Section 1: Introduction and Overview

Vallecitos Water District (VWD) is a public agency responsible for supplying water, wastewater and recycled water service to a 45-square mile area within northern San Diego County that includes the City of San Marcos, parts of the cities of Vista, Carlsbad, Escondido, and unincorporated areas within the County of San Diego. Its service area includes the State Highway 78 corridor and is bordered by Interstate 15 on its eastern boundary. Figure 1-1 illustrates VWD’s location and service boundary.

VWD is a member agency of the San Diego County Water Authority (SDCWA) and currently receives 100% of its potable water supply from this water wholesaler. VWD serves potable water to approximately 93,897 people, as well as commercial, light industrial, institutional, construction, landscape irrigation and agricultural customers. VWD also provides wastewater collection services to a 23-square mile area, as illustrated in Figure 1-2, that serves approximately 88,000 people, as well as commercial, light industrial, institutional, construction, landscape irrigation and agricultural customers.

Over the past 10 years, VWD has continued to make great strides to secure a sustainable and reliable water supply for the future. Since 2005, VWD added an additional 40-million-gallon potable water storage reservoir to assist in emergencies and peak demand management. VWD also increased the recycled water capacity at its
Meadowlark Water Reclamation Facility from 2.0 million gallons per day (MGD) to 5.0 MGD. VWD has added potable water supply reliability through the purchase of approximately 3,500 acre-feet per year, or 1,140 million gallons per year, of desalinated seawater from the Claude "Bud" Lewis Carlsbad Desalination Plant, and through the purchase of approximately 2,750 acre-feet per year, or 896 million gallons per year, from the Olivenhain Municipal Water District's David C. McCollom Water Treatment Plant. And finally, VWD has implemented aggressive water conservation outreach efforts, which has lowered the overall demand for imported water into the region.

VWD has prepared this 2015 Urban Water Management Plan (UWMP) in accordance with the Urban Water Management Planning Act (California Water Code §10610 through 10656). This document covers water loss auditing as dictated by California Water Code (CWC) §10608.34, and compliance with Senate Bill X7-7 as dictated by CWC §10608.16 through §10608.28.

This section will provide an overview of the regulatory process of this Urban Water Management Plan, and will provide background information regarding VWD and its service area. Further, this section will detail VWD’s master planning process and the generation of its Capital Improvement Program (CIP).
1.1 Regulatory Overview

The Vallecitos Water District is an independent special district governed by five representatives voted into office by the local citizens within its service boundary. The long-term mission of the District is to effectively and efficiently meet the needs of its service area within the expressed and implied powers provided by law, as stated in its adopted Mission Statement, below.

“The mission of Vallecitos Water District is to serve as water and wastewater specialists, providing exceptional and sustainable services. The District will continue to provide exceptional and sustainable services by:

- Proactively, innovatively, and continuously improving the quality and efficiency of our operations and service;
- Supporting and retaining highly trained staff that is knowledgeable, engaged, team oriented and responsive to the community and other agencies;
- Providing support for the good of the region to remain a respected and active industry partner, and;
- Providing continuous outreach and education to our customers on issues and topics that impact the services we provide and our role as water and wastewater specialists.”

The following regulations apply to this 2015 UWMP and have dictated its preparation.

California Urban Water Management Planning Act

UWMPs are prepared by California’s urban water suppliers to support their long-term resource planning and ensure adequate water supplies are available to meet existing and future water demands. The California Urban Water Management Planning Act (Act) requires every urban water supplier that provides water for municipal services to more than 3,000 connections or is supplying more than 3,000 acre-feet of water annually to assess the reliability of its water sources over a 20-year planning horizon considering normal and dry years. This assessment is to be included in the supplier's UWMP, which is to be prepared and adopted every 5 years and submitted to the Department of Water Resources (DWR). VWD complied with the Act in 2005 and 2010 with the adoptions of its 2005 UWMP and 2010 UWMP, respectively.
DWR’s *2015 UWMP Guidebook for Urban Water Suppliers* served as a blueprint to VWD as it compiled this 2015 UWMP.

Major amendments made to the Act since preparation of the 2010 UWMP include:

- **CWC §10631(f)(1)** requires a narrative description that addresses the nature and extent of each water Demand Management Measure implemented over the past five years and planned to be implemented to achieve the water use targets pursuant to Senate Bill X7-7.

- **CWC §10631(e)(1)(J) and (e)(3)(A) and (B)** requires that distribution system water loss be quantified for the most recent 12-month period available. For all subsequent UWMP updates, the distribution system water loss shall be quantified for each of the preceding five years. The waste loss will be reported on a DWR-approved or developed worksheet.

- **CWC §10631(e)(4)** allows that water use projections may display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans; provided that the urban water supplier provides citations to and the extent of the savings from these codes, standards, ordinances, or transportation and land use plans when making the projections. In addition, water use projections that do not include water savings shall be noted of that fact.

- **CWC §10631.2(a) and (b)** allows the UWMP to voluntarily estimate the amount of energy used to extract, divert, convey, treat, distribute and store water supplies. DWR shall prepare a methodology for the voluntary calculation or estimation of energy intensity of urban water systems.

- **CWC §10632(b)** requires that pools and spas be analyzed separately from other water features that are artificially supplied with water, including ponds, lakes, waterfalls and fountains, for purposes of developing the water shortage contingency analysis for the UWMP.

- **CWC §10644(a)(2)** requires that the UWMP, or amendments to the UWMP, be submitted to DWR electronically and include the standardized forms, tables and displays specified by DWR.

- **CWC §10621(d)** requires that each urban water supplier update and submit its 2015 UWMP to DWR by July 1, 2016.
Senate Bill 7 of the Seventh Extraordinary Session of 2009

The state Legislature passed Senate Bill X7-7, referred to as SB7, on November 10, 2009, which became effective February 3, 2010. This law seeks to achieve a 20 percent statewide reduction in urban per capita water use in California by December 31, 2020. The law requires each urban retail water supplier to develop urban water use targets to help meet the 20 percent goal by 2020, an interim water reduction target by 2015, and incorporate this information into the 2010, 2015 and 2020 UWMPs.

Urban water providers such as VWD must include in their 2020 plans the following information: (1) baseline daily per capita water use; (2) urban water use target; (3) interim water use target; (4) compliance daily per capita water use, including technical bases and supporting data for those determinations. An urban retail water supplier may update its 2020 urban water use target in its 2015 UWMP (CWC §10608.20).

A Regional Alliance allows individual urban retail water suppliers to combine their individual targets into a regional target. An urban retail water supplier is required to meet either their own or the regional water conservation target in order to comply with SB7. VWD has entered into a Regional Alliance with Olivenhain Municipal Water District (OMWD), Rincon del Diablo Municipal Water District (Rincon MWD), and San Dieguito Water District (SDWD). A copy of the “Cooperative Agreement to Establish and Carry Out a Regional Alliance in Accordance with Part 2.55 of the California Water Code” is included in Appendix H.

Senate Bills 610 and 221

CWC §10910 through 10914 and Government Code §65867.5, 66455.3 and 66473.7 (commonly referred to as SB 610 and SB 221) amended state law to improve the link between information on water supply availability and certain land use decisions made by cities and counties. SB 610 requires that the water purveyor of the public water system prepare a water supply assessment to be included in the environmental documentation of certain large proposed projects. SB 221 requires affirmative written verification from the water purveyor of the public water system that sufficient water supplies are available for certain large residential subdivisions of property prior to approval of the tentative map.

VWD has used documentation from Metropolitan Water District of Southern California (MWD) and SDCWA in producing this UWMP, which is the basis for preparing water supply assessments and written verifications required under state law.
1.2 MASTER PLAN & CAPITAL IMPROVEMENT PROGRAM

The Master Plan and comprehensive Capital Improvement Program (CIP) provide the VWD with guidelines for reliable service to VWD’s customers well into the future. In order to accomplish this, VWD produced a Water, Wastewater and Recycled Water Master Plan in 2008 (Master Plan) in order to analyze existing and future land uses, as well as current water demands and trends. This Master Plan is currently being updated (Draft 2014 Master Plan), and data and results from this new draft have been incorporated into and utilized within this UWMP.

Through use of VWD’s ArcGIS/ArcINFO-based Geographic Information System (GIS) and WaterGEMS / SewerGEMS hydraulic modeling software, the Master Plan evaluates the capacity of the existing water and sewer systems and specifies improvements necessary to serve existing and future customers. Phasing of these improvements is based on regional population projections and known plans for development within VWD’s sphere of influence.

A CIP is then developed to guide VWD in timely and cost-effective investments that contribute to the sustainability of its infrastructure and the reliability of service to its customers. CIP projects are prioritized according to how quickly they are needed. Phase 1 (2015 – 2020) and Phase 2 (2021 – 2025) projects represent high priority projects that should be planned or constructed over the next ten years. Lower priority projects are identified as Phase 3 through 4 projects that would be phased over the following ten years (2026 – 2035). And finally, Phase 5 projects represent long-term projects to be constructed as VWD’s service area approaches build-out.

The Draft 2014 Master Plan identified 13 potable water pipeline projects totaling approximately 57,400 linear feet, 7 potable water pump station projects that will increase VWD’s pumping capacity by 36,750 gallons per minute, and 10 storage projects that will increase VWD’s total potable water storage capacity by 42.73 MG. The locations of these projects are shown in Figure 1-3. VWD’s total potable water CIP costs through build-out are estimated to be $130.6 million and breaks down as follows:

- Water Pipeline CIP Total: $32,445,000
- Water Pump Station CIP Total: $35,595,000
- Water Storage CIP Total: $62,523,000