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## 13. HYDROLOGY AND WATER QUALITY

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This chapter describes existing hydrology and water quality conditions in the planning area. The chapter includes the regulatory framework necessary to evaluate potential environmental impacts resulting from the 2040 General Plan, describes potential impacts that could result from the General Plan, and discusses General Plan goals, policies, and implementation programs that would avoid or reduce those potential impacts.

### 13.1 SETTING

The environmental and regulatory setting of the Burlingame planning area with respect to hydrology and water quality is described in detail in Section 6.12 (Natural Resources: Hydrology and Water Quality) and Section 5.5 (Utilities: Stormwater Drainage and Flood Control) of the General Plan Existing Conditions Report (City of Burlingame, 2015). Pursuant to Section 15150 of the State CEQA Guidelines, the Existing Conditions Report is incorporated into the Draft Program EIR by reference. The Existing Conditions Report is available at the City of Burlingame 2040 General Plan website at:

<http://www.Burlingame.org/GENERALPLAN/>

Copies of the Existing Conditions Report may be viewed during regular business hours (8:00 a.m. to 5:00 p.m.), Monday through Friday, at the City of Burlingame Planning Division, 501 Primrose Road, Burlingame, CA 94010.

#### 13.1.1 Environmental Setting

The Existing Conditions Report describes the existing (2015) hydrology and water quality setting information for the planning area. Improving water quality and stream function, and protecting the health of the City's and the Bay's water resources, are matters of regional concern, and more often than not key challenges that extend beyond municipal boundaries and require collaborative solutions. Also, in many cases, the best or most recent data are available at the regional level. For these reasons, the major findings presented below discuss major themes impacting Burlingame and the region as a whole.

The major findings of the Existing Conditions Report relevant to hydrology and water quality are described below.

- The majority of rainfall and runoff in Bay Area watersheds occurs on average during the wet season months of October through April. Rainfall data collected for Burlingame as part of the Regional Monitoring Program also generally follows this pattern. However, most available data reflects years prior to 2012.
- Burlingame is located in the Santa Clara Valley Groundwater Basin and within the San Mateo Subbasin. The San Mateo Subbasin is composed of alluvial fan deposits formed by tributaries to San Francisco Bay, which drain the basin. Precipitation in the subbasin ranges from less than 16 inches in the southeast to more than 24 inches in the northwest.
- Several creeks and storm drains pass through Burlingame. The City does not contain any dams or open reservoirs. None of Burlingame's tributaries to San Francisco Bay are

listed as impaired on the Clean Water Act Section 303(d) list of threatened and impaired waters.

- Stormwater management for Burlingame was once regulated according to the San Mateo Countywide National Pollutant Discharge Elimination System (NPDES) Municipal Regional Stormwater Permit. This county-based permit was replaced with a new NPDES permit for the entire San Francisco Bay Area. The San Francisco Bay Region NPDES Municipal Regional Stormwater Permit was adopted in October 2009 and revised in November 2011.
- Key pollutants of concern for the San Francisco Bay region include copper, mercury, pesticides and polychlorinated biphenyls (PCBs). Trash has emerged as a major surface water quality issue in the Bay and its tributaries. Central and South Bay shorelines were added to the 2010 Clean Water Act 303(d) list due to the increased presence of trash.
- The San Mateo Countywide Clean Water Program is an active participant in the RMP for the San Francisco Estuary. Some data looking at key pollutants of concern have been collected in Burlingame. Monitoring required by the Regional Monitoring Program also includes assessment of human impacts on habitats in or adjacent to creeks.
- A number of agencies and organizations are involved in water management and conservation in the West Bay. Water resource conservation partners for Burlingame include San Mateo County, San Mateo County Flood Control District, and all local agency members of the San Mateo Countywide Water Pollution Program.

### 13.1.2 Regulatory Setting

The Existing Conditions Report discusses the following regulatory setting relevant to hydrology and water quality. Water in California is managed by a complex network of Federal and State regulations. This section outlines and briefly summarizes the various Federal, State, and regional laws and regulatory policies related to domestic water management, water quality, and water resource protection.

See EIR Chapter 8 (Biological Resources) for additional federal and State regulations. EIR Chapter 20 (Utilities and Service Systems) discusses water supply-related issues.

#### Federal

**Federal Clean Water Act.** The Federal Clean Water Act (1972) (CWA) is the primary Federal law that protects the quality of the nation's surface waters, including lakes, rivers, aquifers, and coastal areas. The CWA focuses on the protection of surface water, but certain sections also apply to groundwater.

Under the CWA, the U.S. Environmental Protection Agency (EPA) sets national standards and effluent limitations, and delegates many regulatory responsibilities to the California State Water Resources Control Board (SWRCB, or State Water Board). The CWA established a permit system based on the concept that all discharges into the nation's waters are unlawful unless specifically authorized.

The CWA contains several provisions to protect water quality, including Sections 303(c)(2)(B), 303(d), 401, 402(p), and 404, and the Toxics Rule. Section 303(d), as discussed briefly below.

**CWA Section 303(d).** Section 303(d) of the 1972 Federal Clean Water Act requires that states develop a list of water bodies that do not meet water quality standards, establish priority

rankings for waters on the list, and develop action plans, called Total Maximum Daily Loads (TMDLs), to improve water quality. The list of impaired water bodies is revised periodically (typically every two years). Many entities provide data to the SWRCB to compile the 303(d) List and to develop TMDLs.

The process for developing the 303(d) List for the San Francisco Bay includes the following steps:

- Development of a draft List by the San Francisco Bay Regional Water Quality Control Board (Regional Water Board);
- Adoption by the State Water Resources Control Board (State Water Board); and
- Approval by US Environmental Protection Agency (EPA).

In August 2010, the State Water Board adopted the 2010 303(d) List. The 2010 List was approved by the EPA in October 2011.

## State

**State Department of Water Resources.** The Department of Water Resources (DWR) is responsible for the management and regulation of water usage, including the delivery of water to two-thirds of California's population through the nation's largest state-built water development and conveyance system, the State Water Project. Working with other agencies and the public, DWR develops strategic goals, and near-term and long-term actions, to conserve, manage, develop, and sustain California's watersheds, water resources, and management systems. DWR also works to prevent and respond to floods, droughts, and catastrophic events that would threaten public safety, water resources and management systems, the environment, and property.

**State Water Resources Control Board.** The State Water Resources Control Board (SWRCB, or State Water Board) and the nine regional boards protect water quality and allocate surface water rights in the State of California. The City of Burlingame is under jurisdiction of RWQCB Region 2 (San Francisco Bay Region).

## Regional and Local

**Regional Water Quality Control Board Region 2.** RWQCB Region 2 (San Francisco Bay Region) regulates stormwater quality under authorities of the Federal Clean Water Act and California's Porter-Cologne Water Quality Control Act. The RWQCB issues NPDES permits to dischargers of municipal and industrial stormwater runoff and operators of large construction sites. In coordination with permittees of the San Francisco Bay Municipal Regional Stormwater Permit, including Burlingame, RWQCB staff performs an annual performance review and evaluation of the County's stormwater management program and NPDES compliance activities.

The San Francisco Bay Water Board also protects groundwater through implementation of its regulatory and planning programs.

**San Francisco Bay Region NPDES Municipal Regional Stormwater Permit.** Adopted in October 2009 and revised in November 2011, the San Francisco Bay Municipal Regional Stormwater Permit (MRP) issues the Waste Discharge Requirements and National Pollutant Discharge Elimination System (NPDES) Permit for the discharge of stormwater runoff from the municipal separate storm sewer systems (MS4s) of over 70 municipalities and local agencies in five Bay Area counties, including the City of Burlingame. The MRP replaces the former county-

by-county permits, including the former San Mateo Countywide Municipal Stormwater Permit, which once fulfilled this role.

Based on monitoring previously conducted by the Clean Water Program and in other counties, the MRP identifies key Pollutants of Concern in urban runoff from Bay Area municipalities. Monitoring required by the MRP also includes assessment of human impacts on habitats in or adjacent to creeks. In the past, the San Mateo County Water Pollution Program (2015) has done this type of assessment in Mills Creek. Future regulatory changes are expected regarding this topic, but at present the MRP has no explicit controls beyond the hydromodification management provisions, which include on-site and regional control design criteria, reasonable costs and practicability, record keeping, hydromodification control areas, and potential exceptions to map designations.

**San Mateo County Flood Control District Hydrology and Hydraulic Manual.** The current storm drain design manual is the *Bay Area Hydrology Model User Manual*, 2007 edition. This manual is generally sufficient for most small and medium size developments. However, the District has been developing an expanded and updated version internally. While the internal manual has not been officially adopted, the District applies drainage requirements and criteria developed in 1994 and onwards when reviewing and designing facilities.

## 13.2 ENVIRONMENTAL EFFECTS

This section describes potential impacts related to hydrology and water quality that could result from the General Plan, and discusses General Plan goals, policies, and implementation programs that would avoid or reduce those potential impacts.

### 13.2.1 Significance Criteria

Based on the CEQA Guidelines, implementation of the City of Burlingame 2040 General Plan would have a significant impact related to hydrology and water quality if it would:

- (a) Violate any water quality standards or waste discharge requirements;
- (b) 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 (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);
- (c) Substantially alter the existing drainage pattern of the planning area or vicinity, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation in or outside the planning area;
- (d) Substantially alter the existing drainage pattern of the planning area or vicinity, including through the alteration of the course of a stream or river, or substantially increase the rate of amount of surface runoff in a manner which would result in flooding in or outside the planning area;
- (e) 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;
- (f) Otherwise substantially degrade water quality;

- (g) 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;
- (h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows;
- (i) 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;
- (j) Expose people or structures to a significant risk of loss, injury, or death resulting from inundation by seiche, tsunami, or mudflow; or
- (k) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

### **13.2.2 Analysis Methodology**

The methodology for evaluating potential environmental impacts related to hydrology and water quality followed this basic sequence:

- (a) The General Plan Existing Conditions Report was evaluated to identify existing environmental conditions and problems related to hydrology and water quality, including the regulatory framework that applies to these issues.
- (b) The CEQA Statute and Guidelines (2017), including Appendix G (Environmental Checklist Form), were consulted to identify environmental impact topics and issues that should be addressed in the program EIR. In part, this process resulted in the significance criteria listed in subsection 13.2.1 above.
- (c) The General Plan Policy Document, including the associated development capacity assumptions (see EIR Section 3.4), was analyzed to identify goals, policies, implementation programs (“policies” for short), and potential outcomes that address the significance criteria. This analysis resulted in two basic conclusions regarding policies and outcomes: (a) many policies would avoid or reduce potential environmental impacts, and (b) some policies or outcomes could result in new environmental impacts or increase the severity of existing environmental problems.
- (d) For potential environmental impacts that would result from the 2040 General Plan, mitigations were designed to avoid or reduce each impact to a less-than-significant level. If implementation of all identified feasible mitigations cannot reduce the impact to a less-than-significant level, then the impact is considered significant and unavoidable.

### **13.2.3 Environmental Impacts**

#### **Potential Impacts of Future Development Pursuant to the 2040 General Plan**

There are two major classes of pollutants: point source and non-point source. Point-source pollutants can be traced to their original source. Point-source pollutants are discharged directly from pipes or spills. Raw sewage draining from a pipe directly into a stream is an example of a point-source water pollutant. Non-point-source pollutants (NPS) cannot be traced to a specific original source. NPS pollution is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and human-made pollutants,

finally depositing them into lakes, rivers, wetlands, coastal waters, and even underground sources of drinking water. NPS pollutants include:

- Excess fertilizers, herbicides, and insecticides from agricultural lands and residential areas
- Oil, grease, and toxic chemicals from urban runoff and energy production
- Sediment from improperly managed construction sites, crop and forest lands, and eroding stream banks
- Salt from irrigation practices and acid drainage from abandoned mines
- Bacteria and nutrients from livestock, pet wastes, and faulty septic systems
- Atmospheric deposition and hydromodification

Impacts associated with water pollution include ecological disruption and injury or death to flora and fauna, increased need and cost for water purification, sickness or injury to people, and degradation or elimination of water bodies as recreational opportunities. Future development consistent with General Plan land use policy has the potential to increase urban runoff from residential, commercial, industrial, utility, and roadway sources. This can impact stormwater systems, causing soil erosion and siltation off site. New development could increase pollutant loading in downstream waters. Additionally, accidents, poor site management, or negligence by property owners and tenants can result in accumulation of pollutant substances on parking lots and loading and storage areas, or result in contaminated discharges directly into the storm drain system. (Significance Criteria 13.2.1 [a], [b]), and [f])

Future development within the planning area is likely to change drainage patterns, which could have the potential to result in on- or off-site erosion and siltation. Short-term and long-term development activities could result in erosion and siltation impacts due to alteration of natural drainage patterns. Siltation is the introduction of increased sediment flows into a water body. This can result in the shrinking of the water body, rising surface waters, habitat destruction, faunal injury or death, and flooding as sediments change the natural character of the water body. Siltation is generally associated with activities such as site grading and deforestation. During grading activities, extensive earth-moving activities and vegetation removal could alter existing natural drainage patterns. These short-term changes in natural drainage patterns could result in erosion and siltation because water movement across the affected area is increased without natural barriers in place. Vegetation stabilizes soil, reducing its ability to be washed downstream. If sufficient energy-reducing mechanisms such as rock rip-rap or detention basins are not provided, or if runoff is not diverted effectively through landscaped areas or other places where runoff can settle prior to discharge, there is a potential for runoff to cause scouring and erosion of open land that could generate silt and sediments that could negatively affect downstream waters. (Significance Criteria 13.2.1 [c], [d], and [e])

Impacts associated with flooding are primarily related to the construction or placement of structures in areas prone to flooding, including within a 100-year flood zone and in areas susceptible to high tides, tsunamis, seiches, mudflows or sea level rise. Specifically, structures placed in flood prone areas, if flooded, would be damaged, and could subject people to injury or death. (Significance Criteria 13.2.1 [g] to [j])

### **How Existing Regulations and General Plan Policies Reduce Impacts**

Table 13-1 is aligned with relevant Existing Regulations and General Plan policies that relate to hydrology and water quality. Column 1 (Objective) lists each Regulation and General Plan goal, policy, and implementation program (“policy” for short), organized by General Plan element, that addresses the potential impact identified in Table 13-1. Column 2 is a summary of the regulation and the text of the policy. Column 3 answers the question, “How does the regulation/policy

avoid or reduce the potential impact?” Column 4 identifies the applicable significance criteria that is addressed by the regulation/policy.

The verbs in Column 3 are intended to be applied consistently. The verb “ensures” means that the policy is sufficient to guarantee the result identified in the policy. The verb “helps” means that the policy contributes to avoiding or reducing the identified potential impact; in many cases, “helps” is used for a policy that can be applied to avoid or reduce a wide range of potential impacts.

Referring to Column 3 in the following tables, a reference to “requires construction” means that implementation of the policy might result in construction-related impacts related to, for example, construction traffic, noise, or dust. These potential impacts are addressed below.

**Table 13-1: Proposed Burlingame Existing Regulations and General Plan Policies to Avoid or Reduce Impacts on Hydrology and Water Quality**

Regulation/Policy	Description of Regulation/Policy	How Does It Avoid or Reduce Impact?	Applicable Significance Criteria
<b>Existing Regulations</b>			
Federal Clean Water Act	The Federal Clean Water Act (1972) is the primary Federal law that protects the quality of the nation’s surface waters, including lakes, rivers, aquifers, and coastal areas. The Clean Water Act (CWA) focuses on the protection of surface water, but certain sections also apply to groundwater.	Ensures that municipalities protect water quality.	(a) Violate any water quality (f) Otherwise substantially degrade water quality
State Water Resources Control Board	The State Water Resources Control Board and the nine regional boards protect water quality and allocate surface water rights in California. The City of Burlingame is under jurisdiction of the Regional Water Quality Control Board (RWQCB) Region 2 (San Francisco Bay Region).	Ensures that municipalities protect water quality.	(a) Violate any water quality (f) Otherwise substantially degrade water quality
Regional Water Quality Control Board Region 2	Regional Water Quality Control Board Region 2 (San Francisco Bay Region) regulates stormwater quality under authorities of the Federal Clean Water Act and California’s Porter-Cologne Water Quality Control Act.	Ensures that municipalities protect water quality.	(a) Violate any water quality (f) Otherwise substantially degrade water quality
San Francisco Bay Region NPDES Municipal Regional Stormwater Permit	Adopted in October 2009 and revised in November 2011, the San Francisco Bay Municipal Regional Stormwater Permit (MRP) issues the Waste Discharge Requirements and National Pollutant Discharge Elimination System (NPDES) Permit for the discharge of stormwater runoff from the	Ensures compliance with regional stormwater requirements.	(a) Violate any water quality (f) Otherwise substantially degrade water quality

**Table 13-1: Proposed Burlingame Existing Regulations and General Plan Policies to Avoid or Reduce Impacts on Hydrology and Water Quality**

Regulation/Policy	Description of Regulation/Policy	How Does It Avoid or Reduce Impact?	Applicable Significance Criteria
	municipal separate storm sewer systems (MS4s) of over 70 municipalities and local agencies in five Bay Area counties, including the City of Burlingame.		
San Mateo County Flood Control District Hydrology and Hydraulic Manual	The current storm drain design manual is the Bay Area Hydrology Model User Manual (2007) edition. While not officially adopted, the District applies drainage requirements and criteria developed in 1994 and onwards when reviewing and designing facilities.	Promotes sustainable stormwater management, which reduces flood risks.	(e) Create or contribute runoff water (i) Expose people or structures to a significant flood risk
<b>2040 General Plan Healthy People and Healthy Places Element – Water Resources</b>			
Goal HP-6:	Protect local and regional water resources through conservation, preservation, and management practices.	Promotes sustainability, which reduces water consumption and reliance on groundwater supplies. Improves water quality through protection, restoration, and conservation.	(a) Violate any water quality (b) Substantially deplete groundwater (f) Otherwise substantially degrade water quality
HP-6.1: Waterway Protection	Protect and maintain the water quality of the four creek systems and watersheds (Burlingame Creek, Easton Creek, Mills Creek, and Sanchez Creek) that course through the City and drain into San Francisco Bay. Participate in regional efforts, such as the Bay Area Integrated Regional Water Management Plan, to protect Burlingame’s waterways and maintain water quality.	Improves water quality through protection, restoration, and conservation.	(a) Violate any water quality (f) Otherwise substantially degrade water quality
HP-6.3: Water Quality	Regularly measure and monitor water quality in Burlingame’s surface water to ensure maintenance of high quality water for consumption.	Improves water quality	(a) Violate any water quality (f) Otherwise substantially degrade water quality
HP-6.5: Local Stormwater Management	Work with public and private property owners to reduce stormwater runoff in urban areas and to protect water quality in creeks and the Bay. Require implementation of best management practices to reduce accumulation of non-point source pollutants in the drainage system originating from streets, parking	Promotes sustainable stormwater management, which improves water quality and reduces stormwater flow and polluted runoff.	(a) Violate any water quality (c) Substantially alter existing drainage substantial erosion or siltation (d) Substantially alter the existing drainage pattern increase the rate of amount of

**Table 13-1: Proposed Burlingame Existing Regulations and General Plan Policies to Avoid or Reduce Impacts on Hydrology and Water Quality**

Regulation/Policy	Description of Regulation/Policy	How Does It Avoid or Reduce Impact?	Applicable Significance Criteria
	lots, residential areas, businesses, and industrial operations.		surface runoff (e) Create or contribute runoff water that affects drainage system capacity and pollution (f) Otherwise substantially degrade water quality (k) Construction of new stormwater drainage facilities
HP-6.6: Regional Stormwater Management	Continue to follow requirements for the Municipal Regional Stormwater and National Pollutant Discharge Elimination System (NPDES) Permit to monitor stormwater activities, and provide annual reports on compliance activities.	Promotes sustainable stormwater management, which improves water quality and reduces stormwater flow and polluted runoff.	(a) Violate any water quality (c) Substantially alter existing drainage substantial erosion or siltation (d) Substantially alter the existing drainage pattern increase the rate of amount of surface runoff (e) Create or contribute runoff water that affects drainage system capacity and pollution (f) Otherwise substantially degrade water quality (k) Construction of new stormwater drainage facilities
HP-6.7: Stormwater Conveyance System	Identify opportunities to upgrade and improve the City's stormwater conveyance system.	Promotes sustainable stormwater management, which improves water quality and reduces stormwater flow and polluted runoff.	(c) Substantially alter existing drainage substantial erosion or siltation (d) Substantially alter the existing drainage pattern increase the rate of amount of surface runoff (e) Create or contribute runoff water that affects drainage system capacity and pollution

**Table 13-1: Proposed Burlingame Existing Regulations and General Plan Policies to Avoid or Reduce Impacts on Hydrology and Water Quality**

Regulation/Policy	Description of Regulation/Policy	How Does It Avoid or Reduce Impact?	Applicable Significance Criteria
			(f) Otherwise substantially degrade water quality
<b>2040 General Plan Infrastructure Element – Stormwater Drainage and Flood Control</b>			
Goal IF-4:	Protect people and property from the adverse effects of flooding through a stormwater system that adequately moves runoff from existing and future development, prevents property damage due to flooding, and improves environmental quality.	Promotes sustainable stormwater management, which reduces flood risks.	(c) Substantially alter existing drainage substantial erosion or siltation (d) Substantially alter the existing drainage pattern increase the rate of amount of surface runoff (e) Create or contribute runoff water that affects drainage system capacity and pollution (k) Construction of new stormwater drainage facilities.
IF-4.1: Storm Drain Infrastructure Maintenance	Ensure that local storm drain infrastructure is sufficiently maintained to minimize flood hazards.	Ensures that stormwater volume will not exceed the drainage system's capacity.	(c) Substantially alter existing drainage substantial erosion or siltation (d) Substantially alter the existing drainage pattern increase the rate of amount of surface runoff (e) Create or contribute runoff water that affects drainage system capacity and pollution (k) Construction of new stormwater drainage facilities
IF-4.2: Localized Flooding	Identify and correct problems of localized flooding. Promote the use of green infrastructure, whenever feasible, to mimic a natural hydrologic system that uses stormwater as a resource.	Minimizes flood risks. Mitigates localized flooding problems.	(a) Violate any water quality (b) Substantially deplete groundwater (c) Substantially alter existing drainage substantial erosion or siltation (d) Substantially alter

**Table 13-1: Proposed Burlingame Existing Regulations and General Plan Policies to Avoid or Reduce Impacts on Hydrology and Water Quality**

Regulation/Policy	Description of Regulation/Policy	How Does It Avoid or Reduce Impact?	Applicable Significance Criteria
			the existing drainage pattern increase the rate of amount of surface runoff (e) Create or contribute runoff water that affects drainage system capacity and pollution (f) Otherwise substantially degrade water quality (j) Expose people or structures to tsunami, mudflow risk (k) Construction of new stormwater drainage facilities
IF-4.4: Green Stormwater Infrastructure	Encourage Low Impact Development (LID) techniques, such as green infrastructure which uses vegetation and soil to capture, treat, and retain stormwater runoff. Promote the use of pervious surfaces, green streets, and rainwater harvesting to achieve multiple benefits, such as creating open space, improving stormwater quality, and increasing groundwater recharge. Avoid or minimize the impact of stormwater discharges on local receiving waters, including the San Francisco Bay.	Promotes green building and landscaping practices, which reduce surface runoff and improve water quality.	(a) Violate any water quality (b) Substantially deplete groundwater (e) Create or contribute runoff water that affects drainage system capacity and pollution (f) Otherwise substantially degrade water quality (k) construction of new stormwater drainage facilities
IF-4.5: Improvement to Public Places	Design smart improvements to public spaces including streets, parks, and plazas for stormwater retention and groundwater infiltration by diverting urban runoff to bioretention systems and implementing LID techniques. Integrate green infrastructure that restores a natural hydrologic system such as trees, rain gardens, and vegetated swales into the urban environment. Encourage stormwater facilities that are	Ensures sustainable stormwater management in public improvements, which reduces erosion and siltation and improves water quality. Reduces the need for municipal stormwater drainage improvements by implementing on-site stormwater management	(a) Violate any water quality (b) Substantially deplete groundwater (c) Substantially alter existing drainage substantial erosion or siltation (e) Create or contribute runoff water that affects drainage system capacity and pollution

**Table 13-1: Proposed Burlingame Existing Regulations and General Plan Policies to Avoid or Reduce Impacts on Hydrology and Water Quality**

Regulation/Policy	Description of Regulation/Policy	How Does It Avoid or Reduce Impact?	Applicable Significance Criteria
	designed to be a functional and attractive element of public spaces.		(f) Otherwise substantially degrade water quality (k) Construction of new stormwater drainage facilities
IF-4.6: Grading Projects	Impose appropriate conditions on grading projects performed during the rainy season to ensure that silt is not conveyed to storm drainage systems.	Avoids eroded soil and silt entering the storm drainage system.	(c) Substantially alter existing drainage substantial erosion or siltation (e) Create or contribute runoff water that affects drainage system capacity and pollution
IF-4.7: Diversion	Require new development to be designed to prevent the diversion of stormwater onto neighboring parcels.	Reduces flood risks. Ensures that new development mitigates its own stormwater drainage impacts. Requires construction of new or expanded facilities as needed.	(d) Substantially alter the existing drainage pattern increase the rate of amount of surface runoff (e) Create or contribute runoff water that affects drainage system capacity and pollution (k) Construction of new stormwater drainage facilities
<b>2040 General Plan Community Safety Element – Sea Level Rise</b>			
Goal CS-5:	Protect vulnerable areas and infrastructure from flooding related to rising sea levels in the San Francisco Bay.	Protects areas vulnerable to sea level rise.	(g) Place housing within a 100-year flood hazard (h) Place within a 100-year flood hazard structures that impede or redirect flood flows (i) Expose people or structures to a significant risk of flooding (j) Expose people or structures to tsunami, mudflow risk
CS-5.1: Monitor Rising Sea Level	Regularly coordinate with regional, State, and Federal agencies on rising sea levels in San Francisco Bay and major tributaries to determine if	Ensures up-to-date planning for sea level rise.	(g) Place housing within a 100-year flood hazard (h) Place within a 100-year flood

**Table 13-1: Proposed Burlingame Existing Regulations and General Plan Policies to Avoid or Reduce Impacts on Hydrology and Water Quality**

Regulation/Policy	Description of Regulation/Policy	How Does It Avoid or Reduce Impact?	Applicable Significance Criteria
	additional adaptation strategies should be implemented to address flooding hazards.		hazard structures that impede or redirect flood flows (i) Expose people or structures to a significant risk of flooding (j) Expose people or structures to tsunami, mudflow risk
CS-5.3: New Development in Vulnerable Areas	Continue to require appropriate setback and building elevation requirements for properties located along the Bayshore, lagoons, and in other low-laying areas that are susceptible to the effects of sea level rise. Consider other strategies to support resiliency through design.	Protects areas vulnerable to sea level rise.	(g) Place housing within a 100-year flood hazard (h) Place within a 100-year flood hazard structures that impede or redirect flood flows (i) Expose people or structures to a significant risk of flooding (j) Expose people or structures to tsunami, mudflow risk
CS-5.5: Flood Insurance Rate Maps	Provide to the public, as available, up-to-date Flood Insurance Rate Maps (FIRM) that identify rising sea levels and changing flood conditions.	Ensures accurate mapping of flood hazards to help protect vulnerable areas.	(g) Place housing within a 100-year flood hazard (h) Place within a 100-year flood hazard structures that impede or redirect flood flows (i) Expose people or structures to a significant risk of flooding (j) Expose people or structures to tsunami, mudflow risk
CS-5.6: Regional Hazard Risk Reduction Planning	Coordinate with San Mateo County and other local agencies to implement the Multi-Jurisdictional Local Hazard Mitigation Plan	Minimizes the placement of structures in flood hazard areas. Minimizes potential impacts from floods.	(g) Place housing within a 100-year flood hazard (h) Place within a 100-year flood hazard structures that impede or redirect flood flows; (i) Expose people or structures to a

**Table 13-1: Proposed Burlingame Existing Regulations and General Plan Policies to Avoid or Reduce Impacts on Hydrology and Water Quality**

Regulation/Policy	Description of Regulation/Policy	How Does It Avoid or Reduce Impact?	Applicable Significance Criteria
			significant risk of flooding (j) Expose people or structures to tsunami, mudflow risk
CS-5.7: Hazard Mitigation Plan	Continue to support San Mateo County in its role as the lead agency preparing and regularly updating the countywide Local Hazard Mitigation Plan.	Minimizes the placement of structures in flood hazard areas. Minimizes potential impacts from floods.	(g) Place housing within a 100-year flood hazard (h) Place within a 100-year flood hazard structures that impede or redirect flood flows; (i) Expose people or structures to a significant risk of flooding (j) Expose people or structures to tsunami, mudflow risk

## Conclusions

Violations of water quality standards due to urban runoff can be prevented through continued implementation of existing regional water quality regulations and through successful implementation of the City's local water quality control standards imposed on new development over the long term. The proposed General Plan would not interfere with the implementation of water quality regulations and standards. The Infrastructure Element addresses hydrology and water quality and includes policies that address these issues. They are listed in Table 13-1. The Healthy People and Healthy Places Element includes policies that address water quality and urban runoff; these are also listed in Table 13-1. The policies are geared toward reducing stormwater runoff and ensuring that runoff that does enter the storm drain system is free of pollutants. Therefore, long-term water quality impacts due to non-point sources would be less than significant.

The City currently inspects all residential, commercial, institutional, and industrial development and enforces structural and non-structural BMPs to ensure compliance with the City's MS4 and eliminate such discharges. Future commercial and other development supported by the proposed General Plan would be subject to the same monitoring and enforcement procedures.

NPDES regulations applicable to the planning area are designed to reduce non-point-source pollutant loading through implementation of BMPs and other control measures that minimize or eliminate pollutants from urban runoff, thereby protecting downstream water resources. The City implements NPDES provisions through the requirements of its MS4 permit, which is applicable to all portions of the city. BMPs implemented to address residential pollutant sources generally revolve around educational programs. Commercial and industrial development is subject to annual inspections to ensure implementation of BMPs and educational programs.

All significant structures built within the City pursuant to the 2040 General Plan would be subject to floodplain management regulations and policies that require hydrological evaluation to ensure that minimal diversion of floodwaters occurs and development standards are implemented to prevent flooding of on- and off-site uses. These regulations specifically prohibit construction of structures that could cause or divert floodwaters, and mandate appropriate site planning and structural design. Implementation of existing regulations would reduce impacts associated with the potential diversion of floodwaters to less-than-significant levels.

**Construction Period Impacts.** The construction of project-related stormwater drainage facilities (Significance Criterion [k]) would be temporary and would occur within either existing public rights-of-way, City property, a project development site, or private property subject to a municipal easement. Construction period traffic interruption, noise, and air emissions (dust) typically associated with such infrastructure construction would be mitigated through standard City of Burlingame construction mitigation procedures and policies (e.g., see chapters 7 [Air Quality], 15 [Noise], and 18 [Transportation and Circulation] of this EIR). No significant environmental impact is anticipated with this construction activity. The potential environmental impacts associated with construction of project drainage and water quality infrastructure would therefore be less than significant (see Significance Criterion [k] in subsection 13.2.1, "Significance Criteria," above). No mitigation is required.

In most cases, no one goal, policy, or implementation measure is expected to completely avoid or reduce an identified potential environmental impact. However, the collective, cumulative mitigating benefits of the policies listed in Table 13-1 will result in a less-than-significant impact related to the identified significance criterion and the corresponding environmental topic listed in the table name. This conclusion is consistent with the purpose and use of a program EIR for a general plan (see EIR Introduction, Chapter 1).

Based on the methodology described above, 2040 General Plan impacts related to hydrology and water quality would be **less than significant** (see criteria [a] through [k] in subsection 13.2.1, "Significance Criteria," above). No mitigation is required.