4.14 UTILITIES AND INFRASTRUCTURE

This section describes the existing water supply, wastewater, stormwater and solid waste infrastructure in the City of Chino. This section also discusses potential impacts of both the Proposed General Plan and the Focused Growth Plan on the provision of these services. In addition, measures to mitigate those impacts are recommended as appropriate. It is organized according to type of infrastructure, with each type analyzed individually according to CEQA Guidelines.

A. Water Supply

This section describes current conditions and potential impacts of both the Proposed General Plan and the Focused Growth Plan with regard to water supply in the City of Chino.

1. Regulatory Framework

The following federal, State, and local programs, policies, and regulations govern water supply in Chino.

a. Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) authorizes the United States Environmental Protection Agency (EPA) to set national health-based standards for drinking water, called the National Primary Drinking Water Regulations, to protect against both naturally-occurring and human-made contaminants. These standards set enforceable maximum contaminant levels (MCL) in drinking water and require particular methods for treating water to remove contaminants for all water providers in the United States, except for private wells serving fewer than 25 people. In California, the State Department of Public Health (DPH) sets drinking water standards. If a water system does not meet standards, it is the water supplier's responsibility to notify its customers.

b. SB 610 and SB 221

Senate Bill 610 (SB 610) and Senate Bill 221 (SB 221) amended State law to better coordinate local water supply and land use decisions, and ensure ade-

quate water supply for new development. Both statutes require detailed information regarding water availability to be provided to City and County decision-makers prior to approval of specified large development projects. Both statutes also require this detailed information be included in the administrative record that serves as the evidentiary basis for an approval action by the City or County on such projects. Both measures recognize local control and decision-making regarding the availability of water for projects and the approval of projects.[1]

c. Urban Water Management Planning Act

Through the Urban Water Management Act of 1983, the California Water Code requires all urban water suppliers within California to prepare and adopt an Urban Water Management Plan (UWMP) and update it every five years. This requirement applies to all suppliers providing water to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. One acre foot (AF) is the amount of water required to cover one acre of ground (43,560 square feet) to a depth of one foot. The Act is intended to support conservation and efficient use of urban water supplies at the local level. The Act requires that total projected water use be compared to water supply sources over the next 20 years in five year increments; that planning occur for single and multiple dry water years; and that plans include a water recycling analysis that incorporates a description of the wastewater collection and treatment system within the agency's service area along with current and potential recycled water uses.[2]

Consistent with the Urban Water Management Planning Act, the City of Chino, the Inland Empire Utilities Agency, the Water Facilities Authority, and the Monte Vista Water District have each prepared UWMPs, which are described below.

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[1] California Department of Water Resources, 2003, *Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 of 2001 to assist water suppliers, cities, and counties in integrating water and land use planning*.

[2] Department of Water Resources, Urban Water Management Planning Act, http://www.owue.water.ca.gov/urbanplan/index.cfm, accessed December 4, 2009.

i. City of Chino Urban Water Management Plan

The City of Chino Urban Water Management Plan (UWMP) was prepared by the City of Chino in 2005 to fulfill the requirements of the Urban Water Management Planning Act. The UWMP was prepared by Chino's Public Works Department and Planning Department. The UWMP addresses regional water supply trends, water conservation and water use efficiency supplies policies to ensure sufficient water supply.[3]

ii. Regional Urban Water Management Plan

In addition to the UWMP prepared by the City, the Inland Empire Utilities Agency (IEUA) prepared the 2005 Regional Urban Water Management Plan. IEUA supplies water to the western portion of San Bernardino County. This document states the goals, objectives, and strategies to maintain water for the IEUA service area over the next 20 years and complies with the Urban Water Management Planning Act.[4] The Metropolitan Water District of Southern California (MWD), Chino Basin Water Master, Chino Basin Desalter Authority and retail agencies were consulted.[5]

iii. Water Facilities Authority Urban Water Management Plan

The IEUA prepared the 2005 Urban Water Management Plan for the Water Facilities Authority (WFA) and its service area. The UWMP serves as a companion document to the IEUA 2005 Regional Urban Water Management Plan. The WFA is responsible for imported water treatment and distribution to its member agencies in southwest San Bernardino County, which includes the City of Chino service area. The WFA 2005 Urban Water Management Plan addresses current and projected water supplies and demands over the next 20 years.

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[3] City of Chino, 2005, *2005 Urban Water Management Plan*, Executive Summary.

[4] Inland Empire Utilities Agency, 2005, *2005 Regional Urban Water Management Plan*, Volume II, Preface and Executive Summary.

[5] Inland Empire Utilities Agency, 2005, *Water Facility Authority, 2005 Urban Water Management Plan*, Executive Summary.

iv. Monte Vista Water District Urban Water Management Plan

The Monte Vista Water District (MVWD) prepared its UWMP in 2005. The MVWD receives water from the Chino Groundwater Basin, from the State Water Project via the IEUA, and from recycled water supplied by the IEUA. The UWMP finds that water supply is expected to be sufficient to meet demand in through the year 2030, even in multiple dry-year scenarios.[6]

d. 1978 Chino Basin Judgment

In many jurisdictions in California, the Groundwater Management Act of the California Water Code (AB 3030) provides guidance for applicable local agencies to develop a voluntary Groundwater Management Plan (GMP) in State-designated groundwater basins. However, the Chino Basin is an adjudicated basin; therefore, this adjudication, known as the 1978 Chino Basin Judgment, along with subsequent amendments, is the set of documents governing the production of local groundwater. The Judgment established the safe yield for the Chino basin at 140,000 acre-feet per year, of which 82,800 acre feet per year are designated for agricultural uses, 7,366 acre-feet per year are assigned to industrial uses, and the remaining 54,834 acre-feet per year are divided among municipal users.[7]

e. Water System Master Plan Update 2004

The City completed a Water System Master Plan Update in 2004, which evaluated existing and future water demands. In particular, the Master Plan Update revised the water demands of the California Institution for Men; revised the water demands of Subareas 1 and 2; and updated the Capital Improvement Program (CIP) through 2030. The average daily demand for water in 2004 was found to be 14.5 million gallons per day. A phasing plan, including costs, was included for the recommended improvements of the CIP.[8]

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[6] Monte Vista Water District, 2005, *2005 Urban Water Management Plan*, Section I, Introduction and Section II, Water Sources and Supplies.

[7] Chino Basin Watermaster website. Overview. http://www.cbwm.org/overview.htm. Accessed on December 18, 2009.

[8] Montgomery Watson Harza, 2004, *Final Report: Water System Master Plan Update 2004*, page 1

These improvements included new pipes, new wells, construction of water treatment facilities, and backup power supplies.

f. Optimum Basin Management Program

The Optimum Basin Management Program Draft Phase 1 Report assessed the state of the Chino Basin as of 1998. The historical groundwater levels, storage, production, water quality and safe yield of the Basin were analyzed. In addition, the Phase I Report assessed current and projected water demand and supply through 2020. Projected water demand for the Chino Basin according to the Phase I Report is 418,000 acre-feet per year for the year 2020. There is at least 1,000,000 AF of unused storage capacity in the Basin. The Optimum Basin Management Programs also sets management criteria for the Chino Basin that would enhance the safe yield and water quality of the Basin. Elements of the management plan include comprehensive monitoring, recharge and groundwater storage programs. The ultimate goal of the Basin Management Plan is to ensure that all groundwater users can produce water from the Basin in a cost-effective manner.

g. Chino Basin Recharge Master Plan

The Recharge Master Plan Phase II Report is a part of the Optimum Basin Management Program that was prepared for the Chino Basin Watermaster in 2001. The purpose of this Phase II Report is to increase groundwater recharge within the Chino Basin. Three potential recharge water sources are stormwater, recycled water and imported water. The estimated average annual stormwater and potential recycled water recharge by year 2020 is 18,790 to 23,700 AFY, while for imported water it is 81,800 to 122,100 AFY. The Phase II Report also recommends improvements to facilities, as well as identifies innovative stormwater retention concepts. Improvements for stormwater recharge consist of earthwork, new basin inlets or modifications to existing ones, and new or modified basin outlets. Improvements for recycled water discharge include inlet structures, conveyance facilities, and turnouts from the proposed IEUA Regional Recycled Water Distribution System. For imported water recharge, improvements include construction of inlet structures, conveyance facilities, and other improvements. To facilitate these improve-

ments a Chino Basin Recharge Water Implementation Committee was established.

2. Existing Conditions

This section describes water supply and demand for Chino. Water supply is primarily provided by the Chino Water Utility, with other purveyors, including the Monte Vista Water District, City of Chino Hills, privately-owned wells, and other members of the Chino Basin Watermaster Agricultural Pool including the State of California, and San Bernardino County providing supply to more limited areas of the City.

This discussion references three key terms to describe amounts of water:

- Acre-Foot: An acre-foot (AF) is used to measure large-scale volumes of water. One AF is the amount of water necessary to cover one acre to a depth of one foot and is equivalent to 325,851 gallons.
- Acre-Foot per Year: One acre-foot per year (AFY) is generally enough water to serve the needs of two households of five residents per household for one year.
- Million Gallons per Day: One million gallons per day (MGD) is about equivalent to 1,121 AFY, or enough to serve about 2,200 households.

a. Water Supply – Chino Water Utility

The City of Chino's Water Utility operates within the City's Public Works Department, and provides water through its membership in several local and regional water providers. The Utility's service area covers most of the City of Chino and small portions of the City's Sphere of Influence, as well as excluding small portions of the City that are served by other providers described below. It is a sub-agency of the IEUA, a member of the WFA – Joint Powers Agency, and a member of the Chino Basin Desalter Authority (CDA)- Joint Powers Agency.[9] The Chino Water Utility provides both potable and recycled water to its service area. Recycled water is primarily used

[9] City of Chino, 2005, *2005 Urban Water Management Plan,* page 1-5.

for some irrigation and industrial uses, while potable water is used to meet all other water demand in the service area.

The Chino Water Utility currently obtains water from three sources: 1) local groundwater from the Chino Groundwater Basin, produced by City-owned wells and by the Chino Basin Desalter Authority (CDA); 2) imported surface water from the Metropolitan Water District of Southern California (MWD) through the IEUA and treated by the WFA; and 3) recycled water supplied by IEUA. The continued reliability of these sources of water supply is evaluated on a regular basis with each update of the City's Urban Water Management Plan.

Currently, the City receives approximately 65 percent of its water supply from City-owned groundwater wells and the CDA; approximately 13 percent from imported water deliveries; and approximately 22 percent in the form of recycled water supplied by IEUA. Planned water system improvements will enable the increased use of municipal groundwater wells and recycled water. The current water supply described below adds up to 18,852 AFY of potable water and 4,626 AFY of recycled water, for a total of 23,478 AFY.[10]

i. Imported Water

Historically, MWD has been responsible for importing surface water into the region via the Colorado River Aqueduct system and from northern California through its contract with the State Water Project (SWP).

MWD water comes to Chino through the IEUA, which was formed in 1950 to become a member of MWD for the purpose of importing supplemental water to the Inland Empire, thereby augmenting local stream and groundwater supplies. IEUA is the regional wholesaler of imported surface water for MWD, and the City of Chino Water Utility is a sub-agency of IEUA. Additionally, when it is available, the Chino Basin Watermaster purchases im-

[10] City of Chino Public Works Department.

ported water to augment the natural replenishment of the Chino Groundwater Basin.

Imported water is supplied to the City from MWD and IEUA via the WFA, a joint powers agency formed to study, plan, and provide facilities for the treatment and distribution of imported water to its members. The WFA's Agua de Lejos Water Treatment Plant, located in Upland, serves Chino through a Benson Avenue pipeline connection at the north end of the City's potable water system. The WFA is currently permitted by the DPH to treat 81 MGD of imported surface water, and the City of Chino is entitled to 5.9 percent (5,353 AFY) of the WFA treatment plant permitted capacity. Since the WFA-treated water is superior in quality compared to the City's well water, the imported water is stored in reservoir facilities for blending with municipal well-produced groundwater.

MWD's ability to provide reliable imported water deliveries is expected to decline in the future as those supplies are constrained by environmental factors and other issues affecting the Sacramento-San Joaquin Delta. Because of this, optimally managing limited supplies of imported water to Southern California is critical.

ii. Local Groundwater – City Wells

The City extracts groundwater from the Chino Groundwater Basin utilizing City-owned wells. The Chino Groundwater Basin is an adjudicated basin and it is managed by the court-approved Chino Basin Watermaster. The Watermaster is guided by the provisions of the Chino Basin Judgment and subsequent agreements between the parties to the Judgment. These agreements provide for groundwater production rights and a physical solution for the operation and maintenance of the Basin. The City's current water production rights, based on its assigned share of the safe yield, equal 4,034 AFY. Additional water production rights are received from reallocations of underutilized rights originally assigned to historic agricultural use to municipal use, although the reallocations are subject to annual availability. For example, in production years 2007-2008 and 2008-2009 the City received reallocations of

8,291 acre-feet and 8,055 acre-feet, respectively. In 2008, the City supplied approximately 8,499 acre-feet of local groundwater to meet demand

The legally designated safe yield of the Chino Groundwater Basin is 140,000 AFY. Replenishment of the Basin is required in instances when pumping occurs in excess of the safe yield or production right limits. Purchasing imported water from MWD through IEUA for groundwater basin recharge has been the most prevalent method of making-up for any excess pumping, although supplemental water may be obtained from any available source, including recycled water, so long as water quality restrictions are observed.

Chino Basin groundwater contains several contaminants in varying concentrations and usually must be treated before distribution and delivery to customers. Generally, the most economical form of treatment is blending contaminated groundwater with highly treated imported water. However, supplies of imported water are limited, effectively restricting the City's ability to treat groundwater in volumes sufficient to meet its demand through blending. Alternatively, the City owns and operates limited water treatment facilities which it utilizes to address groundwater contamination present in water produced from certain wells. The City also has plans to expand its inventory of water treatment equipment as necessary in order to produce treated groundwater in volumes required to satisfy future demands.

iii. Local Groundwater – CDA

The CDA produces local groundwater that it treats and distributes to its members, including the Cities of Chino, Chino Hills, Ontario, and Norco; the Jurupa Community Services District; the Santa Ana River Water Company; and the Western Municipal Water District. The City of Chino is contracted to receive an annual delivery of 5,000 AFY.

The CDA extracts its groundwater from approximately two dozen wells located in the southern portion of the Chino Groundwater Basin. Because the CDA does not hold any groundwater production rights, all of the groundwater that the CDA pumps from the Chino Groundwater Basin must be replen-

ished. The Chino Basin Watermaster tracks the amount of groundwater pumped by the CDA (and other producers), and develops a schedule and method to address the replenishment of the Basin. The need to replenish groundwater generally does not affect the City's ability to use the groundwater, except in cases of severe drought conditions or State-wide water supply shortages that result in replenishment water being unavailable for an extended time. In such a case, groundwater production would need to be curtailed.

iv. Recycled Water

The City currently receives approximately 4,626 AFY of recycled water from IEUA. IEUA operates four regional wastewater treatment plants that produce disinfected and filtered tertiary-treated recycled water in compliance with California's Title 22 regulations. Water recycling is a critical component of the water resources management strategy for the region. The reuse of highly treated wastewater effluent is a source of water available to meet the growing non-potable water demands of the IEUA service area, including Chino. Recycled water is used to satisfy some demands that might otherwise consume potable water. Conversion of uses from potable to recycled water will conserve limited potable water supplies for those uses that require drinking water. IEUA predicts that it has sufficient system flexibility and supply to satisfy all anticipated future demands.[11] The City's UWMP projects that Chino will use 8,913 AFY of recycled water in 2025.[12]

The use of recycled water for groundwater recharge is an integral part of the Watermaster's Optimum Basin Management Program (OBMP). The Chino Basin Recharge Master Plan identifies the benefits of blending high quality stormwater and recycled water to protect the safe yield of the Chino Groundwater Basin. The IEUA supplies recycled water in response to current and projected demand within the service area. Because the input to recycled water is wastewater from a large region, the supply of recycled water is only limited by processing capacity and is otherwise effectively unlimited

[11] Inland Empire Utilities Agency, 2007, *Recycled Water Three Year Business Plan.*

[12] City of Chino, 2005, *2005 Urban Water Management Plan,* Table ES-2.

b. Water Supply – Other Purveyors

Certain portions of the City receive water for domestic and/or non-domestic purposes from one or more of the following: Monte Vista Water District, City of Chino Hills, privately-owned wells, and other members of the Chino Basin Watermaster Agricultural Pool, including the State of California, and San Bernardino County.

The MVWD provides fulltime potable water service to a Chino population of approximately 8,600 persons residing in the extreme northwest portion of the City. The City of Chino Hills provides fulltime potable water service to a Chino population of approximately 700 persons located in the southwestern portion of the City that is located west of Highway 71. Both MVWD and Chino Hills receive a portion of their potable water supplies from the WFA (i.e. imported surface water) and from wells that produce local groundwater from the Chino Groundwater Basin. These retail water agencies update their Urban Water Management Plans on a regular basis to ensure that adequate programs are in-place to satisfy the water demands of their respective service areas, including those small portions of the City of Chino described above.

Various properties throughout the City, primarily dairies and other farms, have small volume groundwater wells that produce groundwater from the Chino Groundwater Basin for private onsite uses. The agricultural use of groundwater is monitored by the Watermaster. The agricultural community shares a common pool of groundwater production rights equal to 82,800 AFY. Individual farms do not generally update their well plans in a manner simi9lar to those of public water suppliers.

The State of California operates the California Institution for Men and the California Institution for Women, and supplies these facilities with potable water from groundwater wells that pump from the Chino Groundwater Basin. San Bernardino County operates the Chino Airport and immediately adjacent agricultural property as well as the Prado Regional Park and El Prado Golf Course properties, and supplies these properties with water from wells that pump from the Chino Groundwater Basin. Both the State of Cali-

fornia and San Bernardino County pump water from their wells utilizing groundwater production rights that have been "pooled" for the aggregate use of the agricultural community in the Chino Basin.

c. Water Demand – Chino Water Utility

Current water demand in areas of Chino supplied by the Chino Water Utility is calculated at 16,291 AFY of potable water and 4,626 AFY of recycled water, for a total demand of 20,917 AFY. These figures are for fiscal year 2008-09, the most recent figures available. They indicate that there is a current potable water surplus of 2,561 AFY.[13]

d. Water Demand – Other Purveyors

Demand for water pumped by the County and State is regulated by the Chino Basin Watermaster. Users at the Chino Airport, California Institution for Men, and others reliant upon these sources must calibrate their demand to the available supply. The same is true for demand from agricultural users reliant upon groundwater.

The portions of Chino that receive their water from the MVWD and the City of Chino Hills do not have separate water demand calculations. However, the MVWD as a whole currently has a surplus of 7,410 AFY, indicating that supply exceeds demand.[14] Demand in Chino Hills is incorporated into the regional UWMP prepared by IEUA, which similarly shows a current surplus.[15] This indicates that the portion of Chino within the Chino Hills service area has a demand that is within Chino Hills' ability to provide.

3. Standards of Significance

The proposed projects would have a significant impact if either of them would:

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[13] City of Chino Public Works Department.

[14] Monte Vista Water District, 2005, *2005 Urban Water Management Plan*, page 4-27, Table 4.2-6.

[15] Inland Empire Utilities Agency, 2005, *Water Facility Authority, 2005 Urban Water Management Plan*, Executive Summary

- Have insufficient water supplies available to serve the project from existing and identified entitlements and resources.
- Require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

4. Impact Discussion for the Proposed General Plan and Focused Growth Plan

a. Water Supplies

As noted above, the City of Chino's Water Utility provides the vast majority of the water supplied to the City. The Water Utility continually evaluates its ability to provide water service to its existing and anticipated future customers. At a minimum, the evaluations occur every five years with each update of the City's UWMP. In addition, State legislation requires an updated evaluation, called a Water Supply Assessment (WSA), of available water supply to meet existing and anticipated future conditions with each proposed land development project of a certain size.

The most recent comprehensive evaluation of the City's ability to provide water service to its existing and anticipated future customers was the WSA for the SRG South Industrial Park, prepared in 2008. This WSA contained an analysis of water supply projections for the City through the year 2030. The analysis demonstrated that the City's projected supplies exceeded projected demand throughout the 20-year planning period and that the City would maintain a surplus supply of at least 2,222 AF.[16] Furthermore, this WSA included analyses of single-dry and multiple-dry year scenarios that also demonstrated the City's ability to meet future demand even under reduced imported water supply conditions and implementation of conjunctive use programs.[17]

[16] RBF Consulting, 2008, *California Senate Bill 610 Water Supply Assessment for the SRG Chino South Industrial Park*, page 4-3, Table 4.1-2

[17] RBF Consulting, 2008, *California Senate Bill 610 Water Supply Assessment for the SRG Chino South Industrial Park*, pages 5-33 to 5-40, Tables 5.12-2 to 5.12-16.

The WSA projected water supply in Chino through 2026 of 24,149 AFY and recycled water supply through 2026 of 9,691 AFY. These projections were based on the City of Chino's UWMP, which calculated supply based on information provided by IEUA and the Water Utility's other suppliers.

The WSA projected water demand in Chino through 2026 at 21,546 AFY of potable water and 9,691 AFY of recycled water, for a total of 31,432 AFY. These projections were based on the City of Chino's UWMP, which calculated demand based on the water billings in the past and the General Plan in effect when the UWMP was written in 2005. The WSA utilized water demand factors for the additional land uses it was designed to cover. These were the SRG project itself and the Edgewater Communities project, which had been proposed at the time. This additional analysis was then added to the demand found in the UWMP to produce the demand figures described above.

The Proposed General Plan and Focused Growth Plan would result in additional demand beyond that projected when the SRG Chino project was approved. There would be additional housing units, as well as other intensification of development. City staff used the demand factors provided in the City of Chino UWMP to estimate the additional demand that would result from these land uses.[18] The resulting figure is an additional 423 AFY of potable water and an additional 239 AFY of recycled water, for a total of 662 AFY.

The supply and demand figures in the SRG WSA were projected to result in a potable surplus of 2,408 AFY in 2026 and recycled water equivalent to projected demand. Therefore, the additional demand associated with the Proposed General Plan would reduce the potable surplus to 1,985 AFY by 2026. As was described above, recycled water supply is expected to keep pace with demand due to IEUA's plans to upgrade supply as demand expands.

[18] RBF Consulting, 2008, *California Senate Bill 610 Water Supply Assessment for the SRG Chino South Industrial Park*, pages 5-33 to 5-40, Tables 5.12-2 to 5.12-16.

In certain dry-year scenarios the City would need to produce a minimum quantity of groundwater from its storage reserves in order to meet the potable water demand. The Focused Growth Plan would result in an increase of 557 AFY of potable water and 352 AFY of recycled water, for a total of 909 AFY by 2026. The potable water surplus in 2026 would be reduced to 1,851, with a similar need to draw upon storage reserves during dry year scenarios.

The other purveyors described above in Section 2.b would experience limited change in demand under the Proposed General Plan or Focused Growth Plan. Very little development under the two General Plan Alternatives would occur in the areas served by non-City of Chino entities. Moreover, as is described above in Section 2.d, users reliant upon groundwater adjudicated by the Chino Basin Watermaster, as well as agricultural groundwater users, must calibrate their demand to the available supply.

The MVWD projects a multiple dry year surplus of 15,530 in 2026. Total demand in 2026 is 25,670. [19] Based on the fact that the Chino portion of the district is 40 percent of the district's area, and there are limited land use changes within that area, supply is expected to continue to exceed demand at buildout of the Proposed General Plan and the Focused Growth Plan.

The portion of Chino supplied by Chino Hills is not projected to experience significant growth because the Proposed General Plan and Focused Growth Plan do not call for higher-intensity residential development than exists in that portion of the City currently. Therefore, as is described above, supply is expected to continue to exceed demand.[20]

In addition to the analysis above describing sufficient sources of water for buildout of the Proposed General Plan and Focused Growth Plan, the City's water system benefits from back-up supplies. The City's potable water sup-

[19] Monte Vista Water District, 2005, *2005 Urban Water Management Plan*, page 4-31, Table 4.2-10.

[20] Inland Empire Utilities Agency, 2005, *Water Facility Authority, 2005 Urban Water Management Plan*, Executive Summary

ply and distribution system is connected to the potable water systems of adjacent water purveyors, including the Cities of Upland, Ontario, and Chino Hills. These sources ensure back-up water supply in the event of an emergency. These interconnections have the potential for provision of water supply either into or out of the City of Chino as part of the City's commitment to participate in mutual aid with its neighbors.

Throughout implementation of the Proposed General Plan and Focused Growth Plan, the City would continue its ongoing evaluation of water system capabilities. This is part of the routine development review process for all proposed land development projects, regardless of size. Review would also take place during updates of the City's water facilities master plan and Capital Improvement Program (CIP). Based on the results of these types of evaluations, the City has demonstrated that it has sufficient water supplies and programs to satisfy the water demands of anticipated future development while maintaining satisfactory levels of water service to its existing customers.

The City and other Chino Basin water purveyors recognize that a mix of water management strategies will be needed to enable the City and the region to continue to provide a high quality, reliable water supply. The water supply mix will include implementing water conservation programs, minimizing dependence on imported surface water supplies, maximizing use of available storm water, and achieving a maximum reuse of all available recycled water. These efforts are incorporated into the policy statements of the Proposed General Plan and Focused Growth Plan. For example, under Goal PFS-7, Objective PFS-7.1 states that the City will ensure water reliability. Policies P1 through P6 under that objective call for the City to acquire additional water supply, including recycled water, to reduce water demand associated with developed uses, to focus on water conservation, and to partner with other jurisdictions to implement regional water conservation. Objective PFS-7.4 calls for the City to reduce the use of potable water in places where recycled water would be an acceptable substitute. Policy P1 under this objective requires the City to review new developments to determine which are appropriate for the use of recycled water. Policy P4 calls for the City to condition

development approval upon the provision of recycled water conveyance facilities.

Due to the measures described above, water supply for buildout of the Proposed General Plan and Focused Growth Plan is projected to be sufficient and as such there would be a *less-than-significant* impact.

b. New or Expanded Water Facilities

The Water System Master Plan recommends the construction of various facilities (e.g. pipes, pumps, wells, reservoirs, treatment systems) to adequately and reliably produce and distribute water in the City's service area during future conditions. For these future facilities described in the Master Plan, technical evaluations will be performed on a project by project basis in order to understand project feasibility and any technically-based recommendations with respect to the operation of those facilities (e.g. well production limits in order to maintain groundwater level, etc.). Therefore, a *less-than-significant* impact to the environment is anticipated as a result of the construction of new water facilities or expansion of existing facilities.

5. Cumulative Impacts

To guide its efforts in addressing the potential effects of future growth, the City has developed a Master Plan for its potable and recycled water systems. The Master Plan describes water system infrastructure improvements that are considered necessary to ensure the provision of adequate levels of water service to existing and future development in the City.

The City implements water conservation measures that include Best Management Practices (BMPs), and complies with the conservation objectives established by the California Urban Water Conservation Council (CUWCC). Also, IEUA has established conservation goals that are expected to further reduce the overall demand on imported water supplies and help to drought-proof its service area. Finally, MWD has developed a drought management plan to address water shortage conditions, and that plan has been considered by IEUA, the WFA, and the City in the development of their respective water conservation plans and programs. Implementation of the activities out-

lined in these various programs and plans will help to ensure that existing development and growth throughout the region will be satisfactorily served. With the implementation of these plans and measures, there would be *no significant cumulative* impact associated with the provision of water infrastructure from the projects.

6. Impacts and Mitigation Measures

No significant impacts related to water supplies were identified as a result of the Proposed General Plan or the Focused Growth Plan. Potential impacts that may stem from growth will be mitigated through a combination of conservation and system improvement.

B. Wastewater

The following provides a description of wastewater service in Chino, including applicable regulatory programs, existing wastewater services and infrastructure, and the potential impacts of both the Proposed General Plan and the Focused Growth Plan with regard to wastewater service in Chino..

1. Regulatory Framework

The following federal, State, and local programs, policies and regulations govern wastewater in Chino.

a. National Pollutant Discharge Elimination System (NPDES) Program

The State Water Resources Control Board (SWRCB) is responsible for implementing the Federal Water Pollution Control Act (Clean Water Act), and does so by issuing NPDES permits to cities and counties through regional water quality control boards (RWQCB). In California, the NPDES Program is administered by the State.[21]

[21] State Water Resources Control Board website, National Pollutant Discharge Elimination System (NPDES) http://www.swrcb.ca.gov/water_issues/programs/npdes/, accessed on December 7, 2009.

b. Porter Cologne (Porter-Cologne) Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act, which was passed in California in 1969, the SWRCB has the ultimate authority over State water rights and water quality policy. Porter-Cologne also establishes nine RWQCBs to oversee water quality on a day-to-day basis at the local/regional level. Regional Boards engage in a number of water quality functions in their respective regions. Regional Boards regulate all pollutant or nuisance discharges that may affect either surface water or groundwater.[22] The City of Chino is overseen by the Santa Ana RWQCB.

c. Sanitary District Act

As part of the California Health and Safety Code section 6400 et seq, the Sanitary District Act of 1923 was created with the purpose for any area in a county, or in two or more counties within the same natural watershed area, to acquire, construct and operate garbage dumps and garbage disposal systems, sewerage systems, drainage works, and water reclamation and distribution systems.[23]

d. Wastewater Facilities Master Plan

The Wastewater Facilities Master Plan, completed in April 2002, provides a plan for the implementation of projects that will be required to provide for expected population increases in the Cities of Chino, Chino Hills, Fontana, Montclair, Ontario and Upland, as well as the Cucamonga Valley Water District. The Facilities Master Plan was developed by the IEUA, in concert with IEUA member agencies. Several objectives are set by the Facilities Master Plan, including but not limited to the following: identify facility needs for the near-term (next ten years) and long-term (up to year 2050); develop strategies for flow diversion between the wastewater treatment plants to maximize wa-

[22] California Wetlands Information System, Summary of the Porter-Cologne Water Quality Control Act,http://ceres.ca.gov/wetlands/permitting/Porter_summary.html, accessed on December 7, 2009.

[23] California Health & Safety Code, Div. 6, Pt. 1, §§ 6400-6830: Derived from 1923:250:498. "Sanitary District Act of 1923."

ter recycling, energy efficiency, biosolids recycling, and treatment capacities; and maximize capacity utilization from now to ultimate build-out. Detailed strategies to implement the objectives are found in Sections 5 through 9 of the Master Plan.[24] The facility needs projected by the Facilities Master Plan exceed current projections due to wastewater conservation and diversion programs that are now in place.[25]

e. City of Chino and IEUA Sewer System Management Plans (SSMPs)

The SSMPs were developed for the purposes of complying with the SWRCB adopted Order No. 2006-0003, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (WDR). According to the WDR, federal and State agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than 1 mile in length are required to comply with the terms of this Order. The goals of the SSMPs are to provide a plan and schedule to properly manage, operate and maintain all aspects of the Sanitary Sewer System in order to help reduce and prevent Sanitary Sewer Overflows (SSOs), as well as mitigate any SSOs that do occur.

f. City of Chino Wastewater Ordinance

On November 6, 1990, the City of Chino adopted Ordinance 90-28, Wastewater Discharge Regulations. The purpose of this ordinance is to establish requirements for anyone who discharges wastewater into the City's sewage system. The requirements in the ordinance include wastewater discharge quality and quantity limitations for the intent to prevent impacts to the City's sewer collection system and/or downstream facilities such as IEUA's regional treatment plants. In addition, the ordinance contains wastewater pretreatment requirements for commercial and industrial users. City staff periodically update the ordinance for the purposes of maintaining compliance with new environmental regulations.

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[24] Inland Empire Utilities Agency, 2002, *Wastewater Facilities Master Plan*, pages 5-1 to 9-7.

[25] Shaw, Ryan. Assistant Engineer, Inland Empire Utilities Agency. Personal communication with Alejandro Huerta, DC&E. August 31, 2009.

2. Existing Conditions

The City of Chino operates and maintains its own local sewer collection system. The City's sewer collection system drains into IEUA's trunk sewers which convey the sewage to IEUA's wastewater treatment and reclamation plants for treatment. Currently, there is an existing Citywide Master Plan (1993) and a Sewer Master Plan for Subareas 1 and 2, developed in 2003, and later updated in 2007. The City is currently revising its Sewer Master Plan, which will evaluate existing sewer capacities and future sewer improvement needs based on buildout conditions using Geographic Information Systems (GIS) software.[26] This Master Plan revision is expected to find that some of the sewer pipes are undersized, some pipes need to be relined, and some diversion lines may need to be constructed to meet current and future demands.[27]

The IEUA owns and operates a 66-mile regional interceptor system that collects and conveys wastewater from local sewers owned and operated by its member agencies, including the City of Chino.[28] The IEUA sewer collection system consists of a total of 830,175 miles of pipeline and 2,809 manholes.[29] The IEUA is organized into two service areas: the Northern Service Area (NSA) and the Southern Service Area (SSA). The SSA encompasses the City of Chino, City of Chino Hills and the New Model Colony area of Ontario. The wastewater collection and treatment services system utilizes pump stations and force mains to circulate the wastewater. There are two pump stations and two force mains: the Montclair Interceptor Pump Station and Force Main and the Prado Park Lift Station and Force Main. These facilities move

[26] Liguori, Nicholas. Principal Planner, City of Chino. Personal email communication with Alejandro Huerta, DC&E, August 14, 2009.

[27] Imani, Nagmeh. Associate Engineer, City of Chino. Personal email communication with Alejandro Huerta, DC&E, December 29, 2008.

[28] Inland Empire Utilities Agency, 2002, *Wastewater Facilities Master Plan: Volume 1*, page 1-17.

[29] Inland Empire Utilities Agency, 2009, *IEUA Sewer System Management Plan*, page 20.

the wastewater to the regional treatment plants.[30] There are two regional treatment plants in Chino and one regional treatment plant in Ontario that serve Chino and its Sphere of Influence. They are described below. In addition to these plants, Regional Plant 2 (RP-2) provides only biosolids treatment, having been decommissioned from treatment of wastewater in 2004.

- Regional Plant 1 (RP-1) is located in the City of Ontario near the intersection of State Highway 60 and Archibald Avenue. This plant was commissioned in 1948 and has a current treatment capacity of 44 MGD. This facility serves small areas in the northern portion of Chino and primarily serves the Cities of Ontario, Rancho Cucamonga, Upland, Montclair, Fontana, and an unincorporated area of San Bernardino County.
- Regional Plant-5 (RP-5) is located at the intersection of El Prado Road and Kimball Avenue. In operation since 2003, the plant is being built in phases to coincide with the ability of Regional Plant-2 to continue to treat biosolids.[31] RP-5 currently has a capacity of 16.3 MGD, and has an actual use of 12 MGD.[32]
- The Carbon Canyon Wastewater Reclamation Facility (CCWRF) is located just west of El Prado Road and south of Chino Hills Parkway. This plant has been in operation since 1992 and includes treatment processes that provide water quality that meets Water Recycling Criteria as described in Title 22, Chapter 3 of the California Water Code. Biosolids generated are diverted to RP-2. Plans were for the CCWRF to have a wastewater treatment capacity of 20 MGD.[33] However, the CCWRF

[30] Inland Empire Utilities Agency, 2002, *Wastewater Facilities Master Plan: Volume 1*, pages 1-17 and 1-19.

[31] Inland Empire Utilities Agency, 2002, *Wastewater Facilities Master Plan: Volume 1*, page 8-2.

[32] Dezham, Pari. Manager of Pretreatment and Source of Control, Inland Empire Utilities Agency. Personal communication with Alejandro Huerta, DC&E. August 26, 2009.

[33] Inland Empire Utilities Agency, 2002, *Wastewater Facilities Master Plan: Volume 1*, page 9-7.

currently only has a capacity of 11.4 MGD and further expansion is not anticipated.[34]

3. Standards of Significance

The proposed projects would have a significant impact if either of them would:

- 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.
- Have insufficient wastewater treatment capacity available to serve the project's projected demand in addition to existing demand.
- Violate wastewater treatment requirements of the applicable Regional Water Quality Control Board.

4. Proposed General Plan and Focused Growth Plan Impact Discussion

The Proposed General Plan and the Focused Growth Plan are discussed together in this section because their impacts are very similar. This impact discussion does not include the institutionalized population in the prison, as the prison is served by its own wastewater treatment facility. Without the prison population, the Proposed General Plan would result in a 2025 population of 122,647 people, while the Focused Growth Plan would result in a 2025 population of 125,136 people. These represent 38,814 and 39,781 housing units respectively.

a. New or Expanded Wastewater Treatment Facilities

The current wastewater treatment facilities serving Chino are the CCWRF, RP-1 and RP-5. Together, they have a capacity of 71.7 MGD. The Chino Basin Regional Sewer Service Contract requires a capacity of 270 gallons per day per housing unit. Using this figure, the Proposed General Plan would

[34] Dezham, Pari. Manager of Pretreatment and Source of Control, Inland Empire Utilities Agency. Personal communication with Alejandro Huerta, DC&E. August 26, 2009.

create a demand of 10.5 MGD and the Focused Growth Plan would create a demand of 10.7 MGD. These are conservative figures because newer housing has resulted in lower flows due to implementation of more efficient design.[35] Therefore, the proposed projects would not create a need for new or expanded wastewater treatment facilities. This is a *less-than-significant* impact.

While neither the Proposed General Plan nor Focused Growth Plan would have a significant impact on wastewater facilities, the Proposed General Plan includes goals and policies to reduce the demand on wastewater facilities. For example, Goal PFS-9 in the Public Facilities and Services Element states that the City would meet all wastewater treatment demands and federal and State regulations. In addition, Goal PFS-9, Policy P1 states that the City would maintain wastewater infrastructure in good condition, and Policy P2 would assure that all new development would be connected to the wastewater collection system.

To address the growth in population at buildout, Objective PFS-9.2, Policy P1 would assure that wastewater collection facilities are designed to serve expected buildout. To ensure that wastewater capacity is not exceeded, Objective PFS-9.2, Policy P3 would require that new development be conditioned on the availability of sufficient wastewater treatment, and collection system capacities. Finally, Objective PFS-9.3, Action A1 states that the City would establish wastewater treatment demand reduction standards for new development to reduce per capita and total demand for wastewater treatment. These goals and policies would also apply to the Focused Growth Plan.

b. Wastewater Treatment Capacity

The CCWRF, RP-1 and RP-5 all serve Chino and will have sufficient wastewater treatment capacity to meet Chino's needs at buildout.[36] The calcula-

[35] Shaw, Ryan. Assistant Engineer, Inland Empire Utilities Agency. Personal email communication with Alejandro Huerta, DC&E, August 26, 2009.

[36] Love,Tom. Executive Manager of Engineering, Inland Empire Utilities Agency. Personal communication with Alejandro Huerta, DC&E, August 26, 2009.

tions associated with this section are the same as those described above related to Wastewater Treatment Facilities. Therefore, the proposed projects would have a *less-than-significant* impact on wastewater treatment capacity.

c. Wastewater Treatment Requirements

IEUA's treatment plants must comply with the treatment requirements specified in the NPDES permits issued by the RWQCB. It is anticipated that the Proposed General Plan and the Focused Growth Plan would not significantly alter the strength of the wastewater conveyed to IEUA's treatment plants and thus would not cause treatment requirements to be violated. Therefore, the implementation of the Proposed General Plan and the Focused Growth Plan would result in a *less-than-significant* impact to wastewater treatment requirements.

5. Cumulative Impacts

Currently, there are four plants which serve the region, including the three that serve Chino. Regional Plant-2 (RP-2) was decommissioned in 2004 but will continue to treat biosolids for the rest of its economic life.[37] IEUA will expand the regional system capacity as future demand increases.[38] IEUA's regional trunk lines currently have sufficient transport capacity.[39] As a result, there would be a *less-than-significant cumulative* impact associated with the provision of wastewater service.

6. Impacts and Mitigation Measures

Since there are no significant impacts related to wastewater as a result of the Proposed General Plan or Focused Growth Plan no mitigation measures are required.

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[37] Love, Tom. Executive Manager of Engineering, Inland Empire Utilities Agency. Personal communication with Alejandro Huerta, DC&E, December 15, 2008.

[38] Shaw, Ryan. Assistant Engineer, Inland Empire Utilities Agency. Personal email communication with Alejandro Huerta, DC&E, August 26, 2009.

[39] Inland Empire Utilities Agency, 2009, *IEUA Sewer System Management Plan*, page 35.

C. Stormwater

The following provides a description of stormwater drainage facilities in Chino, including applicable regulatory programs, existing infrastructure, and the potential impacts of both the Proposed General Plan and the Focused Growth Plan with regard to stormwater facilities within the City.

1. Regulatory Framework

There are several laws and policy documents that affect stormwater management in Chino. The most important of these are described in this section.

a. Federal Water Pollution Control Act (Clean Water Act)

The 1987 amendments to the Clean Water Act (CWA) added Section 402(p), which established a framework for regulating municipal and industrial (including construction) stormwater discharges under an NPDES permit. Section 402(p) of the CWA requires NPDES permits for stormwater discharges from Small Municipal Separate Storm Sewer Systems (MS4s), as well other designated stormwater discharges that are considered significant contributors of pollutants to waters of the United States.[40] On November 16, 1990, the USEPA published Phase I regulations (40 CFR Parts 122, 123, and 124), which describe permit application requirements for stormwater discharges. Since 1990, the Santa Ana RWQCB has issued/renewed a MS4 permit to a consortium of San Bernardino County agencies located within the Santa Ana River Watershed, which includes the City of Chino.

b. Local Regulations

The following regulations were developed by the City of Chino and the IEUA to address stormwater.

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[40] Small MS4s are publicly owned conveyances or conveyance systems of ditches, curbs or underground pipes that divert stormwater into the surface waters of the State. For more information see http://www.epa.gov/region1/npdes/stormwater/updated-info-sms4gp.html, accessed December 7, 2009.

i. City of Chino Stormwater Ordinance

On February 1, 1994, the City of Chino adopted Ordinance 94-01, Protection & Regulation of the Stormwater Drainage System. The purpose of this ordinance is to ensure the health, safety, and general welfare of City residents by protecting and enhancing the water quality of local waterbodies, groundwater, and wetlands. One of the primary goals of this ordinance is to reduce pollutants in all stormwater discharges to the maximum extent practicable. City staff periodically updates the ordinance for the purposes of maintaining compliance with new regulations including NPDES permit requirements.

ii. City of Chino's Master Plans of Drainage

The Master Plan was created in 1993, based on existing drainage systems in Chino. The Master Plan recommends the most viable and cost-effective storm drain facilities to relieve the deficiencies that existed at the time and meet future needs based on buildout conditions. The master plan study area covered all drainage to the west of Euclid Avenue, to the south of West State Street Storm Drain watershed, to the east of San Antonio Channel and Chino Creek (Corona Expressway), and tributaries to the City's storm drainage system. Subsequent updates addressing Chino's new developments are listed below:

- Storm Drain Master Plan- Subarea 1 Agricultural Preserve- July 1998
- Storm Drain Master Plan- Subarea 2 (Preserve Area)- November 2003, amended June 2004

iii. Chino Creek Integrated Plan

The Chino Creek Integrated Plan, updated in September 2006, was prepared for the IEUA and the Orange County Water District under a grant from the SWRCB. The Chino Creek Integrated Plan identifies key problem areas in the lower Chino Creek watershed and recommends projects and measures that will improve water quality, flood control, and water conservation. The Integrated Plan includes recommendations for several of the stormwater control channels described below in Existing Conditions.

The document addresses the need for stormwater management by advising that RP-2 be converted to a stormwater treatment facility. In addition, the Integrated Plan states that the City of Chino may in the future use land near the outlet of the Mill Creek channel for a regional stormwater treatment facility to meet stormwater runoff requirements for The Preserve and the City of Ontario's New Model Colony.

2. Existing Conditions

The San Bernardino County Flood Control District (SBCFCD), the US Army Corps of Engineers (Corps), and the City of Chino manage flood control in the City. This section describes the flood control facilities managed by these agencies.

a. San Bernardino County Flood Control District

The SBCFCD intercepts and conveys flood flows through and away from developed areas within San Bernardino County through an extensive system of facilities, such as retention basins, conservation basins, channels and storm drains. The SBCFCD has jurisdiction over the following channels and drains that serve Chino:

- The Cypress Channel begins south of Pomona Freeway and runs south along Cypress Avenue through the grounds of the California Institution for Men and the California Youth Authority, draining into the Prado Flood Control Basin.[41] Improvement projects proposed for the Cypress Channel Planning Area in the Integrated Plan include channel naturalization between College Park and Kimball Avenue; stream restoration below the 566-foot elevation; construction of a treatment wetlands system; restoration of the El Prado Golf Stream; and the reuse of a demonstration subsurface flow treatment wetland system.[42]
- The West State Street Storm Drain starts near Mountain Avenue in Ontario and flows west until it discharges into the San Antonio Channel.[43]

[41] City of Chino, 1993, *Master Plan of Drainage*, page I-3.

[42] Inland Empire Utilities Agency, *Chino Creek Integrated Plan*, page 6-9.

[43] City of Chino, 1993, *Master Plan of Drainage*, page I-3.

- The Chino Storm Drain starts at Oaks Avenue and flows westerly to the San Antonio Channel.[44]
- The Cucamonga Creek is maintained by the SBCFCD up to Chino's easterly boundary. Cucamonga Creek is a flood control channel that imports runoff from Ontario to Mill Creek. It enters Chino from the north after running through Rancho Cucamonga and Ontario in a channel. It is referred to as Mill Creek in Chino.

b. US Army Corps of Engineers

The Corps develops and controls federally sponsored flood control projects, such as the Prado Flood Control Basin.[45] The City of Chino is located within the Santa Ana River watershed, which flows through the Prado Flood Control Basin associated with the Prado Dam. There are two other flood control facilities created by the Corps to serve the City of Chino:

- The San Antonio Channel/Chino Creek, constructed in 1960, runs along the City's westerly boundary. The San Antonio Channel starts at the mouth of the San Antonio Basin in the San Gabriel Mountains and flows south to the confluence with the Chino Creek.[46] The Chino Creek Integrated Plan proposes numerous improvement projects for the Chino Creek Planning Area, including channel restoration and grade control; bank stabilization at Kimball Avenue; improvements to the storm drainage confluence at Chino Creek Park; creation of a floodplain park at Magnolia Channel Confluence; and riparian enhancement of the Chino Hills Soccer Complex along the western bank of Chino Creek upstream of Pine Avenue. Other projects include restoration of the El Prado Golf

[44] City of Chino, 1993, *Master Plan of Drainage*, page I-3.

[45] County of San Bernardino Department of Public Works, Federal Projects/FC Engineering, http://www.co.san-bernardino.ca.us/dpw/floodcontrol/federal_projects.asp, accessed on December 4, 2009.

[46] City of Chino, 1993, *Master Plan of Drainage*, page I-1.

Course stream; creation of surface treatment wetlands near Euclid Avenue; and the creation of additional riparian forest habitat.[47]

- Mill Creek is maintained by the Corps beginning at Chino's easterly boundary.[48] The Chino Creek Integrated Plan proposes numerous improvement projects for the Mill Creek Planning Area including channel transition reconfiguration at Chino-Corona Road; bank stabilization downstream of Chino-Corona Road; the creation of a Mill Creek regional natural treatment system; and the construction of a surface treatment wetlands facility.[49]

c. City of Chino

The City of Chino's Public Works Department maintains and improves the City's storm drain systems.[50] Other flood control channels serving the City are:

- The Magnolia Channel extends from Edison Avenue through the southern part of the City and joins with Chino creek. The Magnolia Channel is maintained mostly by the State prison. However, where it runs through College Park, it is maintained by the development's homeowners association.[51] Several improvement projects for the Magnolia Channel Planning Area are proposed in the Chino Creek Integrated Plan, including bank stabilization; construction of a sediment and retention basin upstream of the Kimball Avenue culvert; channel restoration south of Kimball Avenue; and the conversion of wastewater lagoons at RP-2 into a

[47] Inland Empire Utilities Agency, *Chino Creek Integrated Plan*, page 6-2 to 6-6.

[48] Liguori, Nicholas. Principal Planner, City of Chino. Personal email communication with Alejandro Huerta, DC&E, December 9, 2009.

[49] Inland Empire Utilities Agency, *Chino Creek Integrated Plan*, page 6-12.

[50] City of Chino Public Works, http://www.cityofchino.org/index.aspx?page=43, accessed on December 4, 2009.

[51] Liguori, Nicholas. Principal Planner, City of Chino. Personal email communication with Alejandro Huerta, DC&E, December 9, 2009.

stormwater wetland system for Magnolia Channel.[52] In addition, a floodplain park is planned for the Magnolia Channel Confluence.

3. Standards of Significance

The proposed projects would have a significant impact if either of them would:

- Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

4. Proposed General Plan and Focused Growth Plan Impact Discussion

The Proposed General Plan and the Focused Growth Plan would result in urbanization of the same overall area of the City. Therefore, they are discussed together in this section. The Master Plan of Drainage identified deficiencies that existed in Chino in 1993, and these improvements will be completed as funding allows. Future stormwater runoff facility upgrades would be implemented through the City's Conditions of Approval and capital improvement projects.[53]

In addition, policies of the Proposed General Plan's Public Facilities and Services Element address stormwater drainage. Goal PFS-10 assures that the City of Chino would collect, convey and dispose of stormwater to protect property from flooding. Policy P1 under Objective PFS-10.1 states that stormwater infrastructure shall be maintained in good condition. Policy P2 under Objective PFS-10.1 assures that stormwater infrastructure would attain the capacity that conforms to the Master Plans of Drainage, and Action A1 under that objective would make sure updates to the Master Plans of Drainage are completed. Additionally, Policy P3 under Objective PFS-10.1 would require that local storm drainage improvements be built to carry design-year flows resulting from buildout of the Proposed General Plan. Policy P4 under

[52] Inland Empire Utilities Agency, *Chino Creek Integrated Plan*, page 6-7.

[53] Liguori, Nicholas. Principal Planner, City of Chino. Personal email communication with Alejandro Huerta, DC&E, September 3, 2009.

Objective PFS-11.1 would assure that new development would only be approved if necessary stormwater infrastructure is planned. Policies P1 and P2 of Objective PFS-11.1 set out best management practices and design goals to minimize stormwater runoff and to improve runoff quality. Finally, Policy P3 would require the City to regulate stormwater runoff from urban uses to protect the quality of surface and ground water from detrimental conditions. These goals and policies would also apply to the Focused Growth Plan. The Proposed General Plan and Focused Growth Plan would have a *less-than-significant* impact on stormwater drainage facilities.

5. Cumulative Impacts

New development in the City would be required to comply with State, federal, and local regulations pertaining to stormwater runoff quality and quantity. The regulations include Regional Water Quality Control Board Order Number R8-2002-0012, NPDES Permit No. CAS618036 (Permit), which requires post-construction Best Management Practices (BMPs) to be implemented for new development and significant redevelopment, for both private and public projects. In addition, the statewide General Permit for Storm Water Discharges from Construction Activities (Order No. 99-08-DWQ; NPDES No.CAS000002) requires Stormwater BMPs for construction activities. These regulations would reduce the potential for cumulative stormwater impacts and minimize the detrimental effects of urbanization on the beneficial uses of receiving waters, including effects caused by increased pollutant loads and changes in hydrology. Therefore, there would be a *less-than-significant cumulative* impact associated with stormwater drainage infrastructure resulting from the Proposed General Plan or Focused Growth Plan.

6. Impacts and Mitigation Measures

Since no impacts were identified, no mitigation measures are required.

D. Solid Waste

This section addresses the generation and disposal of solid waste and the potential impacts of both the Proposed General Plan and the Focused Growth Plan with regard to solid waste services.

1. Regulatory Framework

The State of California is a national leader in establishing regulations for waste management. This section summarizes existing State and local agencies, policies and regulations that apply to solid waste services.

a. California Integrated Waste Management Act

California's Integrated Waste Management Act of 1989 (AB 939) set a requirement for cities and counties throughout the State to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling and composting. To help achieve this, the Act requires that each City and County prepare and submit a Source Reduction and Recycling Element. AB 939 also establishes the goal for all California counties to provide at least 15 years of on-going landfill capacity. As part of the California Integrated Waste Management Board's Zero Waste Campaign, regulations affect what common household items can be placed in the trash. As of February 2006, household materials including, but not limited to, fluorescent lamps and tubes, batteries, electronic devices and thermostats that contain mercury are no longer permitted in the trash.[54]

b. California Solid Waste Reuse and Recycling Access Act of 1991

The California Solid Waste Reuse and Recycling Access Act requires areas to be set aside for collecting and loading recyclable materials in development projects. The Act required the California Integrated Waste Management Board (CIWMB) to develop a model ordinance for adoption by any local agency relating to adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt

[54] California Integrated Waste Management Board's Zero Waste Campaign's website,http://www.zerowaste.ca.gov/, accessed on December 7, 2009.

the model, or an ordinance of their own, governing adequate areas for collection and loading of recyclable materials in development projects. The intent of the Act is to require development projects to include advanced planning that focuses on solid waste issues at the beginning of a project and implement an adequate recycling program for the development project. The City of Chino has adopted its own local ordinance.

c. Countywide Integrated Waste Management Plan (CoIWMP)

The CoIWMP is mandated by State law under AB 939. The purpose of the CoIWMP is to describe local waste diversion and disposal conditions and lay out realistic programs to achieve the waste diversion goals outlined in AB 939. The CoIWMP serves as the primary tool for designing waste reduction programs that are countywide in scope. The Plan also addresses the county's landfill needs in a comprehensive way. The City of Chino falls under the jurisdiction of the County of San Bernardino Solid Waste Management Division (SWMD). The SWMD operates and manages five landfills, seven transfer stations and three community collection centers.[55]

2. Existing Conditions

Solid waste and recycling are collected in Chino through contracts with private solid waste service providers. Waste Management, Inc. contracts with the City for solid waste collection, transfer and disposal, as well as recycling services. The City of Chino does not have a Waste Delivery Agreement with the County of San Bernardino, and therefore Chino's solid waste is sent to the West Valley Material Recovery Facility and Transfer Station located in Fontana. From there, the waste goes to the El Sobrante Landfill, located in Riverside County.[56] Burrtec Waste Industries (Burrtec) is responsible for solid waste collection, transfer, and disposal, as well as recycling services in Chino's SOI. Burrtec also diverts waste to the West Valley Material Recov-

[55] Waste Disposal Sites, County of San Bernardino Department of Public Works, http://www.sbcounty.gov/dpw/solidwaste/sites.asp, accessed on December 7, 2009.

[56] Ramos, Sylvia. Management Assistant, City of Chino. Personal email communication with Jose Moreno, DC&E, March 7, 2006.

ery Facility and Transfer Station, from which it is also transferred to the El Sobrante Landfill.[57] Construction and demolition waste is self-hauled by contractors.

The West Valley Material Recovery Facility and Transfer Station has a daily intake capacity of 7,500 tons per day. El Sobrante Landfill has been accepting solid waste from Chino since 1993, and can currently accept up to 10,000 tons per day and 120,000 tons per year. The El Sobrante Landfill has a maximum permitted capacity of 184,930,000 tons and has a remaining capacity as of July 2009 of 141,744,875 tons. In 2008, there was a total of 21,112 recycled tonnage and 76,898 landfilled tonnage. The El Sobrante Landfill has an estimated closure date of 2045.[58]

In 2008, the City of Chino generated a total of 141,496 tons of solid waste. The diversion rate for 2007 was 61 percent.[59] The diversion rate refers to the rate at which waste is recycled or otherwise diverted, instead of being sent to the landfill. Chino's diversion rate for 2007 exceeds the Integrated Waste Management Board's standard for diversion of 50 percent.

3. Standards of Significance

The proposed projects would have a significant impact if either of them would:

- Not be served by a landfill with sufficient permitted capacity to accommodate the buildout of the project's solid waste disposal needs.
- Not comply with federal, State and local statutes and regulations related to solid waste and recycling.

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[57] Anthony, Traecey. San Bernardino County Solid Waste Management Division. Personal email communication with Jose Moreno, DC&E, February 22, 2006.

[58] Ramos, Sylvia. Management Assistant, City of Chino. Personal email communication with Nicholas Liguori, City of Chino, August 13, 2009.

[59] Ramos, Sylvia. Management Assistant, City of Chino. Personal email communication with Nicholas Liguori, City of Chino, August 13, 2009 and August 18, 2009.

4. Proposed General Plan and Focused Growth Plan Impact Discussion

Implementation of the Proposed General Plan might result in an increase in residential and commercial development. The waste generation rate per person in 2007 was 7.2 pounds per day. At buildout, the Proposed General Plan would have an estimated population of 141,067. The total population would produce 1,015,682 pounds per day, or 508 short tons per day. Consequently, there would be 185,420 tons of solid waste generated per year at buildout, which could be accommodated by the El Sobrante Landfill, whose capacity is 141,744,875 tons.

At buildout, the Focused Growth Plan would have an estimated population of 143,556. Consequently, there would be 188,705 tons of solid waste generated per year at buildout, which could be accommodated by the El Sobrante Landfill, whose capacity is 141,744,875 tons. Therefore, there would be a *less-than-significant* impact from the buildout of the projects' waste disposal needs.

While there is no need for mitigation measures, implementation of the waste diversion policies and actions outlined in the Proposed General Plan would assure that solid waste disposal needs are met. Objective PFS-12.1 under Goal PFS-12 in the Public Facilities and Services Element states that the City would reduce the volume of solid waste through collection, storage, transportation, recycling, and transportation. In addition, the Proposed General Plan supports efforts and measures to reduce solid waste generation through recycling. Policies P3 through P6 under Goal PFS-12 in the solid waste and recycling section encourage efforts to divert solid waste from the landfill and to introduce recycling measures, with the goal of diverting 50 percent of solid waste from landfills to exceed State goals. These goals and policies would also apply to the Focused Growth Plan. Therefore, there would be a *less-than-significant* impact associated with solid waste services resulting from the Proposed General Plan and Focused Growth Plan.

5. Cumulative Impacts

San Bernardino County has the capacity to meet all of the County's waste disposal needs. To meet future demand, the County will continue to work toward reduced solid waste generation as required by AB 939. As a result, growth in Chino would not contribute to a regional concern.[60] Consequently, there would be a *less-than-significant cumulative* impact resulting from the Proposed General Plan and Focused Growth Plan.

6. Impacts and Mitigation Measures

Since no impacts were identified in relation to solid waste generation as a result of the Proposed General Plan and Focused Growth Plan, no mitigation measures are required.

[60] Ramos, Sylvia. Management Assistant, City of Chino. Personal email communication with Alejandro Huerta, DC&E, November 12, 2008.