Chino Loop water system in Riverside Drive, Haven Avenue, and Milliken Avenue.

925 Pressure Zone NMC Builder's Loop. New domestic water mains to be constructed as part of the NMC Builder's Loop include a 24-inch to 42-inch main in Milliken Avenue from the 925 Pressure Zone reservoir to Eucalyptus Avenue, a 24-inch main in Eucalyptus Avenue from Milliken Avenue to Archibald Avenue, a 12-inch main in Archibald from Eucalyptus Avenue to Edison Avenue (realignment), and a 12-inch main in Archibald Avenue from Edison Avenue (realignment) to the Pressure Reducing Station at Schaefer Avenue.

Within the 925 Pressure Zone, 12-inch to 24-inch water mains will be constructed in Haven Avenue, Mill Creek Avenue, and Edison Avenue and ultimately connect to the regional NMC Builder's Loop.

Additionally, an interconnection station will be constructed east of Edison Avenue (realignment) to connect the 925 Pressure Zone to the JCSD System.

Local Backbone Domestic Water Plan

Local backbone domestic water mains to be constructed as part of the Rich-Haven Specific Plan project will include 12-inch to 24-inch water mains throughout the local backbone street system. Additionally, one proposed water well will be located within the southeastern portion of the site (see the Rich Haven Specific Plan's Figure 4-4B, Local Backbone Water Plan.)

A hydraulic modeling analysis report is required to demonstrate that the proposed potable and recycled water systems will meet peak demands. Within the project site, a network of minimum 8-inch water lines shall be constructed. The proposed on site public water systems sizing is subject to the recommendations and approval of the required water analysis.

All water mains and wells, internal to the Rich-Haven Specific Plan project, will be provided by the merchant builder. In-tract water system design will be provided at the time of subdivision.

Existing Regulations and Standard Conditions:

The San Bernardino County Department of Health Services will require that existing wells on the project site to be destroyed once development occurs, with the exception of two well sites which will be dedicated to the City for the production of potable water. One of the well sites adjacent to Haven Avenue will be sold to the City. The well sites that will be dedicated to the City must meet four criteria: the property shall lie within the optimum or promising water quality zone, one well site shall be a minimum 20,000 square feet in size, the second well site shall be minimum 10,000 square feet in size, and a minimum of 1,500 feet shall separate the well sites.

In compliance with the Chino Basin Water Master's Well Procedure for Developers a well use/destruction plan and schedule for all existing private/agricultural wells shall be submitted to the City of Ontario for approval prior to the issuance of permits for any construction activity. If a private well is actively used for water supply, the Developer shall submit a plan to abandon such well and connect users to the City's water system when available. Wells shall be destroyed/abandoned per the California Water Resource Guidelines and require permitting from Country Health Department. A copy of such permit shall be provided to the Engineering and Public Works Agency prior to issuance of grading and/or building permits. If the Developer proposes temporary use of an existing agricultural well for purposes other than agriculture, such as grading, dust control, etc., the developer shall make a formal request to the City of Ontario for such use prior to issuance of permits for any

construction activity. Upon approval, the Developer shall enter into an agreement with the City of Ontario and pay any applicable fees as set forth by the agreement.

Recent Governing Legislation

In January 2002, two Senate Bills became effective that require cities or counties to evaluate water supplies when considering approval of specified large-scale development projects. Generally, Senate Bill 221 (SB 221) prohibits cities or counties from approving a tentative tract map, parcel map, or development agreement for a residential development project of greater than 500 dwelling units without a written verification of a sufficient water supply. Generally, Senate Bill 610 (SB 610) requires cities or counties to prepare a water supply assessment report as part of an environmental review process for any project approval that is subject to the provisions of the California Environmental Quality Act and which meets the statutory definition of a project contained in California Water Code Section 10912.

The following types of projects, as defined in Water Code Section 10912, are subject to the preparation of a water supply assessment:

- A proposed residential development of more than 500 dwelling units.
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 sq ft of floor space.
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 sq ft of floor space.
- A proposed hotel or motel, or both, having more than 500 rooms.
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 sq ft of floor area.
- A mixed-use project that includes one or more of the projects previously identified.
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

SB 221 requires cities or counties to condition the approval of every tentative map subdivision based upon the applicant's ability to demonstrate a sufficient water supply is available to serve the proposed project.

A sufficient water supply means the total water supplies available during normal, single-dry, and multiple-dry years within a 20-year projection horizon that will meet the projected demand associated with the proposed project, in addition to existing and planned uses, including but not limited to, agricultural and industrial uses. Factors to be considered when determining whether a sufficient water supply is available include information that if the identified water supply includes groundwater, the water supplier must evaluate the extent to which it or the landowner is entitled to extract that groundwater.

This verification of the projected water supplies should be based upon the following:

- Written contracts or other or other proof of valid rights to the identified water supply that identify the terms and conditions under which the water will be available to serve the proposed subdivision.
- Copies of a capital outlay program for financing the delivery of a sufficient water supply that has been adopted by the applicable governing body.
- Securing of applicable federal, state, and local permits for construction of necessary infrastructure associated with supplying a sufficient water supply.
- Any necessary regulatory approvals that are required in order to be able to convey or deliver a sufficient water supply to the subdivision.

SB 610 would exempt from its requirements any proposed project whose water demand has been included in a recently adopted Urban Water Management Plan (UWMP). If the water supplier determines that the project demand was accounted for in its most recent UWMP, it may rely on the information contained in the UWMP to prepare the water supply assessment. If the proposed water supply includes the use of groundwater, the water supply assessment must include the following:

- A review of any information in the supplier's current UWMP relevant to the water supply.
- A description of the groundwater basin to be used.
- A copy of any court order or decree adjudicating the rights to pump water from the basin.
- For basins that have not been adjudicated, information as to whether the Department of Water Resources has determined that the basin is or will be over-drafted under current management conditions.
- A detailed description of efforts by the supplier to eliminate the overdraft condition.

- A detailed description and analysis of the amount and location of groundwater the supplier has pumped from the basin during the last five years and of any other amounts the supplier plans to pump from the basin.

Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if it would have insufficient water supplies available to serve the project from existing entitlements or if new or expanded entitlements would be needed.

The NMC Final EIR stated that an insufficient water supply would occur if buildout of the NMC would increase the demand for water in excess of the amount the City can obtain from water imported from the MWD and from groundwater extracted from the Chino Groundwater Basin.

Project Impacts

The Rich Haven Project would convert the project site from agricultural uses to urban uses that would result in an additional demand for domestic water in excess of the existing agricultural consumption rate. Because no data are available that quantifies the existing consumption rate on the project site, this consumption rate has been estimated.

Because no precise consumption rates on the project site are known, two multipliers were developed that would provide an estimate of the water consumption rate, which could then be used to compare the existing to proposed demand for water. Section 4.0 of the NMC General Plan stated that as land is converted from agricultural production to the urban-type uses proposed for the NMC, the City would be credited with an additional 1.3 AFY per acre from the Overlying Agricultural Pool. Using this transfer rate, existing water consumption on the project site would then be calculated at 1.3 AFY per acre. The second method of estimating water consumption on the project site is by using the existing estimated consumption rate of 19,000 AFY for the entire NMC, as stated in the Water Master Plan, divided by the total of 8,200 acres contained in the NMC, which yields 2.3 AFY per acre.

Because water consumption on the project site is used for the single-family residences, dairy operations, and row crops; water consumption is likely to vary significantly throughout the year. For purposes of this evaluation, it is assumed that the entire project site, representing 510.6 acres, is used in the calculations. Therefore, based on the 1.3 AFY per acre figure, the existing usage would be 669 AFY, and based on the 2.3 AFY per acre the existing usage would be 1,174.4 ACY.

Table 5.10-2 provides an estimate of the projected daily water service demands that would be required by the proposed project at buildout of the maximum number of dwelling units and the minimum amount of commercial square footage.

Table 5.10-2: Estimated Domestic Water Service Demands

Land Use	Area*	Generation Factor**	Total Demand (AFY)
Domestic Water			
Residential	271.12 AC	2,232 GPD / AC	677.84
Commercial	62.8 AC***	3,100 GPD / AC	218.00
School	24.8 AC	4,500 GPD / AC	125.01
Parks	27.0 AC	4,000 GPD/AC	120.98
SCE Easements	50.22***	0	0
Roadways/Buffers	74.66	0	0
Total	510.6 AC	—	1,141.83
Notes: * Approximate acreage that assumes 17 percent for roadways and edge buffers that would not generate a demand for water supply. ** City of Ontario, NMC Final EIR, 1997, page 5.13-11 *** RBF, 2006. AC = Acre GPD = gallons per day AFY = acre feet per year One acre-foot = 325,851 gallons. Note: Draft guidelines under consideration by the City of Ontario Public Works Agency and updated December 1, 2005 may produce results somewhat different from this table when the applicant seeks permits. This table is based on the NMC FEIR to provide consistency. Source: RBF, 2006; and City of Ontario, 1997.			

Development of the proposed project at full buildout would result in an increase in domestic water consumption over the existing consumption rate on the project site. Because the domestic water supply to the project site would convert from using the existing on-site groundwater extraction well to the City’s water distribution system, the increase in water demand from the existing conditions, for purposes of this evaluation, is assumed to be 1,141.83 AFY as identified in Table 5.10-2. This is because the transfer of water credits from the Overlying Agricultural Pool to the City does not apply specifically to the project site, but rather to the entire NMC. As previously stated, buildout of the entire NMC would result in an increase in consumption of domestic water of approximately 31,000 AFY. The Rich Haven Project represents approximately five percent of the overall projected demand.

Domestic Water Supply

As previously discussed in this section, the Rich Haven Project is required to comply with the provisions of SB 221 and SB 610. Because the NMC is proposed for development of the types of

projects subject to Water Code Section 10912, the City prepared a Water Supply Assessment and Written Verification of Sufficient Water Supply for the NMC (WSA) in 2004, which includes the project site, in conformance with the provisions of these two Senate Bills. The WSA stated the City's intent that the WSA would serve as written verification for all developments within the NMC.

A revised WSA for the Rich Haven Specific Plan was completed by the City of Ontario (see Appendix J) and concluded that sufficient water was available to serve the project.

The City Council adopted the Urban Water Management Plan Year 2000 Update (Urban Water Management Plan), which was prepared by the Inland Empire Utilities Agency, on November 20, 2001 (Ordinance No. 2500). The Urban Water Management Plan is consistent with the City's Water Master Plan. In addition, the Urban Water Management Plan is consistent with and supports the implementation of the Watermaster's Optimum Basin Management Program. The projected water demand associated with the full buildout of the NMC, projected at 38,713 AFY, out of the total projected demand of 94,066 AFY, was accounted for in the Urban Water Management Plan.

The Urban Water Management Plan identified the following sources of water: groundwater extracted from the Chino Basin; recycled water from the Inland Empire Utilities Agency; and imported water from the Metropolitan Water District of Southern California, which obtains water from the Colorado River and from Northern California via the State Water Project.

If a project meets all three of the following criteria, Water Code Section 10910(h) allows the City to rely upon a previously prepared WSA:

- The project is part of a larger project for which an assessment was prepared.
- The data used to create the assessment is still accurate.
- The assessment found sufficient water for the project.

The WSA for the NMC determined the following:

- The City is the identified public water supplier for the NMC and, therefore, the project site.
- The projected water demand for the NMC is 38,713 AFY.
- The water demand for the NMC was included in the Urban Water Management Plan prepared by the Inland Empire Utilities Agency, which was adopted by the City.

- The City's existing water supply in 2005 is 71.6 MGD while the maximum demand is 69.1 MGD. The projected water supply is 166.1 MGD and the maximum demand is projected to be 152.8 MGD.
- The City has water rights to the Chino Groundwater Basin and capacity rights of 25 MGD in the WFA Treatment Plant. The City has also contracted for 5,000 AFY from the Chino Desalter Authority. The projected recycled water use is 7.4 MGD by the year 2025.

The City has sufficient water supply to provide water to the proposed project during normal, single dry, and multiple dry years during a 20-year projection, in addition to meeting the City's existing and planned future uses. Therefore, because the WSA prepared by the City found that a sufficient water supply is available to support the proposed development of the subareas within the NMC, which includes the project site, less than significant impacts to water supply would result from implementation of the proposed project.

Recycled Water Supply

The Specific Plan's Figure 4-5B illustrates the Local Backbone Recycled Water Plan and Figure 4-5C illustrates the areas that would use recycled water. Section 4.0 of the NMC General Plan identifies an existing excess of recycled water production from wastewater treatment plants. The Rich Haven Specific Plan shall comply with City Ordinance 2689 and make use of recycled water for all approved uses, including but not limited to irrigation of parks, schools, street landscaping, recreational trails, HOA maintained onsite common areas and commercial/industrial landscaping. An Engineering Report approved by the City and the Department of Health Services is required prior to the use of recycled water. Therefore, less than significant impacts would result from the proposed demand for recycled water use on the project site.

Domestic Water Infrastructure

As described above under Existing Conditions, significant water delivery infrastructure will be installed as part of the overall project. Therefore, with the installation of the NMC-programmed infrastructure and the infrastructure included with the proposed project, less than significant impacts to domestic water conveyance would result from project implementation.

Recycled Water Infrastructure

As described above under Existing Conditions, new recycled water mains will be installed as part of the proposed project. Because these recycled water mains are part of the NMC-programmed infrastructure identified for the ultimate buildout of the NMC, no additional facilities are required beyond those previously identified.

Fire Flow Requirements

Because the project site would be developed with urban uses, a potential increase demand for fire-related water supply would occur. The Water Master Plan for the Rich Haven Plan conforms to the NMC's Water Master Plan. The Rich Haven Specific Plan falls into two pressure zones, 1010 Pressure Zone and 925 Pressure Zone NMC Builder's Loop. Significant new 18-inch, 24-inch and 42-inch water mains will be constructed as part of the project (Rich Haven Specific Plan). All water mains and wells, internal to the Rich Haven Specific Plan will be provided at the time of subdivision and prior to construction of structures. Adequate fire flow is an integral part of the design and construction of these facilities. Therefore, no impacts would result from the increased demand for water related fire flow requirements resulting from project implementation.

Cumulative Impacts

The City's domestic water supply comes from two major sources (2002): local groundwater (79 percent) and imported surface water (21 percent). At buildout of the NMC, municipal water supply sources will consist predominantly of groundwater wells through direct use or treatment and use, and imported surface water from MWD supplies. Other sources of domestic water are the result of institutional agreements such as water that is supplied through water transfers, deals, and agreements. The City has two connections to the MWD import water delivery system. In addition to sources of water supply, the NMC includes intergovernmental water agency coordination. These include the MWD, the Santa Ana Watershed Project Authority, the Chino Basin Watermaster, the Chino Basin Water Conservation District, and the Santa Ana Regional Water Quality Control Board. The MWD is a public agency that provides supplemental water from Northern California via the State Water Project. The Santa Ana Watershed Project Authority is a joint powers agency that coordinates regional planning within the boundaries of the Santa Ana River Watershed to address water quality and water supply improvements. The Chino Basin Watermaster, established by a Superior Court judgment in 1978, developed an Optimum Basin Management Plan, which describes nine program elements that address groundwater production and quality objectives. The Chino Basin Water Conservation District, a special district, replenishes the Chino Groundwater Basin with surface runoff from the San Gabriel Mountains. The Santa Ana Regional Water Quality Control Board, of the State Water Resources Control Board, develops and enforces water quality objectives in conformance with the federal Clean Water Act, the federal National Pollution Discharge Elimination System, and the California Porter-Cologne Act.

Implementation of the proposed project in addition to all other related projects would increase the requirements for domestic and recycled water supply. However, the requirements for water supply have been adequately evaluated in the WSA prepared for the NMC. Therefore, the project's

contribution to cumulative impacts would be less than significant because the proposed project would not generate the need for excess additional water supply or facilities that are not already planned for.

Implementation of the mitigation measure identified in the Infrastructure Plans IS/MND would reduce potentially significant impacts related to coordination of regional infrastructure below the level of significance.

Mitigation Measures

The Utilities Section of the NMC Final EIR included a single mitigation measure that stated the City has the ability to develop water sources in excess of the current demand and further stated the NMC General Plan contains policies for water resources that, if implemented, would not require any additional mitigation measures.

No additional mitigation measures are required.

Level of Significance After Mitigation

Impacts to domestic water services would be less than significant.

5.10.2 - Wastewater Service

Introduction

Information in this section is based upon the following documents:

- NMC Final EIR, City of Ontario, October 1997.
- Initial Study/Mitigated Negative Declaration, NMC Infrastructure Master Plans, City of Ontario, August 2002.
- Sewer Master Plan, City of Ontario, January 2001.

The NMC Final EIR evaluated potential impacts related to the increased demand for wastewater treatment that would result from buildout of the NMC. The NMC Final EIR stated that the existing contractual arrangement between the City and the Inland Empire Utilities Agency (IEUA) to provide wastewater treatment services would be amended to include the NMC. In addition, the NMC identified several potential options for providing wastewater treatment for the NMC, which included combinations of conveyance facilities and treatment plants. Potential entities identified were the

IEUA, the Los Angeles County Sanitation Districts, the Orange County Sanitation District, and the Western Riverside County Wastewater Authority.

The NMC Final EIR identified IEUA planned wastewater Regional Treatment Plant No. 5 (RP-5) in Chino at Kimball Avenue as the preferred option. This treatment plant is planned to replace Regional Treatment Plant RP-2 and would have sufficient capacity for the entire NMC. The planned Kimball Avenue Interceptor would convey wastewater flows from the NMC to RP-5. The NMC Final EIR further stated that until RP-5 is completed, there is sufficient capacity in the existing wastewater treatment system to accept the wastewater that generated by the NMC.

Subsequent to the preparation of the NMC Final EIR, the City prepared an Initial Study/Mitigated Negative Declaration for water, wastewater, and drainage infrastructure plans (Infrastructure Plans IS/MND) for the NMC in order to identify potential impacts associated with implementing these master plans. The Infrastructure Plans IS/MND reflected the statements in the NMC Final EIR regarding the provision of wastewater service and indicated that with the completion of RP-5, adequate wastewater treatment capacity for the NMC would exist.

The Infrastructure Plans IS/MND also recommended a mitigation measure to ensure coordination between the City and adjacent jurisdictions for regional infrastructure improvements. Implementation of this mitigation measure would eliminate potentially significant impacts related to infrastructure.

The NMC Sewer Master Plan estimated the average wastewater dry weather flow generated by the development of the NMC would be 13.11 million gallons per day (MGD).

Existing Conditions

The NMC does not have a system in place for the collection, treatment, and disposal of wastewater. Currently, wastewater treatment is accomplished through septic tanks and subsurface disposal fields. The proposed wastewater treatment system for the NMC is in various stages of development. In addition, sewer and trunk line alignments in conformance with the Sewer Master Plan are in various stages of development and funding.

Wastewater treatment on the project site is accomplished through a septic system and a subsurface disposal field. Existing wastewater facilities in the vicinity of the project site include an existing 10-inch sewer main located in Riverside Drive. In addition, Colony High School, located north and east of the project site, has an onsite wastewater treatment system, which drains to the southerly end of the

school site and is pumped up to the 8-inch main in Riverside Drive. An existing 12-inch Jurupa Community Service District (JCSD) main is located in Milliken Avenue and serves the warehouse uses adjacent the project site along the east side of Milliken Road, in Riverside County.

When individual projects are proposed, a sewer study is required to demonstrate that the proposed sewer system will meet peak demands. Within the project site, a network of minimum 8-inch sewer lines shall be constructed. The proposed onsite public sewer system sizing is subject to the recommendations and approval of the required sewer study.

Thresholds of Significance

According to Appendix G of the State CEQA Guidelines, a project would have a significant impact on wastewater service if existing or planned facilities and supplies are not adequate to serve proposed land uses, or if existing wastewater service is significantly disrupted.

The NMC Final EIR stated that a significant impact would occur if the buildout of the NMC would increase the demand for wastewater treatment beyond the levels anticipated by the IEUA.

Project Impacts

The Rich Haven Project would convert the project site from agricultural uses to urban uses that would result in additional demand and a different method for wastewater treatment.

Because wastewater treatment on the project site is provided through septic systems, no data on existing wastewater generation is known. With project development, the onsite septic system would be removed in compliance with DHS standards.

Generation rates from Table 4-1 of the NMC Sewer Master Plan are used to calculate the projected project demand for wastewater treatment. Because the generation rate for commercial land uses identified in the NMC Final EIR reflects a greater demand than the commercial land use rate identified in the NMC Sewer Master Plan, this more conservative rate is used in Table 5.10-3 below. The table provides an estimate of the total wastewater treatment demands of the proposed project at full buildout.

Table 5.10-3: Estimated Wastewater Service Demands

Land Use	Units/Area*	Generation Factor*	Total Demand (GPD)
Residential	4,256 du	270 GPD/du	1,149,120
Commercial	62.8 AC**	3,000 GPD/AC	188,400
Schools	24.8 AC	4,500 GPD/AC	111,600
Total			1,449,120 GPD
Note: GPD = gallons per day AC = Acre du = dwelling unit * Source: NMC Sewer Master Plan, Table 4-1 and NMC Final EIR, Section 5.13.2.3. ** Source: RBF Consulting 2006 Draft Guidelines under consideration by the City of Ontario Public Works Agency and recently updated 12-01-05 may produce results somewhat different from this table when the applicant seeks permits. This table is based on the NMC FEIR to provide consistency.			

Wastewater Treatment Demand

Development of the proposed project at full buildout would result in an estimated demand for wastewater treatment of 1,449,120 gallons per day (GPD), as shown on Table 5.10-3. This demand represents 11 percent of the 13.11 million gallons-per-day (MGD) total projected demand for the NMC at buildout.

Wastewater Treatment Supply

The proposed NMC sewer system will consist of gravity sewers in a configuration that generally drains from the north to the south. Wastewater will flow south to the Inland Empire Utilities Agency Kimball Interceptor in Kimball Avenue. The Kimball Interceptor will transport the wastewater flows west to RP-5. Phase 1 of RP-5 was recently completed with a current capacity of 15 MGD. A Phase 2 expansion is anticipated within the next 3 to 4 years and, when completed, RP-5 will have a total capacity of 48 MGD. The Kimball Interceptor has been designed to accept 26.46 MGD at Baker Avenue, and 35.05 MGD at Euclid Avenue. These capacities are adequate for the wastewater generated by the NMC, and those that are recommended for diversion from five existing City pump stations.

Because the existing wastewater treatment system has capacity to accept the projected wastewater flows from the entire NMC and because RP-5 also has the capacity to accept flows from the entire NMC, which includes the project site, less than significant impacts to wastewater treatment capacity would result from project implementation.

Wastewater Conveyance Facilities

Rich Haven's wastewater facilities will be integrated with the backbone NMC Sewer Master Plan to be designed and constructed by NMC, LLC. Internal sewer mains will be 8-inches to serve the

residential and commercial uses and require merchant builders to coordinate with the NMC. Individual project developers will provide sewer mains internal to the Rich Haven Specific Plan. Backbone sewer infrastructure proposed within and near the project site includes the Haven Trunk Sewer, a 21-inch to 24-inch line within Haven Avenue, south of Chino Avenue, and the NMC Master Offsite Sewer Main, a 21-inch line within Haven Avenue north of Chino Avenue and a 15-inch line within Mill Creek Avenue, south of Chino Avenue (see Figures 4-6a and d4.6B in the Rich Haven Specific Plan.) These lines are sized with sufficient capacity to accept the wastewater flows from the project site. Therefore, less than significant impacts to wastewater conveyance facilities would result from project implementation.

Cumulative Impacts

The Rich Haven Specific Plan proposes an increase in land-use density and corresponding water demand/sewer loading above the 1998 General Plan Amendment land-use designated for this sub-area. In addition, the jointly owned Eastern Trunk Sewer project serving the area, already constructed, has physical as well as contractual capacity limitations. Implementation of the proposed project in addition to all other related projects would increase the demand for wastewater treatment. According to Section 1-5 of the Sewer Master Plan, the planned facilities would adequately serve the planned growth in the NMC region. The project's contribution of an estimated 1.4 MGD is not considered cumulatively considerable. Therefore, implementation of the proposed project, together with cumulative development and growth that is in accordance with the approved Sewer Master Plan, would not have a significant impact on planned wastewater services or facilities.

Implementation of the mitigation measure identified in the Infrastructure Plans IS/MND would reduce potentially significant impacts related to coordination of regional infrastructure below the level of significance.

Mitigation Measures

The Utilities Section of the NMC Final EIR included a single mitigation measure that stated implementation of the wastewater-related policies contained in the NMC General Plan are anticipated to mitigate potential wastewater impacts. The mitigation measure further stated that with implementation of these policies, additional mitigation measures would not be required.

No additional mitigation measures are required.

Level of Significance After Mitigation

Impacts to wastewater treatment services would be less than significant.

5.10.3 - Electricity

Introduction

Information in this section is based upon the following documents:

- NMC Final EIR, City of Ontario, October 1997.

The NMC Final EIR evaluated potential impacts to the increased demand for electricity that would result from development of the NMC. The NMC Final EIR stated that buildout of the NMC would result in a demand for 303,564-megawatt hours-per-year of electricity. Of this total demand, residential land uses would account for approximately 28 percent, commercial and industrial land uses would account for approximately 24 percent, and the remainder for public and other land uses.

The NMC Final EIR stated that four electrical substations that serve the NMC were designed in a manner that could accept a future increase in demand without the requirement to expand any of the substations or construct new substations.

Statements from Southern California Edison (SCE) contained in the NMC Final EIR stated that existing distribution systems are adequate to accept the increased demand that would result from buildout of the NMC and that an excess supply of electricity was available. Subsequent to the publication of the NMC Final EIR, the State began experiencing shortages in energy supply. However, based on current supply and demand assessments, the California Energy Commission has indicated that the supply of energy has improved for the near-term, and during this time long-term policy decisions will be made to address energy demands throughout the state (California Energy Commission 2002).

Existing Conditions

Electrical power in the City of Ontario is provided by SCE, and is generated from a combination of oil, natural gas, hydroelectric, nuclear, and renewable sources such as wind and solar energy. Electrical power in the vicinity of the NMC is delivered to SCE's bulk power station located in the City of Chino, located south of the NMC, and distributed through the electrical substations by a network of 12kV power lines. The Mira Loma substation, located adjacent to the project site, is planned to be converted to a bulk power station.

Table 5.10-4 provides an estimate of the existing daily electrical demand on the project site.

Table 5.10-4: Existing Daily Electrical Demand

Land Use	Units/Area	Generation Factor	Total Demand (million KWH/YR)
Residences	4 du	5,526.50 KWH/du/YR	0.02
Dairies	50,000 sf (est.)	10.50 KWH/sf/YR	0.53
Total			0.55
du = Dwelling Unit KWH = kilowatt sf = square feet est. = estimate KWH/sf/YR = kilowatt hours per square foot per year. KWH/du/YR = kilowatts per dwelling unit per year. Source: South Coast Air Quality Management District, CEQA Air Quality Handbook, 1997.			

Thresholds of Significance

According to Appendix G of the State CEQA Guidelines, a project is considered to have a significant impact on electrical service if existing or future planned facilities and supplies are not adequate to serve proposed land uses or existing electrical service is notably disrupted.

The NMC Final EIR stated that a significant impact would occur if the demand for electricity resulting from the development of the NMC cannot be adequately accommodated.

Project Impacts

The Rich Haven Project would convert the project site from predominantly agricultural uses to urban uses, resulting in an increased demand for electricity.

Table 5.10-5 provides an estimate of the projected annual electrical demand at buildout of the proposed project.

Table 5.10-5: Projected Annual Electrical Demand

Land Use	Units/Area	Electrical Demand Factors	Annual Demand (million KWH/YR)
Residential	4,256 du	5,526.50 KWH/du/YR	23.52
Commercial	889,200 sf	13.55 KWH/sf/YR	12.05
School	200,000 sf	10.50 KWH/sf/YR	2.10
Total			37.67
du = Dwelling Unit KWH = kilowatt hour SF = square feet est. = estimate KWH/SF/YR = kilowatts hours per square foot per year KWH/DU/YR = kilowatts per dwelling unit per year Source: City of Ontario, NMC Final EIR, 1997.			

Development of the proposed project at full buildout would result in an estimated increase in demand for electrical service in comparison to the existing conditions of 37 million kilowatts hours-per-year.

The energy demands of the project have been factored into SCE service plans by SCE who would serve the site. SCE has ongoing plans to analyze electrical demands on a yearly basis to plan for improvements as needed.

While SCE is required to provide service to the proposed project, coordination is typically required between the applicant/developer and SCE to avoid any notable service disruptions during extension and upgrading of services and facilities. This coordination ensures that the nature, design, and timing of electrical system improvements are adequate to serve the project. As a result, less than significant impacts related to the provision of electrical service would result from implementation of the proposed project.

Cumulative Impacts

Electrical power is provided to the NMC by SCE through a power grid that bisects the NMC. This grid consists of the following components; high-voltage electrical transmission lines; bulk power, and distribution. The 500 and 220 kilovolt (kV) transmission lines, in combination with the 500 kV Mira Loma bulk power substation are part of SCE's backbone power transmission system that import electricity from Northern California and Arizona into SCE's service territory, which includes the NMC. SCE operates six electrical substations. Electricity from this transmission system is delivered to the Chino bulk power substation, which then distributes the electricity to the NMC. The Mira Loma substation, located south of the project site, is planned to be upgraded to a bulk power substation, which will then be interconnected with the other substations and provide additional electrical service to the NMC.

The existing and planned facilities owned and operated by SCE usage are projected to adequately serve planned growth in the area. These facilities would be constructed with fees collected by the utility providers. No significant cumulative impacts on future electricity facilities would occur from the development of the proposed project and future developments. Project development will require underground extensions of electrical facilities. These future extensions would be coordinated with SCE to avoid any notable disruptions to existing services.

Mitigation Measures

The Utilities Section of the NMC Final EIR did not identify any mitigation measures related to the provision of electricity.

No mitigation measures are required.

Level of Significance After Mitigation

Impacts would be less than significant.

5.10.4 - Natural Gas

Introduction

Information in this section is based upon the following documents:

- NMC Final EIR, City of Ontario, October 1997.

The NMC evaluated impacts to the increased demand for natural gas that would result from development of the NMC. The NMC Final EIR stated that buildout of the NMC would result in a total demand for approximately 7.1 million cubic feet-per-day of natural gas. Of this demand, residential land uses would account for 83.3 percent, commercial and industrial land uses would account for approximately 16.2 percent, and the remainder for public and other land uses.

The NMC Final EIR stated that the major feeder lines and high-pressure gas lines that are already in place are adequate to serve the increased demand and that no major modifications to these facilities would be required.

Statements from the Southern California Gas Company (SCGC) contained in the NMC Final EIR indicated that sufficient excess supplies of natural gas are available to meet the proposed demand that would result from buildout of the NMC.

Existing Conditions

In addition to electricity, natural gas is the second major type of energy consumed in the City. The primary natural gas provider in the City is the SCGC. Current estimates of overall energy consumption indicate that natural gas is consumed primarily by the City's residential land uses.

SCGC operates a local natural gas distribution network, which is supplied by a high-pressure regional transmission system. Two underground transmission pipelines bisect the NMC. One of these is located in the Riverside Drive right-of-way adjacent to the northern portion of the project site. However, this pipeline does not provide natural gas to the NMC. The second transmission pipeline

that bisects the NMC in an east-west alignment would provide natural gas to the NMC through four regulating stations.

Table 5.10-6 provides an estimate of the existing daily natural gas demand on the project site.

Table 5.10-6: Existing Annual Natural Gas Demand

Land Use	Units/Area	Generation Factor	Total Demand (MCF/YR)
Residence	4 du	219.1 CF/day/du	0.32
Dairies	50,000 sf (est.)	110.0 CF/day/1,000 sf	2.01
Total			2.33
du = dwelling unit sf = square feet MCF/YR = million cubic feet per square foot per year CF = cubic feet YR = year * For purposes of this evaluation, building sizes have been estimated. Source: City of Ontario, NMC Final EIR, 1997.			

Thresholds of Significance

A project is considered to have a significant impact on natural gas service if existing or future planned facilities and supplies are not adequate to serve proposed land uses or existing natural gas service is noticeably disrupted.

The NMC Final EIR stated that a significant impact would occur if the demand for natural gas resulting from the development of the NMC cannot be adequately accommodated.

Project Impacts

The Rich Haven Project would convert the project site from predominantly agricultural uses to urban uses, resulting in an increased demand for natural gas. Table 5.10-7 provides an estimate of the projected natural gas demand for buildout of the proposed project.

Table 5.10-7: Projected Annual Natural Gas Demand

Land Use	Units/Area	Natural Gas Demand Factors	Total Demand (MCF/YR)
Residential	1,124 sf du	219.1 CF/day/sf du	89.89
	3,132 MF DU	135.0 CF/day/MF du	154.33
Commercial	889,200 sf	110.0 CF/day/1,000 sf	35.70
School	24.8 AC	95.3 / CF/day/AC	0.86

Table 5.10-7 (Cont.): Projected Annual Natural Gas Demand

Land Use	Units/Area	Natural Gas Demand Factors	Total Demand (MCF/YR)
Total			280.78
Notes: du = dwelling unit sf = square feet MCF/YR = million cubic feet per square foot per year CF = cubic feet YR = year * For purposes of this evaluation, building sizes have been estimated. Source: City of Ontario, NMC Final EIR, 1997.			

Development of the proposed project would result in an estimated annual increase in natural gas consumption of 259.66 million cubic feet (mcf) over existing uses.

SCGC is required to provide service to the proposed project and coordination is typical between the applicant/developer and SCGC to avoid any notable service disruptions during extension and upgrading of services and facilities (Southern California Gas Company 2004). This typical coordination would also ensure that the nature, design, and timing of natural gas system improvements are adequate to serve the project. Because the requirements for natural gas demand for the NMC, which include the project site, were evaluated in the NMC Final EIR, implementation of the proposed project would not result in a significant impact on natural gas services or facilities.

Cumulative Impacts

The existing and planned facilities owned and operated by SCGC are projected to adequately serve planned growth within the service area. These facilities would be constructed with fees collected by the utility providers. No significant cumulative impacts on future natural gas supplies or facilities would occur from the development of the proposed project. As individual developments within the project site are phased and other offsite developments are implemented, these developments will require extensions of natural gas facilities. These future extensions would be coordinated with SCGC to avoid any notable disruptions to existing services.

Mitigation Measures

The Utilities Section of the NMC Final EIR did not identify any mitigation measures related to the provision of natural gas.

No mitigation measures are required.

Level of Significance After Mitigation

Impacts on natural gas services would be less than significant.

5.10.5 - Solid Waste

Introduction

Information in this section is based upon the following documents:

- NMC Final EIR, City of Ontario, October 1997.

The NMC Final EIR evaluated potential impacts to the increased need for solid waste services that would result from development of the NMC. The NMC Final EIR stated that buildout of the NMC would result in the generation of approximately 398 tons per day of solid waste.

The NMC Final EIR stated that the amount of solid waste generated from the buildout of the NMC would exceed the existing capacity of area landfills and therefore result in significant impacts to solid waste facilities.

Existing Conditions

Solid waste generated within the City, including the NMC and project site, is collected by the City's Public Works Agency using City crews and equipment. The solid waste is then transported to the West Valley Material Recovery Facility (West Valley MRF), which is owned and operated by Burrtec Waste Industries. Burrtec Waste Industries and the City have long-term contractual arrangements for the transfer of solid waste to permitted landfills for all solid waste collected in the City. Currently, Burrtec Waste Industries transfers solid waste to the El Sobrante Landfill located in the City of Corona, which is owned and operated by the Riverside County Solid Waste Management Department. The landfill has a total estimated permitted capacity of 184,930,000 million cubic yards and according to the California Integrated Waste Management Board currently has a remaining capacity of 172,531,000 million cubic yards and is slated to cease operations in the year 2030 (California State Integrated Waste Management Board, 2006). Moreover, depending on contractual arrangements between Burrtec Waste Industries and various other landfills, solid waste collected at the project site and transferred to the West Valley MRF may be transferred to a landfill other than El Sobrante.

Table 5.10-8 provides an estimate of existing solid waste generation on the project site.

Table 5.10-8: Existing Daily Solid Waste Generation

Land Use	Units/Area	Generation Factor	Total Demand (TPD)
Residence	4 du	12.23 lbs/du/day	0.02
Dairies	50,000 sf	5 lbs/1,000 sf/day	0.13
Total			0.15
sf = square feet du = dwelling unit lbs = pounds lbs/sf/day = pounds per square feet per day TPD = tons per day Source: California Integrated Waste Management Board, Residential and Industrial Solid Waste Generation Rates, 2006			

Thresholds of Significance

A project has a significant impact on waste disposal if it cannot be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs. The NMC Final EIR states that a significant impact would occur if the solid waste generated contributes to the exceedance of capacity at the designated landfill(s).

Project Impacts

The Rich Haven Project would convert the project site from predominantly agricultural uses to urban uses that would result in increased demand for solid waste services as estimated in Table 5.10-8. Table 5.10-9 provides an estimate of the projected demand for solid waste services at buildout of the proposed project.

Table 5.10-9: Projected Daily Solid Waste Generation

Land Use	Units/Area	Generation Factor	Total Demand (TPD)
Residential	4,256 du	12.23 lbs/du/day	26.03
Commercial	889,200 sf	5 lbs/1,000 sf/day	2.22
School	200,000 sf	.007 lb/sf/day	0.70
Total			28.95
du = dwelling unit lbs = pounds lbs/sf/day = pounds per square feet per day TPD = tons-per-day Source: California Integrated Waste Management Board, Solid Waste Generation Rates, 2006.			

Compared with the existing waste generation from the site, the proposed project would result in a net increase of approximately 28.80 tons per day (TPD).

Written correspondence received from the City of Ontario (City) indicated that the West Valley MRF is a fully permitted 5,000 ton-per-day facility. Based upon the estimated 398 tons-per-day that would result from the buildout of the NMC, combined with the existing solid waste generated in the pre-NMC portion of the City, sufficient excess capacity exists at the West Valley MRF to accept the solid waste generated by the proposed project. In addition, state law requires a minimum of 15-years' aggregate disposal capacity be maintained in a regional landfill system, such as Riverside County or San Bernardino County. Therefore, because the El Sobrante has sufficient capacity, and the regional landfill systems that have the potential to receive solid waste generated from the project site must maintain sufficient excess disposal capacity, less than significant impacts to landfill capacity would result from project implementation. In addition, because the West Valley MRF has excess processing capacity, less than significant impacts to solid waste transfer facilities would result from implementation of the proposed project.

In addition to solid waste generated from proposed project uses, demolition debris will be generated during construction phases of the project. This includes the residences, hog farm and dairy-related structures onsite. Although the quantity of demolition debris cannot be specifically determined at this time, demolition waste has been specifically targeted by the State of California for diversion from the waste stream. Mandatory compliance with Chapter 3 of the City's Municipal Code, Integrated Solid Waste Management and with the City's Inert Recycling Program identified in the City's Source Reduction and Recycling Element would conform to State diversion laws and reduce the amount of demolition waste entering landfills. Therefore, conformance with the City's recycling program would ensure that the project would not contribute excessive amounts of inert wastes to landfills and would therefore result in less than significant impacts.

Cumulative Impacts

Implementation of the proposed project in addition to the other related projects would increase the amount of solid waste generated. Countywide, representing incorporated cities and unincorporated county areas, waste disposal increased slightly over 8 percent during the period 1995 to 2000. During this same period, the City increased its disposal tonnage from 222,595 tons in Year 1995 to 239,147 tons in Year 2000, representing an approximate 7 percent increase, slightly less than the countywide average. Provisions of the Integrated Waste Management Act of 1989, also known as Assembly Bill 939, require the preparation of an Integrated Waste Management Plan (IWMP) that includes documentation of the state-mandated minimum 15-year aggregate disposal capacity for a landfill system. Currently, the countywide disposal system exceeds the required minimum 15-year aggregate disposal capacity with a permitted and planned life of 29 years and a disposal capacity of 48 million tons. In addition, the City's current diversion rate is 37 percent and the majority of the jurisdictions within San Bernardino County are below the State-mandated diversion requirement of 50 percent. If

all jurisdictions in San Bernardino County achieve the mandated diversion rate of 50 percent, the amount of solid waste disposed of in landfills will decrease. However, it is not certain that all jurisdictions will achieve this mandated diversion rate. Moreover, jurisdictions that achieve the mandated diversion rate would have to maintain this diversion rate indefinitely into the future. Therefore, the anticipated solid waste generated in the NMC and the related projects is considered to be cumulatively considerable.

Mitigation Measures

The following measures shall be incorporated into the project:

- SW-1** Commercial - The developer shall comply with Municipal Code Section 6-3.314 Commercial Storage Standards, and Section 6-3.601 Business Recycling Plan.
- SW-2** Apartment - For apartments using commercial bin service, the developer shall comply with Municipal Code Section 6-3.314 Commercial Storage Standards and Section 6-3.601 Business Recycling Plan.
- SW-3** Residential - For curbside automated container service, the developer shall comply with Municipal Code Section 6-3.308.9(a) and (d), Residential Receptacles, Placement.
- SW-4** Recycling Requirements - The developer shall comply with Municipal Code Article 6. Recycling Requirements for Specified Business Activity, Section 6-3.601 Business Recycling Plan, and Section 6-3.602 Construction and Demolition Recycling Plan.
- SW-5** Site Improvement Plans shall follow the City of Ontario refuse collection standards.

The Utilities Section of the NMC Final EIR stated that the proposed plan reduces solid waste impacts to the maximum extent feasible and further stated that no feasible mitigations can be proposed at this time.

No feasible mitigation measures exist that would eliminate or substantially lessen the cumulative impacts to solid waste facilities.

Level of Significance After Mitigation

The proposed project would result in a cumulatively considerable significant impact on solid waste facilities.