3.9
HYDROLOGY AND WATER QUALITY

This section of the Draft EIR addresses the project's potential environmental impacts associated with surface hydrology and water quality. The discussion in this section is based on site investigation, information found in the County of San Benito General Plan (1994), the City of Hollister General Plan (2005), the City of Hollister Stormwater Management Plan (2000), available flood mapping and other technical information, and project application materials.

3.9.1 ENVIRONMENTAL SETTING

Project Vicinity Drainage

The project site is located within the City of Hollister's Planning Area. All runoff from the City's Planning Area flows to the San Benito River basin and the Santa Ana Creek basin (City of Hollister 2005). The San Felipe Lake watershed basin collects runoff from the Santa Ana Creek, north of the site. The San Felipe Lake basin also collects runoff from Dos Picachos, Arroyo De Los Viboras, Pacheco Creek, and the Tequisquita slough subbasins (City of Hollister 2000).

The San Benito River and its tributary flow through the southern and western portions of the City's Planning Area, approximately 1.5 miles south of the project site. The San Benito River is listed as an impaired water body under Section 303(d) of the Clean Water Act (CWA). It is impaired by fecal coliform and sedimentation/siltation. As a result, stormwater discharges into the San Benito River must meet water quality objectives and total maximum daily loads (TMDLs) established by the Regional Water Quality Control Board (RWQCB) for these pollutants.

The Santa Ana Creek and its tributaries flow through the eastern and northern portions of the City's Planning Area, approximately 1.5 miles north of the project site. A tributary to the Santa

Ana Creek is located on an adjacent parcel to the north of the project site. The tributary appears to be an intermittent drainage that eventually heads northwest and flows into the Santa Ana Creek approximately three miles northwest of the project site, near McCloskey Road. Santa Ana Creek drains to San Felipe Lake, which is located further to the northwest approximately 12.5 miles from the site.

On-Site Drainage Patterns

As discussed in Section 3.7, Geology and Soils, the topography of the project site consists of undulating hills with an overall gradual elevation change of about 45 feet from east to west. A former stock pond is located in a ground depression near the northeast corner of the site. The highest elevation is the crest of a hill near the center of the site and the lowest points are in the southwest corner near Fairview Road and in the northeast corner in the vicinity of the former stock pond. The site rises from Fairview Road to the crest of the hill located approximately 1,100 feet east of Fairview Road. Slopes on the site vary from zero to about 10 percent, as illustrated by Figure 5, Site Photographs, and inferred from the information presented in Figure 6, Topography and Proposed Earthquake Fault Building Exclusion Zone.

There are no drainage courses on the site due to the relatively flat topography. Existing drainage patterns on the site follow the topography and generally flow in three directions: west of the crest of the hill, the site drains toward Fairview Road; to the east, the site drains to a low point in the site's northeastern corner (near the former stock pond); along the southern boundary of the site, the crest of the hill is interrupted by a saddle, which causes drainage to flow southward toward the adjacent property. The existing drainage pattern on the site is presented in Figure 7, Existing Drainage. About one third of the site drains generally to the northeast toward a Santa Ana Creek tributary. The remainder of the site drains toward an unnamed tributary to the San Benito River.

Flood Hazards

According to the FEMA Flood Insurance Rate Map (FIRM) covering the project site, the site is not located within or near a 100-year flood zone. Flooding during a 100-year storm event would be confined to the areas adjacent to the San Benito River, south of the site or to Santa Ana Creek, north of the site. Both of these flood-prone areas are located sufficiently downslope of the project site such that the site would not be subject to flooding and inundation hazards.

Urban Runoff

Urban development is widely regarded as a leading cause of pollution throughout California and the nation, by altering the watershed hydrology and introducing pollutants. Urban development alters the natural hydrology in the watershed in several ways. Natural drainage systems are replaced with pipes and ditches, the land is graded, and impervious surfaces are created, all of which may reduce percolation, increase surface runoff, and damage aquatic habitat. Further, removal of vegetation increases erosion potential. In addition, urbanization tends to bring more pollutants. At the same time, the changes to the land's natural hydrology may reduce the land's natural capacity to remove pollutants, further heightening the problem of pollutants being washed into the storm drain system and ultimately into surface waters.

In summary, urban development produces runoff that may be substantially greater in volume, velocity, and/or pollutant load than pre-development runoff from the same area. Increased runoff volume and velocity can also significantly affect beneficial uses of aquatic ecosystems due to physical modifications of watercourses, such as bank erosion and widening of channels.

As noted in the Hollister SWMP, in the Hollister Urban Area, many different sources of urban runoff pollution have been identified due to the variety of land uses within the watershed. Sources and examples of activities that may generate urban pollutants are listed below:

- **Industrial facilities:** Industrial chemical processes; chemical and waste storage; fleet maintenance and vehicle washing; and landscaping.
- **Commercial businesses including food and vehicle service facilities:** vehicle and equipment maintenance; food processing; vehicle washing; landscaping; and chemical and waste storage.
- **Residential dwellings:** vehicle washing; home vehicle repair; home painting and construction projects; chemical waste and storage; and landscaping.
- **Construction and remodeling projects:** grading; vegetation removal; concrete washout; vehicle and equipment fluids; landscaping; and material and waste storage.
- **Municipal sewer system and private sewer laterals:** leaking, cracked, and debilitated pipelines; and overflows from blocked pipelines.

In general, urban areas contain a number of urban pollutants associated with various types of residential and ancillary uses. In the Hollister Urban Area, stormwater pollutants of concern include:

- Metals

- Solvents
- Paint
- Concrete and masonry products
- Detergents
- Vehicle fuels and fluids
- Oil and grease
- Pesticides and fertilizers (organic compounds and nutrients)
- Pet waste and sewage (bacteria, pathogens, and oxygen-demanding compounds)
- Debris and litter
- Sediment and silt

Low Impact Development

Low Impact Development (LID) is the RWQCB's preferred means for achieving healthy watersheds and mitigating the effects of urban development. LID is a land planning and design strategy with the goal of maintaining or replicating the pre-development hydrologic regime through the use of design techniques to create a functionally equivalent hydrologic site design. Hydrologic functions of storage, infiltration and groundwater recharge, as well as the volume and frequency of discharges, are maintained through the use of integrated and distributed micro-scale stormwater retention and detention areas, reduction of impervious surfaces, capture and reuse of runoff, and the lengthening of runoff flow paths and flow time. Other related strategies include the preservation and protection of environmentally sensitive site features such as riparian buffers, wetlands, steep slopes, valuable (mature) trees, flood plains, woodlands, and highly permeable soils. Common LID practices include the following:

- Site design that reduces and disconnects impervious surfaces
- Native vegetation preservation
- Bioretention
- Tree boxes to capture and/or infiltrate street runoff
- Vegetated swales, buffers, and strips
- Directing roof runoff into planter boxes and other vegetated areas

- Permeable pavement
- Soil amendments to increase absorption and infiltration rates

3.9.2 REGULATORY SETTING

Federal Clean Water Act

Section 303: Water Quality Objectives

Section 303 of the Clean Water Act (CWA) (33 U.S.C. § 1313) requires states to adopt water quality standards for all surface waters of the United States. Water quality standards are typically numeric, although narrative criteria based upon biomonitoring methods may be employed where numerical standards cannot be established or where they are needed to supplement numerical standards. Standards are based on the designated beneficial use(s) of the water body. Where multiple uses exist, water quality standards must protect the most sensitive use. In California, the State Water Resources Control Board (SWRCB) and the nine RWQCBs are responsible for assuring implementation of and compliance with the provisions of the CWA.

National Pollutant Discharge Elimination System

The purpose of the National Pollutant Discharge Elimination System (NPDES) program is to establish a comprehensive stormwater quality program to manage urban stormwater and minimize pollution of the environment to the maximum extent practicable. The NPDES program consists of: (1) characterizing receiving water quality; (2) identifying harmful constituents; (3) targeting potential sources of pollutants; and (4) implementing a Comprehensive Stormwater Management Program.

NPDES permits are issued by the U.S. EPA or by the states under U.S. EPA-approved permit programs that incorporate the CWA technological standards. Specifically, Section 402(p) of the CWA (33 U.S.C. § 1342(p)) establishes a framework for regulating municipal and industrial stormwater discharges under the NPDES program, and requires controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and systems, as well as design and engineering methods. California's Municipal Storm Water Permitting Program is implemented through the SWRCB and the RWQCBs.

Phase II: Construction Impacts

Section 402 of the CWA (33 U.S.C. § 1342) mandates that certain types of construction activity comply with the requirements of the NPDES stormwater program. In California, permitting occurs under the General Permit for Stormwater Discharges Associated with Construction Activity, issued to the SWRCB and implemented and enforced by the nine RWQCBs. The project site is within the jurisdiction of the Central Coast RWQCB.

The first iteration of the Phase II Rule, issued in 1999, required that construction activities that disturb land equal to or greater than one acre require permitting under the NPDES program.

The NPDES General Permit for Stormwater Discharges Associated with Construction Activity (Construction General Permit) required all dischargers, where construction activity disturbed one or more acres, to take the following measures:

- Develop and implement a Stormwater Pollution Prevention Plan (SWPPP), which specified Best Management Practices (BMPs) that would prevent all construction pollutants from contacting stormwater with the intent of keeping all products of erosion from moving off-site into receiving waters.
- Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the U.S.
- Perform inspections of all BMPs.

On September 2, 2009, the SWRCB adopted a revised NPDES General Permit for Stormwater Discharges Associated with Construction Activity (Order 2009-0009 DWQ), which became effective in July 2010. This permit covers construction projects that disturb one or more acres, or those projects that are part of a larger common plan of development that disturbs more than one acre in total. One of the biggest differences in the revised General Permit involves the specificity necessary for BMPs. Whereas the previous General Permit left the selection of BMPs to the discretion of the applicant and allowed the applicant to present them in qualitative terms, the revised General Permit requires that the applicant implement a SWPPP that: (1) includes specific BMPs, (2) includes a greater number of BMPs, and (3) establishes quantitative numeric effluent limitations for water quality metrics such as pH and turbidity. The specific requirements will depend on an assessment of the risk level associated with a particular site. In addition, the revised General Permit requires a Rain Event Action Plan, which must be designed to protect all exposed portions of the site within 48 hours prior to any likely precipitation event. The revised General Permit also includes significant new monitoring and reporting requirements.

State Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act of 1969 (Cal. Water Code § 13020 *et seq*.) authorized the SWRCB to provide comprehensive protection for California's waters through water allocation and water quality protection. This Act established the responsibilities and authorities of the nine RWQCBs, which include preparing water quality plans for areas in the region, identifying water quality objectives, and issuing NPDES permits and Waste Discharge Requirements.

Central Coast Regional Water Quality Control Board

The SWRCB and the nine RWQCBs have the authority in California to protect and enhance water quality, both through their designation as the lead agencies in implementation the Section 319 non-point source program of the CWA (33 U.S.C. § 1329) and under the State's primary water pollution control legislation, the Porter-Cologne Act. The Central Coast RWQCB guides and regulates water quality in streams and aquifers of the Central Coast region through designation of beneficial uses, establishment of water quality objectives, administration of the NPDES permit program for stormwater and construction site runoff, and Section 401 (33 U.S.C. § 1341) water quality certification where development results in infill of jurisdictional wetlands or other waters of the U.S. under Section 404 of the CWA (33 U.S.C. § 1344). Water quality objectives are defined as limits or levels of water quality constituents and characteristics established for the reasonable protection of beneficial uses or prevention of nuisances.

San Benito County General Plan

Construction and maintenance of public services and utilities in San Benito County, such as drainage improvements, are enabled and regulated by the General Plan and County ordinances. The following policies from the San Benito County General Plan associated with hydrological impacts are applicable to the proposed project.

Land Use Element

> **Policy 10: Septic System Policy.** Septic systems may be allowed on parcels one acre or greater if percolation tests demonstrate to the County Health Department, Division of Environmental Health, that soil is suitable for septic use. Sewage disposal on parcels less than one acre shall not be by the use of septic systems, but shall be through a public utility service district.

Policy 11: Septic System Design. Septic systems shall be properly designed, constructed, and maintained to avoid degradation of ground and surface water quality.

Open Space and Conservation Element

Policy 8: Development in drainage basins. It is the County's policy to minimize development/uses within drainage basins that could alter the path of watercourses and impede groundwater recharge.

Policy 30: Water quality from development. It is the policy of the County to require development projects that could contribute to the contamination and/or degradation of groundwater quality to be redesigned to avoid significant impacts.

Policy 31: Wastewater treatment. Wastewater treatment systems shall be designed to ensure the long-term protection of groundwater resources in San Benito County. Septic systems shall be limited to areas where sewer services are not available and where it can be demonstrated that septic systems will not contaminate groundwater. Every effort should be made in developing and existing developed areas to reduce the use of septic systems in favor of domestic wastewater treatment. Domestic wastewater treatment systems shall be required to use tertiary wastewater treatment as defined by Title 22.

Policy 33: Water conservation. To ensure more efficient use of groundwater resources it will be the policy of the County to require conservation of water resources in San Benito County and encourage inter-agency conservation to develop policies and programs for the protection and enhancement of habitat for fish on major tributaries to the Pajaro River (San Benito River, Pacheco Creek).

Policy 34: Evidence water quality and quantity for development. Approval of new developments shall not be allowed without evidence of adequate water quality and quantity.

Policy 43: Reduce effects of flooding from development. It is the County's policy to take measures to reduce potential effects of flooding from new development and encourage flood control improvements.

Safety Element

> **Policy 3.** It will be the County's policy to require that lands which are subdivided and developed in the future to residential or commercial uses be designed and constructed in such a manner that levels of "acceptable risk" identified in Appendix A of the Seismic Safety Element are not exceeded.
>
> It will be the County's further policy that these uses will supply adequate water for normal use and fire suppression. Roads which are suitable for safe passage for emergency vehicles, legible street name signs and two means of access to all parcels except on those with cul-de-sacs 600 feet or less.

San Benito County Code

Chapter 19.17 (Grading Ordinance) of the San Benito County Code provides performance standards and design criteria for grading, drainage, and erosion control. (San Benito County Code, tit. 19, ch. 19.17.) Grading permits are required for all new development prior to issuance of a building permit. The ordinance further requires the submittal of grading plans with each application including, but not limited to, detailed plans of all surface and subsurface drainage devices, walls, culverts, bridges, retaining walls, cribbing darns and other protective devices to be constructed with, or as a part of, the proposed work together with a map showing the drainage area and the estimated runoff of the area served by any drains. (County Code § 19.17.009(A)&(B)(5).)

Grading plans are required to include methods proposed to control erosion and drainage such that it does not leave the site unless contained in an approved drainage channel and does not cause damage to neighboring properties; methods to establish vegetation on disturbed slopes; and estimates the vertical dimensions of cut and fill material. (County Code § 19.17.009(B)(8)&(9).) Drainage plans must meet the further performance standards and design criteria for grading, drainage, and erosion control specifications listed in the County Subdivision Ordinance (County Code, tit. 23) and the California Building Code (County Code § 19.17.011(C)(13)&19.17.014), and shall include on-site retention of water to pre-development levels (County Code § 19.17.011(C)(13).

The Grading Ordinance further provides standards for the timing of grading to avoid unnecessary erosion or stream sedimentation or pollution during wet weather, requiring a separate permit for grading proposed between October 15 and April 15. (County Code § 19.17.011(H).) Engineered grading, drainage, and erosion plans require review and approval by

the County Engineer. (County Code § 19.17.011(J).) Design and construction of drainage improvements shall occur in compliance with County standards. (County Code § 19.17.011(C)(13).)

3.9.3 STANDARDS OF SIGNIFICANCE

The following thresholds for evaluating a project's environmental impacts are based on the State CEQA Guidelines (Appendix G) and standards utilized by San Benito County. An impact to surface hydrology or water quality is considered significant if implementation of the proposed project would result in any of the following:

- Violate any water quality standards or waste discharge requirements;
- 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 run-off 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 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; or
- Cause inundation by seiche, tsunami, or mudflow.

3.9.4 PROJECT IMPACTS AND MITIGATION MEASURES

Short-Term Water Quality

Impact HYD-1: Site preparation, grading and construction activities associated with the project have the potential to degrade water quality in downstream water bodies, in particular, the San Benito River, which is already impaired. This is a **potentially significant impact**.

As discussed in Section 3.7, Geology and Soils, the proposed project includes grading and construction on up to 60 acres of undeveloped agricultural land. Grading and vegetation removal would increase erosion potential and could affect water quality and lead to downstream sedimentation in receiving waters. Grading and construction could result in the transmitting of sediments and other urban pollutants off-site to the Santa Ana Creek tributary or downslope toward the unnamed San Benito River tributary. Of particular concern is the contribution of additional sediments to the San Benito River, which is already impaired by sedimentation and siltation. Receiving waters may also include the on-site habitat conservation area (former stock pond), if this area is required to be preserved by the resource agencies.

Soil erosion may occur along project boundaries during construction in areas where temporary soil storage is required. Grading and construction activities also could accidentally release urban pollutants from improper use and storage of gasoline and diesel-powered heavy equipment such as bulldozers, backhoes, water pumps, and air compressors, including chemicals such as solvents, paint, adhesives, diesel fuel, excavation spoils, gasoline, lubricating oil, hydraulic oil, lubricating grease, automatic transmission fluid, and construction wastes. A chemical release of any of these substances could degrade water quality of the surface water runoff and add pollutants into the drainage system.

The project would be required to comply with the National Pollutant Discharge Elimination System (NPDES) permit program, which reduces impacts in this regard. Specifically, the developer would be required to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP), which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving off-site into receiving waters. Also, the developer would be required to incorporate post-construction stormwater pollution management measures, including, among others, source control measures to reduce stormwater pollution during occupancy of the residential development.

In addition, the project would be required to implement mitigation to reduce erosion on the site. For example, the project would be required to implement: MM GEO-1 and MM GEO-6 to

reduce erosion (see Section 3.7, Geology and Soils); MM AQ-1 to control dust during construction (see Section 3.3, Air Quality); and numerous mitigation measures to protect biological resources and aquatic habitat (see Section 3.4, Biological Resources).

In addition, the Specific Plan contains a number of policies designed to reduce water quality impacts, which the project would be required to implement, as follows:

> **Policy RM-4.3.** Utilize best management practices and low impact development designs to minimize surface water quality degradation from discharge of storm drainage..
>
> 1. The master developer shall prepare and submit a storm water pollution prevention program [SWPPP] application to the Regional Water Quality Control Board and the County Public Works Department to secure a NPDES General Construction Permit for the entire Plan Area. The master developer and/or individual developer shall incorporate the structural and institutional best management practices and low impact development designs identified in the storm water management plan in improvement plans for their respective projects. The County Public Works Department must review these plans to ensure inclusion of the practices prior to approval of a grading or building permit for that phase. *[GIB Prerequisite 4; Homes SS-4]*
>
> 2. Prior to construction, contractors and their personnel shall be trained in appropriate best management practices to ensure water quality is protected. Those construction practices shall include erosion control, sediment transfer reduction, and dust control measures. A construction manager familiar with NPDES permit requirements must monitor the construction activities to protect water quality. This provision shall be included as a note on construction improvement plans. *[GIB Prerequisite 4; Homes SS-4]*

Implementation of MM GEO-1, MM GEO-6, and MM AQ-1, would reduce the impacts of grading and erosion during construction; however, construction of the proposed project would occur in phases over a period of five to 16 years and project-related construction activity could negatively affect downstream surface water quality during that time period. Therefore, to ensure that the project's impacts to water quality are reduced to a less than significant level, the following additional mitigation measures are proposed:

MM HYD-1a: The project developer shall comply with the policies found in Article 2.0 (Land Use) and Article 5.0 (Resource Management) of the Fairview Corners Residential

Specific Plan. Grading and ground disturbance on the site shall be implemented in accordance with the project's approved Grading Master Plan and as generally shown on Figure 22 (Conceptual Cut and Fill Diagram). For the required treatment of urban pollutants and application of pesticides on the project site, the developer shall comply with all applicable policies in Article 5.0 (Resource Management) as well as the project's approved Grading Master Plan.

MM HYD-1b: In accordance with the applicable law and with Specific Plan Policies RM-3.1, RM-4.3, RM-6.1 (and related implementation measures), the developer shall prepare a Stormwater Pollution Prevention Plan (SWPPP), which shall be approved by the County Public Works Department and which shall address stormwater management during the construction phase of the project. The SWPPP shall be consistent with RWQCB standards and NPDES permit requirements, and shall list BMPs, which specify how stormwater discharges would be controlled to protect water quality during the course of construction. Said BMPs may include, without limitation, the following:

1. Schedule earthwork to occur primarily during the dry season to prevent most runoff erosion.

2. Protect drainages and storm drain inlets from sedimentation with berms or filtration barriers, such as filter fabric fences, hay bales, or straw wattles.

3. Divert runoff from exposed slopes to on-site sediment basins before the runoff is released off-site.

4. Install gravel construction entrances to reduce tracking of sediment onto adjoining streets.

5. Sweep on-site paved surfaces and surrounding streets daily to collect sediment before it is washed into the storm drains, the San Benito River or Santa Ana Creek.

6. After construction is completed, clean all drainage culverts of accumulated sediment and debris.

7. Stabilize stockpiles of topsoil and fill material by watering daily, or by the use of chemical agents.

8. Store all construction equipment and material in designated areas away from waterways and storm drain inlets. Surround construction staging areas with earthen berms.

9. Wash and maintain equipment and vehicles in a separate bermed area, with runoff directed to a lined retention basin.

10. Collect construction waste daily and deposit in covered dumpsters.

Implementation of MM HYD-1a and MM HYD-1b, in addition to MM GEO-1, MM GEO-6, and MM AQ-1, would reduce short-term, construction-related impacts to water quality to a less than significant level and would ensure that no water quality standards or waste discharge requirements are violated. Therefore, the project's construction impacts to water quality would be **less than significant with mitigation incorporated**.

Long-Term Water Quality

Impact HYD-2: Operational activities associated with the proposed project have the potential to degrade water quality in downstream water bodies, in particular San Benito River, which is already impaired. This is a **potentially significant impact**.

The project site is undeveloped and does not contain any impervious surfaces. Development of the project would add impervious surfaces on the project site through construction of buildings, parking areas, roadways, and other project improvements. An increase in impervious surfaces has the potential to increase runoff from the site, which in turn could transport urban pollutants to off-site areas.

As noted above, there are no watercourses on the site. However, a portion of the project site drains toward a tributary of Santa Ana Creek north of the project site; the tributary appears to be an intermittent drainage that eventually heads northwest and meets the Santa Ana Creek approximately three miles northwest of the project site. The proposed project may include restoration of the former stock pond as on-site mitigation for biological resources. An increase in impervious surface coverage would create the potential for discharge of urban pollutants into these watercourses and the on-site mitigation area (if constructed), as well as land adjoining the site.

As identified previously, a number of pollutants and chemicals associated with development of the project that are typical of urban development, including bacteria from pet wastes, pesticides, fertilizers and landscape maintenance debris, petroleum products, hydrocarbons, litter, sediment, and construction debris, could enter urban runoff that is discharged from the project site. The impacts of urban runoff are particularly acute during the first storm event of the year, when accumulations of urban pollutants are flushed into the storm drain system.

The proposed project would not substantially alter the existing drainage patterns on the site. The topography of the site exhibits gentle slopes that naturally drain toward the northeast and to the west, and a small portion to the south. As shown on Figure 21, Conceptual Drainage Plan, under project conditions, the project site would maintain the two main flows toward the northeast and west (Refer also to Figure 22, Conceptual Cut and Fill Diagram). It is anticipated that stormwater flow from these drainage areas would be collected by a network of curbs and gutters, storm drains, bioswales, and retention pond(s). It is anticipated that there will be a

primary retention pond placed in the location of the former stock pond, so long as the former stock pond is determined by the relevant regulatory agencies to not be required for habitat mitigation. There are also Specific Plan policies that provide for the sharing of drainage capacities between the project and the Gavilan College San Benito Campus site, so long as certain conditions are satisfied (see Specific Plan Policy RM-4.2). In any event, the proposed project would be required to design the capacity of the system-wide stormwater retention facilities to be based on the 100-year storm event and to be of adequate size to retain and infiltrate stormwater on the site to pre-development levels as required by applicable County standards (San Benito County Code, tit. 23, chap. 23.17, section 23.17.003(B) and chap. 23.31, art. III, section 23.31.040 et seq.).

Additionally, the proposed project also would incorporate, to the extent feasible, low impact development (LID) features, including directing drainage from impervious surfaces to bioswales for infiltration, utilizing biotreatment (natural pollutant filtering) where stormwater runs off of paved surfaces, and capturing roof drainage for reuse as irrigation. These LID features would help to further reduce flows and prevent urban pollutants from migrating to off-site areas and/or entering the County's drainage system. Furthermore, as discussed in Section 3.2 (Agricultural Resources), the project would be required to limit the use of pesticides and fertilizers in common open space areas between development on the site and abutting properties (see Specific Plan, Policy RM-4.3 #3), as set forth in MM AG-1.

In addition, the Specific Plan contains policies that are designed to reduce the impacts of increased stormwater flow on- and off-site and reduce the impacts of urban runoff effects to water quality, as follows.

> **Policy RM-4.1.** Construct a stormwater collection and disposal system that retains and encourages percolation of stormwater generated within the Plan Area to pre-development levels.
>
> **Policy RM-4.2.** Allow alternative conceptual grading and drainage plans that direct drainage to shared retention basins with the adjacent Gavilan College San Benito Campus, only if the Gavilan College Campus design and construction plans include retention basins with the capacity and water quality treatment measures to accommodate the Fairview Corners Plan Area, or that portion of the Plan Area to be served, so that the Plan Area's stormwater discharge off-site is maintained at pre-development levels.
>
> 1. The master developer shall prepare a storm drainage master plan in accordance with San Benito County design standards, which identifies backbone collection and retention infrastructure needed to serve

development within the Plan Area, in accordance with the timing requirements set forth in Article 7.0 of the Specific Plan. Any improvement plans shall conform to the approved Storm Drainage Master Plan and shall incorporate use of structural and institutional best management practices and low impact development designs for storm water quality management and to minimize soil erosion for the Plan Area and adjacent properties outside the Plan Area. The improvement plans shall be subject to review and approval of the County Public Works Department in accordance with the timing set forth in Article 7.0 of the Specific Plan. The master developer shall finance and construct the backbone storm drainage collection and retention infrastructure. *[LEED ND GIB Credit 8]*

2. The master developer and/or individual neighborhood developer(s) shall design, finance, and construct subdivision storm drainage collection improvements, which tie into the backbone storm drainage infrastructure system. Stormwater collection system improvement plans shall be subject to review and approval of the County Public Works Department in accordance with the timing set forth in Article 7.0 of the Specific Plan.

3. Utilize Best Management Practices (BMPs) and Low Impact Development (LID) principles when designing storm water runoff facilities.

Policy RM-4.3. Utilize best management practices and low impact development designs to minimize surface water quality degradation from discharge of storm drainage.

3. No chemical pesticides shall be utilized in the maintenance of common landscaped areas, open space areas, or parks. Fertilizers shall be applied sparingly, and shall be derived from natural sources, such as fish emulsion or manure.

4. The master developer shall cooperate with the County to create a public education program for future residents to increase their understanding of water quality protection, which should include but not be limited to:

- Hazardous material use controls
- Hazardous material exposure controls
- Hazardous material disposal and recycling

5. Hazardous materials could consist of cleaning products, paint, oil, fertilizers, weed killers etc. The education materials shall encourage the use of alternative methods, and prohibit the dumping of hazardous materials in open space areas or the storm drain system. Further, the master developer shall require that all storm drain catch basins are labeled to discourage illegal dumping of hazardous materials.

6. Where feasible, direct roof drainage to pervious surfaces for infiltration.

7. On larger lots (12,000 square feet or above) consider the capture of roof drainage for reuse as irrigation water.

8. To the extent feasible, direct stormwater run-off to percolation swale and basin areas rather than directing stormwater to storm drain pipes.

9. Use biotreatment (natural pollutant filtering) where stormwater runs off paved surfaces onto pervious surfaces.

10. Utilize sediment traps, evaporation basins, flow dissipaters, and other methods to reduce the volume and speed of stormwater run-off and reduce pollutant loads. *[LEED ND GIB Credit 8]*

Implementation of MM GEO-1, GEO-6, and MM AQ-1, would reduce the impacts of grading and erosion during construction; however, construction of the proposed project would occur in phases over a period of 5-16 years and project-related construction activity could negatively affect downstream surface water quality during that time period. Therefore, to ensure compliance with the Specific Plan throughout the construction phases of the project, consistent with NPDES requirements, the following mitigation measures are recommended in addition to the mitigation measures listed above. In summary, implementation of MM AG-1 and the above-referenced Specific Plan policies would reduce the project's impacts to water quality. To ensure these impacts are reduced to a less than significant level, the following mitigation measures are proposed:

MM HYD-2a: The master developer shall submit a Grading Master Plan, to be approved by the County Public Works Department in accordance with the applicable timing and content requirements set forth in the Specific Plan.

MM HYD-2b: The master developer shall prepare a Storm Drainage Master Plan, to be approved by the County Public Works Department in accordance with the applicable timing and content requirements set forth in the Specific Plan, including, without limitation, the policies for the implementation of BMPs and LID as stated in Article 5.0 of the Specific Plan (Resource Management) (Policies RM-4.1, RM-4.2, and RM-4.3).

The Storm Drainage Master Plan shall identify the size, location and timing of all major drainage facilities proposed for the project site relative to drainage impacts, and would be accompanied by all supporting technical information and calculations to demonstrate that implementation of this Plan shall satisfy all applicable regulations, standards and guidelines, including all of the following:

- The capacity design of the system-wide stormwater retention facilities is based on the 100-year storm event and is of adequate size to retain and infiltrate stormwater on the site to pre-development levels as required by applicable County standards (San Benito County Code, tit. 23, chap. 23.17, section 23.17.003(B) and chap. 23.31, art. III, section 23.31.040 et seq.).

- The master developer and/or individual neighborhood developer(s) may contour grade the entire Plan Area in accordance with the Grading Master Plan to achieve drainage and the efficient construction of water, sewer and underground utilities.

- As a condition of approval of the first subdivision map for the project site, the master developer and/or individual neighborhood developer(s) shall obtain, at its expense, all necessary permits and agreements as required by other agencies having jurisdiction over drainage, water quality or wetlands issues including, but not limited to, the Regional Water Quality Control Board, the U.S. Army Corps of Engineers, and the California Department of Fish and Game.

- The master developer and/or individual neighborhood developer(s) shall prepare and implement a SWPPP, and shall construct and maintain BMPs as required by San Benito County. In addition, prior to the start of construction, the master developer and/or individual neighborhood developer(s) shall obtain a permit from San Benito County for the General Construction Storm Water Compliance Program, as required by the State Water Quality Control Board, prior to the start of any construction, including grading.

Development and operation of the project shall be in substantial compliance with the approved Storm Drainage Master Plan (as may be amended from time to time).

MM HYD-2c: The master developer and/or individual developer(s) shall construct drainage improvements and stormwater retention facilities on the site generally as shown on Figure 21, Conceptual Drainage Plan and in accordance with the approved Storm Drainage Master Plan required under MM HYD-2b above. Site-specific grading and drainage plans shall be prepared for each phase of the project, which shall conform to the approved Grading Master Plan and the Storm Drainage Master Plan (as they may be amended), and shall be subject to the County Public Works Department's review and approval.

Implementation of MM HYD-2a, MM HYD-2b and MM HYD-2c would reduce the impacts to water quality from project-generated urban runoff to a less than significant level and would ensure that no water quality standards or waste discharge requirements are violated. Therefore, the project's operational impacts to water quality would be **less than significant with mitigation incorporated**.

Impact HYD-3: The project would not alter the existing drainage pattern of the project site, which may substantially increase the rate or amount of surface runoff in a manner that would result in flooding or sedimentation and erosion on or off the site over the lifetime of the project. This would be considered a **less than significant impact**.

As discussed above, development of the project would convert the project site from agricultural land uses to a maximum 220-unit residential development with associated community facilities and related improvements and infrastructure. This would result in the coverage of a significant portion of the project site with impervious surfaces, such as pavement, roofing, walkways, and roadways, and would therefore increase storm water runoff from the project site, creating the potential for greater volumes of runoff to leave the site at greater velocity and to enter downstream waterways such as the San Benito River tributary. An increase in stormwater flows can cause flooding and erosion problems in downstream areas.

As noted in the discussion of Impact HYD-2, the proposed project would not substantially alter the existing drainage patterns on the site. The proposed project would incorporate low impact development (LID) features, to the extent feasible, which would help to further reduce flows and prevent urban pollutants from migrating to off-site areas and/or entering the County's drainage system. The project would be required to construct a stormwater collection and disposal system that captures and retains stormwater runoff in accordance with applicable County and other standards (see Impact HYD-2 discussion and related MM HYD-2a through MM HYD-2c above).

In addition, as discussed above in Impact HYD-1, the project would be required to implement mitigation to reduce erosion on the site. For example, the project would be required to implement: MM GEO-1 and MM GEO-6 to reduce erosion (see Section 3.7, Geology and Soils); MM AQ-1 to control dust during construction (see Section 3.3, Air Quality); and numerous mitigation measures to protect biological resources and aquatic habitat (see Section 3.4, Biological Resources).

With implementation of the above identified Specific Plan policies and MM GEO-1, MM GEO-6, MM AG-1, MM HYD-1a, MM HYD-1b, MM HYD-2a through MM HYD-2c, and numerous measures to protect biological resources and aquatic habitats (see Section 3.4, Biological Resources), the project's impacts related to downstream flooding and erosion impacts would be **less than significant with mitigation incorporated**.

Impact HYD-4: The project may 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. This is a **potentially significant impact**.

The project would increase stormwater runoff on the project site due to the addition of impervious surfaces. This increased runoff necessitates the construction of on-site drainage facilities. As discussed above, the project would be required to construct a stormwater collection and disposal system that captures and retains stormwater runoff in accordance with applicable County and other standards (see Impact HYD-2 discussion and related MM HYD-2a through MM HYD-2c above). In addition, the proposed project would incorporate low impact development (LID) features, to the extent feasible, which would help to further reduce flows and prevent urban pollutants from migrating to off-site areas and/or entering the County's drainage system.

Also, the Specific Plan contains policies that are designed to adequately address the capacity needs of the project's drainage system, as follows:

- The master developer and/or individual neighborhood developer(s) shall construct storm drain mains and laterals in accordance with the Storm Drainage Master Plan and in accordance with the County's improvement standards and other applicable standards and requirements. Storm drain laterals shall be constructed to the property line concurrently with the construction of connecting open channels or storm drain mains.
- The master developer and/or individual neighborhood developer(s) shall construct the required retention basin(s) in accordance with the Storm Drainage Master Plan and with the County's design standards and other applicable standards and requirements. In addition,
    - Retention basins shall be improved for the purpose of providing recreational uses where feasible.
    - The retention basin in each phase shown in Article 6.0, and the associated drainage facilities shall be constructed by the master developer and/or individual neighborhood developer(s) when the affected phase begins development.
- Construction of the Plan Area's storm drainage system shall be privately financed. Funding for ongoing operation and maintenance of this system shall be funded by assessments collected through one of several potential financing mechanisms such as a County Service Area (CSA), Community Services District (CSD), Community Facilities District (CFD), Homeowners Association (HOA), or other appropriate financing district. Development of the Plan Area shall be subject to payment of the fee for regional drainage improvements in the Santa Ana basin, if required by the County.

- The master developer and/or individual neighborhood developer(s) shall construct the backbone infrastructure needed for the Plan Area's storm drainage system with private financing.
- As part of the Tentative Map process for each phase of the Plan Area, the master developer and/or individual neighborhood developer(s) shall be responsible for constructing the storm drainage system infrastructure needed to serve the development being proposed under the requested Tentative Map.
- The storm drainage system shall be offered for dedication to the County. Once this offer is accepted, maintenance of the system will be the responsibility of the County (or other entity such as CSD, CFD, or HOA, if applicable) in accordance with applicable laws and regulations.
- All system infrastructure improvements shall be reviewed by the County during the Tentative Map review process to ensure consistency with the Specific Plan, and to ensure that the design and construction meet the applicable County standards and other requirements.

The project would be required to comply with all applicable Specific Plan policies, including, without limitation, those referenced above. In addition, the project would be required to comply with MM HYD-2a through MM HYD-2c, above, including the requirement to prepare and implement an approved Storm Drainage Master Plan with all required collection and retention facilities needed to serve the project. Therefore, the project's impacts related to the storm water drainage system would be **less than significant with mitigation incorporated**.

Impact HYD-5: The project would not place any structures within a 100-year flood hazard area, as mapped on the relevant FIRM, and would not impede or redirect flood flows. Therefore, there would be **no impact**.

According to the Flood Insurance Rate Map (FIRM) covering the project site, no portion of the project site is subject to flooding during 100-year or 500-year events. Accordingly, **no impact** would result.

No mitigation is required.

Impact HYD-6: The project would not 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, or inundation by seiche, tsunami, or mudflow. Therefore, there would be **no impact**.

There is no levee or dam near the project site that would expose people or structures to a significant risk of loss, injury or death involving flooding. With respect to seiches and tsunamis, these are the result of waves in bodies of water created by earthquakes. A tsunami is not likely to affect the project site as the nearest point of the Pacific Ocean is approximately 40 miles away and is separated by mountain ranges. It is unlikely that seiches would cause an impact on the proposed project since there are no large water bodies in the vicinity of the project site. Since the project site is relatively flat, no mudflow impacts on the proposed project would occur. Therefore, risks associated with a failure of a levee or dam, and risks associated with inundation caused by seiche, tsunami, or mudflow would result in **no impact**.

No mitigation is required.

3.9.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

Impact HYD-7: The proposed project, in combination with past, present, and reasonably foreseeable, probable future developments in the area may cumulatively result in a significant effect with regard to drainage and water quality. This cumulative impact is considered **potentially significant**.

Development of the project site would contribute to cumulative drainage flows and surface water quality impacts when combined with past, present, and reasonably foreseeable, probable future growth and development in the project vicinity, including:

- **Gavilan San Benito College Campus:** This project involves the construction of a 3,500 full-time equivalent (FTE) student college facility, as well as approximately 70 residential units and 35,000 square feet of retail space, on a 77-acre site at the northeast corner of Fairview Road and Airline Highway.
- **Award Homes Project:** This project involves the construction of 595 single-family homes and 100 apartment units on the west side of Fairview Road, South of St. Benedict's Church and East of Calistoga Drive within the City of Hollister.
- **Santana Ranch Project:** This project involves the construction of a maximum of 1,092 residential units, approximately 65,000 square feet of neighborhood commercial uses, up to an additional 41,000 square feet of potential mixed uses within the residential multiple areas, a school site on which a 700-student elementary school may be built, approximately 18.2 acres of parkland, as well as related on- and off-site project infrastructure, located on a 292-acre site east of the intersection of Fairview Road and Hillcrest Road and Sunnyslope Road.

It is also anticipated that, over time, the Fairview Road corridor would be further developed, consistent with the Area of Specific Study Designation for this corridor. The cumulative projects list (Section 3.0) also includes a number of smaller residential projects within the City of Hollister, as well as a number of industrial and warehousing projects in the vicinity of the Hollister Municipal Airport.

San Benito County requires that all new developments mitigate storm drainage impacts through the construction of retention/detention basins with adequate capacity to handle projected flows generated by each development in accordance with applicable County standards. In addition, the project would be required to implement Mitigation Measures MM HYD-2a through MM HYD-2c, which mandate compliance with applicable performance standards to ensure the stormwater drainage collection and detention/retention systems conform to these requirements. The project would also be required to comply with numerous Specific Plan policies to address water quality issues and ensure adequate drainage improvements. In addition, the project would be subject to RWQCB requirements to effectively address short-term and long-term water quality impacts, as would other cumulative projects.

The imposition of the above-referenced standards and other requirements on all cumulative development, including the project, would result in a **less than significant cumulative impact with regard to drainage and water quality with mitigation incorporated**.

Impact HYD-8: The proposed project, in addition to past, present, and reasonably foreseeable, probable future projects in the vicinity would require the expansion and/or construction of new stormwater drainage facilities, which could result in cumulative environmental impacts to air and water quality. These impacts are considered to be **less than significant**.

Similar to the project, development of other cumulative projects would require the construction of storm drain facilities to collect and manage stormwater runoff generated by these projects in accordance with applicable County standards and other requirements. The construction of these facilities would involve activities such as site clearing, mass grading, excavation and trenching, which could adversely affect water quality by increasing soil erosion rates in the construction area. The exposure of raw soil to the natural elements (e.g., wind, rain) during grading operations may impact surface runoff by increasing the amount of silt and debris carried by stormwater runoff. These impacts could combine and result in potentially significant air quality and water quality impacts.

However, it is anticipated that other cumulative projects, similar to the proposed project, would be required to comply with the applicable revised General Permit requirements and would be required to prepare SWPPPs to address construction-related impacts and Storm Water Management Plans to address operational-related impacts, and that these plans would be

required to incorporate BMPs for the protection of water quality and air quality during site construction, thereby mitigating impacts to a less than significant level. Furthermore, for the same reason, the project would not make a cumulatively considerable contribution to water quality and air quality impacts associated with the construction and operation of storm water facilities, and it is anticipated that cumulative impacts associated with new or expanded storm water drainage facilities would be **less than significant.**

No mitigation is required.