

## 4.6 WATER RESOURCES/FLOODING

### 4.6.1 Setting

**a. Water Supply.** In general, water supplies in Santa Cruz County have been and continue to be limited. Long-term average annual yields of the surface reservoir, as currently constructed, are fixed amounts that are subject only to further downward adjustments due to siltation. In addition, groundwater supplies are limited in terms of the annual amount of water that can be withdrawn without causing a long-term drop in water levels ("Safe Yield") and in the total storage of a basin that can be removed without significant environmental effects ("Available Yield"). Such water source limitations make water conservation a necessity in the county. Portions of Santa Cruz County receive water from various water districts that distribute both surface water and groundwater pumped from local basins.

Historically, water supply needs throughout the county were first met through the development of surface water and then later included the development of groundwater resources. Surface water use still predominates along the north coast and in the upper San Lorenzo Valley. Groundwater use now predominates in the lower San Lorenzo Valley/Scotts Valley, mid-county and south county areas. However, in several "critical areas" the county's groundwater resources are already over-utilized, leading to overdraft and/or water quality degradation in certain areas.

Unincorporated Urbanized Areas. Water is supplied to the unincorporated portions of the county from several watersheds and water providers. The north coast area of the county contains the following water supply watersheds (water purveyors follow parenthetically): San Vicente Creek and Mill Creek (Davenport Water System); Liddell Spring, Reggiardo Creek, Laguna Creek, and Majors Creek (City of Santa Cruz); Redwood Spring (Redwood Spring Mutual Water Company); Pescadero Creek (Portola State Park); and Sempervirens Creek (Big Basin State Park). The Soquel-Aptos area of the county is provided water from Laurel Creek (Villa del Monte Mutual Water Company), West Branch Soquel Creek (Summit Mutual Water Company), and tributaries to the West Branch Soquel Creek (Redwood Lodge, Cathedral Woods, and Olive Springs Mutual Water Companies). Major water purveyors in the San Lorenzo Valley include San Lorenzo Woods Mutual Water Company, San Lorenzo Valley Water District, Big Basin Water Company, Mount Hermon Association, Forest Lakes Mutual Water Company, and the City of Santa Cruz. Water is provided to the Pajaro area by the City of Watsonville, from Corralitos Creek and Browns Valley Creek. Due to the intensity of irrigated croplands in the Pajaro Valley, saltwater intrusion currently constrains the usable supply of water in the valley.

City of Capitola. The City of Capitola's water supply is furnished primarily through Soquel Creek Water District with a small portion of the City (primarily the area on the far west side of the city, adjacent to 41<sup>st</sup> Avenue) served by the City of Santa Cruz Water District. The Soquel Creek Water District's supply is solely groundwater provided through a well system.



The City of Capitola's primary source of water is the water collected and distributed through Loch Lomond dam and north coast surface diversions.

City of Santa Cruz. The City of Santa Cruz can be divided into seven watersheds: Wilder, Moore Creek, West Santa Cruz, Lower San Lorenzo River, Carbonera, Branciforte, and Arana Gulch. These watersheds are mostly urbanized, with the exception of the Moore Creek and Wilder Creek watersheds. The City's drinking water is supplied by two watershed systems located outside City limits: the upper San Lorenzo Watershed and the North Coast Watershed. The Upper San Lorenzo Watershed provides approximately 60% of the City's water supply. The City directly obtains its water from both surface water and groundwater sources. Surface water sources include Majors Creek, Laguna Creek and Liddell Spring, the San Lorenzo River and Loch Lomond Reservoir and account for approximately 94% of the systems total production. The Beltz Wells provide the balance of the water used within the City system. Water is then diverted by pumping from supply sources to the Graham Hill and Beltz water treatment plants and then distributed to residences. The Santa Cruz Water Department's (SCWD) service area includes UCSC, unincorporated areas such as Pasatiempo and Carbonera to the north, the Live Oak area to the east, and several domestic and agricultural areas along Highway 1 to the west of the City. According to the 1989 Water Master Plan, existing water supply sources, with certain upgrades, are capable of meeting year 2005 demands under high growth scenarios in about 90% to 95% of all years. To deal with dry-year water supply shortfalls, the City would primarily focus on conservation efforts and upgrading the existing supply system to meet projected demand and would consider implementing projects that would increase the water supply only if absolutely necessary.

City of Scotts Valley. The City of Scotts Valley lies wholly in the watershed of the San Lorenzo River, the major drainage basin in northern Santa Cruz County. Portions of three watersheds of major creek tributaries to the San Lorenzo River, including the Branciforte Creek, Bean Creek and Carbonera Creek watershed, as well as a small area that drains toward the river itself, are located within the City's Planning Area. Most of the 7.4 square mile Carbonera Creek watershed is located within the City Planning Area. Carbonera Creek is the major surface hydrological feature in the City. It generally runs northeast to southwest through the length of the City.

Water is provided to the City of Scotts Valley by the Scotts Valley Water District (SVWD), the San Lorenzo Valley Water District (SLVWD), and private wells. The SVWD serves the majority of the City through approximately 3,000 active water meter connections. The SLVWD supplies water to the approximately 500 customers in the Pasatiempo Pines area, in the southwestern portion of the City. Both the SVWD and SLVWD utilize groundwater to serve their respective customers. This groundwater is stored in the Santa Margarita Sandstone, Monterey Shale, and Lompico Aquifers. The Santa Margarita Aquifer has been designated by the federal government as a sole source aquifer. The groundwater basin is estimated to contain approximately 49,000 acre-feet of water. The annual renewable safe yield of the basin is approximately 4,200 acre-feet. Less than one-half of that amount is used by the two water districts and other private wells in the area.



City of Watsonville. According to the City of Watsonville "1998 Annual Drinking Water Report", when rainfall hits the ground in the Pajaro Valley, a portion of the water is absorbed into the ground and eventually reaches the groundwater table. City-owned and private wells then pump water for residential, agricultural, and business uses. About 80% of Watsonville's water supply is groundwater. The rest is collected from creeks and treated at a plant in the Corralitos area. The drinking water system in the City of Watsonville includes twelve wells, nine pressure zones and eight pump stations and eight reservoirs. Approximately seven million gallons of water is delivered to businesses and residents in the Watsonville service area on a daily basis.

The City of Watsonville's water meets the strict standards set by the State. However, there is a shortage of water in the Pajaro Valley: each year, more water is pumped out of the earth than is replaced by rainfall. Over-pumping causes saltwater intrusion, the process where ocean water seeps underground into wells, rendering them useless. Although Watsonville uses only 10% of the groundwater in the Pajaro Valley, the City encourages water conservation in response to this shortage. Nevertheless, according to the Watsonville General Plan, the annual overdraft of the Pajaro River Basin is estimated to be at least 11,000 acre feet. The Pajaro Valley Water Management Agency (PVWMA) is the regional agency responsible for water resource management in the Watsonville Planning Area.

#### **b. Water Quality.**

Surface Water. One of the primary sources of surface water contamination in the county is runoff from impervious surfaces in urban areas. Stormwater flowing over roadway and other transportation facilities carries urban pollutants through natural drainage systems or man-made stormdrain facilities to a body of surface water. Such discharges are referred to as "non-point" sources because the pollutants are generated at many diffuse sources rather than at a single point. These discharges are mostly unregulated, resulting in untreated pollutants entering rivers, lakes, Monterey Bay and the Pacific Ocean. Pollutants contained within urban runoff primarily include suspended solids, oil, grease, pesticides, pathogens, and air pollutants.

Groundwater. Water quality in the groundwater basins of Santa Cruz County has degraded over the years due to continual use of the resource. This is particularly true in areas where the water table has been significantly lowered. Additional factors that contribute to the decline of water quality include: percolation of agricultural runoff contaminated with fertilizers and pesticides into the water table; percolation of water from public and private sewage treatment systems; percolation of contaminated urban runoff; the reduction of the natural "flushing" effect of water through-flow caused by lowered overall water levels, and the upward or lateral diffusion of connate brines by over-pumping of freshwater aquifers.

**c. Flooding.** The flooding hazard is the highest in the well-defined canyons with sizeable drainage areas. Also, low lying areas that would experience rising water or overflow of stream banks during 100-year storms present a high hazard. Such areas occur in numerous locations along the coastal state highway system, and locally on county roads.



Flooding within the City of Santa Cruz has occurred primarily along the San Lorenzo River. Large areas in the central portion of the City of Santa Cruz, on either side of the San Lorenzo River, are identified in the City of Santa Cruz General Plan as being located within a floodplain. Flooding is also a hazard on the lower reaches of Moore Creek where only shallow stream channels are present, the lower portion of Arana Gulch north of the Santa Cruz Yacht Harbor and along portions of Branciforte and Carbonera Creeks. Several roadways, including Mission Street, in the City of Santa Cruz are characterized by insufficient drainage. As described in the Scotts Valley General Plan, flood prone areas in the City include areas along Carbonera Creek. In the City of Watsonville, the Pajaro River and Corralitos Creek have a history of flooding. Large portions of southern Watsonville, and southern portions of the Watsonville Planning Area are located within the 100-year flood zone. The existing channel and levee system along the Pajaro River has an approximate 20-year storm capacity, which the Corralitos and Salsipuedes Creeks have five- and seven-year storm capacities, respectively. In the City of Capitola, the lowlands along Soquel Creek, most of Capitola Village, and the lowlands immediately adjacent to the Noble Gulch lie within the 100-year floodplain.

#### 4.6.2 Impact Analysis

**a. Methodology and Significance Thresholds.** Implementation of the 2001 RTP, and projects pursuant to the RTP, would create a significant impact relative to water resources and flooding if any project contemplated under the RTP would result in:

- *Violate any water quality standards or waste discharge requirements;*
- *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (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);*
- *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, 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;*
- *Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;*
- *Place within a 100-year flood hazard area structures which would impede or redirect flood flows;*
- *Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; or*



- *Result in inundation by seiche tsunami or mudflow.*

**b. Project Impacts and Mitigation Measures.** This section describes generalized impacts associated with the projects anticipated under the RTP. Table 4.6-2 in Section 4.6.2.c. summarizes the specific projects that could result in the impacts discussed in this section.

**Impact W-1 Construction and maintenance of RTP projects would incrementally increase countywide water demand. Such impacts would be Class II, significant but mitigable, impacts.**

Implementation of the RTP projects would result in both short-term and long-term impacts to the county's water supply. During grading activities, water would be needed to suppress fugitive dust generated by construction equipment. It is likely that more than one project could be constructed simultaneously in areas with overdrafted groundwater basins. Because this could contribute to the current overdraft situation, the short-term water impact of the project is considered potentially significant.

Most of the RTP roadway, transit, airport and rail system improvements involve modification of existing facilities. As such, a substantial increase in landscaped areas is not anticipated for these projects. Nevertheless, irrigation of landscaping associated with the RTP projects would require water, and therefore contribute to long-term adverse impacts to water supply.

Major RTP projects, particularly the roadway extensions, could also affect groundwater supplies by incrementally reducing groundwater recharge potential. This reduction in groundwater recharge could occur because the impermeable surfaces associated with the RTP improvements would increase surface water runoff at the expense of natural infiltration. While the significance of such an impact cannot be accurately determined, given the overdrafted nature of the majority of the county's groundwater basins, the reduction in groundwater recharge is considered to be potentially significant.

Mitigation Measures. The following mitigation measures address potential impacts to water supplies:

- W-1(a)** The local jurisdiction in which a particular RTP project is located shall ensure that, where economically feasible, reclaimed and/or desalinated water is used for dust suppression during construction activities. This measure shall be noted on construction plans and shall be spot checked by the local jurisdiction.
- W-1(b)** The local jurisdiction in which a particular RTP project is located shall ensure that low water use landscaping (i.e., drought tolerant plants and drip irrigation) is installed. This shall be accomplished through the placement of conditions on the project by the local jurisdiction during individual environmental review.



- W-1(c)** The local jurisdiction in which a particular RTP project is located shall ensure that, if feasible, landscaping associated with improvements is maintained using reclaimed and/or desalinated water. This shall be accomplished through the placement of conditions on the project by the local jurisdiction during individual environmental review.
- W-1(d)** The local jurisdiction in which a particular RTP project is located shall ensure that porous pavement materials are utilized, where feasible, to allow for groundwater percolation. Rural bicycle trails shall be left unpaved, where appropriate. This shall be accomplished through the placement of conditions on the project by the local jurisdiction during individual environmental review.

Significance After Mitigation. Implementation of the above measures would reduce potential impacts to a less than significant level.

- Impact W-2 Construction of, and vehicular operations on, RTP transportation facilities, park and ride lots, and rail and ferry stations could result in erosion and runoff, which could degrade surface and ground water quality. This impact is considered Class II, significant but mitigable.**

Construction and expansion of transportation facilities throughout the county may generate significant adverse impacts to surface water quality. Pollutants and chemicals associated with urban activities would run off new roadways (and other new transportation facilities such as parking lots, airport runways, and train stations), flowing into nearby bodies of water. These pollutants would include, but are not limited to: heavy metals from auto emissions, oil, grease, debris, and air pollution residues. Such contaminated urban runoff remains largely untreated, thus resulting in the incremental long-term degradation of water quality. It should be noted that water contamination from urban runoff is an infrequent event and primarily occurs during and immediately following precipitation.

Short-term adverse impacts to surface water quality may also occur during the construction periods of individual improvement projects because areas of disturbed soils would be highly susceptible to water erosion and downstream sedimentation. This impact is of particular concern where projects are located on previously contaminated sites. Without effective erosion and storm water control, contaminated soils exposed during construction activities may result in surface water contamination. This impact is considered potentially significant.

Grading and vegetation removal in proximity to creeks for construction of the bridges could result in an increase in erosion and sedimentation of creek banks. This could affect both water quality and the stability of slopes along the creeks.



Regulations under the federal Clean Water Act require that a National Pollutant Discharge Elimination System (NPDES) storm water permit be obtained for projects that would disturb greater than five acres during construction (the minimum area will go down to one acre in March 2003). Acquisition of the General Construction permit is dependent on the preparation of a Storm Water Pollution Prevention Plan (SWPPP) that contains specific actions, termed Best Management Practices (BMPs) to control the discharge of pollutants, including sediment, into the local surface water drainages. Many RTP projects would be subject to these regulations.

Implementation of several RTP station and park and ride projects, including the Highway 1/Highway 9 Intersection Improvements and Park and Ride Lot (CT-P20), Multi-modal Station Development (SC 1), Transit Center Joint Daycare Facility (WAT 20), Pajaro Rail Station Design and Construct project (CT-P19), and Pacific Cove Expansion for Park and Ride Lot (CAP-P24), could result in generation of traffic and operations that produce runoff, erosion and sedimentation that could affect watercourses. This would be considered a potentially significant impact.

The locations of several RTP station and park and ride lot facilities, including the Lift Line Maintenance/Operations Center (CTSA-P2), Capitola Intra-City Rail Trolley Project (CAP-P18), Santa Cruz Intra-City Rail Transit project (SC-P74), Park and Ride Lot Development (RTC-P14), Metrobase (Consolidated Operations Facility) (MTD-1), Capitola-Santa Cruz Commuter Ferry Service (CAP-P19), Park & Ride Lots (SC-P14), Park & Ride Lots for Bus Commuters (MTD-P26), and Rail Transit: Watsonville-Santa Cruz Corridor (MTD-P17), have not been determined. In addition, the RTP provides funding for transit oriented development (TOD) projects (RTC-P25), the sites of which have not been determined. Therefore, an evaluation of water quality impacts from these projects would be speculative. As described in Section 4.0 of this EIR, the State *CEQA Guidelines* Section 15145 notes that "If, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact." An evaluation of the site-specific impacts of the RTP station and park and ride lot projects for which sites have not been defined would be speculative, as neither the existing nor the post-project conditions of the sites can be assessed. Nevertheless, these projects will be required to undergo environmental review pursuant to CEQA when site plans are defined, prior to project implementation.

Mitigation Measures. The following mitigation measures are required to reduce potential impacts to water quality:

- W-2(a)** The local jurisdiction in which a particular RTP project is located shall ensure that fertilizer/ pesticide application plans for any new right-of-way landscaping are prepared to minimize deep percolation of chemicals. This shall be accomplished through the placement of conditions on the project by the local jurisdiction during individual environmental review.



- W-2(b)** The local jurisdiction in which an RTP road widening or roadway extension project is located shall ensure that the improvement directs runoff into subsurface percolation basins and traps which would allow for the removal of urban pollutants, fertilizers, pesticides, and other chemicals. This shall be accomplished through the placement of conditions on the project by the local jurisdiction during individual environmental review.
- W-2(c)** For roadway projects that would disturb at least five acres (one acre after March 2003), a Storm Water Pollution Prevention Plan (SWPPP) shall be developed prior to the initiation of grading and implemented for all construction activity on the project site. The SWPPP shall include specific BMPs to control the discharge of material from the site and into the creeks and local storm drains. BMP methods may include, but would not be limited to, the use of temporary retention basins, straw bales, sand bagging, mulching, erosion control blankets and soil stabilizers.
- W-2(d)** The local jurisdiction in which a particular RTP project is located shall ensure that adequate drainage infrastructure is in place to accommodate runoff from the project, prior to issuance of grading permits. If adequate drainage infrastructure is not available, the project proponent shall pay utility mitigation fees or otherwise provide improvements to the drainage facilities of the jurisdiction in which the project is located such that drainage facilities affected by the project in question maintain an acceptable level of service.

Significance After Mitigation. Implementation of the above measures would reduce potential impacts to a less than significant level.

**Impact W-3** **Some RTP projects could be subject to high flood hazard. Impacts are considered Class II, significant but mitigable.**

RTP road and bikeway projects in low-lying areas may be subject to flood hazard. The effects of flooding could include temporary inundation of a facility that impedes its use, or causes long-term damage to the facility. Flooding may also cause immediate damage to roadways, bikeways, and bridges, particularly during high velocity flood events that wash away or erode facilities. This would typically occur adjacent to rising rivers or streams. In addition, people could be exposed to flood hazard in the event of failure of a dam or levee, such as along portions of the Pajaro River. Unpaved bikeways are particularly vulnerable, although any facility within the flood zone of a stream would be subject to impacts. Erosion caused by flooding can damage paved facilities, and bridge supports can be undermined or washed away. Impacts are potentially significant.



Indirect impacts of flooding include threats to lives or property, including cars or bicycles parked adjacent to flooded facilities. Lives can be threatened if motorists or cyclists venture onto flooded or flood-damaged facilities. Indirect impacts to lives and property are potentially significant.

Mitigation Measures. The following measures are recommended to minimize the potential for flood impacts.

- W-3(a)** If a particular RTP roadway, bikeway or bridge project is located in an area with high flooding potential, the local jurisdiction in which the project is located shall ensure that the structure is elevated at least one foot above the 100 year flood zone elevation and that feasible bank stabilization and erosion control measures are implemented along creek crossings. This requirement can be accomplished through the placement of conditions on the project by the local jurisdiction during individual environmental review.

Significance After Mitigation. Implementation of the above measure would reduce potential impacts to a less than significant level.

- Impact W-4** **Some RTP projects may be located in areas subject to tsunami or seiche. This is considered a Class II, *significant but mitigable* impact.**

The potential for impacts due to tsunami and seiche are considered low throughout the county. Coastal regions would be most susceptible to tsunami, while areas adjacent to large lakes are subject to seiche. No lakes large enough to produce substantial seiche events are located within the county. Although impacts related to tsunami are considered unlikely, they are potentially significant without mitigation.

Mitigation Measures. The following measures are recommended to minimize the potential for seiche and tsunami impacts.

- W-4(a)** In areas subject to tsunami effects, the local jurisdiction shall ensure that RTP projects involving the construction of new roadways or other structures are elevated above the 10-foot elevation by an appropriate margin. This requirement can be accomplished through the placement of conditions on the project by the local jurisdiction during environmental review for individual projects.

Significance After Mitigation. Implementation of the above measure would reduce potential impacts to a less than significant level.

**c. Specific RTP Projects That May Result in Impacts.** Table 4.6-1 identifies those projects that may create impacts as discussed in Section 4.6.2.b above. The individual projects listed could create significant impacts to water resources but would not necessarily do so. Additional



specific analysis will need to be conducted as the individual projects are implemented in order to determine the actual magnitude of impact. Mitigation measures discussed above could apply to these specific projects.

Table 4.6-1 RTP Projects That May Result in Water Impacts

Project	Lead Agency	Location	Impact	Description of Impact
Many	All	All RTP projects that require new construction	W-1	Projects would require water use during construction to control fugitive dust
Many	All	All RTP projects that require new construction	W-2	Project construction and vehicle use could produce runoff and degrade water quality
Many	All	All roadway extensions, new Class I bikeways, and roadway modifications in coastal areas	W-4	Projects are subject to exposure to potential tsunami events
<b>Constrained Projects</b>				
AIR-P1	Watsonville Airport	Lump Sum Watsonville Airport Projects	W-1, 2	Water used for landscaping and during construction; water quality could be degraded through runoff
CT-18	Caltrans	Highway 1/Harkins Slough	W-3	Possible exposure to flood hazard
CT-P34	Caltrans	Highway 1/San Lorenzo Bridge Widening	W-3	Possible exposure to flood hazard
CT-P10	Caltrans	Highway 17 Operational Improvements	W-1, 2	Water used for construction; water quality could be degraded through runoff
CT-25	Caltrans	Highway 129 Improvements at Rogge Lane	W-3	Possible exposure to flood hazard
CT-P14	Caltrans	Highway 129 Operational Improvements	W-3	Possible exposure to flood hazard
CT-P17	Caltrans	Highway 152: Revise Holohan Road/ College Road Intersection	W-3	Possible exposure to flood hazard
CT-P28	Caltrans	Lump Sum Highway Bridge Replacement and Rehabilitation (HBRR)	W-3	Possible exposure to flood hazard
CT-P30	Caltrans	Lump Sum Other SHOPP Projects	W-3	Possible exposure to flood hazard
CT-P20	Caltrans	Planting on Highways 1 and 17 Near Scotts Valley, Santa Cruz and Capitola	W-1, 2	Water used for landscaping and during construction; water quality could be degraded through runoff
CT-P16	Caltrans	Route 152: Install metal beam guardrail (MGBR) and Widen Shoulders	W-3	Possible exposure to flood hazard
CAP 4	Capitola	Capitola Village Multi-Modal Enhancements	W-1, 2	Water used for landscaping and during construction; water quality could be degraded through runoff
CO-P21	County	30 <sup>th</sup> Avenue Improvements (East	W-1, 2	Water used for landscaping and



Table 4.6-1 RTP Projects That May Result in Water Impacts

Project	Lead Agency	Location	Impact	Description of Impact
		Cliff Drive to Capitola Road)		during construction; water quality could be degraded through runoff
CO-P1	County	7 <sup>th</sup> Avenue Improvements	W-1, 2	Water used for landscaping and during construction; water quality could be degraded through runoff
CO-P2	County	Airport Boulevard Improvements	W-1, 2	Water used for landscaping and during construction; water quality could be degraded through runoff
CO-P25	County	Alice Street Improvements	W-1, 2	Water used for landscaping and during construction; water quality could be degraded through runoff
CO-P4	County	Bear Creek Road Improvements	W-1, 2	Water used for landscaping and during construction; water quality could be degraded through runoff
CO-31	County	Ben Lomond Streetscape	W-1, 2	Water used for landscaping and during construction; water quality could be degraded through runoff
CO-P5	County	Brommer Street Improvements	W-1, 2	Water used for landscaping and during construction; water quality could be degraded through runoff
CO 1	County	Capitola Road Widening and Multi-modal Improvements	W-1, 2	Water used for landscaping and during construction; water quality could be degraded through runoff
CO-P23	County	College Road Improvements	W-1, 2	Water used for landscaping and during construction; water quality could be degraded through runoff
CO-P9	County	East Cliff Drive Improvements (5 <sup>th</sup> Avenue to 41st Avenue).	W-1, 2	Water used for landscaping and during construction; water quality could be degraded through runoff
CO-P28e	County	Holohan Road (Green Valley Road to State Highway 152)	W-3	Possible exposure to flood hazard
CO-P44	County	Lake Avenue Improvements	W-1, 2	Water used for landscaping and during construction; water quality could be degraded through runoff
CO 30	County	Lake Avenue/5th Avenue Sidewalks	W-1, 2	Water used for landscaping and during construction; water quality could be degraded



Table 4.6-1 RTP Projects That May Result in Water Impacts

Project	Lead Agency	Location	Impact	Description of Impact
				through runoff
CO-P15	County	Lakeview Road Improvements	W-1, 2, 3	Water used for landscaping and during construction; water quality could be degraded through runoff; exposure to flood hazard
CO 37	County	Mt. Hermon Road/Graham Hill Road	W-1, 2	Water used for landscaping and during construction; water quality could be degraded through runoff
CO-P22	County	Paul Sweet Road Improvements	W-1, 2	Water used for landscaping and during construction; water quality could be degraded through runoff
CO-25	County	Portola Drive Improvements	W-1, 2	Water used for landscaping and during construction; water quality could be degraded through runoff
CO-P16	County	Robertson Street Improvements	W-1, 2	Water used for landscaping and during construction; water quality could be degraded through runoff
CO-P18	County	Soquel Avenue Improvements: City of Santa Cruz to Gross Road	W-1, 2	Water used for landscaping and during construction; water quality could be degraded through runoff
CO-P19	County	Soquel Drive Improvements: Soquel Avenue to Freedom Boulevard	W-1, 2	Water used for landscaping and during construction; water quality could be degraded through runoff
CO-P20	County	State Park Drive Improvements Phase 2	W-1, 2	Water used for landscaping and during construction; water quality could be degraded through runoff
SC-P34	Santa Cruz	Branciforte Creek Bike/Pedestrian Crossing	W-3	Possible exposure to flood hazard
SC 22	Santa Cruz	Mission Street Landscaping	W-1, 2	Water used for landscaping and during construction
SC 1	Santa Cruz	Multi-modal Station Development	W-1, 2	Water used for landscaping and during construction; water quality could be degraded through runoff
SC-P36	Santa Cruz	River Levee Connection	W-3	Possible exposure to flood hazard
SC-P35	Santa Cruz	River Levee - Southeast End	W-3	Possible exposure to flood hazard
SC-P37	Santa Cruz	River Pathway Connection/Highway 1 Undercrossing	W-3	Possible exposure to flood hazard
SC-3	Santa Cruz	San Lorenzo River Bike/Pedestrian Bridge	W-3	Possible exposure to flood hazard



Table 4.6-1 RTP Projects That May Result in Water Impacts

Project	Lead Agency	Location	Impact	Description of Impact
SV 12	Scotts Valley	Major Arterial Road Beautification	W-1, 2	Water used for landscaping and during construction; water quality could be degraded through runoff
WAT 23	Watsonville	Downtown Pedestrian Improvements	W-1, 2	Water used for landscaping and during construction; water quality could be degraded through runoff
WAT-P7	Watsonville	Struve Slough Bridge (HBRR)	W-3	Possible exposure to flood hazard
WAT-P9	Watsonville	Watsonville Slough Bridge (HBRR)	W-3	Possible exposure to flood hazard
<b><i>Unconstrained Projects</i></b>				
CT-P32	Caltrans	Highway 129 Widening (Union Street-Bridge Street)	W-3	Possible exposure to flood hazard
CT-P33	Caltrans	Highway 152 Widening (Martinelli Street-Holohan Road)	W-3	Possible exposure to flood hazard
CO-P45	County	5th Avenue Improvements	W-1, 2	Water used for landscaping and during construction; water quality could be degraded through runoff
CO-P10	County	Empire Grade Improvements	W-1, 2	Water used for landscaping and during construction; water quality could be degraded through runoff
CO-P26b	County	Beach Road (City Limits to Pajaro Dunes)	W-3	Possible exposure to flood hazard
CO-P38	County	Pajaro River Bike Path	W-3	Possible exposure to flood hazard
CO-P46	County	San Lorenzo River Corridor Bike Path	W-3	Possible exposure to flood hazard
SC-P27	Santa Cruz	Josephine Street Bridge	W-3	Possible exposure to flood hazard
WAT-P17	Watsonville	Slough Trails	W-3	Possible exposure to flood hazard

