

San Gabriel River Flood Control

Flood Control and Water Conservation

Spurred by the disastrous floods of 1914, the Los Angeles County Flood Control District was created. After securing bond monies in 1917, construction of flood control measures such as dams and channelization of the San Gabriel and Los Angeles Rivers began. Completed between 1920 and 1939, most serve the dual purpose of flood control and water conservation through the use of spreading grounds (Figure: FEMA Flood Inundation map). Today there are 13 dams/catchments, one lake, and five spreading grounds within the San Gabriel River Watershed.

Just below the Morris Dam is the mouth of the San Gabriel Canyon, where the San Gabriel River is unlined, channelized and flows towards the San Gabriel Canyon Spreading Grounds. These spreading grounds provide an area for surface water to recharge groundwater basins. Surface water that does not infiltrate into the ground continues to the Santa Fe Dam, where it flows to the Santa Fe Reservoir Spreading Grounds. Built and maintained by the Corps of Engineers, the Santa Fe Spreading Grounds occupy the upper part of this earthen dam reservoir. Water released from the Santa Fe Dam can be diverted to the Peck Road Spreading Basin and the beginning of the Rio Hondo water conservation system.

Below the Whittier Narrows Reservoir lies the Montebello Forebay, which is controlled by the Water Replenishment District. Water from the Whittier Narrows Dam can be diverted either to the San Gabriel Coastal Basin Spreading Grounds or to the Rio Hondo Coastal Basin Spreading Grounds. The San Gabriel River is channelized and concreted beyond Florence Avenue.

The north end of the watershed begins with the west, north, and east forks of the San Gabriel River feeding into the San Gabriel Canyon where the San Gabriel Dam and reservoir stand. The reservoir has an original capacity of 53,344 acre-feet with the total combined area of 202.7 square-miles. Located in the San Gabriel Mountains on the west fork of the San Gabriel River, the Cogswell Dam has a reservoir that is fed by a drainage area of 39.2 square-miles and has an original capacity of 12,298 acre-feet. Below the San Gabriel Dam is the Morris Dam with the combined drainage area of 217 square-miles and has an original capacity of 39,300 acre-feet.

Water released and not diverted by the Santa Fe Dam flows to the Whittier Narrows Dam, also constructed and operated by the Corps of Engineers. This dam controls the flow of not only the San Gabriel River, but also the Rio Hondo River where it joins with the Los Angeles River further downstream. Mixing of the Rio Hondo River and San Gabriel River waters in the spreading grounds behind the Whittier Narrows Dam does not normally enter the Rio Hondo, except during spillway flow conditions, or when flow in the Rio Hondo can not support groundwater recharge.

