

4.12 WATER RESOURCES

This section provides general background information on the state of existing project site water usage, supply and demand estimates, the ongoing water basin litigation, water quality, and identification of potential impacts that would result from the proposed project. This section references a number of recent groundwater studies and/or reports conducted in the area by private consultants and by State and/or regional resource agencies, which are referenced where applicable. Information contained within each of the reports was used in assessing the potential impacts of the proposed project. These reports were peer reviewed by the EIR consultant, and information is incorporated by reference. These reports are on-file with the County Department of Planning and Building, Environmental Resources and Management Division, and include the following:

- Nipomo Mesa Management Area (NMMA) Annual Report; NMMA Technical Group:
 - 1st Annual Report, Calendar Year 2008, April 2009
 - 2nd Annual Report, Calendar Year 2009, June 2010
 - 3rd Annual Report, Calendar Year 2010, June 2011
 - 4th Annual Report, Calendar Year 2011, April 2012
- San Luis Obispo County Master Water Plan, Draft January 2012; County of San Luis Obispo, 2012
- *Resource Management System, 2008 Annual Summary Report*, County of San Luis Obispo, 2008
- *Waterline Intertie Project Preliminary Engineering Memorandum*; Nipomo Community Services District, May 2008
- *Resource Capacity Study – Water Supply in the Nipomo Mesa Area*; San Luis Obispo County Department of Planning and Building, November 2004
- *Constraints Analysis – Nipomo Regional Park*; Morro Group, Inc., June 14, 2004
- *Nipomo Mesa Groundwater Resource Capacity Study – San Luis Obispo County, California*; S.S. Papadopulos & Associates, Inc., March 2004
- *California’s Groundwater, Bulletin 118 - Central Coast Hydrologic Region, Santa Maria River Valley Groundwater Basin*; California Department of Water Resources, February 2004
- *Water Resources of the Arroyo Grande – Nipomo Mesa Area in 2002*; California Department of Water Resources, October 25, 2002

4.12.1 Existing Conditions

The park is served by the NCSO, which has wells within the Santa Maria Groundwater Basin. The Basin is located within southern San Luis Obispo and northern Santa Barbara Counties, including the Santa Maria, Nipomo, and Arroyo Grande areas. The NCSO and the Southern California Water Company (SCWC) are the primary municipal water purveyors in the Nipomo Area. In addition, there are approximately 25 private water purveyors and hundreds of private domestic wells within the Nipomo area.

Increase in the population and development in southern San Luis Obispo County has created concern about limitations of groundwater supplies in the Nipomo Mesa area. A 1979 study by the California Department of Water Resources (DWR), *Ground Water in the Arroyo Grande Area*, reported that groundwater levels were declining in all parts of the study area as a consequence of groundwater pumping. DWR began work on a renewed and expanded study of water resources in the area in 1993, which culminated in a comprehensive 2002 report entitled *Water Resources of the Arroyo Grande – Nipomo Mesa Area* (hereinafter referred to as the “2002 DWR report”). The 2002 DWR report took 10 years to complete, reviewed hundreds of previously published technical reports (including the 1996a, 1997, 1998 Cleath reports), and was based on continual revision and input from hydrologists, geologists, engineers, and planning experts. The 2002 DWR report consolidates information concerning groundwater resources within the study area.

The 2002 DWR report conflicted with some of the findings made by independent consulting firms analyzing the groundwater basin at the same time, and the basis for some of the conclusions and implications regarding sustainable groundwater pumping beneath the Nipomo Mesa remained unclear. Therefore, the County commissioned an additional study by S.S. Papadopulos & Associates (SSPA) to analyze the 2002 DWR report and provide clarification of water issues on the Nipomo Mesa. The SSPA study, *Nipomo Mesa Groundwater Resource Capacity Study*, was completed in March 2004 (hereinafter referred to as the “2004 SSPA report”) and concluded that a major decline in groundwater levels occurred over a 25-year period where the area experienced 2 inches less than average annual rainfall (1945-1970), and that water budget deficits for the Nipomo Mesa area during the period ranging from 1975 to 1995 were likely even greater.

A third comprehensive report was prepared more recently as a result of over a decade of litigation regarding the Santa Maria Groundwater Basin. The litigation has resulted in a Stipulated Judgment, which, in part, mandates the preparation of an annual report on the hydrologic conditions for three sub-areas of the basin. The first annual report for the Nipomo Mesa Management Area (NMMA) was submitted to the court in April 2009, with data covering the 2008 calendar year (hereinafter the “2008 NMMA report”). The report was prepared by the NMMA Technical Group, consisting of the NCS D, Golden State Water Company, ConocoPhillips, Woodlands Mutual Water Company, and various management area engineers appointed by these parties as well as an agricultural representative. Since the 1st Annual Report (April 2009) three annual reports have been prepared and submitted by the NMMA Technical Group (June 2010, June 2011, and April 2012).

The NCS D serves approximately 12,000 people over an area of approximately 4,650 acres (NCS D 2008). The service area consists of one distribution system, which is currently served by groundwater from the NMMA, which is at the northwestern part of the basin and encompasses approximately 27.5 square miles.

Based on the *2009 Resource Management System Annual Summary Report*, the Nipomo Mesa area is currently in a Level of Severity (LOS) III for water supply (County of San Luis Obispo 2009). A level III designation means that the resource is being used at or beyond its estimated dependable supply or will deplete dependable supply before new supplies can be developed. The LOS III was first established in 2005, after the County’s *2004 Resource Capacity Study (Water Supply in the Nipomo Mesa Area)* was prepared. The area will need additional water supplies to bring the groundwater basin back into balance. The County has directed the preparation of water conservation ordinances for the Nipomo Mesa Water Conservation Area, and the NCS D is looking into options for bringing new water resources into

the area, including a waterline intertie from Santa Maria to the Nipomo Mesa, which would bring approximately 3,000 to 6,300 afy of new water to the area.

From 1984 to 1992, water was supplied to Nipomo Park through a contractual Water Service Agreement (WSA) between the NCS D and the County (recorded May 29, 1984). The agreement stated that the NCS D will provide water to the park for irrigation, sanitation, and other miscellaneous purposes. The maximum annual rate agreed upon in the agreement was set at 43 afy, and the County could not exceed this amount unless it was demonstrated to the mutual satisfaction of both the County and the NCS D that any increases will be without detriment to the water resources and delivery system of the NCS D (Morro Group, Inc. 2004). In 1992, the park was annexed into the NCS D service area, and became a standard customer, which eliminated the WSA and associated limitation on use. Table 4.12-1 provides data for total water deliveries to the park from 1999 to 2011.

Table 4.12-1. Historic Water Delivery – NCP, 1999-2011

Fiscal Year	Acre Feet Delivered
1999	41.68
2000	45.25
2001	36.84
2002	47.50
2003	45.31
2004	<u>56.3</u>
2005	49.40
2006	50.18
2007	60.99
2008	<u>59.38</u>
<u>2009</u>	<u>44.85*</u>
<u>2010</u>	<u>47.95</u>
<u>2011</u>	<u>43.93</u>

* Noted meter failure in November – January

Source: NCS D 2004, 2009, 2012

Regarding existing water use, the NCS D conducted a water audit of the NCP in September 2007. Based on the results of the audit, the park’s irrigation system operates at 57% efficiency, indicating that the park may be using twice as much water as needed for irrigation. The audit notes that the County could apply water conservation measures to existing irrigation systems, which would result in a savings of \$26,445 annually. The NCS D requests that the County implement recommended water conservation measures within existing facility areas and incorporate the use of recycled water to minimize the anticipated demand for new uses (NCS D 2009). The NCS D has no existing infrastructure within the NCP boundaries. Water is

delivered to the park via a 3-inch water main that is located within the right-of-way on Pomeroy Road. An executed agreement between the County and NCS D grants the NCS D a water line utility easement along the southern border of the park boundary. The width of this utility easement is approximately 20 feet from the southern edge of the property (NCS D 2004).

Potential Future Supply

Future water supply would be provided at the discretion of the NCS D. As noted above, NMMA Technical Group and DWR water budget estimates and projections indicate that groundwater pumping in the Nipomo Mesa area exceeds inflow, and that the Nipomo Mesa portion of the Santa Maria Groundwater Basin is currently in overdraft. The NCS D is addressing this issue by obtaining water from Santa Maria (Supplemental Water Project, Waterline Intertie), and planning phased improvements at the Southland Wastewater Treatment Facility to allow for distribution and use of recycled water. The NCS D initially proposed an assessment district to provide funding for the Supplemental Water Project, Waterline Intertie, which required approval by vote. In June 2012, a majority of property owners voted against the assessment district proposal, and the NCS D determined that construction of a pipeline (as currently proposed) to provide the supplemental water could not be funded by existing funds. The NCS D issued a moratorium on the issuance of new will serve letters while considering other options for supplemental water, which may include other funding sources and/or a scaled-down project.

Water Conservation

The NCS D is required to reduce its per capita water use by 20% from the baseline year (average between 1996 and 2005) by December 31, 2020, with an interim target of 10% reduction by December 31, 2015. As noted in the NCS D's Urban Water Management Plan (2011), NCS D has reduced water use by 27.5% from the baseline, and has exceeded required goals. Current water use (2010) is 173.9 gallons/capita/day; targeted water use for 2020 is 204 gallons/capita/day (adjusted for anticipated growth). In order to attain this goal while accommodating anticipated additional growth, the NCS D has implemented water conservation measures, including a 4-tier residential "water conservation" rate (November 1, 2011) and California Urban Water Conservation Council (CUWCC)-approved BMPs. Additional measures include development standards and target reducing consumption for high-use customers (such as the NCP),(NCS D 2011).

4.12.1.1 Surface Water Resources and Watersheds

Most of the Santa Maria Groundwater Basin lies within the Santa Maria River Watershed, which extends eastward into the coastal range region and covers nearly 1.2 million acres (SSPA 2004). The watershed is divided into two sub-basins: the Cuyama sub-basin, which is the upper portion of the watershed, and the Santa Maria sub-basin, which is the lower portion of the watershed. The Cuyama sub-basin covers approximately 732,147 acres, and average precipitation is 16.3 inches per year. The Santa Maria sub-basin covers an area of approximately 453,777 acres. Average annual rainfall is 19.7 inches (SSPA 2004).

The Santa Maria River is the major surface water drainage of the watershed, and a major source of recharge to the underlying aquifers. The Santa Maria River channel extends westward approximately 20 miles to the Pacific Ocean. Flow of water is intermittent, occurring only during periods of high seasonal runoff. The Sisquoc and Cuyama Rivers also extend through the watershed, though the Cuyama River, which drains a portion of the Sierra Madre Mountains, has been controlled by Twitchell Dam since 1959. Twitchell Dam is located on the Cuyama River approximately 6 miles upstream from its junction with the Sisquoc River, and

has a capacity of 224,300 acre feet (SSPA 2004). After construction, operation of the Dam was transferred to the Santa Barbara County Water Agency, and currently the Santa Maria River Valley Water Conservation District physically operates the reservoir.

Other watercourses in proximity to the proposed project, and analyzed in the 2002 DWR report, include Nipomo Creek, Pismo Creek, Arroyo Grande Creek, Lopez Creek, Tar Spring Creek, Los Berros Creek, Temettate Creek, and numerous other small tributaries (refer to Figure 4.12-1).

4.12.2 Regulatory Setting

4.12.2.1 Federal Policies and Regulations

Safe Drinking Water Act of 1974

The Safe Drinking Water Act, implemented by the EPA, is the primary federal regulation controlling drinking water quality. The Safe Drinking Water Act grants the EPA the authority to establish and enforce guidelines for the achievement of minimum national water quality standards for every public water supply system serving 25 people or more.

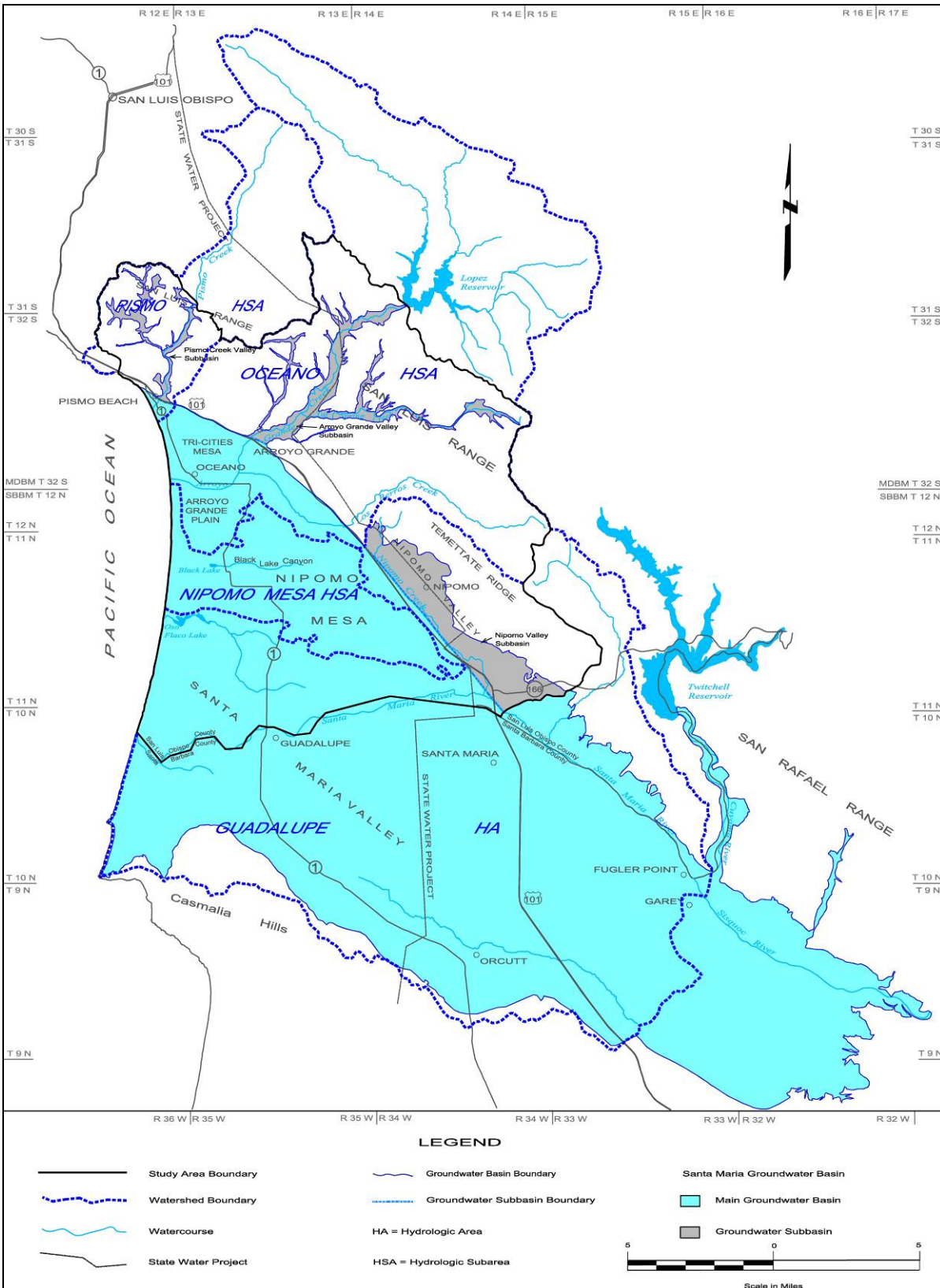
This act was originally implemented in 1974 and significant revisions were made in 1986 and 1996. The Act originally set standards for 83 individual constituents, including pesticides, trihalomethanes, arsenic, selenium, radionuclides, nitrates, toxic metals, bacteria, viruses, and pathogens. The 1986 amendments required more contaminants to be regulated, granted more enforcement powers, and created regulations on the use of lead in solder and plumbing, well head protection, and disinfection of certain groundwater systems. The 1996 amendments to the Act made additional changes, most of which resulted in more stringent application of control technology. The amended regulations also adopted a more rigorous schedule for amending the Disinfectants/Disinfection By-Products Rule and the Enhanced Surface Water Treatment Rule, both of which took effect in 1998.

No federal permits relating to water utilities or infrastructure are anticipated for any potential component of the proposed project, unless USACE involvement or ESA issues concerning the construction of new infrastructure (such as pipelines, utility lines, etc., in sensitive habitat areas) is required.

Clean Water Act

The Clean Water Act controls the discharge of toxic material into surface water bodies. Under this act, states are required to identify water segments impaired by pollutants and develop control strategy/management plans to reduce pollution and meet certain water quality standards.

Figure 4.12-1. Water Resources



Source: DWR 2002

Waters of the U.S: Sections 404 and 401 of the Clean Water Act of 1977.

Regulatory protection for water resources throughout the United States is under the jurisdiction of the USACE. Section 404 of the Clean Water Act prohibits the discharge of dredged or fill material into “waters of the United States” without formal consent from the USACE. Waters of the U.S. include marine waters, tidal areas, stream channels, and associated wetlands. Wetlands include freshwater marshes, vernal pools, freshwater seeps, and riparian areas. Under §404, activities in Waters of the U.S. may be subject to either an individual permit or a general permit, or may be exempt from regulatory requirements. Some activities have been given blanket authorization under the provisions of a general permit through the Nationwide Permit system. Individual Permits require the applicant to prepare and submit an alternatives analysis of the project.

Section 401 of the Clean Water Act and its provisions ensure that federally permitted activities comply with the federal Clean Water Act and state water quality laws. Section 401 is implemented through a review process conducted by the RWQCB, and is usually triggered by the §404 permitting process. Specifically, the RWQCB certifies via §401 that the proposed project complies with applicable effluent limitations, water quality standards, and other conditions of California law. If the RWQCB denies certification, the lead federal agency must deny the federal permit application.

4.12.2.2 State Policies and Regulations

The establishment and enforcement of water quality standards for the discharge into and maintenance of water throughout California is managed by the SWRCB and its RWQCBs. The SWRCB enforces the federal Clean Water Act on behalf of the EPA. Most of the quantitative objectives are based on the CCR, Title 22 – State Drinking Water Standards. Other considerations include the Porter-Cologne Water Quality Control Act, and the RWQCB's Non-degradation Policy. San Luis Obispo County lies entirely within Region 3 – Central Coast RWQCB. The RWQCB is the primary State agency ensuring that the quality of potable water supplies is protected from harmful effects by man.

The California Department of Health Services (DHS) is responsible for overseeing the quality of water once it is in storage and distribution systems. DHS oversees the self-monitoring and reporting program implemented by all water purveyors, performs inspections, and assists with financing water system improvements for the purpose of providing safer and more reliable service.

State Water Code

Section 10910 of the California Water Code (CWC) requires the County to identify the agency or entity responsible for providing water service to the area and to request that the agency determine whether the project was included within the current Urban Water Management Plan maintained by that water agency.

Section 13260(a) of the CWC requires that any person discharging waste or proposing to discharge waste within any region, other than to a community sewer system, that could affect the quality of the waters of the State, file a report of waste discharge (WDR). All WDR's must implement the applicable water quality control plan (Basin Plan) for the Region affected by the discharge. Therefore, WDRs require the project to comply with all applicable Basin Plan provisions, including any prohibitions and water quality objectives, governing the discharge. The siting, design, construction, operation, maintenance, and monitoring of all small domestic systems must comply with all of the applicable provisions of the RWQCB's Basin Plan. The

project shall not discharge waste in excess of the maximum design and disposal capacity of the small domestic system. The discharger must comply with any more stringent standards in the Basin Plan. In the event of a conflict between the provisions of RWQCB Order No. 97-10-DWQ and the Basin Plan, the more stringent provision prevails.

The Porter-Cologne Water Quality Control Act of 1987

The Porter-Cologne Water Quality Control Act provides the authority and method for the State of California to implement its water management program. The act establishes waste discharge requirements for both point and non-point source discharges affecting surface water and groundwater.

Safe Drinking Water and Toxic Enforcement Act of 1986

The Safe Drinking Water and Toxic Enforcement Act prohibits the discharge or release of any significant amount of chemical known to cause cancer or reproductive toxicity into the drinking water supply, by any person in the course of doing business.

The Groundwater Management Act of 1992 (AB 3030)

The Groundwater Management Act was designed to provide local public agencies with increased management authority over groundwater resources in addition to existing groundwater management capabilities. A key element of this law is the development and implementation of groundwater management plans.

California Department of Fish and Game

CDFG is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. California law requires any person, agency, or public utility proposing a project that may impact a river, stream, or lake to notify the CDFG before beginning the project. If the CDFG determines that the project may adversely affect existing fish and wildlife resources, a Lake or Streambed Alteration Agreement is required. This Agreement lists the CDFG conditions of approval for the proposed project, and serves as an agreement between applicants and the CDFG.

Water Conservation Act of 2009 (SB 7)

SBx7-7 (SB 7) was enacted in November 2009, requiring all water suppliers to increase water use efficiency (DWR 2011). The bill also requires, among other things, that the DWR, in consultation with other state agencies, develop a single standardized water use reporting form, which would be used by both urban and agricultural water agencies. The legislation sets an overall goal of reducing per capita urban water use by 20% by December 31, 2020. The state shall make incremental progress towards this goal by reducing per capita water use by at least 10% by December 31, 2015.

- Each urban retail water supplier shall develop water use targets and an interim water use target by July 1, 2011.
- An urban retail water supplier shall include in its water management plan due July 2011 the baseline daily per capita water use, water use target, interim water use target, and compliance daily per capita water use. DWR, through a public process and in consultation with the California Urban Water Conservation Council, shall develop technical methodologies and criteria for the consistent implementation of this part

- DWR shall adopt regulations for implementation of the provisions relating to process water.
- A Commercial, Institutional, Industrial (CII) task force is to be established that will develop and implement urban best management practices for statewide water savings.
- Effective 2016, urban retail water suppliers who do not meet the water conservation requirements established by this bill are not eligible for state water grants or loans.

4.12.2.3 Local Policies and Regulations

Chapter 52 of the County's LUO (Title 22 of the County Code) contains site development standards for the county, including drainage, grading, erosion, and sedimentation control. While the proposed project would not require issuance of a land use permit or compliance with the LUO, County policy recommends consistency with the code. Furthermore, mitigation consistent with ordinance requirements will be recommended to ensure implementation. Sections that are applicable to drainage, grading, erosion, and sedimentation are outlined below.

Section 22.52.020 states that the County's standards for grading and excavation are intended to minimize hazards to life and property, protect against erosion and the sedimentation of water courses, and to protect the safety, use, and stability of public rights of way and drainage channels. Grading must follow the standards provided in the UBC (§3309) and the following standards:

- Areas of cut and fill are to be limited to the minimal amount necessary.
- Grading for a building site is prohibited on slopes of 30% or greater.
- Contours are to be blended with the natural terrain.
- Grading may not alter watercourses except as permitted through the CDFG and various watercourse protection methods shall be followed.
- Areas where natural vegetation has been removed must be replanted by various approved methods.

Section 22.52.080 of the LUO states that standards for the control of drainage and drainage facilities are designed to minimize harmful effects of stormwater runoff and resulting inundation and erosion on proposed projects, and to protect neighboring and downstream properties from drainage problems resulting from new development. Erosion and sedimentation control to protect damaging effects on-site and on adjoining properties is discussed in §22.52.090 of the LUO. A sedimentation and erosion control plan would be required for future developments, and shall include temporary and final measures including:

- Slope surface stabilization including temporary mulching or other stabilization measures to protect exposed areas of high erosion potential during construction and interceptors and diversions at the top of slopes to redirect runoff;
- Erosion and sedimentation control devices such as absorbing structures or devices to reduce the velocity of runoff;
- Final erosion control measures including mechanical or vegetative measures.

4.12.3 Thresholds of Significance

Consistent with CEQA Guidelines Appendix G, the County states that a significant water resource impact would occur if the project would:

1. Violate any water quality standards;
2. Discharge into surface waters or otherwise alter surface water quality (e.g., turbidity, temperature, dissolved oxygen, etc.);
3. Change the quality of groundwater (e.g., saltwater intrusion, nitrogen-loading, etc.);
4. Change the quantity or movement of available surface or ground water; or,
5. Adversely affect community water service provider.

4.12.4 Impact Assessment and Methodology

For the purpose of the project specific-evaluation in this EIR, significant water supply and infrastructure impacts would occur if the demands placed on the area from this development exceeded the available water supply, or if the well capacity of adjoining parcels was diminished so as to create unsustainable yields or disruption of existing localized water supply. The conclusions regarding significance are influenced more by the adequacy of current and future supplies rather than by the magnitude of potential increased demands.

4.12.4.1 Water Supply and Infrastructure

The impacts of any proposed development project are evaluated based on an assessment of project-related impacts on existing water supply, utilities, and service systems, as well as an assessment of site activities based on the intended land uses. The impact analysis determines if the community water provider (NCSD) has adequate supply to serve the project. Water demand was estimated through the use of water duty factors derived from several sources including the County of Santa Barbara and Monterey County. Water demand for irrigated turf ranges from 1.6 to 2.7 afy. The 2.7 afy rate identified by the County of Santa Barbara for the community of Orcutt was applied to this project, due to similar annual average rainfall (approximately 16 inches/year). The total additional water demand would be approximately 44.3 afy.

Table 4.12-2. Estimated New Water Demand

Facilities	Unit	Water Duty Factor (afy)	Estimated Water Demand (afy)
Community Center/Gymnasium ¹	36,000 square feet	.00007	2.52
Sports Fields (Turf) ²	10.0 acres	2.7	27
Swimming Pool/Deck ¹	8,400 square feet	0.00046	3.86
Open Play Area (Turf) ²	3.96 acres	2.7	10.7
Restrooms ¹	4 toilets	.058	0.232
Total			44.3

¹ Monterey Peninsula Water Management District

² County of Santa Barbara

4.12.4.2 Surface Water Quality and Quantity

An impact would occur if the proposed project results in development in areas with existing drainage concerns, including flooding, or results in off-site runoff exceeding existing rates. Potential impacts are assessed based on site topography, the proposed layout and elevations of potential project components, the erodibility of soils, and the regulatory framework applicable to the project.

With respect to water quality, determining significance is more indirect because there are no specific discharge requirements or standards for storm water runoff that can be compared at this time. For the purposes of this EIR, the determination of significance is based on a review of typical construction site pollutants usually found on job sites that might contribute to disproportionate amounts of polluting materials in runoff. The SWRCB has not attempted to identify numerical limits to be achieved in runoff from construction sites. Instead, the General Order contains narrative restrictions referencing best available technology economically achievable and the best conventional pollution control technology. The significance of water quality impacts will be judged in terms of conformance with these requirements and regulations.

4.12.5 Project-specific Impacts and Mitigation Measures

4.12.5.1 Violation of Water Quality Standards

The Clean Water Act has established a regulatory system for the management of storm water discharges from construction, industrial and municipal sources. The SWRCB has adopted an NPDES Storm Water General Permit, which requires the implementation of a SWPPP for discharges regulated under the SWRCB program. Currently, construction sites of 1 acre and greater may need to prepare and implement a SWPPP that focuses on controlling storm water runoff. The RWQCB is the local extension of the SWRCB, who currently monitors these SWPPPs. Pursuant to Clean Water Act regulations, County Parks is required to prepare and implement a SWPPP during construction to minimize off-site sedimentation and erosion impacts. Implementation of major grading, such as site preparation for the sports fields, would necessitate preparation of a SWPPP.

Due to the location of the project, implementation of the project would not result in direct effects to surface or groundwater. Future grading activities would disturb soil, and potentially result in off-site sedimentation and/or clogging within existing and proposed retention basins. Standard erosion and sedimentation control measures would be required, including staking or flagging the development footprint; use of fiber rolls and silt fencing to retain soil on-site; covering soil stockpiles; and restoration and revegetation of disturbed soils. In addition to the SWPPP described above, implementation of these measures would ensure avoidance of adverse effects to water quality.

During operation of the project, discharge of sediment, hydrocarbons, and other pollutants into stormwater and drainage infrastructure (which eventually discharge into surface waters) would indirectly affect water quality. Implementation of BMPs consistent with LUO §§22.10.155.G.7 and 22.10.155.G.8., incorporation of LID consistent with LUO §22.10.155.G.1 would avoid or minimize the project's contribution to water quality issues affecting surface water bodies in Nipomo and the South County area.

WAT Impact 1 The project would include construction activities that would require substantial areas of ground disturbance and use of heavy equipment, which may result in the discharge of sediment and other pollutants, indirectly affecting surface and ground water quality.

WAT/mm-1 During any project resulting in ground disturbance, the General Services Agency shall ensure that BMPs are included on all grading and construction plans, and implemented during grading and construction activities as suggested by the County LUO. BMPs shall include, but not be limited to, the following:

- a. Staking or flagging of grading footprint to minimize the area of disturbance;
- b. Designation of staging areas, including equipment and materials storage;
- c. Fueling of major equipment shall not occur on-site due to nearby sensitive receptors;
- d. Erosion control barriers shall be applied, such as silt fences, hay bales, drain inlet protection, and gravel bags;
- e. Existing vegetation shall be preserved to the maximum extent feasible;
- f. Disturbed areas shall be stabilized with vegetation or hard surface treatments upon completion of construction in any specific area.
- g. All inactive disturbed soil areas are required to be stabilized with both sediment and temporary erosion control prior to the onset of the rainy season (October 15 to April 15).

WAT/mm-2 Prior to major grading (ground disturbance exceeding one acre), the General Services Agency shall prepare and submit a SWPPP to the RWQCB for review and approval. A copy of the plan shall be on-site during all major grading and construction activities.

Residual Impact

Vegetation removal and ground disturbance prior to or during a rain event creates the potential for erosion and down-gradient sedimentation. Proper planning and implementation of BMPs and a SWPPP reduces the potential for off-site transport of sediments and other pollutants that may affect surface and ground water quality, either directly or indirectly. Based on implementation of mitigation measures, potential construction-related impacts to water quality would be *less than significant* (Class II).

WAT Impact 2 During operation of the project, discharge of sediment, hydrocarbons, and other pollutants into stormwater and drainage infrastructure would indirectly affect water quality.

- WAT/mm-3 *Prior to construction of drainage infrastructure, the General Services Agency shall prepare drainage plans incorporating BMPs and LID strategies suggested by the County LUO to minimize stormwater flow rates and off-site transport of pollutants, including sediment, hydrocarbons, and equestrian waste. BMPs may include, but not be limited to:*
- a. Minimize parking area by incorporating striped and painted “compact-vehicle” spaces.*
 - b. Incorporate grassed swales in lieu of paved curbs and gutters.*
 - c. Incorporate the use of alternative pavers, including gravel, cobbles, wood mulch, brick, grass pavers, turf blocks, natural stone, pervious concrete, and porous asphalt.*
 - d. Construct bio-retention areas (or raingardens) near parking areas and access roads.*
 - e. Incorporate the use of swales to convey stormwater into retention basins (i.e., grassed channel, dry swale, wet swale, biofilter, or bioswale).*
 - f. Incorporate the use of infiltration basins in lieu of conventional retention basins.*
 - g. Install cisterns or rainbarrels near structures (i.e., library, community center, restrooms) to collect and filter stormwater from roofs and gutters and re-use for nearby landscaping.*

Residual Impact

Increased vehicle use and parking onsite and the creation of additional impervious surfaces creates the potential for pollutant transport and increased stormwater flow rates. Proper planning and implementation of BMPs and LID strategies reduces the potential for off-site transport of pollutants that may affect surface and ground water quality, either directly or indirectly. Based on implementation of mitigation measures, potential operation-related impacts to water quality would be *less than significant* (Class II).

4.12.5.2 Discharge into Surface Waters or Alter Surface Water Quality

The NCP is not located in close proximity to surface waters. As discussed above, grading and construction activities may result in sediment and pollutant transport and discharge offsite, which may eventually affect offsite surface waters. Mitigation is recommended to address these effects (WAT/mm-1, WAT/mm-2, and WAT/mm-3).

4.12.5.3 Change the Quality of Groundwater

As discussed in Section 4.11, Wastewater, the project would continue to manage wastewater via on-site septic systems and leach fields, consistent with existing regulations and Basin Plan requirements. Based on compliance with these existing regulations, the project would not adversely affect groundwater quality. This impact is considered *less than significant* (Class III).

4.12.5.4 Change the Quantity or Movement of Surface or Groundwater

The project would continue to use water supplied by the NCSD (refer to analysis below). The proposed project would result in approximately 7.5 acres of additional impervious surfaces, including approximately 2.5 acres of facilities and 5 acres for infrastructure. The remaining additional acreage would include pervious surfaces, such as trails and sports fields. On-site stormwater management is proposed to avoid adverse effects both within the NCP and off-site. While these elements do not represent a significant percentage of area compared to permeable surfaces within the park, incorporation of LID strategies is recommended to avoid potential effects to stormwater flow and off-site effects related to flood control and stormwater management.

WAT Impact 3 Implementation of the project would create additional areas of impervious surfaces, potentially affecting off-site stormwater flow rates.

Implement WAT/mm-3.

Residual Impact

The creation of additional impervious surfaces creates the potential for increased stormwater flow rates. Proper planning and implementation of BMPs and LID strategies reduces the potential uncontrolled drainage and increased flow resulting in erosion, flooding, and other adverse drainage impacts. Based on implementation of mitigation measures, potential impacts to stormwater flow would be *less than significant* (Class II).

4.12.5.5 Adversely Affect Community Water Service Provider

Implementation of the Master Plan would result in an increase of irrigated areas and facilities, and would require additional water supplied from the NCSD. The proposed NCP Master Plan would be constructed in phases, and supplemental water would need to be secured prior to construction of the new sports fields and open public turf areas. Based on consultation with the NCSD (Bruce Buell, pers. comm.; December 17, 2008), no project can be given more than 20% of the annual water allocation per year. Total water consumption within NCSD and outside service boundaries averaged 2,646 afy between fiscal year 2005 to 2009. Twenty percent of this amount is approximately 530 afy. Estimated demand (based on build-out) within the existing service area is 4,139 afy (NCSD 2011), including implementation of the NCP Master Plan.

Based on implementation of the Urban Water Management Plan (NCSD 2011), including water conservation measures and site-specific retrofits, maintenance, and monitoring of water use, the NCSD has demonstrated adequate water supply to serve the future needs of the park. As noted by the NCSD, this additional service is contingent on the implementation of improvements to the existing irrigation system to reduce current water supply, consistent with measures to target reducing consumption for high-use customers. Based on consultation with the NCSD (2008) and as stated in the Urban Water Management Plan (NCSD 2011), the following measures are applicable to NCP:

- Compliance with District Ordinance No. 2009-114, which will require submittal of an irrigation plan, landscape plan, plant material list, and hardscape plan for water features prior to issuance of a will-serve letter.

- Implementation of landscape irrigation retrofits and improvements.
- Implement or comply with site-specific landscape water surveys, including checking irrigation system and timers for maintenance or repairs; quantify landscaped area; develop irrigation schedule based on precipitation rate, climate, system performance, and conditions; provide/prepare evaluation results and water savings recommendations.
- Retrofit existing toilets and install low-flow toilets in new restrooms.

In addition, the NCSD is analyzing alternatives for recycling or discharging the treated water from the Southland WWTF (AECOM 2009; Boyle Engineering Corporation 2007). If implemented, a pipeline would extend from the Southland WWTF, up Orchard Avenue and Pomeroy Road, and would provide recycled water for NCP irrigation (approximately 100,000 to 245,000 gpd).

Based on implementation of water conservation measures identified by the NCSD, impacts to water supply and the community water provider would be *less than significant (Class II)*.

WAT Impact 4 Implementation of the project would create additional demand for water services from the NCSD.

WAT/mm-4 Prior to expansion or addition of irrigated turf and landscaped areas, the General Services Agency shall conduct a water survey of existing irrigated turf and landscaped areas, in consultation with the NCSD, that shall include, but not be limited to, the following:

- a. Quantify irrigated areas based on vegetation type (i.e., turf, ornamental landscaping, trees).*
- b. Inspect and inventory the irrigation system, including timers, distribution lines, storage, and other infrastructure, and document needed maintenance and repairs.*
- c. Develop irrigation schedule by month, based on precipitation rate and local climate.*
- d. Document irrigation system performance and landscape conditions.*
- e. Review irrigation schedule.*
- f. Summarize water survey evaluation results and identify water savings recommendations, which shall achieve a minimum 50% reduction in current water use.*

WAT/mm-5 Prior to expansion or addition of irrigated turf and landscaped areas, the General Services Agency shall demonstrate compliance with the water survey evaluation water savings recommendations, and shall submit documentation to the NCSD for verification. Water savings recommendations shall be applied to existing and additional irrigated turf and landscaped areas, and may include, but not be limited to the following:

- a. *Computerized irrigation controller that can estimate cumulative evapo-transpiration losses to establish the most efficient and effective watering regimes.*
- b. *Avoidance of close mowing, overwatering, excessive fertilization, soil compaction and accumulation of thatch.*
- c. *Programming watering times for longer and less frequently rather than for short periods and more frequently.*
- d. *Installation of tensionmeters at different depths to measure moisture status, which will allow for better estimates on irrigation needs.*
- e. *Linking irrigation of the park to the California Irrigation Management Information System (CIMIS) station located at the Woodlands golf course to maximize irrigation efficiency.*
- e.f. *Implementation and maintenance of the most efficient and effective water regime for park irrigation consistent with best management practices, such as measures identified by the California Urban Water Conservation Council and/or similar recognized organizations.*
- g. *Incorporation of recycled water from the Southland WWTF.*
- h. *Consultation with NCSD prior to implementation of major planned replacement, renovation, or construction of water-using facilities.*

WAT/mm-6

Prior to construction of additional restrooms, the General Services Agency shall retrofit existing toilets and sinks with low-flow appliances within the NCP. All new appliances shall be low-flow (1.6 gallons per flush).

Residual Impact

Implementation of the project would create additional demand for water supply from the NCSD. The highest water demand would consist of additional turf; however, this use would be public, and annual consumption is monitored by the County and NCSD. Water conservation measures are identified for both current and future uses and advancements in conservation technology and recycled water infrastructure can be accommodated to further reduce water consumption. Water conservation measures identified by the NCSD and incorporated into the mitigation measures above would reduce existing water demand by 50 percent. As noted in Table 4.12 1. Historic Water Delivery – NCP 1999-2011, the average annual water demand over the past 12 years is approximately 48 afy (excluding year 2009 when a meter failed). Application of these mitigation measures would result in a 24 afy reduction in water use for existing uses, and a 22 afy reduction in future anticipated water demand. Based on implementation of identified water conservation measures, the total anticipated demand would be approximately 46 afy (no net demand for additional water). Based on implementation of mitigation measures, potential impacts to water supply, including the NCSD water provider, would be *less than significant* (Class II).

4.12.6 Cumulative Impacts

The NCP is currently one of the largest single customers of the NCSD. Water demand for existing and proposed uses would represent a measurable quantity of annual distribution. As previously discussed, the NCSD has available water to serve this project, in addition to others within the service area. In addition, further development of supplemental water, and increased use of recycled water, within the service area will be implemented in the future to reduce demands from NCSD wells. Based on implementation of identified mitigation measures, implementation of the NCP Master Plan, potential cumulative impacts would be *less than significant* (Class II) and no additional mitigation measures are necessary.

This page intentionally left blank.