

Watershed Characteristics

General Characteristics

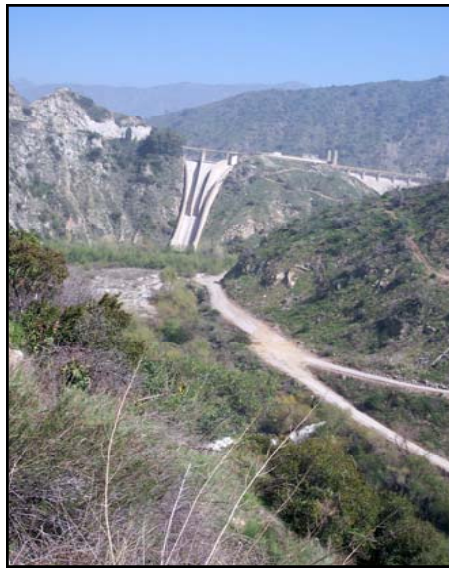
The San Gabriel River Watershed encompasses a north-south oriented region of 689 square miles stretching from the San Gabriel Mountains on the north end of the Los Angeles Basin, and ending at the Pacific Ocean in the Long Beach area. The rugged San Gabriel Mountains cover approximately one-third of the northern portion of the watershed reaching an elevation of 10,064 feet at Mount San Antonio (Mount Baldy). The San Gabriel River Watershed's main drainage is the San Gabriel River. Several tributaries feed into San Gabriel River along its path towards the Pacific Ocean. Also draining from the San Gabriel Mountains, flowing just west of the San Gabriel Watershed, is the Los Angeles River and its main tributary, the Rio Hondo River. Major subbasins of the San Gabriel River Watershed are the Foothill, Live Oak, Pomona, San Jose, Upper Canyon, Lower Canyon, Upper San Gabriel, La Habra (Split), Anaheim, and Central (Split). For the purpose of this atlas, the San Gabriel Watershed is divided into the Upper A (232.7 square miles), Middle B (216.2 square miles), and Lower C (229.0 square miles) regions (Figure: Historical Watershed Sampling).

Upper A

The Upper A region is defined as the part of the Watershed above Foothill Boulevard. Within this region, three major tributaries of the San Gabriel River flow through the steep San Gabriel Mountains: the west fork, north fork, and east fork. These three tributaries meet above the San Gabriel River Dam. West-northwest of the San Gabriel River Dam, on the west fork of the San Gabriel River, lies the Cogswell Dam. South of the San Gabriel River Dam is the Morris Dam marking the end of the San Gabriel Canyon.

Middle B

The Middle B region is defined as the area within the Watershed between Foothill Boulevard and Beverley Boulevard. This region is divided roughly in half by the San Jose Hills. The Puente Hills lie at the southern end of the area. The Santa Fe Spreading Grounds and the Santa Fe



Dam are located approximately 4 miles southwest of the mouth of the San Gabriel Canyon where the San Gabriel River and its tributaries flow across a broad alluvial fan and the urbanized San Gabriel Valley. About 7 miles downstream from the Santa Fe Dam, a natural gap, named the Whittier Narrows, has been eroded between these hills where the Whittier fault bisects them. The Whittier Narrows Dam is located here. The Rio Hondo

River also flows into the Whittier Narrows Dam. The Rio Hondo and San Gabriel Rivers are separated by an earthen levy that divides the water conservation system behind the Whittier Narrows Dam. Water from the San Gabriel River can be diverted into the Rio Hondo River just below Santa Fe Dam. From here it flows southwest from the Whittier Narrows Dam into either spreading grounds, or on to join the Los Angeles River further downstream. Major tributaries to this area are Walnut Creek and San Jose Creek. These tributaries serve as drainages for the San Jose Hills, the north side of the Puente Hills and the east slopes of the Chino Hills.

Lower C

The Lower C region extends from Beverley Boulevard, just south of Whittier Narrows, to the Pacific Ocean. Coyote Creek drains the western portion of the Lower C region, joining the San Gabriel River just above the Tidal Prism. Within the Lower C region the San Gabriel River is concrete-lined and channelized.

All principal channels of the river system below the mountain front have been improved. The average slope of the San Gabriel River in the mountains is 260 feet per mile. Between the canyon mouth and the Santa Fe dam, the average slope is 66 feet per mile, while between the Santa Fe Dam and the river mouth the slope is about 11 feet per mile. Approximately 95% of the drainage area above the Santa Fe Dam consists of steep, undeveloped, mountainous terrain,

dissected by deep, narrow ravines containing the numerous water-courses tributary to the San Gabriel River system. The remainder of the watershed consists of a gently sloping to flat alluvial fan and valley fill surface, much of which has been developed by cities and urbanization. The digital shaded relief map of the San Gabriel River watershed shows these features.

