

Mass Emission Sites were established and monitored throughout the Los Angeles County Flood Control District (LACFCD) in an effort to characterize the water quality of the channels and streams. Tributary sites were selected to characterize the water quality of the channels and streams subwatersheds.

2.1 MASS EMISSION SITE SELECTION

The Los Angeles County Flood Control District (LACFCD) monitored at the following seven mass emission stations: Ballona Creek, Malibu Creek, Los Angeles River, Coyote Creek, San Gabriel River, Dominguez Channel, and Santa Clara River. The seven mass emission monitoring stations collected water quality data from approximately 2,060 square miles.

Four of the mass emission monitoring stations installed under the original 1990 Permit were retained under the 1996 and the 2001 Municipal Stormwater Permit; specifically Ballona Creek, Malibu Creek, Los Angeles River, and San Gabriel River. The Coyote Creek monitoring station was monitored under the 1990, 1996, and 2001 Municipal Stormwater Permit, though monitoring was not required under the 1996 Municipal Stormwater Permit. Monitoring began at Dominguez Channel mass emission station during the 2001-02 season. Sampling at the Santa Clara mass emission station began during the 2002-03 season.

2.2 MASS EMISSION MONITORING LOCATIONS AND DRAINAGE AREAS

Figure 2-1 is an overview of the study area with all mass emission monitoring sites shown. Table 2-1 also indicates the dominant land use associated with each monitoring site and the total drainage area, including the tributary monitoring sites.

Provided below is a description of the seven mass emission stations required by the Municipal Stormwater Permit for the 2007-08 monitoring period: Ballona Creek, Malibu Creek, Los Angeles River, San Gabriel River, Coyote Creek, Dominguez Channel, and Santa Clara River. Figures 2-2 through 2-8 show the location of each monitoring station along with a description of its land use.

Ballona Creek Monitoring Station (S01)

The Ballona Creek monitoring station is located at the existing stream gage station (Stream Gage F38C-R) between Sawtelle and Sepulveda Boulevards in the City of Los Angeles and was chosen to avoid tidal influences. The upstream tributary watershed of Ballona Creek is 88.8 square miles. The entire Ballona Creek Watershed is 127.1 square miles. Ballona Creek is a concrete-lined trapezoidal channel at the gaging station. This station can be found on Thomas Guide page 672 G-4.

Malibu Creek Monitoring Station (S02)

The Malibu Creek monitoring station is located at the existing stream gage station (Stream Gage F130-9-R) near Malibu Canyon Road, south of Piuma Road. The tributary watershed to Malibu Creek at this location is 104.9 square miles and the entire

Malibu Creek Watershed is 109.9 square miles. This station can be found on Thomas Guide page 628 H-1.

Los Angeles River Monitoring Station (S10)

The Los Angeles River Monitoring Station is located at the existing stream gage station (Stream Gage F319-R) between Willow Street and Wardlow Road in the City of Long Beach and was chosen to avoid tidal influences. The river is a concrete-lined trapezoidal channel at this site. The total upstream tributary drainage area for the Los Angeles River is 825 square miles. This river is the largest watershed outlet to the Pacific Ocean in the LACFCD. This station can be found on Thomas Guide page 795 C-1.

Coyote Creek Monitoring Station (S13)

The Coyote Creek Monitoring Station is located at the existing Army Corps of Engineers stream gage station (Stream Gage F354-R) below Spring Street in the lower San Gabriel River Watershed. The site assists in determining mass loading for the San Gabriel River Watershed. The upstream tributary area is 150 square miles (extending into Orange County). The sampling site was chosen to avoid backwater effects from the San Gabriel River. Coyote Creek, is a concrete-lined trapezoidal channel at this location. The Coyote Creek sampling location has been an active stream gaging station since 1963. This station can be found on Thomas Guide page 796 H-2.

San Gabriel River Monitoring Station (S14)

The San Gabriel River Monitoring Station is located at an historic stream gage station (Stream Gage F263C-R), below San Gabriel River Parkway in Pico Rivera. The upstream tributary area is 450 square miles at this location. The San Gabriel River is a grouted rock-concrete stabilizer along the western levee and a natural section on the eastern side. Flow measurement and water sampling are conducted in the grouted rock area along the western levee of the river. The length of the concrete stabilizer is nearly 70 feet. The San Gabriel River sampling location has been an active stream gaging station since 1968. This station can be found on Thomas Guide page 676 J-2.

Dominguez Channel Monitoring Station (S28)

The Dominguez Channel Monitoring Station is located at Dominguez Channel and Artesia Boulevard in the City of Torrance and was chosen to avoid tidal influence. The upstream tributary area is 33 square miles. The Dominguez Channel monitoring site is located in a concrete-lined rectangular channel. This station can be found on Thomas Guide page 733 H-7.

Santa Clara River Monitoring Station (S29)

The Santa Clara Monitoring Station is located at the Santa Clara River and The Old Road in Santa Clara. The Santa Clara River is primarily a soft bottom channel, which makes accurate flow monitoring extremely difficult. This location was originally chosen because flow monitoring was possible from the existing USGS 11108000 Santa Clara River near Saugus California Stream Gaging Station. Currently,

Public Works' Water Resources Division operates a real-time stream gaging station at the site. The flow gaging operation has been subject to shifting river conditions in recent years. The upstream tributary area is approximately 411 square miles. This station can be found on Thomas Guide page 4550 B-2.

2.3 TRIBUTARY SITE SELECTION

All six of the tributary monitoring stations: Big Dalton\Walnut Creek, Puente Creek, Upper San Jose Creek, Maplewood Channel, North Fork Coyote Creek, and SD 21 (Artesia-Norwalk Drain), were established in accordance with the 2001 Municipal Stormwater Permit. Monitoring began during the 2006-07 season. The six tributary monitoring stations were used to collect water quality data from subwatersheds in the San Gabriel River Watershed Management Area.

2.4 TRIBUTARY MONITORING LOCATIONS AND DRAINAGE AREAS

Figure 2-9 is an overview of the study area showing all the tributary monitoring sites. Table 2-1 contains the dominant land uses for each site.

Provided below is a description of the six tributary monitoring stations required by the Municipal Stormwater Permit for the 2007-08 monitoring period. In order, from the furthest upstream to the furthest downstream, these stations were identified as Big Dalton\Walnut Creek, Puente Creek, Upper San Jose Creek, Maplewood Channel, North Fork Coyote, and SD 21 (Artesia-Norwalk Drain). Figures 2-10 through 2-15 show the location of each monitoring station.

Big Dalton\Walnut Creek (TS13)

The Big Dalton\Walnut Creek tributary monitoring site is located on the confluence of Big Dalton Wash and Walnut Creek near the intersection of Francisquito Avenue and Dalewood Street, in the City of Baldwin Park. The upstream tributary watershed area of Big Dalton\Walnut Creek is approximately 101.98 square miles. This station can be found on Thomas Guide page 638 B-1.

Puente Creek (TS14)

The Puente Creek tributary monitoring site is located on Puente Creek in the City of Industry, where Don Julian Road crosses Puente Creek. The upstream tributary watershed area of Puente Creek is approximately 8.45 square miles. This station can be found on Thomas Guide page 638 A-7.

Upper San Jose Creek (TS15)

The Upper San Jose Creek tributary monitoring site is located on Upper San Jose Creek in the City of Industry, upstream of the confluence with Puente Creek. The site is approximately 500 feet south of where Don Julian Road crosses Puente Creek. The upstream tributary watershed area of Upper San Jose Creek is approximately 72.60 square miles. This station can be found on Thomas Guide page 638 A-7.

Maplewood Channel (TS16)

Maplewood Channel tributary monitoring site is located on Maplewood Channel in Bellflower City, where Trabuco Street ends and crosses Maplewood Channel. The upstream tributary watershed area of Maplewood Channel is approximately 4.90 square miles. This station can be found on Thomas Guide page 736 D-5.

North Fork Coyote Creek (TS17)

The North Fork Coyote Creek tributary monitoring site is located on North Fork Coyote Creek in the City of Cerritos, where Artesia Boulevard crosses North Fork Coyote Creek. The upstream tributary watershed area of North Fork Coyote Creek is approximately 34.89 square miles. This station can be found on Thomas Guide page 737 D-7.

SD 21 (Artesia-Norwalk Drain) (TS18)

The SD 21 (Artesia-Norwalk Drain) monitoring site is located on SD 21 (Artesia-Norwalk Drain) in the City of Long Beach, where Wardlow Road crosses the SD 21 (Artesia-Norwalk Drain). The upstream tributary watershed area of this site is approximately 4.14 square miles. This station can be found on Thomas Guide page 796 J-1.

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