4.10 WATER RESOURCES

This section identifies potential impacts to water supply and water quality that would result from the proposed project.

4.10.1 Existing Conditions

4.10.1.1 Water Supply

The project proposes to use a community water system managed by the NCSD for domestic water use within the approximately 30-acre site west of Nipomo Creek. The NCSD currently provides water to the Dana Adobe (within this 30-acre area) via an existing Outside User's Agreement. Existing on-site wells would be used for restoration on the 100 acres east of the creek. Based on available information, there is some concern regarding the long-term availability of water resources to serve existing and future development on the Nipomo Mesa, which is discussed further below.

The project would use water extracted from the Santa Maria groundwater basin, which is made up of three interconnected sub areas (Tri-Cities, Nipomo Mesa, and Santa Maria). Approximately 30% of the basin's area lies north of the Santa Maria River in San Luis Obispo County. In 1994, the California Department of Water Resources (DWR) began an update of the 1979 study of the Arroyo Grande Valley – Nipomo Mesa Area groundwater sub area and the northern portion of the Santa Maria River Valley groundwater sub area. The study, *Water Resources of the Arroyo Grande – Nipomo Mesa Area*, was completed and published in 2003. The study contains the following findings and conclusions:

- Observations of groundwater elevations in 1975, 1985, and 1995 revealed the development and subsequent expansion of a depression in groundwater elevations generally south of Willow Road and east of Highway 1—the south central portion of the Nipomo Mesa.

- NCSD and the Southern California Water Company have many of their wells in or near the depression. The extractions of these two agencies have increased from about 940 acre feet per year (afy) in 1979, to 2,790 afy in 1995, and 3,620 afy in 2000.

- There have also been increases in demand for water to serve rural residences and agricultural uses.

- Since the depression enlarges, the reduced water in storage could result in increased inflow from Santa Maria Valley and decreased outflow to the ocean from the mesa and the valley. If the pumping depression on the mesa pulls in water from the Santa Maria Valley, the possibility exists for the poorer quality groundwater of the valley, containing high concentrations of dissolved solids, to locally reduce the quality of the mesa's groundwater. Also, in the future, if subsurface outflows to the ocean cease, and the seaward hydraulic gradient is reversed, this condition could lead to seawater intrusion of the groundwater resources. Currently, there is no evidence of seawater intrusion.

- A major source of recharge for the Nipomo Mesa is deep percolation of precipitation. This makes the groundwater basin vulnerable to protracted periods of below-average rainfall.

Political/Legal History

In 1998, a complaint was filed by agricultural pumpers in Santa Barbara County against the basin's water purveyors, including the City of Santa Maria, NCSD, and Cal Cities Water Company. Because of inconsistencies in the DWR study, the County commissioned an additional study by S.S. Papadopulos & Associates (SSPA) to provide clarification of water issues on the Mesa. SSPA concluded that the data presented in the DWR study correctly identified overdraft conditions in the Nipomo Mesa area of the groundwater basin. Concurrently, the judge in the groundwater litigation issued a finding that the basin as a whole was not being overdrafted and that there was insufficient evidence to support the existence of sub-basins.

The County's Water Resources Advisory Committee (WRAC) reviewed the SSPA study and the judge's decision and concluded that overdraft in the Nipomo Mesa area either exists currently or is imminent. In November 2004, the Board of Supervisors certified Level of Severity II and approved several actions intended to strengthen water conservation efforts in the Nipomo Mesa area.

Litigation of the basin has resulted in a settlement in which the stipulating parties have agreed to a "physical solution establishing a legal and practical means for ensuring the Basin's long-term sustainability." The physical solution establishes three management areas, creates a management entity for each area and directs each management entity to monitor groundwater conditions and prepare plans for dealing with water shortages. The agenda for the NMMA also includes importation of at least 2,500 afy of supplemental water by the NCSD from the City of Santa Maria and an agreement of the major water purveyors in the area to purchase some of that water. New urban uses proposed by stipulating parties within the service area of a major water purveyor or within the Sphere of Influence of the NCSD must obtain water service from the local supplier. New urban uses proposed by stipulating parties outside these areas and within one-quarter mile of a service area or NCSD Sphere of Influence must conduct good faith negotiations with the local supplier before forming a mutual water company to provide water service.

In May, 2006, as a part of the annual Growth Management Ordinance update, the County Board of Supervisors adopted the following policies relating to the Nipomo area:

- Reaffirm limiting new residential development in the Nipomo Mesa Area to an annual 1.8% growth rate.

- Change the Level of Severity for Water Supply from II to III; however, the Board further determined that a building moratorium would not be necessary based on implementing the following measures, and because environmental determinations for development proposals on the Nipomo Mesa would continue to be made on a case-by-case basis, where an EIR would not necessarily be required if water supply is identified as the only significant issue.

- The following water conservation measures were required of all new development (and added as County LUO planning area standards) as of August 2006:

    - Require all sink faucets in bathrooms and kitchens in new residences be equipped with automatic shut-off devices. This also applies when a bathroom is added, or when the floor area is increased by 20%. Automatic shut-off faucets operate by means of a hands-free electric sensor.

- Require drip-line irrigation for all landscaped areas (except turf areas) installed for new construction. The drip irrigation system must include an automatic rain shut-off device, soil moisture sensors, a separate meter for outdoor water, and an operating manual to instruct the building occupant on how to use and maintain the water conservation hardware.

- The maximum amount of turf (lawn) area may not exceed 20% of the site's total irrigated landscape area, and, in all cases the site's total irrigated landscape area shall be limited to 1,500 square feet.

The County Flood Control and Water Conservation District will implement improved well monitoring and water quality monitoring programs for the Nipomo Mesa area. Water purveyors in the Nipomo Mesa area are encouraged to strengthen their water conservation programs, increase their use of reclaimed water, and continue their efforts to secure supplemental water.

Also, in an effort to monitor the effectiveness of these water conservation measures, each annual update of the Growth Management Ordinance will include data to indicate if the water use rate per dwelling unit is trending downward. If progress toward water conservation targets is not evident, further growth limitations may be recommended.

In August 2006, The Board also approved new requirements for all land divisions accepted for processing after June 23, 2006, and General Plan Amendments submitted after June 23, 2006, in the Nipomo and the Nipomo Mesa areas. Pursuant to the new regulations, applications for land divisions and General Plan Amendments in the Nipomo Mesa Water Conservation Area shall include documentation regarding estimated existing and proposed non-agricultural water demand for the land division or development that could occur with the General Plan Amendment. If this documentation indicates that the proposed non-agricultural water demand exceeds the demand without the land division, the project will be subject to contributing towards acquiring supplemental water. There are additional requirements for landscaping and turf limits, water fixtures and appliances, and retrofit programs. This requirement is implemented as a South County Planning Area Standard §22.112.020.F (Nipomo Mesa Water Conservation Area) and County Plumbing Code (Title 19) §19.07.042 (Water Conservation Provisions).

On June 26, 2007, the Board of Supervisors, as a part of the County's Resource Management System annual update, reaffirmed and certified a Level of Severity III for water supply in the Nipomo area, and directed the preparation of additional water conservation ordinance(s). The new ordinance(s) will require the establishment of retrofit program(s) and/or other new water conservation program(s) where new development will be required to participate to offset/reduce new impacts to water consumption from the Nipomo Mesa groundwater basin.

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 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 NCSD, 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 First Annual Report (April 2009), subsequent annual reports have been prepared and submitted by the NMMA Technical Group (June 2010, June 2011, April 2012 and April 2013).

The NCSD serves approximately 12,000 people over an area of approximately 4,650 acres (NCSD 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 *2010-2012 Resource Summary Report*, the Nipomo Mesa area is currently in a Level of Severity III for water supply (County of San Luis Obispo 2013). 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 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 NCSD 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.

Potential Future Supply

The 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 NCSD 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 NCSD 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 NCSD determined that construction of a pipeline (as currently proposed) to provide the supplemental water could not be funded by existing funds. The NCSD issued a moratorium on the issuance of new will serve letters while moving forward with other options for supplemental water, which may include other funding sources and/or a scaled-down project.

4.10.1.2 Water Quality

The topography of the project is gently sloping to moderately sloping. Three creeks traverse the project site, including Nipomo Creek, Adobe Creek, and Carillo Creek (refer to Figure 4.10-1). Surface drainage from the 30-acre site flows east towards Nipomo Creek. Groundwater was encountered at a depth of 30 feet bgs. No springs or seeps were observed. According to the NRCS Soil Survey, the soil surface is considered to have low to moderate erodibility.

4.10.2 Regulatory Setting

4.10.2.1 Federal Policies and Regulations

Federal Policies and Regulations

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.

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 U.S.” 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.

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, the 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.

Section 10910 of the California Water Code 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 California Water Code 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 Waste Discharge Report (WDR). All WDRs 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.

Figure 4.10-1. Local Hydrology Map

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.

CDFW 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 CDFW before beginning the project. If the CDFW determines that the project may adversely affect existing fish and wildlife resources, a Lake or Streambed Alteration Agreement is required. This Agreement lists the CDFW conditions of approval for the proposed project, and serves as an agreement between applicants and the CDFW.

SBx7-7 (SB 7) was enacted in November 2009, requiring all water suppliers to increase water use efficiency (DWR 2013). 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 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.

4.10.2.2 Local Policies and Regulations

Chapter 22.52 of the County's LUO contains site development standards for the county, including drainage, grading, erosion, and sedimentation control. 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 CDFW 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, 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.

Interim Low Impact Development (LID) Guidelines is a project sponsored by municipalities in San Luis Obispo County and the Central Coast RWQCB to help reduce onsite stormwater runoff. The guidelines and regulations act as a transition into new rules that will be developed as a part of a joint effort to develop new hydromodification control criteria. The new rules, titled Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region (RWQCB Central Coast Region 2013), were drafted in September 2012 with an anticipated adoption date of July 12, 2013.

In addition to the environmental benefits, LID may provide aesthetic benefits and, in some cases, an economic benefit as well. The interim guidelines categorize projects into three performance requirement tiers based on the square footage of increased impervious surfaces created by the project. Projects with a potential to result in polluted stormwater discharge (e.g., automotive Repair shops, gasoline stations, residential hillside development, restaurants, 5,000-square-foot parking lots), and residential tentative subdivisions with a potential for five or more units are designated as Tier 3 projects, and are required to incorporate at least two LID measures that retain or reduce runoff and meet any additional agency requirements. The RWQCB Requirements designate three Performance Requirement Tiers and Requirement No. 3 (Runoff Retention) applies to detached single-family homes resulting in 15,000 square feet or greater net impervious area in specified Watershed Management Zones (including the proposed project site). LID measures are required in additional to a Stormwater Control Plan.

4.10.3 Thresholds of Significance

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

a. Violate any water quality standards;

b. Discharge into surface waters or otherwise alter surface water quality (e.g., turbidity, temperature, dissolved oxygen, etc.);

c. Change the quality of groundwater (e.g., saltwater intrusion, nitrogen-loading, etc.);

d. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide additional sources of polluted runoff;

e. Change rates of soil absorption, or amount or direction of surface runoff;

f. Change the drainage patterns where substantial on-or off-site sedimentation/erosion or flooding may occur;

g. Involve activities within the 100-year flood zone;

h. Change the quantity or movement of available surface or ground water;

i. Adversely affect community water service provider; or,

j. Expose people to a risk of loss, injury, or death involving flooding (e.g., dam failure, etc.), or inundation by seiche, tsunami or mudflow.

4.10.4 Impact Assessment and Methodology

Significant water supply and infrastructure impacts would occur if the demands placed on the area from this development exceeded the available water supply. The issue of water supply, applicable to future development of the site, is addressed in the LUO under the Nipomo Mesa Management Area standards. Regarding water quality, an impact would occur if the proposed project results in the discharge of pollutants into ground or surface waters. Impacts to the movement of water may occur if the project would affect stormwater runoff, including existing County drainage infrastructure, resulting in flooding, erosion, and sedimentation. Potential impacts are assessed based on site topography, the proposed layout and elevations of potential project components, the erodibility of soils, existing drainage patterns, and the regulatory framework applicable to the project.

In order to ensure that future projects, such as the proposed Master Plan and CUP, address project-specific water impacts, a planning area standard is recommended that requires the project applicant to promote groundwater recharge through the application of Low Impact Development (LID) design techniques, such as directing parking lot and roof runoff to vegetated swales and rain gardens, and maximum pervious surfacing where feasible (refer to Chapter 4, Environmental Impacts Analysis, Exhibit A).

4.10.5 Project Specific Impacts and Mitigation Measures

4.10.5.1 Land Use Ordinance Amendment

The proposed amendments do not include language that would specifically result in an adverse effect to water resources. There are no proposed changes to the land use category or development potential of the site. The amendment would not result in an increased demand for water resources, and does not include any changes that are inconsistent with the County Code and General Plan related to hydrology and water resources. Any future development of the site may have adverse effects on water resources, depending on the location and type of development. Pursuant to the amendment, future development would require a Master Plan and issuance of a CUP, which would trigger CEQA and project specific analysis of impacts, including quantification of water demand and assessment of potential water quality impacts.

In order to ensure that future projects, such as the proposed Master Plan and CUP, address project-specific water resource impacts, a planning area standard is recommended that requires the project applicant to incorporate groundwater recharge and Low Impact Development measures and ensure compliance with local and regional water quality standards (refer to Chapter 4, Environmental Impacts Analysis, Exhibit A).

4.10.5.2 Conditional Use Permit

Violate Water Quality Standards

Regarding surface water quality, as proposed, the project would result in the disturbance of approximately 8.3 acres. Nipomo Creek, Adobe Creek, and Carillo Creek traverse the project site, and the project includes an emergency access drive crossing over Nipomo Creek. Trails and footbridges would cross the smaller creeks on the 100-acre portion of the site. As noted in Sections 4.3 (Biological Resources) and 4.5 (Geology and Soils), during construction, short-term erosion and sedimentation may occur, resulting in a potentially significant impact. In addition to sediments, during construction and operation of the project, leaking hydrocarbons from equipment and vehicles may migrate from the developed area into the surface waters, resulting in a potentially significant impact.

WR Impact 1 **The project would include construction activities that would require 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, and resulting in short-term impacts.**

Implement BIO/mm-2, BIO/mm-9, and BIO/mm-10.

WR/mm-1 *Prior to issuance of a grading permit, the applicant shall provide a copy of the RWQCB-approved SWPPP. The SWPPP shall be implemented prior to, during, and following ground disturbance.*

WR/mm-2 *At the time of application for grading and construction permits, all applicable plans shall clearly show stockpile and staging areas. Stockpiles and staging areas shall not be located within 100 feet of Nipomo Creek, Carillo Creek, Adobe Creek, or any drainage swale. All project-related spills of hazardous materials within or adjacent to project sites shall be cleaned up immediately. Spill prevention and cleanup materials shall be on-site at all times during construction. The staging areas shall conform to standard BMPs applicable to attaining zero discharge of storm water runoff. At a minimum, all equipment*

and vehicles shall be checked and maintained on a daily basis to ensure proper operation and to avoid potential leaks or spills. Maintenance, cleaning, and refueling of equipment and vehicles shall not be permitted onsite or on South Oakglen Avenue.

Residual Impacts

Based on incorporation of mitigation measures identified above, including compliance with the County LUO and an RWQCB-approved SWPPP, residual impacts would be *less than significant with mitigation (Class II).*

WR Impact 2 **Operation of the project would include vehicle parking areas, which may result in the discharge of hydrocarbons and other pollutants in stormwater runoff, indirectly affecting surface and ground water quality, and resulting in short-term and long-term impacts.**

WR/mm-3 *At the time of application for construction permits, the applicant shall show on the construction permits, project designs that will promote groundwater recharge (22.52.140) by application of LID design techniques. At least three designer-selected LID/stormwater runoff reduction measures shall be applied to the project, including, but not limited to the following options:*

a. Parking lots shall be designed to drain to vegetated depressions, rain gardens, or open areas to allow for stormwater infiltration.

b. Roof runoff should be directed to landscape areas (rain gardens) and/or vegetated drainage swales and shall not be directed to impervious surfaces that have the potential to contain pollutants.

c. Vegetated drainage swales shall be constructed along the access driveway and discharge to an approved location in a non-erosive manner.

d. Pavement disconnection within the parking area.

e. Other measures, as approved by the County Planning Department in consultation with Public Works.

These measures shall be implemented prior to final inspection or occupancy, whichever occurs first.

Residual Impacts

Compliance with the County LUO and implementation of LID techniques would reduce potential surface runoff impacts to *less than significant with mitigation (Class II)*.

Discharge into Surface Waters or Alter Surface Water Quality

The project is proposed in proximity to three creeks. Direct discharge into surface waters is not proposed; however, as discussed above, grading and construction activities and use of parking areas would create a potential source of polluted stormwater runoff. Mitigation is recommended to address these effects in addition to compliance with the County LUO (refer to WR/mm-1 and WR/mm-2).

Change the Quality of Groundwater

The proposed project includes the construction of on-site septic systems, which require review by the County Planning and Building Department and consistency with the Central Coast Basin Plan. Based on the results of the *Engineering Geology Report* (GeoSolutions 2011a) and *Percolation Testing Report* (GeoSolutions 2011b) percolation rates average about 7 minutes/inch, and groundwater was encountered at a depth of 30 feet bgs. The project includes construction of vertical gravel pits, which may be constructed to a depth of 25 feet below the surface. This option was proposed by the applicant in the event of significant cultural resource discovery as a means to avoid or minimize adverse effects. The vertical system was evaluated by GeoSolutions (*Review of Proposed Visitor Center Building*, 2012). While the standard horizontal system was noted as the preferred option, GeoSolutions also stated that vertical pits could be constructed. The depth of the vertical system would be limited by the depth to groundwater and the presence of underlying clay soils, in order to achieve an adequate separation consistent with County Code and the Basin Plan (at least 10 feet) to protect groundwater quality.

On the 100-acre portion of the project site, existing on-site wells would be used for proposed creek restoration activities, and proposed and ongoing restoration conducted by the County and the Land Conservancy of San Luis Obispo County. These wells will also be available for agricultural uses on this portion of the site. These restoration actions, including riparian and other vegetation plantings, are not anticipated to require a substantial amount of groundwater beyond existing and historical conditions once they are established. The approximately 1.28 afy of water to be supplied by the NCSD would contribute to the overall demand for water within Nipomo; however, the project's demand is negligible compared to the demand on the basin, and no saltwater intrusion or other groundwater quality impacts would occur as a direct result of the project.

Based on compliance with existing rules and regulations, the potential for the project to result in significant impacts to groundwater quality would be *less than significant (Class III)* and no additional mitigation measures are necessary.

Create or Contribute Runoff Water

Implementation of the project would create additional impervious surfaces, totaling approximately 39,300 square feet (including a 21,750-square-foot paved main parking lot), which has the potential to reduce the soil's ability to absorb rainfall and contribute to stormwater runoff. Increased impervious areas have the potential to result in downstream flooding, higher peak flows, and carry polluted runoff. Based on review by County Public Works, the project is subject to standards identified in the LUO and County's Stormwater Pollution Control and Discharge Ordinance. No significant capacity issues were identified.

The County LUO requires management of stormwater flow to ensure rates do not exceed existing conditions. Incorporation of LID strategies, consistent with LUO §22.10.155 (Stormwater Management) would avoid or minimize the project's contribution to water quality and drainage issues affecting surface water bodies in Nipomo and the South County area. The proposed project includes several LID measures to retain and reduce runoff, all which meet County and RWQCB guidelines to reduce off-site runoff. For example, the project has proposed: rain gardens for stormwater capture, maximization of pervious surfaces (i.e., decomposed gravel in lieu of paved parking areas and ADA trails), and additional oak tree plantings and native landscaping throughout the site.

LUO regulations applicable to the 21,750-square-foot main, paved, parking area would include: reduction of impervious land coverage to the maximum extent practicable, oil and hydrocarbon infiltration and treatment of runoff, and development and implementation of a maintenance program for the life of the project. Based on compliance with existing regulations, including preparation and implementation of drainage, stormwater management (construction and operational), and an erosion and sedimentation control plan, potential impacts would be mitigated to less than significant.

WR Impact 3 **Development of the project would create additional impervious surfaces, which would potentially reduce soil absorption rates, increase and re-direct runoff, and increase the potential for downstream flooding, resulting in a significant long-term impact.**

Implement WR/mm-3.

WR/mm-4 *At the time of application for construction permits, the applicant shall submit complete drainage, flood hazard, and erosion and sedimentation control plans for review and approval in accordance with §§22.52.110 (Drainage Plan Required), 22.14.060 (Flood Hazard Area), and 22.52.120 (Erosion and Sedimentation Control Plan Required) of the LUO. The applicant shall demonstrate that project construction plans are in conformance with the Source Control BMPs as identified for project incorporation in the Stormwater Quality Plan Application for Priority Projects.*

WR/mm-5 *For the life of the project, the project shall comply with the requirements of the National Pollutant Discharge Elimination System Phase I and/or Phase II stormwater program and the County's Storm Water Pollution Control and Discharge Ordinance, Title 8, §8.68 et sec.*

Residual Impacts

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 with mitigation (Class II)*.

Change Rates of Soil Absorption, Surface Runoff, Drainage Patterns

As noted above (Create or Contribute to Runoff Water), implementation of the project includes the construction of additional impervious surfaces, and would have a localized effect on existing rates and direction of surface runoff. Based on project components that include LID strategies, and compliance with existing regulations, potential impacts would be *less than significant (Class (III)*.

Substantial Sedimentation/Erosion or Flooding

There is moderate to high potential for sedimentation, erosion, and flooding adjacent to Nipomo Creek and the project would change drainage patterns in those areas. However, as discussed above, the project has incorporated design techniques and mitigation measures have been recommended to reduce potential impacts associated with sedimentation, erosion, and stormwater flows during rain events to less than significant. No additional impacts associated with the change in drainage patterns would occur and no additional mitigation is necessary.

WR Impact 4 The project would change the drainage pattern in an area with substantial potential for sedimentation, erosion and flooding, resulting in a significant long-term impact.

Implement BIO/mm-9, BIO/mm-10, WR/mm-3, WR/mm-4, and WR/mm-5.

Residual Impacts

Implementation of the project would affect existing drainage patterns; however, compliance with existing regulations and implementation of proposed LID techniques is required, and would ensure that impacts are *less than significant with mitigation (Class II)*.

100-Year Flood Zone

The FEMA Flood Hazard follows the Nipomo, Carillo, and Adobe Creeks through the project site. The 100-year flood elevation of Nipomo Creek varies from 250 to 263 feet. Uses within the flood hazard zone would include the emergency access road bridge crossing over Nipomo Creek, and an approximately 800-foot portion of the interpretive path loop. All other uses and structures would be outside of the flood zone. Floodwaters would be able to freely flow over the path.

The proposed bridge is a railroad flatcar, 89 feet long with a 66-foot creek span. A typical railroad flatcar is 2.5 feet thick. Abutments would be installed with vertical faces on the channel side, and a 4×6-foot (nominal) corrugated metal pipe arch is proposed in the road ramp leading up to the westerly side of the bridge. This culvert will pass some of the water in the westerly overbank to help lower the water surface on the upstream side of the bridge. Based on the *Preliminary Bridge Analysis Nipomo Creek Crossing at the Dana Adobe* (kvc 2011), the deck of the bridge would be constructed at elevation 264 feet, and the “lowest” portion of the bridge would be at elevation 261.5 feet, which would allow for a 1-foot clearance between the water surface through the bridge and the low chord of the bridge during a 100-year flood. There would be a 3.5-foot clearance between the deck of the bridge and the 100-year flood elevation (kvc 2011).

Based on the flood analysis and associated modeling, there would be no change in surface water elevation downstream of the proposed bridge. About 260 feet upstream of the bridge there would be an increase in the water surface of 0.35 feet (within the project site). This increase would be “damped out” before reaching the upstream property line and will not impact other properties. The Preliminary Bridge Analysis recommends a final analysis of the bridge design, based on construction-level detail, to ensure the bridge is designed to avoid potential flooding impacts, consistent with the LUO and Building Code.

Because the project is not expected to result in any increase in risk of flooding, impacts would be *less than significant (Class III)*.

Change in Quantity/Movement of Surface or Ground Water

The proposed project would not include any features that would have an adverse effect on the quantity or movement of surface water with Nipomo Creek and its tributaries. The proposed bridge would not impede floodwaters, and restoration projects would improve water quality and habitat. Based on the design of the proposed project and compliance with existing regulations, potential impacts to surface waters would be *less than significant (Class III)*.

On the 100-acre portion of the project site, existing on-site wells would be used for proposed creek restoration activities, and proposed and ongoing restoration conducted by the County and the Land Conservancy of San Luis Obispo County. These wells will also be available for agricultural uses on this portion of the site. These restoration actions, including riparian and other vegetation plantings, are not anticipated to require a substantial amount of groundwater beyond existing and historical conditions once they are established. The components of the Master Plan (on the 30-acre portion of the site) would be served by the NCSD (refer to discussion below, Adversely Affect Community Water Service Provider).

Based on the project's anticipated demand, proposed implementation of water conservation measures consistent with the LUO and Plumbing Code, and review and approval by the NCSD, implementation of the project would not result in significant water supply impacts. The project also would not remove a barrier for development or result in a significant impact to water available for agricultural use, because the existing wells on the 100-acre portion of the site would only be used for continued and proposed restoration and agricultural use. Based on the estimated water demand (1.28 afy), the project would not have a direct adverse effect on the quantity or movement of groundwater within the Santa Maria Groundwater Basin, and potential impacts to groundwater would be *less than significant (Class III)*.

Adversely Affect Community Water Service Provider

The proposed project (30-acre portion) would be served by the NCSD. Total water consumption within NCSD and outside service boundaries averaged 2,646 afy between fiscal year 2005 to 2009. Estimated demand (based on build-out) within the existing service area is 4,139 afy (NCSD 2011). The estimated water use would be 1.28 afy for operation of the project on the 30-acre portion of the project site, including the caretaker's unit, visitor center/museum, staff offices, restrooms, catering kitchen, and drought-tolerant landscaping. The water demand analysis was prepared by Hodge Land Planning + Civil Engineering (2011), and includes the following break-down:

- Visitor's Center (including special events and staff): 0.07 afy
- Caretaker's Residence: 0.28 afy
- Landscape Irrigation (including proposed water conservation measures): 0.93 afy
- Total Use: 1.28 afy

The resulting water demand would be 1.28 afy. The NCSD reviewed the water use projection and determined that the project would require an equivalent amount of water as currently permitted by the NCSD's Water Service Limitations if the parcels were developed as residential. If the site were developed with residential uses, two primary dwellings (0.40 and 0.82 afy) and one secondary dwelling (0.08 afy) would be allowed (two parcels, 30 acres total), resulting in a total water demand of 1.30 afy. Therefore, the project would not increase non-agricultural water demand more than the amount otherwise available based on the land uses possible under the County General Plan. The NCSD notes that the project includes elements of water conservation education that would complement the NCSD's conservation efforts (NCSD 2011).

Therefore, based on the project's anticipated demand, proposed implementation of water conservation measures consistent with the LUO, and review and approval by the NCSD, potential impacts to the NCSD would be *less than significant (Class III)*.

Exposure to Flooding or Inundation

The project site is not located in an area at risk for tsunami or seiche. Portions of the site are at risk from flooding associated with Nipomo, Carillo, and Adobe Creeks. No habitable structures would be located within the 100-year flood zone and the emergency access road bridge would be constructed above the flood elevation to allow for emergency evacuation. Based on the location of features associated with the project, the potential for loss, injury, or death as a result of flooding would be low, and potential impacts would be *less than significant (Class III)*.

4.10.6 Cumulative Impacts

As noted by the County General Plan and LUO, water supply and water quality issues within Nipomo require compliance with area-specific standards and regulations. These standards are required for discretionary projects (such as the proposed LUO Amendment and CUP) and issuance of building permits (refer to the Plumbing Code). All projects within the NMMA and/or served by the NCSD are now required to comply with adopted standards and regulations, which would reduce the cumulative effect on water resources.

Regarding water supply, the NCSD 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 NCSD's Urban Water Management Plan (2011), NCSD 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 NCSD has implemented water conservation measures, including a four-tier residential "water conservation" rate (November 1, 2011) and California Urban Water Conservation Council-approved BMPs. Additional measures include development standards and target reducing consumption for high-use customers (NCSD 2011). 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 the size and design of the proposed project, estimated annual water demand, and implementation of identified mitigation measures, the project would not have a cumulatively considerable effect on water resources. Potential cumulative effects would be *less than significant (Class III)*.