

4. ENVIRONMENTAL IMPACT ANALYSIS

N. UTILITIES AND SERVICE SYSTEMS

1. INTRODUCTION

This section analyzes the potential impacts of the proposed project on utilities and service systems that serve the project site. The section evaluates whether the project's estimated water demand, wastewater generation, and solid waste generation would be accommodated by existing and proposed infrastructure, treatment facilities, and service systems. Information in this section is based on correspondence with the City of Newport Beach Public Works Department, the City of Newport Beach Municipal Operations Department, and the Orange County Sanitation District (OCSD), as well as information and findings obtained in the *Back Bay Landing Hydrology/Hydromodification/Utilities Technical Memorandum* (Technical Memorandum), prepared by Fuscoe Engineering, dated July 3, 2012; the *City of Newport Beach 2010 Urban Water Management Plan* (herein referred to as the "2010 UWMP"), prepared by Malcolm Pirnie, Inc., dated May 2011; and the City of Newport Beach General Plan (2006) (herein referred to as the "General Plan"). Letters of correspondence with these agencies are located in Appendix J of this EIR. The Technical Memorandum is located in Appendix L of this EIR.

2. ENVIRONMENTAL SETTING

a. Regulatory Framework

(1) Water Supply

(a) Safe Drinking Water Act

The Safe Drinking Water Act (California Health and Safety Code Sections 116350-116405) is intended to protect public health by regulating the nation's public drinking water supply. The Act authorizes the U.S. Environmental Protection Agency (USEPA) to set national standards for drinking water to protect against both naturally occurring and man-made contaminants.

(b) National Primary Drinking Water Regulations

The National Primary Drinking Water Regulations (primary standards), also known as maximum contaminant levels, are legally enforceable standards that are set and enforced by the USEPA and that apply to public water systems. Primary standards protect public health by limiting the levels of contaminants in drinking water.

(c) National Secondary Drinking Water Regulations

The National Secondary Drinking Water Regulations are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. The USEPA recommends the secondary standards to water systems, but does not require the systems to comply. However, States may choose to adopt them as enforceable standards. Title 22 of the California Code of Regulations (CCR) (Division 4, Chapter 15, "Domestic Water Quality and Monitoring Regulations") provides the regulatory requirements for potable water quality in California.

(d) Domestic Water Quality and Monitoring Regulations

The requirements of Title 22 (as revised in 1978, 1990, and 2001) establish the quality and/or treatment processes required for a recycled effluent to be used for a non-potable application. In addition to recycled water uses and treatment requirements, Title 22 addresses sampling and analysis requirements at the treatment plant, preparation of an engineering report prior to production or use of recycled water, general treatment design requirements, reliability requirements, and alternative methods of treatment. Permits are issued to each water recycling project by one of the nine Regional Water Quality Control Boards (RWQCBs). These permits include water quality and public health protections. Title 22 is enforced by the RWQCBs and regulates the sources, uses, plumbing requirements, sampling and analysis, reporting, design, and treatment requirements of recycled water in California. Title 17 of the CCR regulates the protection of the potable water supply through the control of cross-connections with potential contaminants, including recycled water.

(e) California Urban Water Management Plan Act

The California Urban Water Management Planning Act (California Water Code [CWC] Division 6, Part 2.6, Sections 10610-10656) addresses several State policies regarding water conservation and the development of water management plans to ensure the efficient use of available supplies. The California Urban Water Management Planning Act also requires water suppliers to develop water management plans every five years to identify short-term and long-term demand management measures to meet growing water demands during normal, dry, and multiple-dry years. Specifically, municipal water suppliers that serve more than 3,000 customers or provide more than 3,000 acre-feet (AF) per year of water must adopt an Urban Water Management Plan (UWMP).

(f) Senate Bill 610, Senate Bill 221, and Senate Bill 7

State legislation addressing water supply, Senate Bill (SB) 610 and SB 221, became effective January 1, 2002. SB 610, codified in CWC §10910 et seq., describes requirements for both water supply assessments (WSAs) and UWMPs applicable to the California Environmental Quality Act (CEQA) process. SB 610 requires that for projects subject to CEQA, which meet specific size criteria, the water supplier must prepare a WSA that determines whether the projected water demand associated with a proposed project is included as part of the most recently adopted UWMP. Specifically, a WSA shall identify existing water supply entitlements, water rights, or water service contracts held by the public water system, and prior years' water deliveries received by the public water system. In addition, it must address water supplies over a 20-year period and consider normal, single-dry, and multiple-dry year conditions. In accordance with SB 610 and Section 10912 of the CWC, such projects subject to CEQA requiring completion of a WSA include the following:

- Residential developments of more than 500 dwelling units;
- Shopping centers or business establishments employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- Commercial office buildings employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- Hotels, motels, or both, having more than 500 rooms;

- Industrial, manufacturing, or processing plants, or industrial parks planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;
- Mixed-use projects that include one or more of the projects specified in this subdivision; or
- Projects that would demand an amount of water equivalent to or greater than the amount of water required by a 500 dwelling unit project.

The WSA must be approved by the public water system at a regular or special meeting and must be incorporated into the CEQA document. The lead agency must then make certain findings related to water supply based on the WSA.

In addition, under SB 610, a water supplier responsible for the preparation and periodic updating of an UWMP must describe the water supply projects and programs that may be undertaken to meet the total project water use of the service area. If groundwater is identified as a source of water available to the supplier, the following additional information must be included in the UWMP: (1) a groundwater management plan; (2) a description of the groundwater basin(s) to be used and the water use adjudication rights, if any; (3) a description and analysis of groundwater use in the past five years; and (4) a discussion of the sufficiency of the groundwater that is projected to be pumped by the supplier.

Complementary legislation to SB 610 was enacted on November 10, 2009, with the passage of SB 7. SB 7 mandates new water conservation goals for UWMPs, requiring urban water suppliers to achieve a 20 percent per capita water consumption reduction by the year 2020 statewide, as described in the “20 x 2020” State Water Conservation Plan.¹ As such, each updated UWMP must now incorporate a description of how each respective urban water supplier will quantitatively implement this water conservation mandate, in addition to the requirements of SB 610.

SB 221 also addresses water supply in the land use planning process and focuses on new residential subdivisions in non-urban areas. SB 221 requires that written verification from the water service provider be submitted indicating sufficient water supply is available to serve a proposed subdivision, or the local agency shall make a specified finding that sufficient water supplies are or will be available prior to completion of a project. SB 221 specifically applies to residential subdivisions of 500 units or more. In addition, Government Code Section 66473.7(i) exempts “...any residential project proposed for a site that is within an urbanized area and has been previously developed for urban uses; or where the immediate contiguous properties surrounding the residential project site are, or previously have been, developed for urban uses; or housing projects that are exclusively for very low and low-income households.”

The proposed project is not subject to the requirements of SB 610, as it would introduce 85,644 square feet of residential uses (up to 49 residential units) and up to 94,034 square feet of commercial/marine-related uses and storage. Therefore, a WSA is not required. Further, future development of residential uses is not subject to the requirements of SB 221 because it includes construction and operation of less than 500 or dwelling units.

¹ *California State Water Resources Control Board, 20 x 2020 Water Conservation Plan, February 2010.*
http://www.swrcb.ca.gov/water_issues/hot_topics/20x2020/docs/20x2020plan.pdf

(g) California Code of Regulations

Title 20, Sections 1605.1(h) and 1605.1(i) of the California Code of Regulations (CCR) establishes efficiency standards (i.e., maximum flow rates) for all new federally-regulated plumbing fittings and fixtures, including showerheads and lavatory faucets. The maximum flow rate for showerheads and lavatory faucets are 2.5 gallons per minute (gpm) at 80 pounds per square inch (psi) and 2.2 gpm at 60 psi, respectively. In addition, Section 1605.3(h) establishes State efficiency standards for non-federally regulated plumbing fittings, including commercial pre-rinse spray valves.

(h) Global Warming and Climate Change

Global warming and climate change should be considered in assessing water supply in California. Potential impacts of climate change on California's water resources include changes in both water and air temperature, changes in precipitation patterns, and changes in sea levels that could increase pressure on the Sacramento-San Joaquin River Delta (Delta) levees. The impact of climate change on California's water supply has already been the subject of study. In response to Governor's Executive Order S-3-05, California Department of Water Resources (DWR) prepared its most recent report on this issue in May 2009, entitled "Using Future Climate Projections to Support Water Resources Decision Making in California," which presents an overview of the advances that DWR has made toward using future climate projection information to support decision making by quantifying possible impacts to water resources for a range of future climate scenarios. Advances have been made in using future climate projection information in water resources planning in California, including improved understanding of how well selected climate models represent historical climate conditions and refined methodologies for representing stream flows, outdoor urban and agricultural water demands, and sea level rise in planning tools. The range of impacts presented indicated the need for adaptation measures to improve the reliability of future water supplies in California.²

DWR has further addressed the issue of climate change and how it can affect California's water supply, by undertaking mitigation and adaptation measures. DWR is a member of the California Climate Action Registry and is listed as a "Climate Action Leader" for reporting its greenhouse gas emissions for three consecutive years (2007, 2008 and 2009), and having the data verified by third party audit.³ In 2008, DWR adopted the "Climate Change Adaptation Strategy," which urges a new approach to California's water and other natural resources in the face of changing climate.⁴ In 2009, DWR adopted its own Sustainability Policy, and in 2010, DWR established clear and measurable goals for sustainability implementations.^{5,6}

In December 2010, DWR prepared a survey which presents summaries of 13 different reports and studies prepared by DWR addressing climate change entitled "Climate Change Characterization and Analysis in California Water Resources Planning Studies - Final Report." Although DWR was one of the early leaders in

² "Using Future Climate Projections to Support Water Resources Decision Making in California," May 2009, California Department of Water Resources, page 2.

³ California Climate Action Registry, Climate Action Leaders. <http://www.climateregistry.org/about/members/climate-action-leaders.html>. Accessed April 26, 2011.

⁴ Climate Change Adaptation Strategies for California's Water: Managing an Uncertain Future, California Department of Water Resources, October 2008. <http://www.water.ca.gov/climatechange/docs/ClimateChangeWhitePaper.pdf>.

⁵ Memorandum to All DWR Employees, "Sustainability Workgroup," California Department of Water Resources, April 22, 2009. http://www.water.ca.gov/climatechange/docs/Sustainability_Policy.pdf.

⁶ Memorandum to All DWR Employees, "Sustainability Targets," California Department of Water Resources, September 20, 2010. http://www.water.ca.gov/climatechange/docs/Sustainability_Policy.pdf.

including climate change analysis in its planning studies and reports, it does not currently have a standard framework or a set of recommended approaches for considering climate change in its planning studies. A variety of approaches to characterize and analyze future climate have been used in various DWR planning studies. The December 2010 paper summarized the approaches and methodologies that have been used since 2006. It is the first comprehensive comparative look at the different approaches, their strengths and weaknesses, and how they have been used in past studies. This work is anticipated to lay the groundwork for a future DWR study aimed at developing a standard framework and a consistent set of approaches to be used for characterizing and analyzing climate change in future DWR planning studies and which may provide guidance for DWR partners and grantees.⁷

While climate change is expected to continue through at least the end of this century, the magnitude and nature of future changes are uncertain. This uncertainty serves to complicate the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood.⁸ However, preliminary modeling conducted by DWR indicates that under one climate change scenario, average yearly SWP Table A deliveries in 2050 would be reduced by 10.2 percent.⁹

In light of these conclusions, both governmental agencies and non-governmental organizations recommend that water decision-makers operate existing water systems to allow for increased flexibility. Other recommendations include incorporating climate change research into infrastructure design, conjunctively managing surface water and groundwater supplies, and integrating water and land use practices. As a result, in March 2002, the Metropolitan Water District of Southern California's (MWD) Board of Directors adopted climate change policy principles that relate to water resources. These principles are reflected in MWD's Integrated Resource Plan (IRP), which was updated October 12, 2010.¹⁰ Further, in response to climate change and uncertainty, MWD's 2010 Regional UWMP incorporated three basic elements to promote adaptability and flexibility, important in addressing impacts of climate change: conservation, groundwater recharge, and water recycling.¹¹

MWD also approved criteria to further explain its position on the conveyance options that are currently being discussed to remedy the Delta, which include addressing projected sea level rise and change in inflows due to climate change. MWD's criteria provide that, "whatever option is chosen, it should provide water supply reliability, improve export water quality, allow flexible pumping operations in a dynamic fishery environment, enhance the Delta ecosystem, reduce seismic risks, and reduce climate change risks."¹² MWD has demonstrated a commitment to addressing climate change by evaluating the vulnerability of its water systems to global warming impacts and has developed appropriate response strategies and management

⁷ "Climate Change Characterization and Analysis in California Water Resources Planning Studies - Final Report," California Department of Water Resources, December 2010, page v.

⁸ "Progress on Incorporating Climate Change into Management of California's Water Resources," July 2006, California Department of Water Resources, page 2-54.

⁹ Table A water deliveries represent the schedule of the maximum amount of water that water contractors to the DWR may receive annually from the SWP. There are 29 water contractors who have signed long term contracts with the DWR for a total of 4,173 million acre feet per year. Table A deliveries are not guarantees of annual delivery amounts but are used to allocate individual contractors' portion of the delivery amounts available.

¹⁰ Integrated Water Resources Plan, Report No. 1373, Updated October 12, 2010. The Metropolitan Water District of Southern California. <http://www.mwdh2o.com/mwdh2o/pages/yourwater/irp/IRP2010Report.pdf>.

¹¹ The Regional Urban Water Management Plan, November 2010. The Metropolitan Water District of Southern California. http://www.mwdh2o.com/mwdh2o/pages/yourwater/RUWMP/RUWMP_2010.pdf.

¹² Report for Metropolitan Water District of Southern California Board Meeting September 11, 2007 Agenda Item 8-4, emphasis added.

tools that account for the impacts of climate change on future water supplies. For further discussion on the effects of global climate change, please refer to Section 4.B, *Air Quality*, of this Draft EIR.

(i) Metropolitan’s 2010 Regional Urban Water Management Plan (RUWMP)

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 areas. 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.

(j) Metropolitan’s 2010 Integrated Water Resources Plan (IRP)

Metropolitan’s 2010 Integrated Water Resources Plan (IRP) update describes the core water resource strategy that will be used to meet full-service demands (non-interruptible agricultural and replenishment supplies) at the retail level under all foreseeable hydrologic conditions from 2015 through 2035. The foundation of Metropolitan’s resource strategy for achieving regional water supply reliability has been to develop and implement water resources programs and activities through its IRP preferred resource mix. This preferred resource mix includes conservation, local resources such as water recycling and groundwater recovery, Colorado River supplies and transfers, SWP supplies and transfers, in-region surface reservoir storage, in-region groundwater storage, out-of-region banking, treatment, conveyance and infrastructure improvements.

(k) City of Newport Beach 2010 Urban Water Management Plan (2010 UWMP)

In accordance with the California Urban Water Management Planning Act, the City updated its UWMP; the 2010 Urban Water Management Plan was adopted by the City Council on June 14, 2011. The UWMP was prepared consistent with the requirements under Water Code Sections 10610 through 10656 of the Urban Water Management Planning Act, which were added by Statute 1983, Chapter 1009, and became effective on January 1, 1984. Consistent with the requirements of the Urban Water Management Planning Act, the UWMP identifies the sources for the District’s water supplies to meet demand during normal, single-dry, and multiple-dry years.

(l) City of Newport Beach General Plan (2006) – Chapter 10 Natural Resources Element

The General Plan Natural Resources Element identifies the City’s natural resources and policies for their preservation, development, and use. The element addresses water supply (as a resource) and water quality (including potable drinking water).

(m) City of Newport Beach Municipal Code, Title 14 Water and Sewers

Chapter 14.16 of Title 14 of the City’s Municipal Code was amended in December 2009 and renamed the “Water Conservation and Supply Level Regulations”. This program seeks to reduce water consumption in the City through (1) permanent water conservation requirements during non-shortage conditions and (2) four levels of water supply shortage response actions to be implemented within the City during times of declared water shortage. The program would prevent waste or unreasonable use of water; maximize the efficient use of water; and ensure a reliable and sustainable minimum supply of water for public health, safety, and welfare. Chapter 14.17 of Title 14, Water Efficient Landscaping, also establishes procedures and standards for the design, installation, and maintenance of water-efficient landscapes in conjunction with new

construction projects within the City to promote the conservation and efficient use of water and to prevent the waste of available water resources.

(2) Wastewater

(a) Capacity Assurance, Management, Operation, and Maintenance Program

In January 2001, the USEPA published a proposed rule intended to clarify and expand permit requirements under the Clean Water Act to further protect public health and the environment from impacts associated with sanitary sewer overflows. The proposed rule is generally referred to as the “Capacity Assurance, Management, Operation, and Maintenance Program Regulation”. The proposed Program’s regulation requires development and implementation of programs intended to meet the performance standard of eliminating sanitary sewer overflows; to provide overflow emergency response plans, system evaluations, and capacity assurance plans; to conduct program audits; and to implement public communication efforts.

(b) State Water Resources Control Board

On May 2, 2006, the State Water Resources Control Board (SWRCB) adopted Order No. 2006-0003, *Statewide General Waste Discharge Requirements for Sanitary Sewer Systems* (WDR). All federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publically owned treatment facility in the State of California are required to comply with the terms of this Order. The principal requirement of the WDR is for each system owner to develop and implement a system-specific Sewer System Management Plan (SSMP). The IEUA SSMP was prepared in order to meet the requirements of Order No. 2006-0003 issued on May 2, 2006.

(c) Orange County Sanitation District (OCSD) Five-Year Strategic Plan Update, November 2012

In November 2007, the Board of Directors adopted the first five-year comprehensive strategic plan to steer OCSD’s efforts and engage the organization to envision service levels and operational needs. The year 2012 marks the end of that five-year strategic plan cycle. Since 2007, 31 strategic goals have been completed, two have been cancelled after further evaluation, and three new or modified goals remain and are scheduled to be completed by 2014. The Strategic Plan has continued to provide direction for moving from good to great through annual assessments and incremental changes. As a result of the discussion at the October 17, 2012 Strategic Planning Workshop, three new goals were added, three modifications to existing levels of service were made, and two goal modifications were included in the plan. The Strategic Plan continues to chart a focused roadmap of success for the future of the OCSD. It continues to address critical issues and challenges, and to communicate clear and concise future direction to OCSD staff.

(d) City of Newport Beach General Plan (2006) – Chapter 10 Natural Resources Element

The General Plan Natural Resources Element identifies the City’s natural resources and policies for their preservation, development, and use. The element addresses wastewater collection and transport systems for treatment.

(e) City of Newport Beach Municipal Code, Title 14 Water and Sewers

Chapter 14.24 of Title 14, Sewer Connection, Permits, establishes procedures and requirements for sewer connections and details regarding permits, sewer use charges, and sewer connection fees.

(3) Solid Waste

The State of California has enacted three key legislations relating to solid waste. These include Assembly Bill 939 – the California Integrated Waste Management Act of 1989 (Public Resources Code Sections 41000-41460), Senate Bill 1327 – the California Solid Waste Reuse and the Recycling Access Act of 1991 (Public Resources Code Sections 42900-42911), and Senate Bill 1374 – Construction and Demolition Waste Materials Diversion Requirements. Each of these regulations is described below.

(a) Assembly Bill 939 – California Integrated Waste Management Act of 1989

The California Integrated Waste Management Act of 1989 (AB 939) introduced an integrated waste management hierarchy to guide local agencies in the implementation of source reduction, recycling, composting, and environmentally safe transformation and land disposal. It required each county to establish a task force to coordinate the development of city Source Reduction and Recycling Elements (SRREs) and a countywide siting element. It also required each county to prepare, adopt, and submit an Integrated Waste Management Plan (IWMP) to the California Integrated Waste Management Board (CIWMB), which was established by AB 939 to ensure the monitoring and enforcement of AB 939 mandates. Through source reduction, recycling, and composting activities, AB 939 required each city or county to divert 50 percent of all solid waste by January 1, 2000.

To note, on Jan. 1, 2010 California's recycling and waste diversion efforts were streamlined into the new Department of Resources Recycling and Recovery — otherwise known as CalRecycle. CalRecycle manages programs created through two landmark initiatives--the Integrated Waste Management Act and the Beverage Container Recycling and Litter Reduction Act--that were formerly part of the CIWMB and the Department of Conservation (DOC). Now housed in the Natural Resources Agency, CalRecycle merges the duties of the Board with those of DOC's Division of Recycling to best protect public health and the environment by effectively and efficiently managing California's waste disposal and recycling efforts.

Although the requirements of AB 939 are directly applicable to Cities and Counties, AB 939 is identified as a relevant regulation due to the fact that individual development projects within the City contribute to the determination of whether the is able to divert 50 percent of all solid waste.

(b) Senate Bill 1016 – Per Capita Disposal Measurement System

The purpose of the “Per Capita Disposal Measurement System” (Chapter 343, Statutes of 2008 proposed as SB 1016 – Wiggins) is to make the process of goal measurement as established by the Integrated Waste Management Act of 1989 (AB 939) simpler, more timely, and more accurate. SB 1016 builds on AB 939 compliance requirements by implementing a simplified measure of jurisdictions' performance. SB 1016 accomplishes this by changing to a disposal-based indicator--the per capita disposal rate--which uses only two factors: a jurisdiction's population (or in some cases employment) and its disposal as reported by disposal facilities.

In order for CalRecycle and jurisdictions to more properly focus on successful program implementation, SB 1016 shifts from the historical emphasis on using calculated generation and estimated diversion to using annual disposal as a factor when evaluating jurisdictions' program implementation. Overall benefits of the new approach include:

- Focuses on diversion program implementation.

- Increases simplicity and timeliness of goal measurement.
- Allows for jurisdiction growth.
- Saves money and time by eliminating complex calculations.
- Increases CalRecycle staff field presence.
- Adjusts CalRecycle review schedule for compliant jurisdictions.

The per capita disposal rate approach is not determinative of jurisdiction compliance. CalRecycle will use per capita disposal as an indicator in evaluating program implementation and local jurisdiction performance. CalRecycle's evaluation will be focused on how jurisdictions are implementing their programs.

(c) Senate Bill 1327 – California Solid Waste Reuse and the Recycling Access Act of 1991

The California Solid Waste Reuse and Recycling Access Act of 1991, as amended, requires individual development projects to provide adequate storage area for the collection and removal of recyclable materials. The size of these storage areas is to be determined by the appropriate jurisdiction's ordinance. If no such ordinance exists within the jurisdiction, the CIWMB-adopted ordinance shall take effect. The requirements of the California Solid Waste Reuse and the Recycling Access Act of 1991 are conservatively included in this analysis as all development projects within the State are required to provide adequate storage area for the collection and removal of recyclable materials per the Act.

(d) Senate Bill 1374 – Construction and Demolition Waste Materials Diversion Requirements

Senate Bill 1374 (Kuehl) passed in 2002, requires that jurisdictions include in their annual AB 939 report a summary of the progress made in diverting construction and demolition waste. The legislation also requires that the CIWMB complete five items with regard to the diversion of construction and demolition waste: (1) adopt a model ordinance for diverting 50 to 75 percent of all construction and demolition debris from landfills; (2) consult with representatives of the League of California Cities, the California State Association of Counties, private and public waste services and building construction materials industry and construction management personnel during the development of the model ordinance; (3) compile a report on programs, other than the model ordinance, that local governments and general contractors can implement to increase the diversion of construction and demolition debris; (4) post a report on the agency's website for general contractors on methods by which contractors can increase diversion of construction and demolition waste materials; and (5) post on the agency's website a report for local governments with suggestions on programs, in addition to the model ordinance, to increase diversion of construction and demolition waste materials.

b. Existing Conditions

(1) Water Supply¹³

Water service in the City is provided by three purveyors: the City, the Irvine Ranch Water District (IRWD), and the Mesa Consolidated Water District (MCWD). The City provides water to a population of approximately 67,000 throughout its 35.77 square mile service area through 26,300 service connections.

¹³ *City of Newport Beach 2010 Urban Water Management Plan, Malcolm Pirnie, Inc., May 2011.*

The City supplies groundwater, imported water, and recycled water to its residential and commercial customers. The City does not supply water to any agency customers. The City receives its water from two main sources, the Lower Santa Ana River Groundwater basin, which is managed by the Orange County Water District (OCWD) and imported water from the Municipal Water District of Orange County (MWDOC). Groundwater is pumped from four active wells located throughout the City, and imported water is treated at the Diemer Filtration Plant and is delivered to the City through six imported water connections. Today, the City relies on 60 percent groundwater, 37 percent imported, and three percent recycled water. It is projected that by 2035, the water supply mix will remain roughly the same.

Existing water lines ranges from one to 36 inches, with the majority of the pipelines ranging from eight to 12 inches in diameter. Transmission mains convey water to various sections of the distribution system, and the distribution lines deliver water to local areas. In addition, the City's water infrastructure includes five domestic pump stations, two reclaimed pump stations, and 43 pressure-reducing stations. The water distribution system is divided into five major pressure zones that serve elevations from sea level to 725 feet above mean sea level (msl).

(a) Imported Water Supply Facilities¹⁴

The Municipal Water District of Orange County (MWDOC) provides imported water to the City. The MWDOC receives its water from Metropolitan. Most of the Metropolitan's imported water supply is provided through the State Water Project (SWP) and Colorado River Aqueduct (CRA) and is treated at the Robert B. Diemer and Weymouth plants. As mentioned below, a large groundwater supply is also available. The use of this supply is regulated by the Basin Pumping Percentage (BPP) as set by the Orange County Water District (OCWD).

All of the water supplied by the City is sold to its retail customers (residential and commercial). The City maintains its own retail distribution system. The City delivers potable water through its water system which consists of approximately 284 miles of pipelines ranging in size from 4-inch to 30-inch with various pipe materials. The City has an extensive distribution system, which includes five pressure zones and six connections along the Orange County Feeder and the East Orange County Feeder No. 2. The total available capacity is 104 cubic feet per second (cfs). The City has five pump stations which deliver water to the upper zones, and backup generation facilities ensure that the City can still deliver water to all zones during a rolling blackout.

The passage of SBx7-7 would increase efforts to reduce the use of potable supplies in the future. The law requires all of California's retail urban water suppliers serving more than 3,000 AFY or 3,000 service connections to achieve a 20 percent reduction in demands (from a historical baseline) by 2020. Due to great water conservation efforts in the past decade, the City is on its way to meeting this requirement on its own. Moreover, the City has elected to join the Orange County 20x2020 Regional Alliance. The City together with 29 other retail agencies in the County are committed to reduce the region's water demand by 2020 through leadership of MWDOC, the region's wholesale provider. With MWDOC's assistance, the City has selected to comply with Option 1 of the SBx7-7 compliance options. Under Compliance Option 1, the City's 2015 interim water use target is 228.1 GPCD and the 2020 final water use target is 202.8 GPCD.

¹⁴ *Ibid.*

(b) Groundwater Facilities¹⁵

In addition to surface water, the City receives a large percentage of its supply from groundwater. Groundwater is pumped from four wells within the City of Fountain Valley and travels through six miles of the 30-inch Groundwater Transmission Main in Fountain Valley, Huntington Beach, and Costa Mesa. Additionally, a pump station, a treatment facility, and a 3-MG reservoir assist in the transmission and treatment effort. The City meets up to 62 percent of its demand through groundwater, under regulations of OCWD's BPP. The BPP is assumed to remain at the conservative 62 percent level for the next 25 years. The remaining demand is projected to be met through imported water from Metropolitan/MWDOC and through a small portion of recycled water.

(c) Recycled Water Facilities¹⁶

Through an agreement with the OCWD, the City purchases between 300 and 800 acre-feet per year (AFY) of recycled water for some large irrigation users. The City has no capability of treating water to produce reclaimed water. The City began serving recycled water in 1999. OCWD provides water through the Green Acres Project, which has the capability to deliver up to 1,000 AFY. The City has investigated future sites or locations for reclaimed water, but there are limitations to the availability of reclaimed connections. The City is looking into the possibility of inter-district reclaimed water transfers to provide reclaimed water to some associations and recreation facilities.

(d) Water Transmission System¹⁷

Water is delivered to the City's customers from the Groundwater Transmission Main, and from diversions off of the Orange County Feeder and the East Orange County Feeder No. 2. The transmission system consists of pipelines, booster pump stations, and storage tanks. The current capacity of the City's potable water supply is 104 cfs.

(e) Water Demand¹⁸

Currently, the total water demand for retail customers served by the City is approximately 16,645 acre-feet annually consisting of 6,161 acre-feet of imported water from the MWDOC, 10,052 acre-feet of local groundwater, and 432 acre-feet of recycled water. In the past five years, the City's water demand has decreased by approximately five percent while population has increased by 1.5 percent. This illustrates the City's proactive efforts in promoting water use efficiency. 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 a flattening demand trend in the next 25 years despite a projected 11 percent population growth. As illustrated below in **Table 4.N-1, Current and Projected Water Demands (AFY)**, the City's water demand is expected to increase by 11 percent in the next 25 years to 18,474 acre-feet by 2035.

The City's 25-year demand projections for imported water are based on the projections provided by the City to MWDOC; refer to **Table 4.N-2, Newport Beach's Demand Projections Provided to Wholesale Suppliers (AFY)**.

¹⁵ *Ibid.*

¹⁶ *Ibid.*

¹⁷ *Ibid.*

¹⁸ *Ibid.*

Table 4.N-1

Current and Projected Water Demands (AFY)

Water Supply Sources	Fiscal Year Ending					
	2010	2015	2020	2025	2030	2035-opt
MWDOC (Imported Treated Full Service (non-int.))	6,161	6,298	6,430	6,564	6,697	6,830
BPP Groundwater	10,052	10,275	10,492	10,710	10,927	11,144
Recycled Water	432	450	500	500	500	500
Total	16,645	17,023	17,422	17,774	18,124	18,474

Source: City of Newport Beach 2010 Urban Water Management Plan, Malcolm Pirnie, Inc., May 2011.

Table 4.N-2

Newport Beach's Demand Projections Provided to Wholesale Suppliers (AFY)

Wholesaler	Fiscal Year Ending				
	2015	2020	2025	2030	2035-opt
MWDOC	6,298	6,430	6,564	6,697	6,830

Source: City of Newport Beach 2010 Urban Water Management Plan, Malcolm Pirnie, Inc., May 2011.

As the regional wholesale supplier of the County, MWDOC works in collaboration with each of its member agencies as well as with Metropolitan, its wholesaler, to develop demand projections for imported water.

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 analysis are illustrated below in **Table 4.N-3, Metropolitan Average Year Projected Supply Capability and Demands for 2015 to 2035**, **Table 4.N-4, Metropolitan Single-Dry Year Projected Supply Capability and Demands for 2015 to 2035**, and **Table 4.N-5, Metropolitan Multiple-Dry Year Projected Supply Capability and Demands for 2015 to 2035**. These tables show 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.

The City provides water service for the project site. The project site is served by an existing 12-inch water line in Bayside Drive which is owned and operated by the City. An existing 30-inch water transmission line traverses the project site from the southeast corner to the northwest corner and joins within an existing vault on the site before crossing the Upper Newport Bay. This transmission line was installed in 1926 and is on the currently priority list for replacement.¹⁹ The existing on-site water service facilities are illustrated in **Figure 2-15, Utilities Plan**, in Chapter 2, *Project Description*, of this Draft EIR.

¹⁹ Back Bay Landing Hydrology/Hydrmodification/Utilities Technical Memorandum, Fuscoe Engineering, July 3, 2012.

Table 4.N-3

Metropolitan Average Year Projected Supply Capability and Demands for 2015 to 2035
Average Year
Supply Capability^a and Projected Demands
Average of 1922-2004 Hydrologies (acre-feet per year)

Forecast Year	2015	2020	2025	2030	2035
Current Programs					
In-Region Storage and Programs	685,000	931,000	1,076,000	964,000	830,000
California Aqueduct ^b	1,550,000	1,629,000	1,763,000	1,733,000	1,734,000
Colorado River Aqueduct Supply ^c	1,507,000	1,529,000	1,472,000	1,432,000	1,429,000
Colorado River Aqueduct Capacity Limit ^d	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000
Colorado River Aqueduct Capability	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000
Capability of Current Programs	3,485,000	3,810,000	4,089,000	3,947,000	3,814,000
Demands					
Firm Demands of Metropolitan	1,826,000	1,660,000	1,705,000	1,769,000	1,826,000
IID-SDCWA Transfers and Canal Linings ^e	180,000	273,000	280,000	280,000	280,000
Total Demands on Metropolitan^e	2,006,000	1,933,000	1,985,000	2,049,000	2,106,000
Surplus	1,479,000	1,877,000	2,104,000	1,898,000	1,708,000
Programs Under Development					
In-Region Storage and Programs	206,000	306,000	336,000	336,000	336,000
California Aqueduct	382,000	383,000	715,000	715,000	715,000
Colorado River Aqueduct Supply ^c	187,000	187,000	187,000	182,000	182,000
Colorado River Aqueduct Capacity Limit ^d	0	0	0	0	0
Colorado River Aqueduct Capability	0	0	0	0	0
Capability of Proposed Programs	588,000	689,000	1,051,000	1,051,000	1,051,000
Potential Surplus	2,067,000	2,566,000	3,155,000	2,949,000	2,759,000

CRA = Colorado River Aqueduct; MAF = Million acre-feet; SDCWA = San Diego County Water Authority;
^a Represents Supply Capability for resource programs under listed year type.
^b California Aqueduct includes Central Valley transfers and storage program supplies conveyed by the aqueduct.
^c Colorado River Aqueduct includes water management programs, IID-SDCWA transfers and canal linings conveyed by the aqueduct.
^d Maximum CRA deliveries limited to 1.25 MAF including IID-SDCWA transfer and canal linings.
^e Firm demands are adjusted to include IID-SDCWA transfers and canal linings. These supplies are calculated as local supply, but need to be shown for the purposes of CRA capacity limit calculations without double counting.

Source: City of Newport Beach 2010 Urban Water Management Plan, Malcolm Pirnie, Inc., May 2011.

Table 4.N-4

Metropolitan Single-Dry Year Projected Supply Capability and Demands for 2015 to 2035
Single Dry-Year
Supply Capability^a and Projected Demands
Repeat of 1977 Hydrology (acre-feet per year)

Forecast Year	2015	2020	2025	2030	2035
Current Programs					
In-Region Storage and Programs	685,000	931,000	1,076,000	964,000	830,000
California Aqueduct ^b	522,000	601,000	651,000	609,000	610,000
Colorado River Aqueduct Supply ^c	1,416,000	1,824,000	1,669,000	1,419,000	1,419,000
Colorado River Aqueduct Capacity Limit ^d	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000
Colorado River Aqueduct Capability	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000
Capability of Current Programs	2,457,000	2,782,000	2,977,000	2,823,000	2,690,000
Demands					
Firm Demands of Metropolitan	1,991,000	1,889,000	1,921,000	1,974,000	2,039,000
IID-SDCWA Transfers and Canal Linings ^e	180,000	273,000	280,000	280,000	280,000
Total Demands on Metropolitan	2,171,000	2,162,000	2,201,000	2,254,000	2,319,000
Surplus	286,000	620,000	776,000	569,000	371,000
Programs Under Development					
In-Region Storage and Programs	206,000	306,000	336,000	336,000	336,000
California Aqueduct	556,000	556,000	700,000	700,000	700,000
Colorado River Aqueduct Supply ^c	187,000	187,000	187,000	182,000	182,000
Colorado River Aqueduct Capacity Limit ^d	0	0	0	0	0
Colorado River Aqueduct Capability	0	0	0	0	0
Capability of Proposed Programs	762,000	862,000	1,036,000	1,036,000	1,036,000
Potential Surplus	1,048,000	1,482,000	1,812,000	1,605,000	1,407,000

CRA = Colorado River Aqueduct; MAF = Million acre-feet; SDCWA = San Diego County Water Authority;

^a Represents Supply Capability for resource programs under listed year type.

^b California Aqueduct includes Central Valley transfers and storage program supplies conveyed by the aqueduct.

^c Colorado River Aqueduct includes water management programs, IID-SDCWA transfers and canal linings conveyed by the aqueduct.

^d Maximum CRA deliveries limited to 1.25 MAF including IID-SDCWA transfer and canal linings.

^e Firm demands are adjusted to include IID-SDCWA transfers and canal linings. These supplies are calculated as local supply, but need to be shown for the purposes of CRA capacity limit calculations without double counting.

Source: City of Newport Beach 2010 Urban Water Management Plan, Malcolm Pirnie, Inc., May 2011.

Table 4.N-5

Metropolitan Multiple-Dry Year Projected Supply Capability and Demands for 2015 to 2035
Multiple Dry-Year
Supply Capability^a and Projected Demands
Repeat of 1990-1992 Hydrology (AFY)

Forecast Year	2015	2020	2025	2030	2035
Current Programs					
In-Region Storage and Programs	246,000	373,000	435,000	398,000	353,000
California Aqueduct ^b	752,000	794,000	835,000	811,000	812,000
Colorado River Aqueduct Supply ^c	1,318,000	1,600,000	1,417,000	1,416,000	1,416,000
Colorado River Aqueduct Capacity Limit ^d	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000
Colorado River Aqueduct Capability	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000
Capability of Current Programs	2,248,000	2,417,000	2,520,000	2,459,000	2,415,000
Demands					
Firm Demands of Metropolitan	2,056,000	1,947,000	2,003,000	2,059,000	2,119,000
IID-SDCWA Transfers and Canal Linings ^e	180,000	241,000	280,000	280,000	280,000
Total Demands on Metropolitan	2,236,000	2,188,000	2,283,000	2,339,000	2,399,000
Surplus	12,000	229,000	237,000	120,000	16,000
Programs Under Development					
In-Region Storage and Programs	162,000	280,000	314,000	336,000	336,000
California Aqueduct	242,000	273,000	419,000	419,000	419,000
Colorado River Aqueduct Supply ^c	187,000	187,000	187,000	182,000	182,000
Colorado River Aqueduct Capacity Limit ^d	0	0	0	0	0
Colorado River Aqueduct Capability	0	0	0	0	0
Capability of Proposed Programs	404,000	553,000	733,000	755,000	755,000
Potential Surplus	416,000	782,000	970,000	875,000	771,000

CRA = Colorado River Aqueduct; MAF = Million acre-feet; SDCWA = San Diego County Water Authority;

^a Represents Supply Capability for resource programs under listed year type.

^b California Aqueduct includes Central Valley transfers and storage program supplies conveyed by the aqueduct.

^c Colorado River Aqueduct includes water management programs, IID-SDCWA transfers and canal linings conveyed by the aqueduct.

^d Maximum CRA deliveries limited to 1.25 MAF including IID-SDCWA transfer and canal linings.

^e Firm demands are adjusted to include IID-SDCWA transfers and canal linings. These supplies are calculated as local supply, but need to be shown for the purposes of CRA capacity limit calculations without double counting.

Source: City of Newport Beach 2010 Urban Water Management Plan, Malcolm Pirnie, Inc., May 2011.

(2) Wastewater²⁰

Within its service area, the City is responsible for wastewater collection and conveyance to the Orange County Sanitation District's (OCS) Sewer Treatment Plant No. 2, located in the City of Huntington Beach. The OCS also treats wastewater from several other municipalities. The OCS discharges treated water into the ocean through a 120-inch diameter ocean outfall pipe that extends five miles offshore to the discharge point. A standby 78-inch diameter outfall pipeline stretches one mile from shore. The treatment levels meet all current State and Federal requirements. The OCS also sends up to 10 million gallons per day (mgd) of treated wastewater every day to the Orange County Water District (OCWD) for further processing for landscape irrigation and for injection into the groundwater seawater intrusion barrier. Within the City's service area, discharge of treated wastewater is regulated by the Santa Ana Regional Water Quality Control Board (SARWQCB). In general, the majority of the wastewater generated and treated during the summer months is used for alternative beneficial uses such as wetland habitat and restoration and irrigation for golf courses. The use of the recycled water helps supply part of the water demand during the peak summer months. **Table 4.N-6, Wastewater Collection and Treatment (AFY)** summarizes the past, current, and projected wastewater volumes collected and treated, and the quantity of wastewater treated to recycled water standards for treatment plants within OCS's service area. **Table 4.N-7, Disposal of Wastewater (Non-Recycled) (AFY)**, summarizes the disposal method and treatment level of discharge volumes.

Table 4.N-6

Type of Wastewater	Wastewater Collection and Treatment (AFY)						
	Fiscal Year Ending						
	2005	2010	2015	2020	2025	2030	2035-opt
Wastewater Collected & Treated in Service Area	273,017	232,348	302,400	312,704	321,104	329,392	333,536
Volume that Meets Recycled Water Standards	12,156	75,000	105,000	105,000	105,000	105,000	105,000

Source: City of Newport Beach 2010 Urban Water Management Plan, Malcolm Pirnie, Inc., May 2011.

Table 4.N-7

Method of Disposal	Treatment Level	Disposal of Wastewater (Non-Recycled) (AFY)					
		Fiscal Year Ending					
		2010	2015	2020	2025	2030	2035-opt
Ocean Outfall	Secondary	157,348	197,400	207,704	216,104	224,392	228,536

Source: City of Newport Beach 2010 Urban Water Management Plan, Malcolm Pirnie, Inc., May 2011.

The City is responsible for wastewater collection and conveyance from the project site to the OCS's Sewer Treatment Plant No. 2. Existing wastewater facilities located within and adjacent to the project site include the OCS's Bay Bridge Pump Station located just north of East Coast Highway and existing sewer lines and

²⁰ City of Newport Beach 2010 Urban Water Management Plan, Malcolm Pirnie, Inc., May 2011.

mains located south of East Coast Highway; refer to Figure 2-15 for existing on-site wastewater facilities. The existing restroom facility on-site is served by a small service line running northerly into the existing single family development adjacent to the site. In 1966, an existing 8-inch lateral line serving the project site from Bayside Drive was removed during a sewer construction project in Bayside Drive. At that time, an 18-inch sewer line was removed and replaced with a 36-inch sewer line. This line flows to the existing pump station adjacent to the project site.²¹ As calculated in the *Technical Memorandum*, based on wastewater generation factors obtained from the OCSD, the existing project site under current conditions is estimated to generate 3,562 gallons per day (gpd); refer to **Table 4.N-8, Existing Sewer Generation**.

Table 4.N-8

Existing Sewer Generation^a

Proposed Land Use	Description	Land Use Designation	Flow Coefficient	Acreage	Projected Flow
Parking Lot	Dry RV Storage and under-utilized lot	Estate Residential ^b	727 gpd/ac	4.9	3,562 gpd

gpd = gallons per day; ac = acres.

^a To determine existing sewer flow from the project site, generation rates were obtained from the OCSD Strategic Plan Update, April 2006 Table 3-6 and Attachment 7.

^b Estate Residential is the lowest generation factor within Table 3-6 and provides the best comparison for the existing under-utilized parking lot.

Sources: Back Bay Landing Hydrology/Hydromodification/Utilities Technical Memorandum, Fuscoe Engineering, July 3, 2012. Wendy Smith, P.E., OCSD Planning Division, Email Correspondence, dated June 13, 2012. Daisy Covarrubias, MPA, Senior Staff Analyst, Letter Correspondence, dated October 30, 2012.

(3) Solid Waste²²

The City of Newport Beach General Services Department Refuse Division provides residential solid waste collection to approximately 27,000 residential units in the City. The remaining solid waste is collected by franchised waste haulers. Collected material is then transferred to a Materials Recovery Facility (MRF), where it is sorted for recyclables. Data shows that the City has a diversion rate of 60 percent.

Solid waste generated from the proposed project would be disposed of at the Frank R. Bowerman (FRB) Landfill, which is part of the County of Orange landfill system operated by OC Waste & Recycling. The landfill is located at 11002 Bee Canyon Access Road in the City of Irvine. The permitted daily maximum at FRB is 11,500 tons of solid waste per day. The landfill is approximately 725 acres with 534 acres permitted for refuse disposal. The landfill opened in 1990 and is scheduled to close in 2053. According to OC Waste & Recycling, long-range strategic planning is necessary to ensure that waste generated by the County is safely disposed of and that the County’s future disposal needs are met. The Regional Landfill Options for Orange County (RELOOC) is a 40-year strategic plan that was developed to evaluate options for waste disposal in the County.

²¹ Back Bay Landing Hydrology/Hydromodification/Utilities Technical Memorandum, Fuscoe Engineering, July 3, 2012.

²² Newport Banning Ranch Project Draft EIR, prepared by BonTerra Consulting, dated September 9, 2011.

3. PROJECT IMPACTS

a. Methodology

(1) Water Supply

The analysis of impacts with regard to water infrastructure capacity is based on information provided by the *Back Bay Landing Hydrology/Hydromodification/Utilities Technical Memorandum* (Technical Memorandum), prepared by Fuscoe Engineering, dated July 3, 2012 (Appendix L of this Draft EIR). The analysis assesses whether the project's anticipated domestic water demand would be accommodated by the existing water infrastructure. The water demand for the proposed land uses was calculated by generation factors provided in the Technical Memorandum. The estimated increase in water demand was then compared to the growth projected for the area in the currently approved 2010 UWMP for the purveyor, the City of Newport Beach, serving the project area. The analysis considers whether sufficient water supplies would exist in addition to the existing and planned future demands on the City during a single-dry year, multiple dry years, and a maximum day demand. Impacts regarding water sufficiency for fire-fighting are addressed in Section 4.L, *Public Services*, of this Draft EIR.

(2) Wastewater

The wastewater generation of the proposed project was estimated using wastewater generation factors provided by to OCSD within the Technical Memorandum prepared by Fuscoe Engineering, dated July 3, 2012 (Appendix L of this Draft EIR). The project's estimated increase in wastewater flow was then compared to the existing conditions to assess the capacity of the existing sewer system and the ability of the system to accommodate the additional flows, with detailed wastewater generation and sewer pipe sizing and capacity data provided in the Technical Memorandum. In order to evaluate treatment capacity, the project's estimated wastewater generation is compared with the available treatment capacity within OCSD's Sewer Treatment Plant No. 2. Cumulative wastewater generation is also compared with the available capacity of OCSD's Sewer Treatment Plant No. 2 using the estimated wastewater generation, as the related projects being considered in the cumulative analysis would also be served by OCSD's Sewer Treatment Plant No. 2.

(3) Solid Waste

The environmental impacts of the proposed project with respect to solid waste are determined by comparing the project's net increase in solid waste to the capacity of solid waste facilities that would serve the project site. In addition, a discussion of recycling programs and design features that would be implemented by the proposed project is provided to determine whether the project would comply with federal, state, and local statutes and regulations related to solid waste.

(4) Consistency with Regulatory Framework

The evaluation of utilities and service systems also compares the proposed project to the standards and policies set forth in existing plans and regulations. These include the applicable goals and policies of the Land Use Element and the Natural Resources Element of the City's General Plan and requirements of the City's Municipal Code.

b. Significance Thresholds

Appendix G of the *CEQA Guidelines* provides a checklist of questions to assist in determining whether a proposed project would have a significant impact related to various environmental issues including utilities and service systems. Based on the following issue areas identified in Appendix G of the *CEQA Guidelines*, a significant impact relative to utilities and service systems would occur if the project would result in one or more of the following:

- Threshold 1: Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (refer to Impact Statement 4.N-2 below); or
- Threshold 2: Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (refer to Impact Statement 4.N-1 and 4.N-2 below); or
- Threshold 3: 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 (refer to Impact Statement 4.N-3 below); or
- Threshold 4: Have sufficient water supplies available to serve the project from existing entitlements and resource, or are new or expanded entitlements needed (refer to Impact Statement 4.N-1 below); or
- Threshold 5: Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments (refer to Impact Statement 4.N-2 below); or
- Threshold 6: Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs (refer to Impact Statement 4.N-4 below); or
- Threshold 7: Comply with federal, state, and local statutes and regulations related to solid waste (refer to Chapter 6, *Other Mandatory CEQA Considerations*, and the Initial Study contained in Appendix A. No impact would occur in this regard.).
- Threshold 8: Comply with any applicable plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan and municipal code) adopted for the purpose of avoiding or mitigating an environmental effect (refer to Impact Statement 4.N-5 below).

c. Project Design Features

Implementation of the proposed project would include the development of infrastructure such as water lines and sewer lines and related facilities in order to meet associated demands. The Back Bay Landing Community Development Plan (PCDP) establishes various development standards regulating utilities, landscaping, and sustainability features. The PCPD requires a Final Utilities Plan to be submitted with the

Site Development review application for a future development project on-site. The final alignment and location of utilities would require review and approval by the City’s Public Works Department. Adequate access for maintenance vehicles would be provided as well as a 30-foot-wide accessible easement for the replacement of the 87-year old water transmission line that currently bisects the project site. Buildings would maintain a minimum distance of 15 feet from the water line, unless otherwise approved by the City’s Public Works Department. The PCPD requires a detailed landscape and irrigation plan, prepared by a licensed landscape architect, to be submitted as part of a future Site Development Review at the time a future development project is proposed. All landscaping must comply with the applicable landscaping requirements specified in the Newport Beach Municipal Code, including the Landscaping Standards and Water-Efficient Landscaping sections. All plants would be low water use plants as identified by the California Department of Water Resources.

The PCDP further requires a Sustainability Plan, which addresses topics such as water and energy efficiency, indoor environmental quality and waste reduction, to be submitted with a future Site Development Review application. Sustainable programming would be used to maximize efficiency by conserving water, minimizing construction impacts, minimizing energy use and reducing construction and post-construction waste. The PCPD requires recycling bins to be located at appropriately to promote recycling of paper, metal, glass, and other recyclable material. California-friendly landscaping would be utilized in public areas and reclaimed water use (if available) on-site or off-site will further reduce water demand. Appropriate Best Management Practices (BMPs) would be incorporated into landscape design. Energy reduction, recycling, and the smart use of existing resources would be implemented. The development would include Low Impact Development (LID) features for storm water quality improvement where none exist today. Potential LID features may include storm water planters, permeable pavement and proprietary bioretention systems. Through the development of a project-specific Water Quality Management Plan (WQMP), the appropriate site design, source control and LID control features would be implemented to improve water quality in Newport Bay.

d. Analysis of Project Impacts

(1) Water Infrastructure

Threshold	Would the project require or result in the construction of new water facilities or the expansion of existing facilities, the construction of which would cause significant environmental effects?
Threshold	Would the project have sufficient water supplies available to service the project from existing entitlements and resources, or are new expanded entitlements needed?

Impact 4.N-1 Implementation of the proposed project would require or result in the construction of new on-site and off-site water facilities or the expansion of existing on-site and off-site facilities, the construction of which could cause significant environmental effects. However, compliance with applicable regulatory requirements and implementation of the prescribed mitigation measures would reduce potentially significant impacts in these regards to a less than significant level. Further, the site would have sufficient water supplies available to serve the proposed project from existing entitlements and resources. Thus, impacts regarding water supply would be less than significant.

Under the proposed conditions, an 8-inch water line would serve the proposed project and tie into the existing 12-inch water line in Bayside Drive. Implementation of the proposed project would require abandonment or removal of the 1926 30-inch water transmission line to minimize conflicts between the line and the proposed land uses. The existing 30-inch line traverses the project site from the southeast corner to the northwest corner and joins within an existing vault on the site before crossing the Upper Newport Bay. As noted previously under Existing Conditions, this pipeline is currently on the City priority list for replacement. Two alternatives are currently proposed to replace the capacity of the line and to continue to provide reliable water services in case of an emergency to the western region of the City. The project's existing and proposed on-site water service facilities are illustrated in Figure 2-15. Alternative One would implement a 30-inch line within East Coast Highway beginning at the intersection of East Coast Highway and Bayside Drive, head westerly within East Coast Highway and then connect to the existing vault along the western portion of the site similar to Alternative One. This alternative would result in the greatest construction impacts within East Coast Highway and would require encasement of the line under portions of the project site. As further discussed in Section 4.M, *Transportation/Traffic*, Alternative One would require temporary lane closures on East Coast Highway due to trenching and grading within the Caltrans right-of-way. Further, encroachment permits and other intersection construction work related permits would need to be obtained per the review and approval of Caltrans. Alternative Two would implement a new 30-inch line starting in Bayside Drive, turn westerly along the new entrance road to the project site and then run westerly along the northern boundary of the project site to the existing vault. Alternative Two would result in the least impacts to the site plan and the hydraulic analysis indicated impacts were less than significant for this alignment based on the City's hydraulic standards for this line. Per the PCPD, adequate access for maintenance vehicles would be provided as well as a 30-foot-wide accessible easement for the relocated water transmission line. Buildings would maintain a minimum distance of 15 feet from the water line, unless otherwise approved by the City's Public Works Department. Upon completion, the analysis would be provided to the City with a preferred alignment.²³ The PCPD requires a Final Utilities Plan to be submitted with the Site Development review application for a future development project on-site. The final alignment and location of utilities would require review and approval by the City's Public Works Department. Replacement and relocation of this 87-year old transmission line would provide a regional benefit to the City of Newport Beach and their potable water system.

As discussed in Section 4.L, *Public Services*, in accordance with the Fire Prevention Guideline B.01, Determination of Required Fire Flow, a fire flow test shall be required to confirm that there is adequate pressure for the project's fire system requirements²⁴. The findings of the fire flow test shall determine whether or not new water facilities or mains would be required. The project Applicant shall be responsible to show that the new alignment would not affect the City's water flow capacity²⁵.

The City is responsible for water services for the proposed project. As calculated in the *Technical Memorandum* based on wastewater generation factors obtained from the OCSD, the projected water demand for the proposed project is estimated at 23,706²⁶ gpd (16.46²⁷ gallons per minute [gpm], 26.57²⁸ acre-feet per

²³ *Back Bay Landing Hydrology/Hydromodification/Utilities Technical Memorandum, Fuscoe Engineering, July 3, 2012.*

²⁴ *Kathryne Cho, Project Engineer, City of Newport Beach Public Works Department, Letter Correspondence, dated November 15, 2012.*

²⁵ *Kathryne Cho, Project Engineer, City of Newport Beach Public Works Department, Letter Correspondence, dated November 15, 2012.*

²⁶ *According to the Back Bay Landing Hydrology/Hydromodification/Utilities Technical Memorandum, Fuscoe Engineering, July 3, 2012, the proposed project is estimated to generate 19,755 gpd of sewage. The water demand would be consistent with the proposed sewer generation rate. To be conservative, 20 percent was added (to account for outdoor water use) to the 19,755 gpd for an additional 3,951 gpd for a total estimated water demand of 23,706 gpd (16.46 gpm).*

year [AFY]). As discussed in the Existing Conditions section above, Metropolitan's 2010 RUWMP finds that the MWD 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; refer to Table 4.N-3 through Table 4.N-5. MWDOC projects that it would also be able to meet the demands of its retail agencies under these conditions. The City is therefore capable of meeting the water demands of its customers in normal, single dry, and multiple dry years between 2015 and 2035.²⁹ Further, the City does have adequate capacity within its system to meet the demands of similar facilities/projects in this location.³⁰

The PCPD requires a detailed landscape and irrigation plan, prepared by a licensed landscape architect, to be submitted as part of a future Site Development Review at the time a future development project is proposed. All landscaping must comply with the applicable landscaping requirements specified in the Newport Beach Municipal Code, including the Landscaping Standards and Water-Efficient Landscaping sections. All plants would be low water use plants as identified by the California Department of Water Resources. California-friendly landscaping would be utilized in public areas and reclaimed water use (if available) on-site or off-site will further reduce water demand. The PCDP requires a Sustainability Plan, which addresses water efficiency, to be submitted with a future Site Development Review application. Sustainable programming would be used to maximize efficiency by conserving water. Appropriate Best Management Practices (BMPs) would be incorporated into landscape design. Therefore, sufficient water supplies are available to serve the proposed project from existing entitlements and resources and no new or expanded entitlements are necessary.

Existing water transmission lines are prevalent around the project site, which allows new water lines to have multiple points of connection to the existing facilities. In general, the water transmission line relocation and new water lines are proposed to extend what exists today, matching line sizes and completing the loops where necessary. Water capacity is not anticipated to be an issue based on the redundant water transmission lines that surround the project site.³¹ The proposed project would be responsible for ensuring all necessary connections are provided to the existing water system prior to occupancy of the proposed residential uses. The connections would be provided by the proposed project in consultation with the City, with the project Applicant responsible for payment of all applicable water connection fees as set forth in the Municipal Code (Section 14.12) (Mitigation Measure N-1). Further, these off-site connections would occur within existing street rights-of-way (East Coast Highway and/or Bayside Drive) and would not result in significant environmental effects. Implementation of the project design features and prescribed mitigation measures would reduce the proposed project's potentially significant impacts related to water distribution capacity to a less than significant level.

(2) Wastewater

Threshold	Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
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²⁷ $23,706 \text{ gpd} / 1,440 \text{ minutes per day (mpd)} = 16.46 \text{ gpm}$.

²⁸ $16.46 \text{ gpm} \times 1.61407537 \text{ AFY} = 26.57 \text{ AFY}$.

²⁹ City of Newport Beach 2010 Urban Water Management Plan, Malcolm Pirnie, Inc., May 2011.

³⁰ *Kathryne Cho, Project Engineer, City of Newport Beach Public Works Department, Letter Correspondence, dated November 15, 2012.*

³¹ *Back Bay Landing Hydrology/Hydromodification/Utilities Technical Memorandum, Fuscoe Engineering, July 3, 2012.*

Threshold	Would the project require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?
Threshold	Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Impact 4.N-2 Implementation of the proposed project would not (1) exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board; (2) require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects; or (3) result in a determination by the wastewater treatment provider, which serves or may serve the proposed project, that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. This impact is considered less than significant with implementation of applicable mitigation measures.

(a) Construction

During construction of the proposed project, a negligible amount of wastewater would be generated by construction workers. It is anticipated that portable toilets would be provided by a private company and the waste disposed of off-site. Wastewater generation from construction activities is not anticipated to cause a measurable increase in wastewater flows at a point where, and at a time when, a sewer's capacity is already constrained or that would cause a sewer's capacity to become constrained. Additionally, construction is not anticipated to generate wastewater flows that would substantially or incrementally exceed the future scheduled capacity of the OCSD's Sewer Treatment Plant No. 2. Therefore, construction impacts to the local wastewater conveyance and treatment system would be less than significant.

(b) Operational

(c) Wastewater Generation and Infrastructure

The City is responsible for wastewater collection and conveyance from the project site to the OCSD's Sewer Treatment Plant No. 2. As calculated in the *Technical Memorandum*, based on wastewater generation factors obtained from the OCSD, the proposed project is estimated to generate 19,755 gpd (0.02 mgd); refer to **Table 4.N-9, Proposed Sewer Generation**.

It should be noted that this estimate is considered conservative as it is anticipated that the project's water conservation features would further reduce the wastewater generation. As indicated above and shown in Figure 2-15, the proposed project would require a new lateral connection to the existing 36-inch line in Bayside Drive. This connection would occur south of the existing connection associated with the Bayside Village Mobile Home Park. Both the 36-inch sewer line and pump station are owned and operated by the OCSD. Project wastewater flows would be directed to OCSD's Treatment Plant No. 2. Based on the *Technical Memorandum*, it was determined that existing wastewater conveyance capacity is sufficient for buildout of the proposed project. The proposed sewer flow estimates were submitted to the OCSD in May 2012 for

Table 4.N-9

Proposed Land Use	Description	Proposed Sewer Generation ^a			Projected Flow
		Land Use Designation	Flow Coefficient	Acreage	
Residential Units	49 Units/1.84 ac = 27 DU/ac	High Density Residential	7,516 gpd/ac	1.84	13,829 gpd
Commercial Shops	1.5 ac/4.9 ac FAR < 0.53	Commercial/Office	2,262 gpd/ac	1.50	3,393 gpd
Boat Storage	0.8 ac/4.9 ac FAR < 0.53	Industrial	3,167 gpd/ac	0.80	2,533 gpd
				Total:	19,755 gpd 0.02 mgd

gpd = gallons per day; mgd = million gallons per day; FAR = floor area ratio; ac = acres.

^a To determine sewer flow generated from the proposed project, generation rates were obtained from the OCSD Strategic Plan Update, April 2006 Table 3-6 and Attachment 7.

Sources: Back Bay Landing Hydrology/Hydromodification/Utilities Technical Memorandum, Fuscoe Engineering, July 3, 2012. Wendy Smith, P.E., OCSD Planning Division, Email Correspondence, dated June 13, 2012. Daisy Covarrubias, MPA, Senior Staff Analyst, Letter Correspondence, dated October 30, 2012.

review and determination if there is sufficient capacity to accept the increase flows.³² In June 2012, the OCSD confirmed there was capacity within the 36-inch line to accommodate the proposed project.³³ The 2006 Strategic Plan Update for OCSD covers this portion of the District's sewer system and identified capacity does exist within the 36-inch line to accommodate the proposed project.³⁴ Further, the proposed project would be reviewed by the City of Newport Beach Public Works Department as well as OCSD to ensure that adequate wastewater conveyance facilities exist to serve the project site. Additionally, the project Applicant shall be required to pay standard OCSD sewer connection fees as set forth in the Municipal Code (Section 14.24.050) (Mitigation Measure 4.N-2), which are utilized to fund wastewater treatment and regional wastewater conveyance improvements associated with new development.³⁵ As such, impacts in this regard would be less than significant upon implementation of the project design features and recommended mitigation measures.

OCSD's Sewer Treatment Plant No. 2 maintains a primary treatment capacity of 168 mgd and currently treats an average influent wastewater flow of approximately 110 mgd. Currently, the Plant is operating at 65 percent of design capacity.³⁶ Based on a 58³⁷ mgd capacity surplus, the project's proposed sewer generation of 19,755 gpd (0.02 mgd) would represent 0.03³⁸ percent of the remaining capacity of OCSD's Sewer Treatment Plant No. 2. Given that adequate treatment capacity currently exists to meet project-related

³² Back Bay Landing Hydrology/Hydromodification/Utilities Technical Memorandum, Fuscoe Engineering, July 3, 2012.

³³ Ibid.

³⁴ Ibid.

³⁵ Kathyryne Cho, Project Engineer, City of Newport Beach Public Works Department, letter correspondence dated November 15, 2012.

³⁶ Newport Banning Ranch Project Draft EIR, prepared by BonTerra Consulting, dated September 9, 2011.

³⁷ The OCSD Sewer Treatment Plant No. 2 maintains a primary treatment capacity of 168 mgd and currently treats an average influent wastewater flow of approximately 110 mgd. 168 mgd – 110 mgd = 58 mgd capacity surplus.

³⁸ 0.02 mgd proposed sewer generation/58 mgd capacity surplus = 0.03.

demands and adequate capacity is anticipated to exist with project implementation, impacts related to wastewater treatment capacity would be less than significant.

The wastewater plants are required to comply with associated Waste Discharge Requirements (WDRs) and any updates or new permits issued. WDRs set the levels of pollutants allowable in water discharged from a facility. The wastewater treatment requirements issued by the SARWQCB for OCSD’s treatment plant were developed to ensure that adequate levels of treatment would be provided for the wastewater flows emanating from all land uses within its service area. The project proposes site design BMPs aimed at avoiding or reducing the water quality impacts of the proposed project and would incorporate all applicable BMPs for construction, post-construction/operation, and water quality treatment to ensure compliance with the National Pollutant Discharge Elimination System (NPDES). New development pursuant to implementation of the proposed project must comply with all provisions of the NPDES program and other applicable WDRs, as enforced by the SARWQCB and the California State Water Resources Control Board. Therefore, implementation of the proposed project would not result in an exceedance of wastewater treatment requirements of the SARWQCB. As such, impacts would be less-than-significant in this regard.

(3) Stormwater Drainage Facilities

Threshold	Would the project 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?
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Impact 4.N-3 Implementation of the proposed project 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. However, compliance with applicable regulatory requirements would reduce potentially significant impacts in these regards to a less than significant level.

As discussed in detail in Section 4.8, *Hydrology and Water Quality*, of this Draft EIR, the proposed project would include new on-site stormwater drainage facilities that would be constructed in accordance with applicable regulatory requirements. The proposed project would be designed to maintain the overall existing drainage patterns and discharge rates in which the entire project site would convey its runoff directly into the Upper Newport Bay. The south eastern portion of the project site would continue to discharge into the existing 30-inch storm drain system via a new on-site storm drain collection system. The middle interior portion of the site would be collected in a new on-site system and continue to discharge into the Bay via a new outlet through the bulkhead in a similar location as the existing 8-inch HDPE pipe outlet. The western portion of the site would be picked up in a new storm drain system and either tie into the existing 30-inch reinforced concrete pipe (RCP) under East Coast Highway, or discharge via a new outlet into the Bay through the proposed bulkhead along the western portion of the project site. All on-site flows would be directed to on-site areas where water quality measures would be provided to encourage filtration and treatment of the low flows. Curb and gutter, grate inlets, and storm drain pipe would be proposed to help convey flows to areas of treatment and discharge. The off-site flows would be routed around the project site and tied into the existing 30-inch storm within East Coast Highway, approximately 350 feet upstream of the current tie in location. Environmental impacts associated with development of the proposed project, including on-site drainage facilities have been evaluated throughout this document. Per the PCDP, future development would include Low Impact Development (LID) features for storm water quality improvement where none exist today. Potential LID features may include storm water planters, permeable pavement and

proprietary bioretention systems. Through the development of a project-specific Water Quality Management Plan (WQMP), the appropriate site design, source control and LID control features would be implemented to improve water quality in Newport Bay. As concluded in this document, all potentially significant impacts associated with development of the proposed project, including on-site stormwater drainage facilities, would be less than significant after implementation of the project design features. Therefore, impacts would be less than significant in this regard.

(4) Solid Waste

Threshold	Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?
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Impact 4.N-4 Implementation of the proposed project would not exceed the capacity of the landfill serving the project area. This impact is considered less than significant with implementation of applicable mitigation measures.

(a) Construction

The proposed project is anticipated to be developed as one phase during an 18- to 24-month construction period. The integrated mixed-use and parking structure combined with the relatively small site necessitates construction in a single phase. Construction activities include demolition, excavation and de-watering, infrastructure/foundations, vertical construction, final landscaping, Bayside Drive Roadway Improvements and Trail, and Reconfiguration of Bayside Village Mobile Home Park. Each of these activities would generate construction and demolition (C&D) waste including, but not limited to soil, wood, asphalt, concrete, paper, glass, plastic, metals, and cardboard that would be disposed of at the FRB Landfill.

Solid waste generated from the proposed project would be disposed of at the FRB Landfill. The permitted daily maximum at FRB is 11,500 tons of solid waste per day. The landfill is approximately 725 acres with 534 acres permitted for refuse disposal and is projected to have sufficient capacity to accept this daily waste volume through 2053. Based on implementation of the proposed project and associated volume of C&D waste, the volume of construction-related waste requiring disposal is not expected to be substantial. The PCDP requires a Sustainability Plan, which addresses waste reduction, to be submitted with a future Site Development Review application. Sustainable programming would be used to minimize construction impacts and reducing construction and post-construction waste. As such, the proposed project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs during construction activities and impacts in this regard would be less than significant. Mitigation Measures, although not required, are proposed to provide assurance that construction-related solid waste impacts remain less than significant to the extent feasible.

(b) Operation

As illustrated in **Table 4.N-10, Existing and Proposed Solid Waste Generation**, development of the proposed project would result in a net increase of 683 pounds per day (or approximately 0.34 tons per day) of solid waste. The project's daily solid waste generation represents approximately 0.003³⁹ percent of the maximum

³⁹ *0.34 tons per day generated by the proposed project/11,500 tons of solid waste per day permitted at FRB Landfill x 100 = 0.003 percent.*

Table 4.N-10

Estimated Solid Waste Generation

Land Use	Area	Generation Factor^a	Estimated Generation (lbs/day)
Residential	49 du	4 lbs/unit/day	196
Office	17,075	6 lbs/k.s.f./day	102
Commercial	76,959	5 lbs/k.s.f./day	385
Total Estimated Solid Waste Generation			683 lbs/day (0.34 tons/day)

s.f. = square feet; k.s.f. = thousand square feet; lbs. = pounds.

^a Solid Waste Generation Based on generation factors provided by the CalRecycle website, refer to *Estimated Solid Waste Generation Rates*. <http://www.calrecycle.ca.gov/WasteChar/WasteGenRates/default.htm>. Accessed April 2013, and assumes 4 lbs/unit/day for residential uses, 6 lbs/k.s.f./day for office uses, 5 lbs/k.s.f./day for commercial uses.

Source: PCR Services Corporation, 2013

permitted daily capacity at FRB. It is important to note that this analysis is very conservative in that it does not take into account diversion rates currently achieved by the City as a whole. This amount of solid waste is well within the permitted capacity of 11,500 tons per day for the FRB Landfill, which is projected to accept this maximum daily volume of waste through the year 2053. The County’s landfill system has capacity in excess of the required 15-year threshold established by the California Integrated Waste Management Board (CIWMB). Based on the remaining capacity of the FRB Landfill and the County’s long-term planning programs required to meet CIWMB’s requirements, there would be adequate waste disposal capacity within the permitted County’s landfill system to meet the needs of the proposed project. Further, the PCPD requires recycling bins to be located at appropriately to promote recycling of paper, metal, glass, and other recyclable material.

Based on the above, project-generated waste would not exceed the capacity of landfills serving the project area. In addition, the proposed project would not generate solid waste at a level that would generate the need for new or substantially expanded recycling or disposal facilities. The available capacity of the existing and/or planned future landfills would not be exceeded, and therefore impacts regarding solid waste generation from project operations would be less than significant.

(5) Consistency With Regulatory Framework

Threshold	Would the project conflict with any applicable plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan and municipal code) adopted for the purpose of avoiding or mitigating an environmental effect?
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Impact 4.L-5 Implementation of the proposed project would not conflict with any applicable plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the General Plan and Municipal Code). This impact is considered less than significant.

(a) City of Newport Beach General Plan Consistency Analysis

The City’s General Plan contains a number of policies that are relevant to water supply, wastewater, and solid waste, including policies contained in the General Plan Land Use Element and Natural Resources Element. As discussed below in **Table 4.N-11, General Plan Consistency Analysis**, the proposed project would not conflict with the applicable policies of the City of Newport Beach General Plan. As such, impacts would be less than significant.

Table 4.N-11

General Plan Consistency Analysis

Applicable Policies	Project Consistency Statement
Chapter 3 Land Use Element	
Uses to be Accommodated (“What Uses Contribute to Our Community?”)	
<p>Policy LU 2.8: Adequate Infrastructure. Accommodate the types, densities, and mix of land uses that can be adequately supported by transportation and utility infrastructure (water, sewer, storm drainage, energy, and so on) and public services (schools, parks, libraries, seniors, youth, police, fire, and so on).</p>	<p>Consistent. The analysis provided within this EIR section identifies that adequate utility infrastructure and utility supply can be provided to serve the proposed project.</p>
Chapter 10 Natural Resources Element	
Water Supply	
<p>Policy NR 1.1: Water Conservation in New Development. Enforce water conservation measures that limit water usage, prohibit activities that waste water or cause runoff, and require the use of water-efficient landscaping and irrigation in conjunction with new construction projects.</p>	<p>Consistent. The PCPD requires a detailed landscape and irrigation plan, prepared by a licensed landscape architect, to be submitted as part of a future Site Development Review at the time a future development project is proposed. All landscaping must comply with the applicable landscaping requirements specified in the Newport Beach Municipal Code, including the Landscaping Standards and Water-Efficient Landscaping sections. All plants would be low water use plants as identified by the California Department of Water Resources. California-friendly landscaping would be utilized in public areas and reclaimed water use (if available) on-site or off-site will further reduce water demand. The PCDP requires a Sustainability Plan, which addresses water efficiency, to be submitted with a future Site Development Review application. Sustainable programming would be used to maximize efficiency by conserving water. Appropriate Best Management Practices (BMPs) would be incorporated into landscape design.</p>
<p>Policy NR 1.2: Use of Water Conserving Devices. Establish and actively promote use of water conserving devices and practices in both new construction and major alterations and additions to existing buildings. This can include the use of rainwater capture, storage, and reuse facilities.</p>	<p>Consistent. Please refer to the response to Policy NR 1.1.</p>

Table 4.N-11 (Continued)

General Plan Consistency Analysis

<p>Policy NR 5.1: City Sewer Management and Master Plans. Implement the Sewer System Management Plan and the Sewer Master Plan.</p>	<p>Consistent. The proposed project is consistent with this goal. The City has an adequate sewer system capacity to serve the requirements of the proposed project. The proposed project would be able to tie into the existing sewer system without adversely affecting the system or causing water quality impacts. Facilities required for the proposed project would be implemented consistent with the City’s Sewer System Management Plan and Sewer Master Plan.</p>
<p>Policy NR 5.3: Sewer Pump Stations. Renovate all older sewer pump stations and install new plumbing according to most recent standards.</p>	<p>Consistent. Please refer to the response to Policy NR 5.1. The proposed project would include façade improvements to the adjacent OCS D facility to be consistent with the architectural design of the future on-site development.</p>
<p>Policy NR 5.4: Waste Discharge Permits. Comply with the RWQCB’s Waste Discharge Requirements (WDRs) associated with the operation and maintenance of the City’s sewage collection system. (</p>	<p>Consistent. The project proposes site design BMPs aimed at avoiding or reducing the water quality impacts of the proposed project and would incorporate all applicable BMPs for construction, post-construction/operation, and water quality treatment to ensure compliance with the NPDES. New development pursuant to implementation of the proposed project must comply with all provisions of the NPDES program and other applicable WDRs, as enforced by the SARWQCB and the California State Water Resources Control Board.</p>

Source: PCR Services Corporation, 2013

(b) SCAG Regional Policy Consistency Analysis

SCAG includes several policies that relate to utilities and service systems. An analysis of the proposed project’s consistency with each of the applicable policies is presented below in **Table 4.N-12, SCAG Regional Consistency Analysis**. As indicated in Table 4.N-12, the proposed project would be consistent with the applicable policies SCAG with respect to water supply, wastewater, and solid waste. As such, impacts in this regard would be less than significant.

(c) California Coastal Act

The California Coastal Act includes several policies that relate to utilities and service systems. An analysis of the proposed project’s consistency with each of the applicable policies contained in the California Coastal Act is presented below in **Table 4.N-13, California Coastal Act Consistency Analysis**. As indicated in Table 4.N-13, the proposed project would be consistent with the applicable policies of the California Coastal Act with respect to water supply, wastewater, and solid waste. As such, impacts in this regard would be less than significant.

Table 4.N-12

SCAG Regional Consistency Analysis

SCAG Compass Blueprint Growth Visioning Principles	Project Consistency Statement
<p>Principle #4: Promote sustainability for future generations.</p>	<p>Consistent. The proposed project would include various sustainability elements, including energy- and water-efficient features such as drought-tolerant landscaping, water-efficient landscape irrigation systems, low-flow toilets and water fixtures, energy-efficient lighting, heating/cooling equipment, and appliances, outdoor lighting timers, and would require on-site recycling programs to minimize waste and reduce overall resource consumption.</p>
<p>Develop strategies to accommodate growth that use resources efficiently, eliminate pollution, and significantly reduce waste.</p>	<p>Consistent. As noted above, future development on-site would be designed, constructed, and operated utilizing a wide range of sustainability features that are intended to maximize water and energy efficiency, reduce pollution, and minimize waste.</p>

Source: PCR Services Corporation, 2013

(c) California Urban Water Management Plan Act

The City of Newport Beach is consistent with the California Urban Water Management Plan Act, as evidenced by its approved 2010 UWMP. The proposed project is within the range of development anticipated in the UWMP, which indicates that the City will be able to meet future demand for water. Therefore, impacts would be less than significant.

(d) Senate Bill 610, Senate Bill 221 and Senate Bill 7

As indicated above, the proposed project is not subject to the requirements of SB 610, as it would introduce 85,644 square feet of residential uses (up to 49 residential units) and up to 94,034 square feet of commercial/marine-related uses and storage. Therefore, a WSA is not required. Further, future development of residential uses is not subject to the requirements of SB 221 because it includes construction and operation of less than 500 or dwelling units. The proposed project will be in the service areas of the respective water suppliers who must also abide by the water conservation and planning goals of SB 7, to reduce the per capita water consumption 20 percent by 2020 statewide. As future development would be required to comply with the provisions of SB 7, as applicable, impacts in this regard would be less than significant.

(e) California Code of Regulations

The proposed project would meet or exceed the water efficiency requirements set forth by Title 20 of the CCR through incorporation of the City’s recommended water conservation measures, the project’s design features, which are generally more stringent than the requirements set forth by Title 20 of the CCR. As such, the proposed project would be consistent with Title 20 and impacts would be less than significant.

Table 4.N-13

California Coastal Act Consistency Analysis

Applicable Goals/Policies/Programs	Project Consistency Statement
<p>Section 30250 Location; existing developed area</p> <p>(a) New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.</p> <p>(b) Where feasible, new hazardous industrial development shall be located away from existing developed areas.</p> <p>(c) Visitor-serving facilities that cannot feasibly be located in existing developed areas shall be located in existing isolated developments or at selected points of attraction for visitors.</p>	<p>Consistent. The analysis provided within this EIR section identifies that adequate utility infrastructure and utility supply can be provided to serve the proposed project.</p>

Source: PCR Services Corporation, 2013

(f) City of Newport Beach Municipal Code

As noted above, Chapter 14.16 of Title 14 of the City’s Municipal Code, “Water Conservation and Supply Level Regulations”, seeks to reduce water consumption in the City through (1) permanent water conservation requirements during non-shortage conditions and (2) four levels of water supply shortage response actions to be implemented within the City during times of declared water shortage. The program would prevent waste or unreasonable use of water; maximize the efficient use of water; and ensure a reliable and sustainable minimum supply of water for public health, safety, and welfare. Chapter 14.17 of Title 14, *Water Efficient Landscaping*, also establishes procedures and standards for the design, installation, and maintenance of water-efficient landscapes in conjunction with new construction projects within the City to promote the conservation and efficient use of water and to prevent the waste of available water resources. Chapter 14.24 of Title 14, *Sewer Connection, Permits*, establishes procedures and requirements for sewer connections and details regarding permits, sewer use charges, and sewer connection fees. As required by the City, the proposed project would be required to pay requisite Developer Fees for new water and sewer connections, and residents would contribute to ongoing maintenance of City-owned facilities through payment of property taxes and other mechanisms. Given that the proposed project would be required to pay developer fees and comply with the City’s water and sewer regulations, the proposed project would be consistent with the City and impacts would be less than significant in this regard.

4. CUMULATIVE IMPACTS

(1) Water Supply

(a) Water Infrastructure

Development of the proposed project in conjunction with the 25 related projects identified in Chapter 3, *Basis for Cumulative Analysis*, of this Draft EIR, would cumulatively increase distribution demands on the existing water infrastructure system. However, each related project would be subject to discretionary review to assure that the existing public utility facilities would be adequate to meet the domestic and fire water demands of each project. Furthermore, the City of Newport Beach, the IRWD, and the MCWD all conduct ongoing evaluations to ensure facilities are adequate to meet anticipated growth in the respective service areas. Therefore, cumulative impacts on the water infrastructure system would be less than significant.

(b) Water Demand

As discussed above, the City of Newport Beach, IRWD, and MCWD, as public water service providers, are required to prepare and periodically update their respective UWMPs to plan and provide for water supplies to serve existing and projected demands. The UWMPs prepared by the City, IRWD, and MCWD account for existing development within their service areas, as well as projected growth anticipated to occur through redevelopment of existing uses and development of new uses. Additionally, under the provisions of SB 610, the City, IRWD, and MCWD are required to prepare a comprehensive WSA for each new development “project” (as defined by Section 10912 of the CWC) within their service areas. The types of projects subject to the requirements of SB 610 tend to be larger projects (i.e., residential projects with at least 500 dwelling units, shopping centers or business establishments employing more than 1,000 persons or having more than 500,000 square feet of floor space, commercial office buildings employing more than 1,000 persons or having more than 250,000 square feet of floor space, etc.) that may or may not have been included within the growth projections of the UWMP. The WSAs for such projects, in conformance with the UWMP, evaluate the quality and reliability of existing and projected water supplies, as well as alternative sources of water supply and measures to secure alternative sources if needed. In addition, as described above, SB 221 requires that for residential subdivisions with 500 units or more that are in non-urban areas, written verification from the service provider (i.e., the City, IRWD, or MCWD) be submitted indicating sufficient water supply is available to serve the proposed subdivision, or the local agency shall make a specified finding that sufficient water supplies are or will be available prior to completion of the project.

Chapter 3, *Basis for Cumulative Analysis*, of this Draft EIR identifies 25 related projects all located in the City of Newport Beach that are anticipated to be developed within the vicinity of the project site. These 25 related projects would cumulatively contribute, in conjunction with the proposed project, to water demand in the project area. As shown in **Table 4.N-14, *Estimated Cumulative Water Demand***, related projects in conjunction with the proposed project would have an average daily water demand of approximately 1.66 mgd or 1,859 AF per year. As stated above, the City’s 2010 UWMP projects that total yearly water demand will increase from 16,645 AF in 2010 to 18,474 AF in 2035, which is an increase of 1,829 AF or 11 percent over that 25-year period. The IRWD 2010 UWMP projects that total yearly water demand will increase from

Table 4.N-14

Estimated Cumulative Water Demand

Related Project	Residential (units)	Hotel (rooms)	Office (acres)	Commercial/ Retail/ Restaurant (acres)	Park/ Recreation (acres)	Open Space (acres)	Total
Balboa Marina Expansion	-	-	-	0.80	-	-	
Mariner's Medical Arts	-	-	0.29	-	-	-	
919 Bayside Drive	17	-	-	-	-	-	
Hyatt Regency Newport Beach Expansion	-	88	-	0.56	-	-	
Newport Beach Country Club	-	-	-	-	1.18	-	
Golf Realty Tennis Club	5	27	-	-	0.89	-	
AERIE	8	-	-	-	-	-	
Megonigal Residence	1	-	-	-	-	-	
Old City Hall Complex Redevelopment	99	-	-	2.75	-	-	
Lido Villas (DART)	23	-	-	-	-	-	
Sunset Ridge Park	-	-	-	-	13.67	-	
Banning Ranch	1,375	75	-	1.72	51.40	252.30	
Marina Park	-	-	-	-	10.45	-	
Newport Harbor Yacht Club	-	-	-	0.53	-	-	
Beauchamp	5	-	-	-	-	-	
Plaza Corona del Mar	6	-	0.04	-	-	-	
LDS Rectory	1	-	-	-	-	-	
Newport Coast – TAZ 1	450	-	-	-	-	-	
Newport Coast – TAZ 2	493	-	-	-	0.06	-	
Newport Coast – TAZ 3	254	-	-	-	-	-	
Newport Coast – TAZ 4	291	-	-	-	-	-	
PRES Office Building B	-	-	0.27	-	-	-	
Uptown Newport Mixed Use Development	1,244	-	-	0.26	-	-	
Koll Mixed Use Development	260	-	-	-	-	-	
Newport Business Plaza	-	-	1.06	-	-	-	
<i>Subtotal Related Projects</i>	<i>4,532</i>	<i>190</i>	<i>1.66</i>	<i>6.62</i>	<i>77.65</i>	<i>252.30</i>	
Proposed Project	49	-	0.39	1.77	-	-	
TOTAL	4,581	190	2.05	8.39	77.65	252.30	
Cumulative Water Demand Estimate^a							
Total Water Demand (mgd)	1.54	0.04	0.01	0.02	0.01	0.04	1.66

Notes: mgd = million gallons per day

^a The water demand would be consistent with the proposed sewer generation rate calculated within the Back Bay Landing Hydrology/Hydrmodification/Utilities Technical Memorandum, Fuscoe Engineering, July 3, 2012. To be conservative, 20 percent was

Table 4.N-14 (Continued)

Estimated Cumulative Water Demand

Related Project	Residential (units)	Hotel (rooms)	Office (acres)	Commercial/ Retail/ Restaurant (acres)	Park/ Recreation (acres)	Open Space (acres)	Total
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added (to account for outdoor water use). Refer to Table 4.N-15, Estimated Cumulative Wastewater Generation.

Sources: Back Bay Landing Hydrology/Hydromodification/Utilities Technical Memorandum, Fuscoe Engineering, July 3, 2012; PCR Services Corporation, 2013.

90,602 AF in 2010 to 129,592 AF in 2035, which is an increase of 38,990 AF or 30 percent over that 25-year period.⁴⁰ The MCWD 2010 UWMP projects that total yearly water demand will increase from 19,400 AF in 2010 to 19,700 AF in 2035, which is an increase of 300 AF or 1.5 percent over that 25-year period.⁴¹ With the anticipated water demand increase of 1,859 AF per year from the development of the proposed project and related projects, the demand for water would fall within the available and projected water demand presented in the City, IRWD, and MCWD 2010 UWMPs.

The City of Newport Beach is faced with various ongoing challenges in securing its future water supplies due to among other things droughts, environmental restrictions, and climate change. The City, IRWD, and MCWD are planning to overcome these challenges by expanding their water conservation efforts through public education, installing high efficient water fixtures, providing incentives, and expanding the City's outdoor water conservation program. To increase recycled water use, the City, IRWD, and MCWD are expanding the recycled water distribution system to provide water for irrigation, industrial use, and groundwater recharge. Furthermore, given that the UWMP plans and provides for water supplies to serve existing and projected needs, including those of future growth and development as may occur through related projects, and that the requirements of SB 610, SB 221 and SB 7 provide means to ensure that the water supply needs of large development projects are carefully considered relative to the City, IRWD, and MCWD's ability to adequately meet future needs, it is anticipated that the City, IRWD, and MCWD would be able to supply the demands of the proposed project and related projects through the foreseeable future. In addition, compliance with the City's recommended water conservation measures would reduce the water consumption estimates of the proposed project and related projects, thereby reducing the demand on overall supplies available to the City.

Overall, the City, IRWD, and MCWD would have adequate amounts of water to meet future water demands for the service area with the addition of the proposed project and related projects, and no significant cumulative impacts related to water demand would occur and the proposed project's contribution to such impacts would not be considerable.

⁴⁰ Irvine Ranch Water District 2010 Urban Water Management Plan, Table 11, Total Water Use, June 2011.

⁴¹ Mesa Consolidated Water District 2010 Urban Water Management Plan, Table 2-9: Current and Projected Water Demands (AFY), Malcolm Pirnie, Inc., May 2011.

(2) Wastewater

Chapter 3.0, *Basis for Cumulative Analysis*, of this Draft EIR identifies 25 related projects, all of which are located in the City of Newport Beach and within the City, IRWD, and MCWD service area. These 25 related projects would cumulatively contribute, in conjunction with the proposed project, to the wastewater generation in the project area. As shown in **Table 4.N-15, *Cumulative Wastewater Generation***, the estimated wastewater generation associated with related projects and the proposed project on average is approximately 1.38 mgd, with a peak day flow of approximately 4.33 mgd.

As discussed above, the City is responsible for wastewater collection and conveyance to the OCS D Sewer Treatment Plant No. 2. OCS D's Sewer Treatment Plant No. 2, which would serve the proposed project and all 25 related projects based on their location, maintains a primary treatment capacity of 168 mgd and currently treats an average influent wastewater flow of approximately 110 mgd. Currently, the Plant is operating at 65 percent of design capacity.⁴² As such, average flows would be well within the existing treatment capacity of Treatment Plant No. 2. Nonetheless, as was discussed for the proposed project, OCS D periodically evaluates its conveyance and treatment facilities in order to ensure that they meet the growing demands within its service area, and in particular in response to planned future development. It is assumed, therefore, that as part of its normal planning efforts the OCS D (and similarly the City of Newport Beach Public Works Department, regarding local sewer infrastructure) would expand its infrastructure as necessary to meet projected demands. Furthermore, as with the proposed project, the wastewater generation estimates presented in Table 4.N-15 do not account for reductions in wastewater generation that would occur with implementation of water conservation measures, which would serve to reduce wastewater generation rates. For these reasons, the cumulative impacts of the project on sewer conveyance and treatment infrastructure would be less than significant and the project's contribution to such impacts would not be considerable.

(3) Solid Waste

Chapter 3, *Basis for Cumulative Analysis*, of this Draft EIR identifies 25 related projects that are anticipated to be developed within the vicinity of the project site. It is conservatively assumed that each of these projects would contribute solid waste to the landfill serving the project site. Development of these related projects would generate solid waste during their respective construction periods and on an on-going basis during their operation. Construction of the proposed project in conjunction with related projects would generate C&D waste and cumulatively increase the need for waste disposal at FRB Landfill. As stated above, the FRB Landfill will have adequate capacity until 2053. As such, future shortage of disposal capacity at unclassified landfills is not expected. Further, related projects would be subject to environmental review on a case-by-case basis and thus, are anticipated to recycle C&D waste to the maximum extent feasible. Based

⁴² *Newport Banning Ranch Project Draft EIR, prepared by BonTerra Consulting, dated September 9, 2011.*

Table 4.N-15

Estimated Cumulative Wastewater Generation

Related Project	Residential (units)	Hotel (rooms)	Office (acres)	Commercial/ Retail/ Restaurant (acres)	Park/ Recreation (acres)	Open Space (acres)	Total
Balboa Marina Expansion	-	-	-	0.80	-	-	
Mariner's Medical Arts	-	-	0.29	-	-	-	
919 Bayside Drive	17	-	-	-	-	-	
Hyatt Regency Newport Beach Expansion	-	88	-	0.56	-	-	
Newport Beach Country Club	-	-	-	-	1.18	-	
Golf Realty Tennis Club	5	27	-	-	0.89	-	
AERIE	8	-	-	-	-	-	
Megonigal Residence	1	-	-	-	-	-	
Old City Hall Complex Redevelopment	99	-	-	2.75	-	-	
Lido Villas (DART)	23	-	-	-	-	-	
Sunset Ridge Park	-	-	-	-	13.67	-	
Banning Ranch	1,375	75	-	1.72	51.40	252.30	
Marina Park	-	-	-	-	10.45	-	
Newport Harbor Yacht Club	-	-	-	0.53	-	-	
Beauchamp	5	-	-	-	-	-	
Plaza Corona del Mar	6	-	0.04	-	-	-	
LDS Rectory	1	-	-	-	-	-	
Newport Coast – TAZ 1	450	-	-	-	-	-	
Newport Coast – TAZ 2	493	-	-	-	0.06	-	
Newport Coast – TAZ 3	254	-	-	-	-	-	
Newport Coast – TAZ 4	291	-	-	-	-	-	
PRES Office Building B	-	-	0.27	-	-	-	
Uptown Newport Mixed Use Development	1,244	-	-	0.26	-	-	
Koll Mixed Use Development	260	-	-	-	-	-	
Newport Business Plaza	-	-	1.06	-	-	-	
<i>Subtotal Related Projects</i>	<i>4,532</i>	<i>190</i>	<i>1.66</i>	<i>6.62</i>	<i>77.65</i>	<i>252.30</i>	
Proposed Project	49	-	0.39	1.77	-	-	
TOTAL	4,581	190	2.05	8.39	77.65	252.30	
Cumulative Wastewater Generation Estimate^a							
Average Day (mgd)	1.28 ^b	0.03	0.01	0.02	0.01	0.03	1.38
Peak Day (mgd) ^c	4.10	0.01	0.03	0.06	0.03	0.10	4.33

Notes: mgd = million gallons per day; gpd = gallons per day

^a Wastewater Generation based on sewage generation factors provided by the Orange County Sanitation District Planning Division, Letter Correspondence, dated October 30, 2012. Rates applied include 150 gpd/room for hotels and motels, 2,262 gpd/acre for commercial/office, and 129 gpd/acre for recreation and open space usage.

^b Wastewater Generation based on City of Fontana 2000 Sewer Master Plan generation rates, as presented in the "Westgate Specific

Table 4.N-15 (Continued)

Estimated Cumulative Wastewater Generation

Related Project	Residential (units)	Hotel (rooms)	Office (acres)	Commercial/ Retail/ Restaurant (acres)	Park/ Recreation (acres)	Open Space (acres)	Total
<i>Plan Infrastructure Study". Rates applied include 279 gpd/residential dwelling unit.</i>							

^c For the purposes of a conservative analysis, peak day flows are assumed to be 3.2 times average flows.

Sources: PCR Services Corporation, 2013. Back Bay Landing Hydrology/Hydromodification/Utilities Technical Memorandum, Fuscoe Engineering, July 3, 2012; Orange County Sanitation District, October 30, 2012

on the above, cumulative solid waste impacts to unclassified landfills due to project construction are concluded to be less than significant, and the project’s contribution to such impacts would not be cumulatively considerable.

The estimated solid waste generation resulting from operation of related projects is shown in **Table 4.N-16, Cumulative Solid Waste Generation**. As indicated therein, the solid waste generation for the proposed project and related projects is forecasted to be approximately 21,489 pounds per day or 10.75 tons per day (tpd). However, this estimate of solid waste generation from the proposed project and related projects does not take into account solid waste reduction measures that would be implemented and does not discount solid waste generation from existing uses that would be removed as part of related projects.

The 10.75 tpd of cumulative solid waste generated per day would represent approximately 0.09 percent of the estimated daily capacity of the FRB Landfill which would accommodate solid waste from the project site and related project sites. The provision of additional capacity to accommodate the cumulative disposal needs of the proposed project and related projects, if necessary at some point in the future, is the responsibility of local, county, and state solid waste management agencies and may become available as these agencies develop solutions to meet the future disposal needs at a regional level (e.g., expanding existing landfills, transporting waste to other landfills, converting waste to energy, recycling, and waste

Table 4.N-16

Estimated Cumulative Solid Waste Generation

Related Project	Residential (units)	Hotel (rooms)	Office (square feet)	Commercial / Retail/ Restaurant (square feet)	
Balboa Marina Expansion	-	-	-	35,000	
Mariner's Medical Arts	-	-	12,763	-	
919 Bayside Drive	17	-	-	-	
Hyatt Regency Newport Beach Expansion	-	88	-	24,387	
Newport Beach Country Club ^a	-	-	-	-	
Golf Realty Tennis Club	5	27	-	-	
AERIE	8	-	-	-	
Megonigal Residence	1	-	-	-	
Old City Hall Complex Redevelopment	99	-	-	120,000	
Lido Villas (DART)	23	-	-	-	
Sunset Ridge Park ^a	-	-	-	-	
Banning Ranch	1,375	75	-	75,000	
Marina Park ^a	-	-	-	-	
Newport Harbor Yacht Club	-	-	-	23,163	
Beauchamp	5	-	-	-	
Plaza Corona del Mar	6	-	1,750	-	
LDS Rectory	1	-	-	-	
Newport Coast – TAZ 1	450	-	-	-	
Newport Coast – TAZ 2	493	-	-	-	
Newport Coast – TAZ 3	254	-	-	-	
Newport Coast – TAZ 4	291	-	-	-	
PRES Office Building B	-	-	11,544	-	
Uptown Newport Mixed Use Development	1,244	-	-	11,500	
Koll Mixed Use Development	260	-	-	-	
Newport Business Plaza	-	-	46,044	-	
<i>Subtotal Related Projects</i>	<i>4,532</i>	<i>190</i>	<i>72,101</i>	<i>289,050</i>	
Proposed Project	49	-	17,075	76,959	
TOTAL	4,581	190	89,176	366,009	
Cumulative Solid Waste Generation Estimate^b					
Total (lbs/day)	18,364	760	535	1,830	21,489
Total (tpd)	9.18	0.38	0.27	0.92	10.75

Notes: *s.f.* = square feet; *k.s.f.* = thousand square feet; *lbs.* = pounds; *tpd.* = tons per day.

^a CalRecycle does not have solid waste generation rates for parks/recreation/open space uses.

^b Solid Waste Generation Based on generation factors provided by the CalRecycle website, refer to Estimated Solid Waste Generation Rates. <http://www.calrecycle.ca.gov/WasteChar/WasteGenRates/default.htm>. Accessed April 2013, and assumes 4 lbs/unit/day for residential uses, 6 lbs/k.s.f./day for office uses, 5 lbs/k.s.f./day for commercial uses, 4 lbs/room/day for hotel/motel uses..

Table 4.N-16 (Continued)

Estimated Cumulative Solid Waste Generation

Related Project	Residential (units)	Hotel (rooms)	Office (square feet)	Commercial / Retail/ Restaurant (square feet)
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Sources: CalRecycle Website, accessed April 2013, PCR Services Corporation, 2013.

reduction). Furthermore, similar to the proposed project, the related projects would be subject to the source reduction and recycling requirements established by the local jurisdiction in accordance with AB 939 (i.e., divert 50 percent of the solid waste generated from landfills through waste reduction, recycling, and composting). As with the proposed project, future projects would also be required to participate in recycling programs, thus reducing the amount of solid waste to be disposed of at the landfills described above. Based on these considerations, cumulative impacts regarding solid waste would be less than significant, and the project’s contribution to such impacts would not be cumulatively considerable. Nonetheless, implementation of applicable mitigation measures would provide assurance that the project’s incremental contribution to cumulative solid waste impacts on a regional level remains less than significant to the extent feasible.

5. MITIGATION MEASURES

The following mitigation measures provided are applicable to the proposed project and would be implemented, as necessary, to ensure that impacts related to water supply, wastewater, and solid waste are less than significant.

a. Water Supply

Mitigation Measure N-1: Prior to the issuance of certificates of occupancy, the project Applicant shall pay the required City water connection fees as set forth in the Municipal Code (Section 14.12).

b. Wastewater

Mitigation Measure N-2: Prior to the issuance of certificates of occupancy, the project Applicant shall pay the required OCSD sewer connection fees as set forth in the Municipal Code (Section 14.24.050) which are utilized to fund wastewater treatment and regional wastewater conveyance improvements associated with new development.

c. Solid Waste

Mitigation Measure N-3: Prior to the issuance of any demolition or construction permit, the project Applicant shall provide a copy of the receipt or contract indicating that the construction

contractor shall only contract for waste disposal services with a company that recycles demolition and construction-related wastes. The contract specifying recycled waste service shall be presented to the Municipal Operations Department prior to approval of certificate of occupancy.

Mitigation Measure N-4: In order to facilitate on-site separation and recycling of construction related wastes, the construction contractor shall provide temporary waste separation bins on-site during demolition and construction activities.

6. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Upon implementation of Mitigation Measures N-1 and N-2, the proposed project would result in less than significant impacts with regard to water supply, water infrastructure, and wastewater. The proposed project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs during construction activities. Thus, solid waste impacts during construction would be less than significant. Mitigation Measures N-3 and N-4 are proposed to provide assurance that construction-related solid waste impacts remain less than significant to the extent feasible. The project would not generate solid waste at a level that would generate the need for new or substantially expanded recycling or disposal facilities, and the available capacity of the existing and/or planned landfills would not be exceeded; therefore, impacts associated with solid waste generation from project operations would be less than significant. As the proposed project would comply with all State, regional, and local plans, policies, and regulations relating to solid waste, impacts regarding consistency with the regulatory environment would be less than significant.