Section 5.16:

Water Supply

SECTION 5.16
WATER SUPPLY

5.16.1 PURPOSE

This section analyzes projected impacts to water supplies and distribution systems that may result from the implementation of The Fullerton Plan. The purpose of this analysis is to document and describe the existing water supply, water consumption, and distribution infrastructure in the City of Fullerton, and to evaluate impacts associated with buildout of The Fullerton Plan. This section is based upon information from the City of Fullerton 2010 Urban Water Management Plan prepared by Malcolm Pirnie, Inc. (June 2011).

5.16.2 EXISTING REGULATORY SETTING

FEDERAL REGULATIONS

Clean Water Act

The Clean Water Act (CWA) is a Federal law intended to protect surface waters of the United States (U.S.), which include lakes, rivers, coastal wetlands, and "waters of the U.S." The CWA regulates all discharges to waters, which are considered illegal unless authorized by an appropriate permit. Discharge of dredged and fill materials, construction-related storm water discharges, and other activities that may result in discharges of pollutants to waters of the U.S. are regulated by the permit. If waters of the U.S. are located on a project site, the project is likely to discharge to them, due to site topography and/or drainage characteristics. Potential discharges to such waters would be considered an impact, and the applicant would be required to obtain a CWA Section 401 Water Quality Certification from the appropriate Regional Water Quality Control Board (RWQCB).

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The law was amended in 1986 and 1996, and requires many actions to protect drinking water and its sources: rivers, lakes, reservoirs, springs, and ground water wells. The SDWA applies to every public water system in the United States.

The SDWA authorizes the U.S. EPA to set national health-based standards for drinking water to protect against both naturally-occurring and man-made contaminants that may be found in drinking water. The U.S. EPA, states, and water systems work together to make sure that these standards are met.

Originally, the SDWA focused primarily on treatment as the means of providing safe drinking water at the tap. The 1996 amendments greatly enhanced the existing law by recognizing source water protection, operator training, funding for water system improvements, and public

information as important components of safe drinking water. This approach ensures the quality of drinking water by protecting it from source to tap.

STATE

California Water Plan

The California Water Plan is prepared by the California Department of Water Resources. The Plan provides a framework for water managers, legislators, and the public to consider options and make decisions regarding California's water future. The Plan, which is updated every five years, presents basic data and information on California's water resources including water supply evaluations and assessments of agricultural, urban, and environmental water uses to quantify the gap between water supplies and uses.

The Plan also identifies and evaluates existing and proposed statewide demand management and water supply augmentation programs and projects to address the State's water needs. The Plan provides resource management strategies and recommendations to strengthen integrated regional water management. The resource management strategies help regions meet future demands and sustain the environment, resources, and economy, involve communities in decision-making, and meet various goals. A resource management strategy is a project, program, or policy that helps local agencies and governments manage their water and related resources. These strategies can reduce water demand, improve operational efficiency, increase water supply, improve water quality, practice resource stewardship, and improve flood management.

California Water Code

The California Water Code contains provisions that control almost every consideration of water and its use. Division 2 of the California Water Code provides that the State Water Resources Control Board (SWRCB) shall consider and act upon all applications for permits to appropriate waters. Division 6 of the California Water Code controls conservation, development, and utilization of the State water resources, while Division 7 addresses water quality protection and management.

Senate Bill 610

On January 1, 2002, Senate Bill (SB) 610 took effect. SB 610, which has been codified in the California Water Code beginning with Section 10910, requires the preparation of a water supply assessment (WSA) for projects within cities and counties that propose to construct 500 or more residential units or the equivalent. SB 610 stipulates that when environmental review of certain large development projects is required, the water agency that is to serve the development must complete a WSA to evaluate water supplies that are or will be available during normal, single-dry and multiple-dry years during a 20-year projection to meet existing and planned future demands, including the demand associated with the project.

SB 610 requirements do not apply to the general plans of cities or counties, but rather to specific development projects.

Senate Bill 221

Enacted in 2001, SB 221, which has been codified in the California Water Code beginning with Section 10910, requires that the legislative body of a city or county that is empowered to approve, disapprove, or conditionally approve a subdivision map must condition such approval upon proof of sufficient water supply. The term "sufficient water supply" is defined in SB 221 as the total water supplies available during normal, single-dry, and multiple-dry years within a 20-year projection that would meet the projected demand associated with the proposed subdivision. The definition of sufficient water supply also includes the requirement that sufficient water encompass not only the proposed subdivision, but also existing and planned future uses, including, but not limited to, agricultural and industrial uses.

SB 221 requirements do not apply to the general plans of cities and counties, but rather to specific development projects.

Urban Water Management Act

In 1983, the California Legislature enacted the Urban Water Management Planning (UWMP) Act (Division 6 Part 2.6 of the California Water Code Sections 10610 - 10656). The Act states that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet of water annually, should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. Section 10620 (a) requires "Every urban water supplier shall prepare and adopt an urban water management plan." The California Water Code describes the contents of the UWMP, as well as how urban water suppliers should adopt and implement the plans. These plans are to be updated every five years and submitted to the Department of Water Resources (DWR).

Requirements for the urban water management plans include:

- Assessment of current and projected water supplies
- Evaluation of Demand and Customer Types
- Evaluation of the reliability of water supplies
- Description of conservation measures implemented by the urban water supplier
- Response plan for in the event of water shortage
- Comparison of demand and supply projection

Since its passage in 1983, several amendments have been added to the Act. The most recent changes affecting the 2010 UWMP include Senate Bill 7 as part of the Seventh Extraordinary Session (SBx7-7) and SB 1087. Water Conservation Act of 2009 or SBx7- 7 enacted in 2009 is the water conservation component of the Delta package. It stemmed from the Governor's goal to achieve a 20 percent statewide reduction in per capita water use by 2020 (20x2020). SBx7-7 requires each urban retail water supplier to develop urban water use targets to help meet the 20 percent goal by 2020 and the interim 10 percent goal by 2015. Each urban retail water supplier must include in its 2010 UWMPs the following information from its target-setting process:

- Baseline daily per capita water use
- 2020 Urban water use target

- 2015 Interim water use target
- Compliance method being used along with calculation method and support data

Wholesale water suppliers are required to include an assessment of present and proposed future measures, programs, and policies that would help achieve the 20x2020 goal.
The other recent amendment made to the UWMP Act to be included in the 2010 UWMP is set forth by SB 1087, Water and Sewer Service Priority for Housing Affordable to Low-Income Households. SB 1087 requires water and sewer providers to grant priority for service allocations to proposed developments that include low income housing. SB 1087 also requires UWMPs to include projected water use for single- and multi-family housing needed for low-income households.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act acts in cooperation with the CWA to establish the State Water Resources Control Board (SWRCB). The SWRCB is divided into nine regions, each overseen by a RWQCB. The SWRCB, and thus each RWQCB, is responsible for protecting California's surface waters and groundwater supplies.

The Porter-Cologne Water Quality Control Act develops Basin Plans that designate the beneficial uses of California's rivers and groundwater basins. The Basin Plans also establish narrative and numerical water quality objectives for those waters. Basin Plans are updated every three years and provide the basis of determining waste discharge requirements, taking enforcement actions, and evaluating clean water grant proposals. The Porter-Cologne Water Quality Control Act is also responsible for implementing CWA Sections 401-402 and 303(d) to SWRCB and RWQCBs.

California Title 22 Drinking Water Standards

California Title 22 Drinking Water Standards (Title 22) incorporates the Federal requirements of the Safe Drinking Water Act, and compliance with Title 22 is required by all water service providers. Therefore, the monitoring of all regulated chemicals as well as a number of unregulated chemicals, as required by Title 22, is conducted by water agencies in the upper watershed.

In order to be in compliance with Title 22, each water agency must ensure that the regulated chemicals meet established primary drinking water standards to ensure the safety of the water supply. In addition to the primary drinking water standards, secondary drinking water standards have been set for some minerals based on non-health-related aesthetics, such as taste and odor. Both primary and secondary standards are expressed as the maximum contaminated levels (MCL) that are allowable for a given constituent. Unregulated chemicals do not have established drinking water standards, but are chemicals of concern for which standards may be eventually adopted. These unregulated chemicals often have a "notification level," which is a health based advisory level established by California Department of Health Services (DHS) for chemicals in drinking water that lack MCLs.

LOCAL

City of Fullerton 2010 Urban Water Management Plan

The City of Fullerton 2010 UWMP has been prepared consistent with the requirements under Water Code Sections 10610 through 10656 of the Urban Water Management Planning Act (Act). The 2010 UWMP provides information on the present and future water resources and demands and provides an assessment of the City's water resource needs. Specifically, the 2010 UWMP provides water supply planning for a 25-year planning period in 5-year increments. The plan identifies water supplies for existing and future demands, quantifies water demands during normal year, single-dry year, and multiple-dry years, and identifies supply reliability under the three hydrologic conditions. The City's 2010 UWMP update revises the 2005 UWMP, and includes the following analyses:

- Water Service Area and Facilities
- Water Sources and Supplies
- Water Use by Customer Type
- Demand Management Measures
- Water Supply Reliability
- Planned Water Supply Projects and Programs
- Water Shortage Contingency Plan
- Recycled Water

City of Fullerton Municipal Code

Fullerton Municipal Code (FMC) Chapter 12.06 (Water Supply Shortage Conservation Plan) provides procedures, rules, and regulations for mandatory water conservation to minimize the effect of a water supply shortage emergency on the City's water customers. Section 12.06.090 (Prohibited Uses of Water at All Times) identifies prohibited uses of water at all times. Section 12.06.100 (Water Supply Shortage Phases) allows the City to implement a four phase water conservation program that identifies prohibited uses of water for each phase and allows the City to increase water rates, by an amount necessary, as determined by the City Council. Section 12.06.120 (Failure to Comply) establishes the penalties that may be imposed for non-compliance with the ordinance.

FMC Chapter 15.50 (Landscaping and Irrigation Requirements) establishes standards for the provision of landscaping within the City of Fullerton while promoting conservation and the efficient use of water, prevention of erosion, protection from fire, and restoration of natural systems. Landscape Documentation Packages are required to contain water efficient landscape calculations for review and approval prior to the issuance of building permits.

5.16.3 EXISTING ENVIRONMENTAL SETTING

SERVICE AREA AND FACILITIES

The City currently provides water to a population of approximately 138,000 throughout its 22.3 square mile service area. The City receives its water from two main sources, the Lower Santa

Ana River Groundwater Basin (Basin), which is managed by the Orange County Water District (OCWD) and imported water from the Metropolitan Water District of Southern California (Metropolitan). Groundwater is pumped from 11 active wells located throughout the City, and imported water is treated at the Diemer Filtration Plant and is delivered to the City through six (operational) imported water connections.

Water Systems

The City has over 420 miles of transmission and distribution mains, 15 reservoirs with a capacity of 69.5 million gallons, 12 booster pumping stations, and 11 active wells. The City has six imported water connections to Metropolitan and six emergency interconnections.

Six of the City's 11 wells are located at the main plant in the City of Anaheim just south of the City boundary. Five of these six wells pump into a forebay before pumping the water into the distribution system. The other main plant well pumps directly into the system; outside the main plant, one well pumps into a forebay before pumped into the distribution system. Water pumped from these wells has been naturally filtered as it passes through underlying aquifers of sand, gravel, and soil. This well water delivered into the City's water system requires only disinfectant treatment.

WATER DEMAND

Currently, the total water demand for retail customers served by the City is approximately 27,860 acre-feet annually consisting of 10,587 acre-feet of imported water and 17,273 acre-feet of local groundwater. In the last five years, the City's water demand has decreased by 12 percent while population has increased by two percent. With its diligence in the promotion of water conservation as well as financial incentives to customers to retrofit their homes and businesses with water efficient devices and appliances, the City is projecting an 18 percent increase in demand with a projected 11 percent population growth in the next 25 years.

The passage of SBx7-7 will increase statewide efforts to reduce the use of potable supplies in the future. This new law requires all of California's retail urban water suppliers serving more than 3,000 acre-feet per year (AFY) or 3,000 service connections to achieve a 20 percent reduction in potable water demands (from a historical baseline) by 2020. Due to water conservation efforts in the past decade, the City would most likely meet this requirement on its own. The City has elected to join the Orange County 20x2020 Regional Alliance formed by Municipal Water District of Orange County (MWDOC). The City, together with 28 other retail agencies in Orange County, is committed to reduce the region's water demand by 2020.

WATER SUPPLIES

Imported Water

The City currently relies on 10,587 AFY of imported water wholesaled by Metropolitan to supplement local groundwater. Imported water represents 38 percent of the City's total water supply. Metropolitan's principal sources of water originate from two sources – the Colorado River via the Colorado Aqueduct and the Lake Oroville watershed in Northern California through the State Water Project (SWP). This water is treated at the Robert B. Diemer Filtration Plant

located north of Yorba Linda and the F.E. Weymouth Treatment Plant in the city of La Verne. Typically, the Diemer Filtration Plant receives a blend of Colorado River water from Lake Mathews through the Metropolitan Lower Feeder and SWP water through the Yorba Linda Feeder. The City currently maintains six (operational) connections to the Metropolitan system along the Orange County, West Orange County, and Second Lower Feeder pipelines. The total available capacity is 48,000 gallons per minute.

Metropolitan's 2010 Regional Urban Water Management Plan (RUWMP) reports on its water reliability and identifies projected supplies to meet the long-term demand within its service area. It presents Metropolitan's supply capacities from 2015 through 2035 under the three hydrologic conditions specified in the Act: single dry-year, multiple dry-years, and average year.

COLORADO RIVER SUPPLIES

Colorado River Aqueduct (CRA) supplies include supplies that would result from existing and committed programs and from implementation of the Quantification Settlement Agreement (QSA) and related agreements to transfer water from agricultural agencies to urban uses. Colorado River transactions are potentially available to supply additional water up to the CRA capacity of 1.25 million acre feet (MAF) on an as-needed basis.

STATE WATER PROJECT SUPPLIES

Metropolitan's SWP supplies have been impacted in recent years by restrictions on SWP operations in accordance with the biological opinions of the U.S. Fish and Wildlife Service and National Marine Fishery Service issued on December 15, 2008 and June 4, 2009, respectively. In dry, below-normal conditions, Metropolitan has increased the supplies received from the California Aqueduct by developing flexible Central Valley/SWP storage and transfer programs. The goal of the storage/transfer programs is to develop additional dry-year supplies that can be conveyed through the available Banks pumping capacity to maximize deliveries through the California Aqueduct during dry hydrologic conditions and regulatory restrictions.

In June 2007, Metropolitan's Board approved a Delta Action Plan that provides a framework for staff to pursue actions with other agencies and stakeholders to build a sustainable Delta and reduce conflicts between water supply conveyance and the environment. The Delta action plan aims to prioritize immediate short-term actions to stabilize the Delta while an ultimate solution is selected, and mid-term steps to maintain the Bay-Delta while the long-term solution is implemented.

State and federal resource agencies and various environmental and water user entities are currently engaged in the development of the Bay Delta Conservation Plan (BDCP), which is aimed at addressing the basic elements that include the Delta ecosystem restoration, water supply conveyance, and flood control protection and storage development. In evaluating the supply capabilities for the 2010 RUWMP, Metropolitan assumed a new Delta conveyance is fully operational by 2022 that would return supply reliability similar to 2005 condition, prior to supply restrictions imposed due to the Biological Opinions.

GROUNDWATER

The City relies on approximately 17,273 acre-feet of groundwater from the Basin each year. This local source of supply meets approximately 62 percent of the City's total annual demand. In the effort to maximize local resources, Metropolitan has partnered with OCWD, the cities of Anaheim, Fullerton, and Santa Ana, and MWDOC and its member agencies, to encourage the development of local resources. Metropolitan's Groundwater Replenishment Program is a program where a groundwater producer may purchase imported water from Metropolitan at a reduced rate when "surplus" water is available in lieu of extracting groundwater. This program indirectly replenishes the basin by avoiding pumping.

LOWER SANTA ANA GROUNDWATER BASIN

The Basin, also known as the Orange County Groundwater Basin underlies the north half of Orange County beneath broad lowlands. The Basin covers an area of approximately 350 square miles, bordered by the Coyote and Chino Hills to the north, the Santa Ana Mountains to the northeast, the Pacific Ocean to the southwest, and terminates at the Orange County line to the northwest, where its aquifer systems continue into the Central Basin of Los Angeles County. The aquifers comprising this Basin extend over 2,000 feet deep and form a complex series of interconnected sand and gravel deposits.

The Basin is managed by OCWD for the benefit of municipal, agricultural, and private groundwater producers. The Basin meets approximately 60 to 70 percent of the water supply demand within the boundaries of OCWD. There are 19 major producers including cities, water districts, and private water companies, extracting water from the Basin serving a population of approximately 2.55 million.

Groundwater levels are managed within a safe basin operating range to protect the long term sustainability of the basin and to protect against land subsidence. In 2007, OCWD established a new methodology for calculating accumulated overdraft and establishing new full-basin benchmarks. Based on OCWD's 2009 Groundwater Management Plan, the optimal accumulated overdraft is between 100,000 and 434,000 AF. At the top of the range, OCWD will be able to provide at least three years of drought supply. An accumulated overdraft condition minimizes the localized high groundwater levels and increases ability to recharge storm events from the Santa Ana River. At an accumulated overdraft of 200,000 AF, the Basin is considered 99.7 percent full. OCWD estimates that the Basin can safely be operated on a short-term emergency basis with a maximum accumulated overdraft of approximately 500,000 AF.

In an effort to eliminate long-term overdraft conditions, OCWD developed a comprehensive computer-based groundwater flow model to study and better understand the Basin's reaction to pumping and recharge. OCWD manages the Basin by establishing on an annual basis the appropriate level of groundwater production known as the Basin Production Percentage (BPP).

BASIN PRODUCTION PERCENTAGE

No pumping right exists for Basin. Total pumping from the basin is managed through a process that uses financial incentives to encourage groundwater producers to pump an aggregate amount of water that is sustainable without harming the Basin. The framework for the financial

incentives is based on establishing the BPP which is the percentage of each Producer's total water supply that comes from groundwater pumped from the basin.

Groundwater production at or below the BPP is assessed the Replenishment Assessment (RA). While there is no legal limit as to how much an agency could pump from the Basin, there is a financial disincentive to pumping above the BPP. Pumping above the BPP is also assessed a Basin Equity Assessment (BEA), which is calculated so that the cost of groundwater production is based on an average of Metropolitan's Tier 1 and Tier 2 rate.

The BPP is set uniformly for all Producers by OCWD on an annual basis. The BPP for the 2008-2009 water year (July 1, 2008 to June 30, 2009) was established at 69.0. The overall BPP achieved within OCWD for non-irrigation use in the 2008-09 water year was equal to 72.5 percent. The BPP has recently been set at 62 percent for the 2010-2011 water year. For the purpose of this UWMP, the BPP is assumed to be 62 percent for the entire 25-year planning horizon.

The BPP is set based on groundwater conditions, availability of imported water supplies, and Basin management objectives. The BPP is also a major factor in determining the cost of groundwater production from the Basin for that year. When Metropolitan has an abundance of water, they may choose to activate their Groundwater Replenishment Program also known as In-Lieu Program, where imported water is purchased in-lieu of pumping groundwater.

WATER RELIABILITY

Metropolitan evaluated supply reliability by projecting supply and demand conditions for the single- and multi-year drought cases based on conditions affecting the SWP (Metropolitan's largest and most variable supply). For this supply source, the single driest-year was 1977 and the three-year dry period was 1990-1992. Metropolitan's analyses shows that the region can provide reliable water supplies not only under normal conditions but also under both the single driest year and the multiple dry year hydrologies.

RECYCLED WATER

While the City recognizes the potential uses of recycled water in its community, such as landscape irrigation, parks, industrial and other uses, the City does not have the recycled water infrastructure to support the use of recycled water. The cost-effectiveness analyses that have been conducted regarding recycled water infrastructure have not shown to be beneficial at this time. Therefore, the City supports, encourages, and contributes to the continued development of recycled water and potential uses throughout the region through the Groundwater Replenishment System (GWRS).

DESALINATION PROJECTS

In Orange County, there are three proposed ocean desalination projects that could serve the City. Of these projects, the Huntington Beach Seawater Desalination Project may be of specific benefit to the City through exchange program. On November 6, 2009, the City signed a non-binding Letter of Intent (LOI) for 2.2 million gallons per day (MGD) (2,500 AFY) of project supplies.

FIRE FLOWS

The volume of water storage required for firefighting is a function of the instantaneous flow rate required to fight a fire, the duration of the fire flow, and the number of fire flows that occur before the volume can be replenished. The City is responsible for providing adequate fire flow for existing structures, while developers are required to provide adequate fire flow for new construction.

5.16.4 SIGNIFICANCE THRESHOLDS AND CRITERIA

Appendix G of the *CEQA Guidelines* contains the Initial Study Environmental Checklist, which was included with the Notice of Preparation to show the areas being analyzed within the EIR; refer to Appendix A of this EIR. The Initial Study includes questions relating to water supply. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this Section. Accordingly, a project would typically have a significant impact on water supply if the project would result in any of the following:

- Have sufficient water supplies available to serve the project from existing entitlements and resources, or require new or expanded entitlements need.
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

5.16.5 PROJECT IMPACTS AND MITIGATION MEASURES

WATER SUPPLY AND DISTRIBUTION

- **IMPLEMENTATION OF THE FULLERTON PLAN COULD RESULT IN INCREASED DEMAND FOR WATER SUPPLIES AND INFRASTRUCTURE WITHIN THE CITY.**

Impact Analysis: Implementation of The Fullerton Plan would allow for additional development, potentially resulting in an increase in the City's population, and thus, an overall increase in total water demand. The City of Fullerton Utility Services relies on imported water and local groundwater supplies to serve its residents and businesses.

The Fullerton 2010 UWMP provides a long-range assessment of water supply for the City. The UWMP serves as a source document for cities and counties as they prepare their General Plans. The study assesses water supply to forecast year 2035. In addition to water supply, the UWMP addresses efficient use of water, demand management measures, implementation strategies and schedules, and other relevant information and programs.

The 2010 UWMP anticipates that the City is capable of meeting the water demands of its customers in normal, single dry, and multiple dry years between 2015 and 2035. Table 5.16-1, *Current and Projected Water Demands (AFY)*, provides a projection of the City's water demands for the next 25 years. Groundwater supply is projected to account for approximately

62 percent of the City's total water demand for the next 25 years. Imported water from Metropolitan would meet the remaining demand.

Table 5.16-1
Current and Projected Water Demands (AFY)

Water Supply Sources	Fiscal Year Ending					
	2010	2015	2020	2025	2030	2035-opt
Metropolitan	10,587	12,276	12,495	12,410	12,389	12,461
Groundwater	17,273	20,029	20,386	20,248	20,213	20,331
Total	**27,860**	**32,305**	**32,881**	**32,658**	**32,602**	**32,792**

Water consumption is influenced by many factors including climate characteristics, demographics, land use characteristics, and economics. The UWMP estimates water demand in part on a 2030 population of 150,610 persons. The Fullerton Plan estimates a population of 165,303 persons in 2030, which is approximately 9.8 percent greater than the population projected in the UWMP.

Although implementation of The Fullerton Plan would potentially result in population growth greater than anticipated by the 2010 UWMP, significant impacts to water supplies are not anticipated. The City would continue to monitor water demand and supplies and adjust supply and demand projections as part of the UWMP process. Future development would be reviewed by the City on a project-by-project basis to ensure adequate water supplies and infrastructure are available to accommodate future projects. The City would be required to comply with SBx7-7, which requires urban retail water suppliers to develop urban water use targets to help meet the 20 percent statewide water reduction goal by 2020 and the interim 10 percent goal by 2015. Additionally, The Fullerton Plan Water and Growth Management chapters are intended to ensure that water supplies and infrastructure are available to meet the needs of current and future development within the City. Goal 19 and associated policies and actions would ensure an adequate water supply is available to serve future development. Goal 7 and associated policies and actions would provide for growth and development that is aligned with infrastructure capabilities. Further, The Fullerton Plan supports conservation efforts (Policy 19.2, *Conservation Efforts*) and sustainable water practices (Policy 19.7, *Sustainable Water Practices in New Development*) in regional and local planning efforts. With adherence to The Fullerton Plan goals, policies, and actions and the FMC Water Supply Shortage Conservation Plan and Landscaping and Irrigation Requirements, as well as compliance with the Fullerton UWMP, potential water supply and infrastructure impacts would be reduced to a less than significant level.

Proposed General Plan Update Policies and Actions:

P7.1 ***Balanced Decisionmaking***
Support regional and subregional efforts to focus growth and development within areas that can be adequately served by existing and planned infrastructure systems.

P7.2 ***Housing Growth***
Support projects, programs, policies and regulations to accommodate housing growth consistent with the Regional Housing Needs Assessment in areas of the City with existing and planned infrastructure capabilities.

P7.3 ***Infrastructure Planning***
Support projects, programs, policies and regulations to plan for appropriate levels and types of infrastructure based on the desired character of each neighborhood or district.

P7.4 ***Focus Area Planning***
Support projects, programs, policies and regulations to evaluate infrastructure capabilities as part of community-based planning of Focus Areas.

P7.5 ***Appropriate Development Scale***
Support projects, programs, policies and regulations to ensure that development is appropriate in scale to current and planned infrastructure capabilities.

P19.1 ***Agency Coordination for Water Supplies***
Support regional and subregional efforts to ensure that an adequate water supply, including groundwater, remains available.

P19.2 ***Conservation Efforts***
Support regional and subregional efforts to promote water efficiency and conservation.

P19.3 ***New Technologies***
Support projects, programs, policies and regulations to encourage the use of new technologies which reduce water use.

P19.4 ***Adequate Supply***
Support projects, programs, policies and regulations to maintain adequate quantities of water, including groundwater, available to the City now and in the future.

P19.5 ***Water Quality***
Support projects, programs, policies and regulations to ensure the quality of the water supply.

P19.6 ***Focus Area Planning***
Support projects, programs, policies and regulations to evaluate ways to conserve and reduce water use as part of community-based planning of Focus Areas.

P19.7 ***Sustainable Water Practices in New Development***
Support projects, programs, policies and regulations to encourage water efficient practices in site and building design for private and public projects.

A7.1 ***Capital Improvement Program***
Utilize the Capital Improvement Program to evaluate and prioritize infrastructure maintenance, replacement and improvement.

A19.1 ***Partnerships with Local and Regional Agencies***
Create partnerships and governance structures that allow for a comprehensive approach to water supply management to improve the reliability of local groundwater, imported water supplies, and the development of alternative water resources, such as seawater desalination and recycled water.

A19.2 ***Education Programs with Local Water Districts***
Coordinate and cooperate with the Metropolitan Water District of Southern California, Orange County Water District, and Municipal Water District of Orange County to expand and strengthen educational and public relations programs regarding the importance of water conservation through co-sponsored public workshops, website links, and informational brochures.

Mitigation Measures: No further mitigation is required beyond compliance with the proposed General Plan Update Policies and Actions.

Level of Significance After Mitigation: Less Than Significant Impact.

5.16.6 CUMULATIVE IMPACTS

- **FUTURE DEVELOPMENT ASSOCIATED WITH IMPLEMENTATION OF THE FULLERTON PLAN AND OTHER CUMULATIVE DEVELOPMENT COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS TO WATER RESOURCES INCLUDING INCREASED DEMAND FOR WATER SUPPLIES AND INFRASTRUCTURE.**

Impact Analysis: Cumulative water impacts are analyzed in terms of impacts to City water supplies and facilities, along with impacts to Metropolitan. The City receives its water from two main sources, the Lower Santa Ana River Groundwater Basin (Basin), which is managed by the Orange County Water District (OCWD) and imported water from the Metropolitan Water District of Southern California (Metropolitan). Groundwater is pumped from 11 active wells located throughout the City, and imported water is treated at the Diemer Filtration Plant and is delivered to the City through six (operational) imported water connections.

Potential impacts to water supply associated with implementation of The Fullerton Plan, along with potential development within cities served by Metropolitan, may result in cumulative impacts on water supplies. It is required that every urban water supplier assess the reliability to provide water service to its customers under normal, dry, and multiple dry water years. Metropolitan's 2010 RUWMP finds that Metropolitan is able to meet full service demands of its member agencies with existing supplies from 2015 through 2035 during normal years, single dry year, and multiple dry years.

Future development projects in Fullerton would be evaluated by the City on a project-by-project basis to determine impacts to water supplies and infrastructure. The continued assessment of individual projects for impacts to the water supply system would assure projects would only be approved if adequate water supplies exist at the time of their implementation. New development would be required to pay its share of the costs of infrastructure improvements necessary to accommodate the project. Furthermore, with adherence to and compliance with

the goals, policies and actions of The Fullerton Plan, FMC, and Fullerton UWMP, impacts regarding water supply, distribution, and infrastructure would be further reduced to less than significant levels. If necessary, the City would implement the FMC Water Supply Shortage Conservation Plan, which allows the City to implement the four-phased water conservation program, further reducing potential impacts to water supply to less than significant. Therefore, implementation of The Fullerton Plan would not result in cumulatively considerable water supply and infrastructure impacts.

Proposed General Plan Update Policies and Actions: Refer to the Policies and Actions cited above.

Mitigation Measures: No further mitigation is required beyond compliance with the proposed General Plan Update Policies and Actions.

Level of Significance After Mitigation: Less Than Significant Impact.

5.16.7 SIGNIFICANT UNAVOIDABLE IMPACTS

Impacts related to water supplies and facilities associated with implementation of The Fullerton Plan would be less than significant with compliance with the goals, policies, and actions, as well as the City's Municipal Code and UWMP. Therefore, no significant unavoidable water supplies and facilities impacts would occur as a result of The Fullerton Plan.

5.16.8 SOURCES CITED

City of Fullerton Municipal Code.

Malcolm Pirnie, Inc., City of Fullerton 2010 Urban Water Management Plan, June 2011.

RBF Consulting, *The Fullerton Plan Draft*, August 2011.