8-4.12 WATER RESOURCES

8-4.12.1 Setting

A general discussion of precipitation in the San Fernando Valley is presented in Section 4-12.1 of the Final EIR.

8-4.12.1.1 Surface Water Resources

Figure 4-57 of the Final EIR shows the Los Angeles River and other major surface water resources in the San Fernando Valley and adjoining region. Surface water drains out of the San Fernando Valley through the Los Angeles River, which flows from the southwest side of the San Fernando Valley through the Los Angeles Coastal Plain to San Pedro Bay. The Los Angeles River has been channelized and lined with concrete along most of its course for flood control purposes. Within the Sepulveda Flood Control Basin the floor of the Los Angeles River channel is unlined to allow for the water within the channel to percolate into the ground. The Sepulveda Flood Control Basin is owned and maintained by the U. S. Army Corps of Engineers (USACE) to manage flood levels within the Los Angeles River during major storm events. Flows in the Los Angeles River system are highly variable. (See Section 4-12.1.1 of the Final EIR for further discussion of seasonal flows.)

Numerous tributaries, most of which have intermittent flow, discharge into the Los Angeles River. These include Bell Creek, Chatsworth Creek, Arroyo Calabasas Creek, Browns Canyon Wash, Aliso Canyon Wash, Caballero Creek, Bull Creek, Pacoima Wash, and Tujunga Wash. Bell Creek drains the Simi Hills and receives flows from Chatsworth Creek. Arroyo Calabasas drains Woodland Hills, Calabasas, and Hidden Hills in the Santa Monica Mountains, and then converges with Bell Creek to form the Los Angeles River. Browns Canyon Wash, and Aliso Canyon Wash drain the surrounding mountains and discharge into the Los Angeles River as it flows southeast. Caballero Creek drains an area of approximately 10 square miles, most of which lies within the Santa Monica Mountains, and flows northward into the Los Angeles River. This creek flows only intermittently. Bull Creek drains an area of approximately 150 square miles, including large areas within the San Gabriel and Santa Susana Mountains, and joins the Los Angeles River at the Sepulveda Flood Control Basin. The Upper Van Norman Dam and Lake, which are located in the northern portion of the San Fernando Valley, north of Devonshire Street, regulate Bull Creek. The Tujunga Wash drains an area of approximately 150 square miles, including large areas within the San Gabriel Mountains. The Hansen Dam and Flood Control Basin, which are located in the eastern San Fernando Valley and east of San Fernando Road, regulate the Tujunga Wash. The Tujunga Wash flows southward through the eastern San Fernando Valley, joins with the Pacoima Wash, and continues to flow through two branches. Both branches discharge into the Los Angeles River between Ventura Boulevard and Interstate 101.

8-4.12.1.2 Groundwater

For a general discussion of groundwater and groundwater basins, reference Section 4-12.1.2 of the Final EIR.

The study area is located within the San Fernando Valley Groundwater Basin (Basin). Beneficial uses of the groundwater in the Basin are municipal and industrial water supply and agriculture. Pumping of groundwater is controlled in order to prevent groundwater levels from declining. Groundwater flow in the San Fernando Valley is generally eastward, parallel to the course of the Los Angeles River. The highly nonuniform character of the soils in the San Fernando Valley results in local "perched" aquifers that do not communicate with deeper groundwater. Historically, perched groundwater has sometimes been found within 10 feet of the surface (see Figure 4-55 of the Final EIR).

8-4.12.1.3 Floodplains

A review of Flood Insurance Rate Maps (FIRMs) prepared by the Federal Emergency Management Agency (FEMA) indicates that portions of the study area are within 100-year flood hazard areas. In a number of areas, the streets that are associated with the San Fernando Valley study area cross designated 100-year floodplains at locations where the floodplains are entirely contained within concrete lined flood control channels (e.g. Los Angeles River). In other areas, the streets that are associated with the study area cross 100-year flood hazard areas that are not contained within flood control channels, and these areas are listed in **Table 8-4.12-1** (FEMA 100-Year Flood Hazard Areas Not Contained Within Flood Control Channels).

Table 8-4.12-1
FEMA 100-YEAR FLOOD HAZARD AREAS
NOT CONTAINED WITHIN FLOOD CONTROL CHANNELS

Locations Within the Study Area	FEMA Flood Map	FEMA Zone[1]
Along Victory Boulevard, between Woodley Avenue and Balboa Boulevard, at the northern edge of the Sepulveda Flood Control Basin.	0601370038C	AH
Southwest intersection of Canoga Avenue and Devonshire Street, on either side of the Browns Canyon Wash.	0601370018C	AO
On Roscoe Boulevard, just west of Interstate 405.	0601370029C	AH
Notes: Zones of FEMA Special Flood Hazard Areas Inundated by 100-Year Flood: Zone AH: Flood depths of 1 to 3 feet (usually areas of ponding). Zone AO: Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain).		

The study area includes a Rapid Bus route along Victory Boulevard, and the portion of Victory Boulevard between Encino Avenue and Interstate 405 is located at the northern boundary of the Sepulveda Flood Control Basin. In addition, the study area includes a Rapid Bus route along Burbank Boulevard that traverses the Sepulveda Flood Control Basin. Although the Sepulveda Flood Control Basin is used by the USACE to manage flood levels within the Los Angeles River during major storm events, the Sepulveda Basin would not naturally flood during a 100-year

storm event, and it is not in a 100-year flood hazard area defined by FEMA. For this reason, areas where the routes cross the Sepulveda Flood Control Basin, but do not cross a designated 100-year FEMA flood hazard zone**,** are not included in **Table 8-4.12-1**.

8-4.12.2 Impact Assessment Methodology and Evaluation Criteria

Operational impacts to surface waters are assessed with regards to degradation of water quality and changes in surface water flow. Effects on future water quality are estimated based on the potential for runoff to reach surface and groundwater resources and the types of pollutants anticipated. Anticipated impacts were examined with regards to applicable water quality standards and permit requirements.

Section 401 of the Clean Water Act regulates the discharge of pollutants to surface water bodies through National Pollutant Discharge Elimination System (NPDES) permits, which are administered by the State Water Resources Control Board and the nine Regional Water Quality Control Boards.

Previously prepared environmental and technical reports were reviewed to determine the local groundwater setting. Maps prepared by FEMA were examined to determine the potential for floodplain impacts. The three alternatives would have significant impact under CEQA during operation if they would result in any of the following conditions:

- Create storm water volumes that exceed the capacity of existing drainage facilities;
- Deplete or contaminate a groundwater aquifer;
- Place new development in areas susceptible to 100-year flooding; or
- Create pollution, contamination, or nuisance as defined in Section 12050 of the California Water Code.

8-4.12.3 Impacts on Water Resources

8-4.12.3.1 Surface Water Resources

Figures 8-4.12.1, **8-4.12.2**, and **8-4.12.3** show the major surface water resources in the region and their locations relative to the Three East-West Rapid Bus Routes Alternative (RB-3), Five East West Rapid Bus Routes Alternative (RB-5), and Rapid Bus Network Alternative (RB-Network), respectively. As shown in the figures, the bus routes for these three alternatives would cross the Los Angeles River and its tributaries in a number of locations. However, a windshield survey conducted by Ultrasystems Environmental on August 26 and 31, 2004, found that the Los Angeles River and its tributaries are channelized at each point of crossing. The

Insert Figure 8-4.12.1

Insert Figure 8-4.12.2

Insert Figure 8-4.12.3

windshield survey also confirmed that the buses would travel along existing roads that pass over these channels.

The RB-3, RB-5, and RB-Network alternatives would not generate new impervious surfaces or otherwise increase surface runoff that could result in the degradation of downstream water quality. In addition, the Los Angeles River and its tributaries are channelized at each point of crossing with the Rapid Bus route alternatives, and the buses would travel along existing streets that pass over these channels. Thus, the three alternatives would not generate additional runoff or new sources of contamination to surface water resources, and no significant impact under CEQA on surface water resources would occur as a result of the three alternatives.

8-4.12.3.2 Groundwater

The RB-3, RB-5, and RB-Network alternatives would not construct any new structures other than at the RB stops (which are minimal), would utilize existing paved streets, and would maintain existing land uses along the corridors. Therefore, the three alternatives would not increase use of groundwater or generate new sources of groundwater contaminants, and no significant impact under CEQA on groundwater resources would occur.

8-4.12.3.3 Floodplains

As shown in **Table 8-4.12-1**, the three alternatives include areas within 100-year flood hazard zones mapped by FEMA. However, because each of the three alternatives would travel along existing streets and would not construct any major structures within the designated floodplains, each of the three alternatives would present the same risks to people or structures from flooding, as do the existing land uses. Therefore, no significant impact under CEQA related to flooding is predicted for these alternatives.

8-4.12.4 Mitigation Measures

8-4.12.4.1 Surface Water Resources

No significant impact under CEQA on surface water resources would occur for the RB-3, RB-5, or RB-Network alternatives. Therefore, no mitigation related to surface water resources would be required.

8-4.12.4.2 Groundwater

No significant impact under CEQA on groundwater would occur for the RB-3, RB-5, or RB-Network alternatives. Therefore, no mitigation related to groundwater would be required.

8-4.12.4.3 Floodplains

No significant impact under CEQA related to flooding would occur for the RB-3, RB-5, or RB-Network alternatives. Therefore, no mitigation related to flooding would be required.