4.13 WATER RESOURCES AND FLOODING

4.13.1 SETTING

4.13.1.1 WATER SUPPLY SETTING

The project site overlies the Santa Maria Valley Groundwater Basin (Basin). The Basin is recharged naturally through stream seepage, percolation of rainfall, and subsurface inflow from the surrounding watershed. Additional recharge occurs from agricultural return flow and percolation of treated sewage effluent. The Basin was at full capacity in 1918, containing about three million acre-feet of usable water. Accelerated development of irrigated agriculture, following World War I, resulted in depletion of approximately two-thirds of the basin's capacity. Agriculture and petroleum production presently consume approximately 80-85% of the water used in the Santa Maria Valley, most supplied by groundwater from private wells.

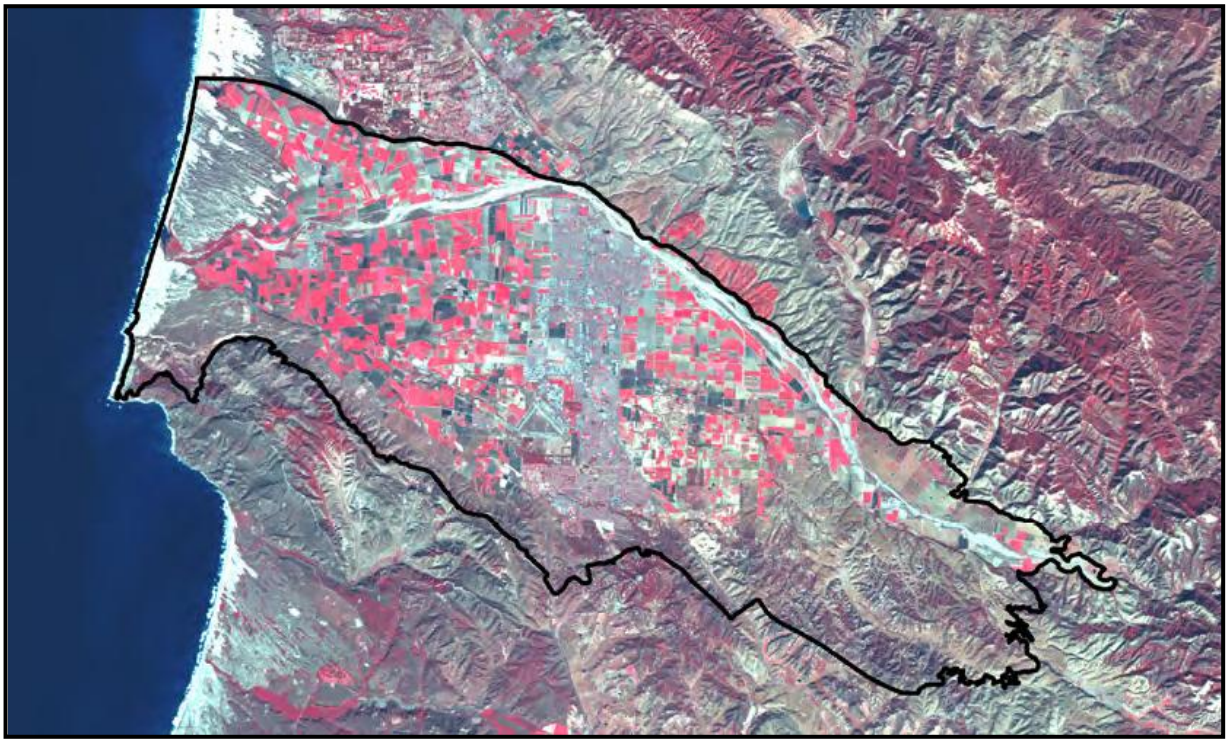
In 2008, the Basin was adjudicated through a Stipulation resulting from the *Santa Maria Valley Water Conservation District vs. City of Santa Maria, et al.* litigation. In 2011, the court ruled that, the Santa Maria Groundwater Basin was not in a state of overdraft and that management of the Basin was subject to the terms of the adjudication and ongoing supervision of the Court (Santa Barbara Integrated Regional Water Management Plan (IRWMP) 2013).

Golden State Water Company (GSWC) would supply water to the OASIS project. GSWC is a public water provider that serves the communities of Tanglewood, Orcutt, Lake Marie, and Sisquoc, all of which overlie the SMGB. The GSWC currently obtains its water supply for the Orcutt System from the following sources:

1. State Water Project (SWP) via the Central Coast Water Authority (CCWA);
2. Imported or assigned rights to water (SWP water) from the City of Santa Maria via CCWA;
3. Local groundwater; and
4. Associated return flows that may be recaptured from the SMGB.

According to the 2015 Orcutt Urban Water Management Plan (OUWMP, final document dated August 2016), (https://www.gswater.com/arden-cordova/download/Orcutt_2015_UWMP-Final.pdf.pdf), the water supplies available to the Orcutt system are sufficient to meet the projected water demand for each multiple-dry year period because groundwater and purchased water can supply reliable water through 2030. There are no water facilities, including water wells identified on KS18 (KS18).

Figure 4.10-1 Santa Maria Valley Groundwater Basin



Source: 2017 Annual Report of Hydrogeologic Conditions, Water Requirements, Supplies and Disposition

4.13.1.2 DRAINAGE/FLOODING SETTING

The Santa Maria Valley (SMV) is a southeast to northwest trending alluvial basin containing the Santa Maria River. The river begins at the confluence of the Sisquoc and Cuyama Rivers at the northern edge of the valley. Prior to 1952, when the construction of Twitchell Dam and the Santa Maria River Levees reduced peak discharges and corresponding flooding, major flood damage occurred in the SMV. The Orcutt Planning Area (OPA) is located at the southern edge of the SMV, and is wholly contained within the 29,000 acre Orcutt Drainage Area, the largest of five major watershed areas in the vicinity of the Santa Maria/Orcutt urbanized area. The Orcutt Drainage Area is bounded on the south by the Solomon and Casmalia Hills, on the west by the Betteravia Lakes, on the north by Betteravia Road, and on the east by Bradley Canyon. The predominant drainage course in the OPA is Orcutt Creek (also known as Solomon Creek) which flows southeast to northwest across its 5,000-acre drainage area into the Betteravia Lakes. The channel is primarily natural through the community. Smaller natural drainages in the OPA include unnamed USGS blue-line watercourses in Pine Canyon and Graciosa Canyon, a major unnamed tributary originating northwest of Mount Solomon, and numerous drainages emanating from the Casmalia Hills.

In the Orcutt area, storm water runoff is conveyed to various locations along Orcutt Creek by way of a series of open channels, small storm drains, and retention/retardation basins. The basins retain and slow surface runoff from developments, slowly "bleeding" the collected water back into the system in order to prevent storm water flow levels from exceeding the capacity of both natural and engineered drainage systems. The California Boulevard Basin, located at the western end of KS18, is a major retention basin, which receives runoff from approximately 4,900 acres of the Orcutt Creek watershed. District standards require that all development-specific basins, including the proposed OASIS project retention basin (see Figure 4.13-4 Stormwater Control

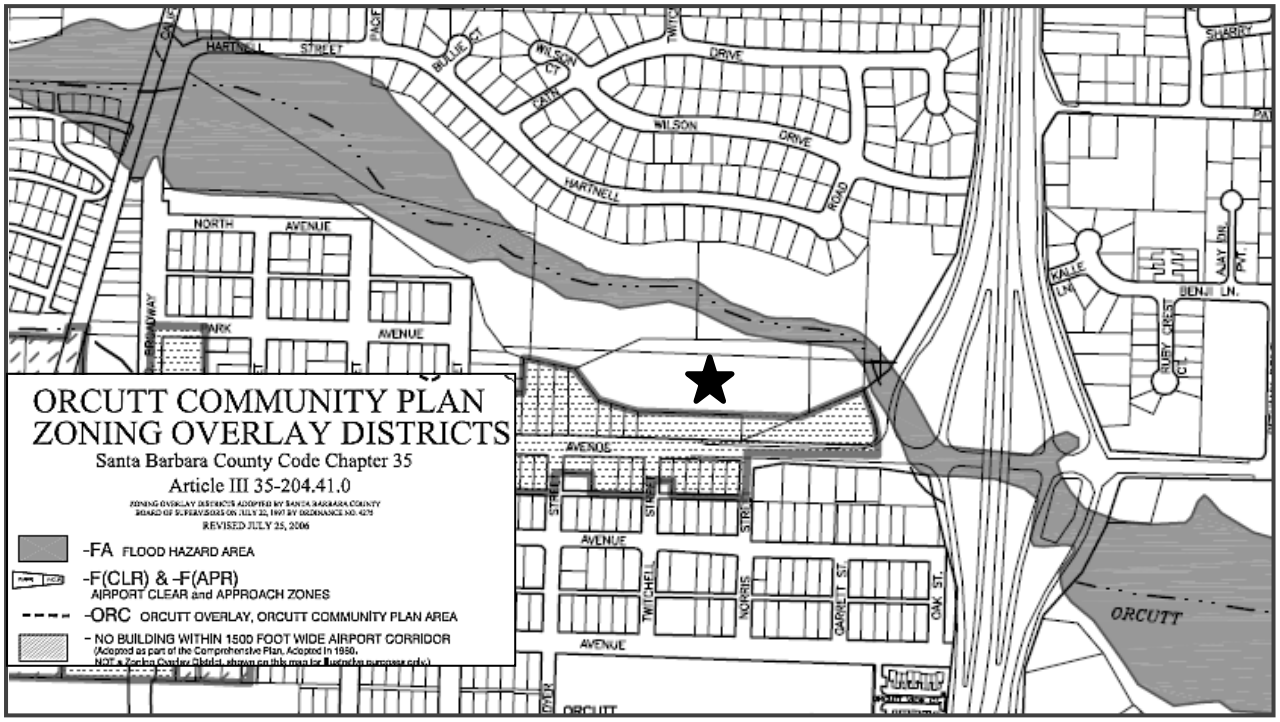
Management)), must have sufficient capacity to fully mitigate the impacts to downstream improvements associated with increased runoff rates. The OASIS project retention basin is designed to ensure that runoff conveyed from the basin's outlet pipe would not exceed historic peak flow volumes.

Average rainfall in Orcutt is 13.4 inches per year, an insufficient amount to produce substantial surface runoff in most years. The extraordinary perviousness of dune sand in the area allows complete absorption of very high intensity rainfall. The elapsed time between a rainfall event and the appearance of surface runoff from the natural watershed is highly variable and dependent on the cumulative volume of seasonal rainfall from the previous year (antecedent seasonal rainfall). However, upon saturation of the dune sand layer above the Orcutt formation, storm water runoff is nearly equivalent to the amount of rainfall. As a result of these factors, significant runoff statistically occurs about once every 6 to 7 years, accounting for the lack of perennial stream flow in the Orcutt area.

A "Floodplain" is the area of land that may be submerged by flood waters during a 100-year storm event. A "Floodway" is the area of a channel or river which must be reserved in an unobstructed condition in order to convey a 100-year flood without increasing flood elevations more than one foot. Floodplains are delineated by the Federal Emergency Management Agency (FEMA) on Flood Insurance Rate Maps (FIRM) showing both the 100- and 500-year flood limits. The 100-year flood is the standard event from which residential and commercial areas are to be protected; in cases where this level of protection cannot be provided, flood insurance is required.

Orcutt Creek traverses KS18, with much of the western half of KS18 located within the 100 year floodplain. The OASIS property, located south of Orcutt Creek in the eastern half of KS18, is located outside of the identified flood hazard zones, with the exception of a small area in the northeast corner of the property. (See Figures 4.13-1, 4.13-2, and 4.13-3)

Figure 4.13-1 – OCP Flood Hazard Area (Excerpt)



Full map: http://sbcountyplanning.org/PDF/maps/Community%20Plan%20Maps/Orcutt%20Community%20Plan%20Maps/OrcuttZoningOverlay.pdf

Figure 4.13-2 FEMA "Firmette" for OASIS Vicinity

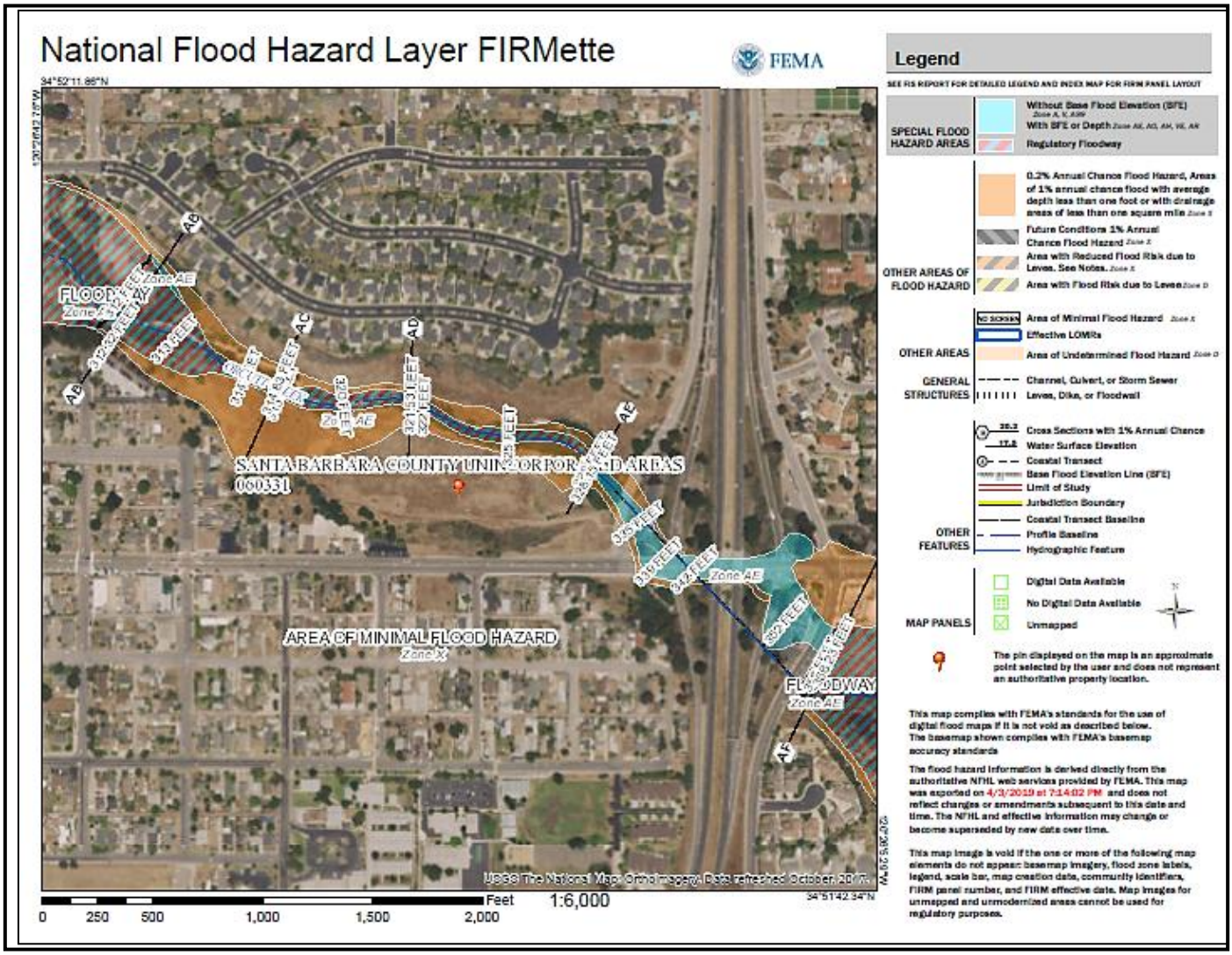
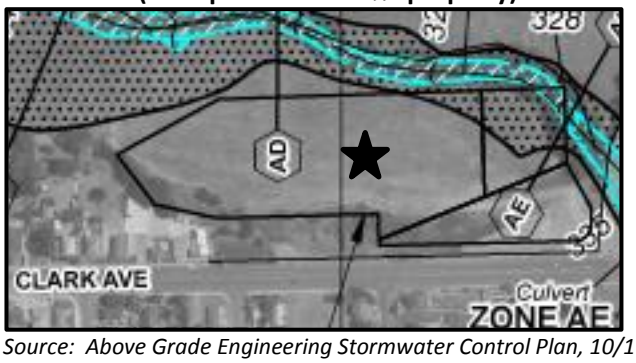


Figure 4.13-3 FIRM Map 06083C0452G 12/04/12 (Excerpt with OASIS★ property)



Source: Above Grade Engineering Stormwater Control Plan, 10/16

Source: msc.fema.gov

4.13.1.3 WATER QUALITY SETTING

Storm Water Runoff**:** Graded, developed, and some cultivated lands in the Orcutt Community Plan (OCP) area are associated with vegetation removal, impervious surfaces, (e.g., roads, structural development, farm fields with plastic film/membrane, etc.), and the application of garden and agricultural chemicals. Storm water runoff from these areas can result in increases in peak storm water volumes and velocities and changes to existing natural drainage patterns. This includes reduced ability for natural filtering of runoff water, as undeveloped areas are converted to buildings, with rooftops, driveways, sidewalks, roads, and parking lots with no ability to absorb storm water. Storm waters in the OCP area can also carry, bacteria, pesticides, herbicides, fertilizers, oil and gas from vehicles, which can be conveyed to and degrade surface water resources, affecting domestic water supplies as well as the plants and wildlife dependent on the surface water resources. Such runoff may contain or mobilize high levels of contaminants, such as sediment, suspended solids, nutrients (phosphorous and nitrogen), heavy metals and other toxic pollutants, pathogens, oxygen-demanding substances, and floatables. Degradation of surface waters from contaminated or poor quality storm water runoff can also cause or contribute to an exceedance of water quality standards. After a storm event, water runoff carries these pollutants into nearby streams, rivers, lakes, estuaries, wetlands, and oceans. The highest concentrations of these contaminants often are contained in ‘‘first flush’’ discharges, which occur during the first major storm after an extended dry period. Individually and combined, these pollutants impair water quality, threatening designated beneficial uses and causing habitat alteration or destruction.

Orcutt Creek, as well as other portions of the Santa Maria Watershed, is identified as an impaired waterbody by the Regional Water Quality Control Board (RWQCB)[1], due to exceedance of Total Maximum Daily Loads (TMDL) for fecal indicator bacteria, toxicity and nutrients, as follows:

- *Santa Maria Watershed TMDL - Fecal Indicator Bacteria*
  Exceedance of the water quality objectives for total coliform and/or fecal coliform and/or *E. coli,* resulting in the beneficial uses of contact recreation (REC-1) and shell-fishing (SHELL) (in the Santa Maria Estuary only) not being protected. This project identifies the causes of impairment and describes solutions to achieve water quality objectives and protection of beneficial uses. More information is available on the RWQCB website at https://www.waterboards.ca.gov/centralcoast/water_issues/programs/tmdl/docs/santa_maria/fib/index.html

- *Santa Maria River Watershed TMDL - Toxicity and Pesticides*
  Surface waters are polluted with pesticides that are toxic to aquatic life, in violation of Basin Plan general narrative objectives for pesticides and toxicity. This TMDL addresses toxicity and pesticide impairments on the 2008/2010 303(d) list along with additional toxicity and pesticide impairments. More information available on the RWQCB website at https://www.waterboards.ca.gov/centralcoast/water_issues/programs/tmdl/docs/santa_maria/pesticide/index.html

[1] The State of California has developed guidance document called, "A Process for Addressing Impaired Waterbodies in California”, which explains the assessment of impaired waters and development of implementation plans to improve them, available on their website at: https://www.waterboards.ca.gov/water_issues/programs/tmdl/docs/iw_guidance.pdf .

- *Santa Maria Watershed TMDL – Nutrients*
  Many surface waterbodies in the lower Santa Maria River and Oso Flaco Lake watersheds are impaired due to exceedances of water quality criteria for nitrate, unionized ammonia, and associated nutrient-related problems such as excessive orthophosphate, dissolved oxygen imbalances, toxicity, and excess algal biomass. As a result, a wide range of current or potential designated beneficial uses – including aquatic habitat, drinking water supply, groundwater recharge, and agricultural supply - are not being supported in these waterbodies, and therefore these impairments constitute a serious water quality problem. This project identifies the water quality impairments and describes a plan to achieve water quality objectives and ultimately restore the designated beneficial uses of surface waters. More information is available on the RWQCB website at: https://www.waterboards.ca.gov/centralcoast/water_issues/programs/tmdl/docs/santa_maria/nutrients/index.html

The RWQCB website describes the TMDL as the amount of a particular material that a waterbody can assimilate on a regular basis and still remain at levels that protect beneficial uses designated for that waterbody. A TMDL is approved by the RWQCB, the State Water Resources Control Board (SWRCB) and the US Environmental Protection Agency (US EPA). Once approved, it establishes 1) an allowable amount of a pollutant to a waterbody, 2) proportional responsibility for controlling the pollutant, 3) numeric indicators of water quality, and 4) implementation to achieve the allowable amount of pollutant loading. TMDLs are developed by analyzing data and information to identify the water quality problems in a waterbody/watershed, a numeric value for the TMDL, and an implementation plan that identifies how to achieve the TMDL. The implementation plans identify new requirements and who the requirements apply to (e.g., agencies, landowners, resource managers, and/or the public). Typically, TMDLs and their implementation plans are approved by adoption into the RWQCB's Basin Plan.

Water quality can be affected by development in the short-term and over the life of a development project.

Construction Site Runoff**:** Storm water runoff from grading/construction sites flows to local drainage courses, either directly or via a storm drain on or near the construction site. Contaminants conveyed by storm water runoff from construction sites include sediment (from inadequate erosion control plan implementation), fertilizers, pesticides, herbicides, equipment/vehicle washout residue, construction chemicals (paint, etc.) and construction debris.

Long-Term Runoff: Following construction, the water quality of runoff water can be degraded due to increased pollutants in the runoff and increased runoff volumes and velocity compared to a site's undeveloped setting. Once developed with paved roads, structural development, landscaping, vehicles, etc., runoff water would flow over areas with increased amounts of oil, grease, heavy metals, landscaping chemicals (including nitrogen and phosphorus from use of fertilizers), etc. compared to the pre-development setting. When these contaminants in the runoff water are deposited (e.g., in creek sediments), the pollutants can enter the food chain affecting aquatic habitats, wildlife and potentially humans. Natural infiltration of storm water in natural, vegetated, permeable undeveloped land, both slows and filters runoff. Unless appropriate design features are incorporated, new development will result in increases to impervious surfaces (structures, paved areas) and peak storm water runoff rates. Therefore, storm water volumes would be expected to increase post development, resulting in increased potential for flooding, property damage, erosion of creek banks, and damage to riparian and aquatic wildlife habitat,.

4.13.2 REGULATORY SETTING

Federal

Clean Water Act (CWA): The Federal Water Pollution Prevention and Control Act (i.e., the Clean Water Act or CWA) requires that discharges do not substantially degrade the physical, chemical or biological integrity of the Nation's waters. Specifically Section 402 established the National Pollutant Discharge Elimination System (NPDES) Regulations for wastewater and other pollutant discharges.

CWA 1987 Amendment: Congress amended the CWA to require the implementation of a two-phased program to address storm water discharges. Phase I established by the U.S. Environmental Protection Agency (EPA) in November 1990, requires NPDES permits for storm water discharges from municipal separate storm sewer systems (MS4s) serving populations of 100,000 or greater, construction sites disturbing greater than 5 acres of land, and ten categories of industrial activities. The EPA recognized that smaller construction projects (disturbing less than 5 acres) and small municipal separate storm sewers (MS4s[2]) were also contributing substantially to pollutant discharges nationwide. Therefore, in order to further improve storm water quality, the EPA promulgated the NPDES Phase II program (*Federal Register* Vol. 64, No. 235, December 8, 1999). The Phase II regulations require NPDES permits for storm water discharges from regulated small MS4s and for construction sites disturbing more than 1 acre of land.

CWA Sections 401 and 404: These sections establish regulations for the discharge of dredged or fill material into waters of the United States and water quality impacts associated with these discharges.

CWA Section 303(d): This section requires States to identify waters not attaining applicable water quality standards and requires states to establish for these waters the total maximum daily load for certain pollutants, at a level necessary to implement the applicable water quality standards. Compliance with this requirement is met by States periodically assessing the conditions of the rivers, lakes and bays and identifying them as "impaired" if they do not meet water quality standards.

National Flood Insurance Program. Flood Insurance Rate Maps issued by the Federal Emergency Management Administration (FEMA) divide flood areas into three zones: Zone A for areas of 100-year flood, base flood elevations not determined; Zone B for areas of 500-year flood; and Zone C for areas of minimal flooding. The National Flood Insurance Program 100-year floodplain is considered to be the base flood condition. This is defined as a flood event of a magnitude that would be equaled or exceeded an average of once during a 100-year period. Development located in floodplain areas are subject to the standard conditions of approval of the Santa Barbara County Flood Control and Water Conservation District and the requirements and development standards set forth in the County Flood Plain Management Ordinance (Chapter 15-A of the County Code) and the Development Along Water Courses Ordinance (Chapter 15-B of the County Code).

[2] Those generally serving less than 100,000 people and located in an urbanized area as defined by the Bureau of the Census.

State

Porter-Cologne Water Quality Control Act: This Act establishes waste discharge standards pursuant to the Federal NPDES program for California, and the state has the authority to issue NPDES permits to individuals, businesses, and municipalities as well as to implement other aspects of the CWA including section 303(d) described above with regard to impaired water bodies.

SWRCB, Regional Water Quality Control Board (RWQCB): The Orcutt area is located within the Central Coast RWQCB (Region 3). The SWRCB and RWQCBs work under the California Environmental Protection Agency addressing water quality control and related permitting.

Department of Water Resources (DWR): DWR is responsible for protecting, conserving, developing, and managing much of California's water supply, including but not limited to developing/updating the California Water Plan, regulating dams, providing flood protection, assisting in emergency management, educating the public about water conservation, and managing water resources data.

Department of Water Resources, Urban Water Management Planning Act (UWMPA): The UWMP identifies long-term resource planning responsibilities for water agencies to ensure adequate water supplies are available to meet existing and future demand. (California Government Code, Division 6, Part 2.6, Sections 10610 – 10656)

Water Conservation Act (WCA) of 2009, SB X7-7: The WCA requires water suppliers to set targets and track progress of conserving water, by decreasing daily per capita urban water use. (California Government Code, Division 6, Part 2.55, Sections 10608 – 10608.44)

Water Code Section 106.3 (AB 685): This section states that "every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes." The State Water Resources Control Board (SWRCB) adopted a related resolution identifying the human right to water as a top priority and core value of the SWRCB and Regional Water Quality Control Boards (collectively the Water Boards). The resolution stated the Water Boards will work "to preserve, enhance, and restore the quality of California's water resources and drinking water for the protection of the environment, public health, and all beneficial uses, and to ensure proper water resource allocation and efficient use, for the benefit of present and future generations."

Local

Orcutt Community Plan. The Orcutt Community Plan (OCP) includes policies and development standards to provide construction- and operational-phase runoff control and to reduce flooding impacts. Several of these were modeled after mitigation measures in the OCP EIR, which address erosion/sediment control, increased percolation of storm water to reduce runoff, and flood hazard reduction measures.

4.13.3 PREVIOUS OCP EIR REVIEW

4.10.3.1 OCP EIR WATER SUPPLY

The OCP EIR identified significant impacts to the Santa Maria Valley Groundwater Basin (Basin) from increased overdraft to meet water demands of new development allowed under the OCP in the absence of another water supply source or sources sufficient to support new development, (OCP EIR Vol. I, Impacts WAT-1, WAT-2). In addition, the Mini-EIR for KS18 determined that the combined buildout on KS18 (estimated water demand of 24.06-28.31 AFY) would exceed the 25 AFY/year threshold of significance for increased water demand for the SMGB, resulting in potentially significant impacts from Key Site specific development water demand. Of the overall KS18 water demand, 12.75 to 17 AFY was estimated for the proposed park, part of which could be located on the OASIS property. Therefore, water demand for just the proposed park was less than the 25 AFY/year threshold in effect at that time. OCP EIR mitigation measures WAT-1 through WAT-4 were found to reduce impacts from increased water demand on a project specific (KS18) basis. These mitigation measures were adopted as policies and development standards in the OCP, including but not limited to WAT-O-1 (County assistance in development of supplemental water), WAT-O-2 (County shall approve projects contingent on existing or permanent entitlement-backed, long-term, supplemental water supplies), and WAT-O-3 (Development shall incorporate water efficiency). Cumulative impacts from buildout of the OCP were determined to remain significant and unavoidable (Class I).

Subsequent to certification of the OCP EIR, the Basin was adjudicated. In addition, all projects with increased water demand are required to purchase supplemental water supplies, consistent with the adjudication, to avoid increased groundwater extractions and potential overdraft of the Basin.

4.10.3.2 DRAINAGE AND WATER QUALITY

The OCP EIR (Volume I) identified potentially significant impacts related to development within 100-year floodways and floodplains: increased flood water velocity; channel scouring; bank erosion; channel and culvert blockages; downstream sedimentation. The OCP EIR also found that additional urban development within local watersheds would generally increase runoff and erosion, leading to channel sedimentation with decreased channel capacity and increased flood potential. The impacts below (from OCP EIR Volume I and the Volume II Mini-EIR for KS18) include potentially significant community-wide impacts applicable to development of KS18 and site-specific impacts identified in the Volume II Mini-EIR for KS18:

- Development within the 100-year floodway (FLD-1);
- Development within the 100-year floodplain (FLD-2);
- Increased storm flows from impervious surfaces (Impact FLD-3);
- Exposure to flood hazards during a 100 year storm event (KS18-FLD-1);
- Increased storm water runoff (KS18-FLD-2); and
- Localized erosion/sedimentation within creek channel (KS18-FLD-3).

Mitigation measures identified to partially reduce community-wide impacts and to reduce KS18 specific impacts to less than significant levels were incorporated into the OCP, with one exception. Mitigation Measure FLD-12 was determined to be covered by existing County Flood Control District standard review practices. Therefore, FLD-12 was not incorporated into the OCP.

The rest of the OCP mitigation measures (FLD-1 to FLD-11) were specifically addressed by incorporation into the OCP as follows:

- Mitigation Measure FLD-1 is addressed by Action FLD-O-1.1;
- FLD-2 by Development Standards FLD-O-1.2;
- FLD-3 by Development Standards FLD-O-1.3 & -1.4;
- FLD-4 by Policy FLD-O-4 and Development Standards FLD-O-4.2 & -4.4;
- FLD-5 by Development Standards FLD-O-4.3 & PRT-O-3.1 and Policy PRT-O-3;
- FLD-6 by Action FLD-O-4.1;
- FLD-7 by Development Standard FLD-O-3.1;
- FLD-8 by Development Standard FLD-O-2.1;
- FLD-9 by Development Standard FLD-O-1.4;
- FLD-10 by Development Standard FLD-O-3.3;
- FLD-11 by Development Standard FLD-O-3.2;

The above standards provide direction regarding the siting and design of new development, minimization of off-site runoff and erosion, and establishment of retention basins.

In addition, the OCP EIR findings concluded that the following measures in other sections of the OCP also help to mitigate adverse flooding/drainage impacts: Policies BIO-O-2, FIRE-O-3, VIS-O-4, and OS-O-1, -5, -6 & -7, Actions OS-O-1.1, -3.1 & -8.1, and Development Standards BIO-O-2.1, GEO-O-2.3, and OS-O-5.2 & -5.3.

OCP EIR water quality impacts related to overdraft of the groundwater basin are discussed under water supply impacts in Section 4.10. The findings for the OCP EIR conclude that water quality impacts related to overdraft of the groundwater basin and from increases in total dissolved solids from wastewater disposal would be reduced by OCP Policies WAT-5 and WW-O-3 and OCP Development Standards WW-O-2.1, -3.1 & -3.2 and BIO-O-2.1. (Also see discussion of wastewater services in Section 4.10).

Flooding and water quality impacts from buildout of the OCP were determined to be significant and unavoidable (Class I) and KS18-specific impacts were determined to be mitigated to less than significant levels (Class II).

4.13.4 IMPACT ANALYSIS

METHODOLOGY AND SIGNIFICANCE THRESHOLDS

Appendix G of the CEQA guidelines considers a project to have significant impacts if the project would:

- *Violate any water quality standards or waste discharge requirements;*
- *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level;*
- *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site;*
- *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;*
- *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;*
- *Otherwise substantially degrade water quality;*
- *Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;*
- *Place within a 100-year flood hazard area structures which would impede or redirect flood flows;*
- *Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; and/or*
- *Be subject to inundation by seiche, tsunami, or mudflow.*

A project would also result in significant impacts based on these additional criteria from the Santa Barbara County Environmental Thresholds and Guidelines Manual (October 2015), flooding, drainage and water quality impacts related to the OASIS project requests would be considered significant if the project:

- *Is located within an urbanized area of the County and the project construction or redevelopment individually or as a part of a larger common plan of development or sale would disturb one (1) or more acres of land;*
- *Increases the amount of impervious surfaces on a site by 25% or more;*
- *Results in channelization or relocation of a natural drainage channel;*
- *Results in removal or reduction of riparian vegetation or other vegetation (excluding nonnative vegetation removed for restoration projects) from the buffer zone of any streams, creeks or wetlands;*
- *Is an industrial facility that falls under one or more of categories of industrial activity regulated under the NPDES Phase I industrial storm water regulations (facilities with effluent limitation; manufacturing; mineral, metal, oil and gas, hazardous waste, treatment or disposal facilities; landfills; recycling facilities; steam electric plants; transportation facilities; treatment works; and light industrial activity);*

- *Discharges pollutants that exceed the water quality standards set forth in the applicable NPDES permit, the Regional Water Quality Control Board's (RWQCB) Basin Plan or otherwise impairs the beneficial uses of a receiving waterbody;*
- *Results in a discharge of pollutants into an "impaired" waterbody that has been designated as such by the State Water Resources Control Board or the RWQCB under Section 303 (d) of the Federal Water Pollution Prevention and Control Act (i.e., the Clean Water Act); or*
- *Results in a discharge of pollutants of concern to a receiving waterbody, as identified in by the RWQCB.*

Impacts related to soil erosion/sedimentation are discussed in Section 4.6, *Geologic Processes*.

The project's physical impacts on the environment would result from the proposed construction and long-term use of the OASIS property. Also refer to discussion in section 6.1 (Growth Inducing Effects) regarding increased development potential related to the General Plan Amendments, Lot Line Adjustment, and Government Code consistency requests

W-1: The project would result in potentially significant impacts to the Santa Maria Groundwater Basin from increased project water demand (Class II).

A project is determined to have a significant effect on water resources if it would exceed established threshold values which have been set for each overdrafted groundwater basin. These values were determined based on an estimation of a basin's remaining life of available water storage. If the project's net new consumptive water use [total consumptive demand adjusted for recharge less discontinued historic use] exceeds the threshold adopted for the basin, the project's impacts on water resources are considered significant. Historically, the County applied thresholds of significance for the Santa Maria Groundwater Basin of 25 acre-feet per year (Santa Barbara County Environmental Thresholds and Guidelines Manual, October 2008). However, the Santa Maria Groundwater Basin was adjudicated after this threshold was established. As a result, the 25 acre-feet per year threshold is no longer applicable. Instead, any projects that would result in a net increase in groundwater extractions from the Basin would be considered to have a potentially significant impact on the Basin, unless supplemental water is purchased to offset any net increase in water demand, thereby avoiding increased groundwater extractions. A project is also deemed to have a significant effect on water resources if a net increase in pumpage from a well would substantially affect production or quality from a nearby well.

The OASIS project would be supplied with water by Golden State Water Company (GSWC). As noted in the GSWC preliminary "Can and Will Serve letter" dated February 22, 2016 (in Appendix D-10), the County's land use approval requirements are separate from the regulations governing GSWC's operations. This includes compliance with OCP Policies WAT-0-2 and WAT-0-5, and the legal judgment of Santa Maria Valley Water Conservation District v. City of Santa Maria, dated January 25, 2008. As currently interpreted, these policies require GSWC's customers, with a discretionary permit that will result in increased water use, to provide supplemental water (non-groundwater supply source) to offset the demand associated with their prospective use. Planning & Development determines the need and amount of supplement water required for the project. As noted in the GSWC letter, the project applicant is responsible for securing required supplemental water and to assign that additional supplemental water to GSWC for delivery. The City of Santa Maria contracts with individual applicants to provide "Supplemental Water" for projects in the Orcutt area. Under the approach currently employed, GSWC takes delivery of the "Supplemental Water" and prepares and provides the necessary documents, once the applicant has secured the Supplemental Water supply from the City of Santa Maria. GSWC also requires the dedication to

GSWC of any local groundwater rights associated with a project. GSWC provides the necessary documentation to effect dedication of water rights concurrent with the execution of an agreement regarding the construction of special facilities associated with a project.

Based on the County's Environmental Thresholds and Guidelines Manual, project water demand is estimated as follows:

Outdoor Water Demand- 1.71 Acre Foot per Year (AFY)

37,000 sf new landscaping + 12,500 sf modified landscaping (not irrigated as no historic water use) = 1.14 acres * 1.5 AFY/acre (mix of lawn and drought tolerant plantings) = 1.71 AFY

Indoor Water Demand- 0.48 AFY

0.32 (at current facility) + .16 (30% increase in attendance anticipated at OASIS activities classes plus increased attendance capacity for rental activities at new facility)

COMBINED Water Demand = 1 AFY

- 2.19 AFY[3] (Combined 1.71 AFY indoor + 0.48 AFY outdoor demand, identified above);
- 0.60 (Orcutt Consumptive Use Factor to account for 40% return flows/recharge to basin);
- 0.32 AFY (Historic Use at existing OASIS facility);

(2.19 AFY demand * 0.60 consumptive use) – 0.32 AFY historic use = 1 AFY

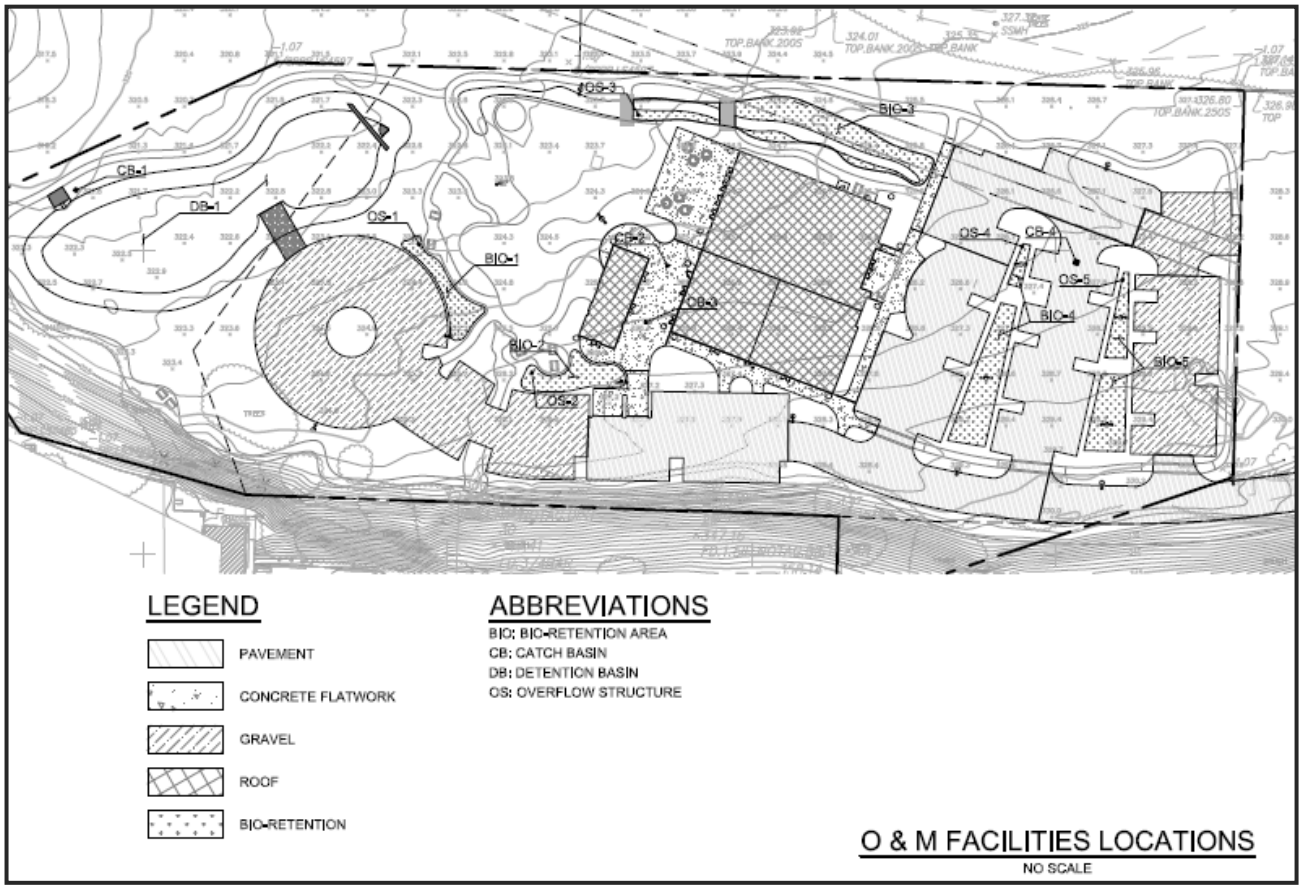
Based on above calculations, the OASIS project's net increase in water demand is estimated at approximately 1 AFY, taking into account historic water demand and return flows to the groundwater basin. Therefore, the project would need to purchase 1 AFY in supplemental water from the City of Santa Maria to offset increased water demand and avoid increased groundwater extractions from the Santa Maria Groundwater Basin.

The project would be conditioned to purchase supplemental water from the City of Santa Maria to offset increased water demand, consistent with requirements of the Orcutt Community Plan and the legal judgment of Santa Maria Valley Water Conservation District v. City of Santa Maria, dated January 25, 2008. The requirement to offset increased project water demand would ensure the project would not result in significant impacts to the basin. As part of the standard development regulatory process, the applicant would also need to provide a final "can and will" serve letter from GSWC prior to zoning clearance.

[3] The water estimate based on actual historic use plus 30% increase is comparable to estimated water use based on City of Santa Barbara's water duty factor for a similar land use type (church), 0.18 AFY/1,000 sf or 2.7 AFY for the project (0.18 * 15.333). The OASIS project also proposes collection and storage of rainwater from roof gutters for landscape irrigation use, which is not accounted for in the water use estimate.

The applicant submitted a Storm Water Control Plan (Above Grade Engineering, Inc., October 2016) and a Stormwater Management Facility Operation and Maintenance (O&M) Manual (Above Grade Engineering Inc., October 2016), which address post-development drainage requirements (Appendix D-13). Figure 4.13-4 identifies the proposed drainage design, including specific drainage features that would be incorporated into the OASIS development.

Figure 4.13-4 Stormwater Control Management



Source: Stormwater Management Facility Operation and Maintenance (O&M) Manual (Above Grade Engineering, Inc Oct 2016)

Impact W-2: Grading and construction activities associated with the proposed project would result in potentially significant impacts from disturbance (grading) of more than one acre of land, grading in proximity to Orcutt Creek, and from degraded water quality through increased rates of erosion and sedimentation (Class II)

The current Preliminary Grading Plan (revised April 2019, excerpt below, full plan Figure 2-32) involves approximately 4,400 cubic yards (CY) of cut (including for the 4-foot deep retention basin) and approximately 5,202 CY of fill. Earthwork is proposed to be balanced onsite by "mining" for the additional 620 CY of fill onsite, within the development/landscape areas. The proposed OASIS facility and parking areas are located on nearly level topography. However, grading for the access road from Foxenwood Lane on off-site APNs 105-020-041, 105-0202-053, 105-020-018, and the Foxenwood Lane right of way would involve grading in areas with slopes of more than 30% to the south of the access road and grading in areas with slopes of 50%+ to the north of the access road.

The Preliminary Grading Plan excerpt below shows that grading to the north of the access road would extend into Orcutt Creek riparian canopy on APN 105-020-053 to the tip of APN 105-020-018. Grading operations would increase the potential for erosion and sedimentation into Orcutt Creek, with the greatest potential associated with grading within the riparian canopy in proximity to the creek channel in the area next to Foxenwood Lane. In addition, if grading occurs during the rainy season, or in the event of heavy storms, soils from other graded areas of the site could be eroded and conveyed to Orcutt Creek. Uncontrolled discharges of sediment are considered a significant impact to water quality, as this could result in sedimentation and degraded water quality in Orcutt Creek.

The project would be required to comply with NPDES permit requirements as the project would disturb more than one acre of land. Under these requirements, all construction activities would be subject to the General Permit for Storm Water Discharge Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ) , which require preparation of a Storm Water Pollution Prevention Program (SWPPP) to control the discharge of pollutants, including sediment, into local surface water drainages. The SWPPP is designed to minimize water quality degradation through storm water monitoring, Best Management Practices (BMPs, which manage quantity and improve the quality of stormwater), and implement erosion control measures spill prevention and containment measures.

Construction activities would also be subject to the County's grading ordinance and applicable OCP development standards. An Erosion and Sediment Control Plan would be required but an SWPPP can be submitted in lieu of an Erosion and Sediment Control Plan, as long as the SWPPP contains the requirements of the County's Erosion and Sediment Control Plan. In addition, a master drainage plan is required as part of the grading plan for all grading permit applications.

The potential for erosion and sedimentation into nearby drainages swales, impacts would remain potentially significant, subject to feasible and enforceable mitigation which would be monitored for compliance.

Impact W-3: The proposed project includes structural development and other hardscape areas (e.g., parking lot, access road, etc.) resulting in new impervious surface on a property that currently has none. The impervious surfaces would alter drainage patterns and increase stormwater runoff, which could result in potentially significant impacts from increased flooding and degraded water quality in Orcutt Creek, which is designated as an impaired water body. (Class II)

Currently, the property and adjacent areas are undeveloped grassland and riparian habitat, with most development proposed on the level area. The exception to this is the access road, which is located on the slope between Clark Avenue and Orcutt Creek. Slopes on the south side of this road exceed 30% slope and the slope on the north side of the road, where grading is proposed from the top to the toe of the slope exceeds 50% slope. Drainage patterns generally flow from Foxenwood Lane to California Boulevard and surface water runoff is typically slowed by soil absorption and existing vegetation. As discussed above under 4.13.1 (Setting), Orcutt Creek is classified as an "impaired water body" by the RWQCB due to exceedance of Total Maximum Daily Loads (TMDLs) for fecal indicator bacteria, toxicity and nutrients. Therefore, conveyance of any degraded runoff water to Orcutt Creek would be considered a potentially significant impact.

The increase in impervious (e.g., two structures, traditionally surfaced/paved access road and parking lot areas) and semi-pervious surfaces (e.g., parking lot and road areas with pervious surfaces, walkways, trails) would redirect the drainage of surface flow during storm events. Surface water flows would travel faster across impermeable surfaces, which could result in increased peak

discharge flows, erosion, storm water runoff and risk of flooding. In addition, as storm water runoff increases in flow speed, any discharge points into Orcutt Creek could lead to increased soil erosion and sedimentation, thus degrading water quality. Oil, chemicals, and other contaminants from vehicles, pesticides, fertilizers, pet waste, dust contaminants, and other urban runoff could accumulate on impermeable surfaces such as roadways and rooftops. During storm events, this accumulation could be discharged into Orcutt Creek, exacerbating degraded water quality in Orcutt Creek, an existing impaired water body. If properly installed and implemented, proposed drainage design features would capture and store some of the roof runoff for future landscape irrigation use and the proposed French drain in the landscape area and proposed use of pervious surfaces in some of the road and parking areas would slow the rate of runoff and convey cleaner development runoff to the retention basin. To comply with County Flood Control District requirements, the retention basin is designed to retain peak storm runoff for 2-, 5-, 10-, 25-, 50-, and 100-year storm events to equal or less than storm water flows from the pre-development setting (no impervious surfaces onsite). In addition, Regional Water Quality Control Board (RWQCB) requirements include retention of runoff from the 95th percentile storm event[4].

The Above Grade Engineering, Inc (2016) drainage analysis includes modeling of site hydrology and runoff under pre- and post-development conditions, in accordance with requirements of the County Flood Control District. Based on the modeling, post-development peak flows during storm events would be reduced compared to pre-development peak flows with incorporation of the retention basin. The preliminary retention basin design would comply with Flood Control District requirements regarding capacity and discharge rates, subject to review and approval of the final drainage plan and maintenance agreement by the Flood Control District. Therefore, the proposed project could feasibly reduce onsite peak storm water flows as compared to existing conditions, and in compliance with County Flood Control requirements for retention basins.

However, given the increase in impervious surfaces (and related increase in overall runoff) and change in the quality of runoff water pre and post-development, increased storm water contaminants could still be discharged into the creek and potentially degrade water quality, despite reduced peak stormwater flow rates attributable to the retention basins. Therefore, impacts to water resources from the introduction of impervious surfaces, particularly parking areas, would be potentially significant.

[4] The 95th percentile storm event is a precipitation total over a 24-hour period that is greater than or equal to the precipitation totals of 95 percent of all 24-hour storm events in a given time period.

Consistent with the Santa Barbara County Environmental Thresholds and Guidelines Manual, all projects determined to have a potentially significant storm water quality impact must prepare and implement a Storm Water Quality Management Plan (SWQMP) to reduce (mitigate) the impact to the maximum extent practical. The County requires that each SWQMP include the following:

- *Identification of potential pollutant sources that may affect the quality of the discharges to storm water;*
- *The proposed design and placement of structural and non-structural BMPs to address identified pollutants;*
- *A proposed inspection and maintenance program; and*
- *A method of ensuring maintenance of all BMPs over the life of the project.*

Impact W-4 Project development would be located outside of the FEMA-designated 100-year flood zone. Therefore, no significant impacts are expected from development in a flood hazard zone (Class III).

As shown in Figure 4.13-2 (FEMA "Firmette" excerpt), the 100-year flood zone on KS18 is located along Orcutt Creek, with the flood zone widening considerably to the west of the OASIS property. On the OASIS property portion of KS18, the 100-year flood zone (floodway or floodplain) is limited to a small area in the northeast corner of the property. Furthermore, the proposed development would not be expected to lead to significant upstream or downstream impacts in the floodplain, as the proposed drainage and retention basin system would limit the flow of post-development storm water runoff to less than or equal to pre-development (existing) conditions, as discussed in Impact WR-2. Grading for the east end of the access road would be located within the flood zone, but the road itself would be located at the top of the slope above the creek outside of the flood zone. (See Impact W-2 for water quality impacts from road grading). Therefore, impacts from flooding would be adverse, but less than significant (Class III).

CUMULATIVE IMPACTS

The project's contributions to cumulative impacts to water supplies, water quality and flooding would not be considerable and would not result in significant cumulative impacts based on the following:

Water Supply: The net increase in water demand (approximately 1 AFY) would be offset by the requirement for the project to purchase supplemental water from the City of Santa Maria and because the groundwater basin is adjudicated (since 2008 after adoption of the OCP) and monitored to ensure groundwater extractions will not exceed the basin's established safe yield. Therefore, the project would not increase withdrawals from the Santa Maria Groundwater Basin.

Water Quality: The proposed project and buildout of the Orcutt area under the OCP will contribute to water quality impacts as identified in the OCP EIR, incorporated herein by reference (and updated by this discussion). Buildout of the OCP will result in increased impermeable surfaces. This will increase the transport of pollutants in storm water runoff and reduce opportunities for natural bio-infiltration, degrading water quality of runoff water and receiving water bodies, including Orcutt Creek. Through the implementation of the policies and development standards in the OCP, the mitigation measures identified in this EIR, and Santa Barbara County's standard regulatory processes, potential cumulative impacts would be reduced. On a project-specific level, the project design, including the proposed retention basin, French drain, incorporation of pervious surfaces for some of the parking areas onsite, capture and use of roof runoff for project landscaping, as well as

construction period measures to avoid erosion and sedimentation in Orcutt Creek (identified in the Section 4.6, *Geology*) would reduce the potential for the related water quality impacts to a less than significant level. With regard to cumulative water quality impacts from wastewater identified in the OCP EIR, since adoption of the OCP, the Laguna County Sanitation District (LCSD) has adopted an ordinance prohibiting self-regenerating (salt load) water softeners and a water softener exchange incentive program to canister exchange systems (Culligan or Rayne) for anyone that has a grandfathered salt load system (M. Wilder, LSCD). These changes since adoption of the OCP reduce the impacts of wastewater disposal on water quality in the groundwater basin. The project's contribution to cumulative increases in flooding and degraded water quality would not be considered cumulatively considerable. Therefore, cumulative impacts to water quality would be adverse, but less than significant.

Flooding: The increase in impermeable surfaces from the project in combination with buildout of the OCP would alter drainage patterns and increase peak stormwater flows and the potential for increased flooding. Through the implementation of the policies and development standards in the OCP, the mitigation measures identified in this EIR, and Santa Barbara County's standard regulatory processes, potential cumulative impacts would be reduced. On a project-specific level, development is located outside of the 100-year flood zone, the preliminary drainage plan incorporates pervious surfaces into the parking areas, and the plan includes a proposed retention basin designed to ensure peak storm water flows leaving the site would not exceed historic levels and would not increase off-site flooding (up-stream or down-stream). The project's contribution to cumulative increases in flooding would not be considered cumulatively considerable. Therefore, cumulative impacts to flooding/drainage and water quality would be adverse, but less than significant.

Approval of the General Plan Amendment components, Recorded Map Modifications and Government Code 65402 Consistency requests may encourage similar requests for the other Southpoint Estates (KS18) open space parcels, as well as for other designated open space parcels in the Orcutt area or elsewhere in the County. Approval of such requests would increase the development potential of additional open space areas, which were set aside as part of past land use decisions for the purpose of preserving resources and offsetting various environmental impacts of development projects. The amount and types of increased development that could result from similar requests throughout the County's unincorporated area are not specifically known. However, conversion of such open space areas to development and other uses would generally be expected to result in increased demand on water supplies, increased impervious surfaces, erosion, and sedimentation, and increased volumes and velocity of peak storm water flows, and flooding. These impacts would be affected by development type, design, location, size, underlying soil permeability, proximity to flood hazard zones, presence of high or perched groundwater, incorporation of pervious surfaces such as permeable paving and bioswales, implementation of erosion control measures, use of retention basins, and whether the development incorporates other measures to slow and filter peak stormwater flows. (Also see Section 4.0 *Environmental Impact Analysis* and Section 6.1, *Growth Inducing Effects*).

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4.13.4 MITIGATION MEASURES

The following mitigation measures are required to reduce potentially significant impacts:

W-1 **WatCons-01 Water Conservation-Outdoor**. To ensure water conservation consistent with the project description and water demand assumptions, the Owner/Applicant shall include the following in Landscape and Irrigation Plans to be approved by P&D:

a. Landscaping that reduces water use:
   i. Except in areas specifically approved for lawn, plant species shall be drought tolerant. .
   ii. Group plant material by water needs.
   iii. Extensive mulching (2" minimum) shall be used in all landscaped areas to reduce evaporation.
b. Irrigation that reduces water use:
c. Install drip irrigation or other water-conserving irrigation.
d. Permeable surfaces such as shall be used for hardscape areas wherever feasible.

Plan Requirements: The Owner/Applicant shall submit a landscape and irrigation plan to P&D for review and approval prior to zoning clearance. **Timing**: The Owner/Applicant shall implement all aspects of the landscape and irrigation plan in accordance with the Landscape and Performance Security Conditions. **MONITORING:** The Owner/Applicant shall demonstrate to P&D compliance monitoring staff that all required water conserving landscape and irrigation features are installed prior to Final Building Inspection and that project landscaping and irrigation are maintained per approved landscape plans. Any part of irrigation plan requiring a permit shall be inspected by building inspectors.

W-2 **Special- Supplemental Water:** The project shall purchase supplemental water from the City of Santa Maria to offset increased demand for water from the Santa Maria Groundwater Basin. **Plan Requirements & Timing**: Prior to zoning clearance, the applicant shall provide proof of purchase of 1 AFY of supplemental water from the City of Santa Maria. **MONITORING**: P&D shall confirm receipt of agreement from City of Santa Maria for 1 acre foot of supplemental water before zoning clearance or recordation of recorded map modification documents, whichever is first.

W-3 **Storm Water Pollution Prevention Plan (SWPPP).** The Applicant shall submit proof of exemption or a copy of the Notice of Intent to obtain coverage under the Construction General Permit of the National Pollutant Discharge Elimination System issued by the California Regional Water Quality Control Board. **Plan Requirements and Timing**. Prior to approval of Zoning Clearance the applicant shall submit proof of exemption or a copy of the Notice of Intent and shall provide a copy of the required Storm Water Pollution Prevention Plan to P&D's Building & Safety Division. The applicant shall keep a copy of the SWPPP on the project site during grading and construction activities. **MONITORING**: P&D permit processing planner shall review the documentation prior to approval of a Land Use Permit P&D compliance monitoring staff shall site inspect during construction for compliance with the SWPPP.

W-4 Equipment Washout-Construction. The applicant shall designate a washout area(s) for the washing of concrete trucks, paint, equipment, or similar activities to prevent wash water from discharging to the storm drains, street, drainage ditches, creeks, or wetlands. The area shall be located at least 100 feet from any storm drain, water body or sensitive biological resources. **Plan Requirements and Timing**: The applicant shall designate the P&D approved location on all grading and building permits. The applicant shall install the area prior to commencement of construction. **MONITORING**: P&D compliance monitoring staff shall ensure compliance prior to and throughout construction.

W-5 Low Impact Development (LID) Measures. LID is a site design strategy that uses natural and engineered infiltration and storage techniques to retain storm water runoff where it is generated to mimic a site's pre-development hydrology and reduce downstream impacts. The Environmental Protection Agency has determined that the following LID measures are highly beneficial at protecting receiving waters. In order to further reduce flooding and water quality impacts, the SWQMP and project design shall include the following LID measures, to the extent feasible:

Design Measures

a. Vegetated swales, buffers and strips throughout the project site;
b. Use of permeable pavement to the extent feasible;
c. Two-foot permeable pavement strips located at the base of driveways, spanning the width of the driveway;
d. Impervious surface reduction and disconnection;

Structural Measures

a. Bioretention facilities to capture and infiltrate street runoff upstream of retention basins;
b. Roof leader flows directed to planter boxes, amended soil, or other low-gradient vegetated areas and/or vegetated swales and buffers;
c. Soil amendments to increase infiltration rates; and
d. Rain gardens, rain barrels, and cisterns.

Plan Requirements and Timing. Plans indicating LID techniques to be used shall be submitted by the applicant for review and approval by the Santa Barbara County Public Works Department prior to land use clearance for grading and subdivision improvements. Installation of structural LID technologies shall be performed by the project applicant per approved plans and completed prior to occupancy clearance of the first home. **MONITORING.** Public Works and Planning and Development staff shall review plans and monitor compliance.

W-6 **Operational Erosion Control Measures**. The development shall incorporate and maintain the following operational erosion control measures into final grading and drainage plans.

a. Erosion control measures, such as plantings or hard surfaces, shall be incorporated into the drainage plan for all project drainages as required by the Flood Control District and P&D.
b. Development in areas of high erosion potential shall be sited and designed to minimize increased erosion and may be required to have a site-specific evaluation of erosion-control measures. Project approval shall be conditioned to ensure that erosion will be reduced to acceptable levels.
c. Landscaped areas adjacent to structures shall be graded so that drainage is away from structures.
d. Irrigation shall be controlled so that overwatering does not occur. An irrigation schedule shall be reviewed and approved by P&D prior to zoning clearance for grading.

Plan Requirements and Timing. This requirement shall be printed on final grading, drainage, and landscaping plans and submitted to P&D and Flood Control for review and approval prior to approval of Land Use Permits for grading. Compliance with these measures shall be confirmed by P&D prior to Final Building Inspection Clearance. **MONITORING.** The applicant shall demonstrate to P&D compliance monitoring staff and Building and Safety grading inspector(s) that all components of the required measures are in place. Compliance monitoring staff will verify compliance including on-going requirements.

IMPACTS AFTER MITIGATION

W-1: (Water supply/Santa Maria Groundwater Basin) The project would result in potentially significant impacts to the Santa Maria Groundwater Basin from increased project water demand (Class II).

Impact W-1 would be reduced to less than significant levels with implementation of mitigation measures WS-1, WS-2 and standard requirement for submittal of a final "can and will" serve letter from Golden State Water Company.

Impact W-2 (Construction related impacts to water resources): Grading and construction activities associated with the proposed project would result in potentially significant impacts from disturbance (grading) of more than one acre of land, grading in proximity to Orcutt Creek, and from degraded water quality through increased rates of erosion and sedimentation (Class II)

Impact W-2 would be reduced to a less than significant level by implementation of Mitigation Measures W-3, W-4, and W-6, Section 4.6 (Geology) Mitigation Measure GEO-1 and Section 4.3 (Biology) Mitigation Measure BIO-1 (Class II).

Impact W-3 (Water quality associated with increased impervious surfaces): The proposed project includes structural development and other hardscape areas (e.g., parking lot, access road, etc.) resulting in new impervious surface on a property that currently has none. The impervious surfaces would alter drainage patterns and increase stormwater runoff, which could result in potentially significant impacts from increased flooding and degraded water quality in Orcutt Creek, which is designated as an impaired water body. (Class II)

Impact W-3 would be reduced to a less than significant level with implementation of Mitigation Measures W-3 and - 4 and Section 4.3 (Biological Resources) Mitigation Measure BIO-9 (Class II).
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Cumulative: The project would contribute incrementally to Cumulative impacts identified for OCP buildout. This contribution would not be considerable and would be less than significant.