

CHRIS PLAKOS

How It Works

As Told to Kim Stringfellow

The Upper Owens River is the top end of the watershed that William Mulholland and his crew of engineers tapped into to take water to Los Angeles. The headwaters are giant springs that come out of the canyon called Big Springs. There is a Forest Service campground right adjacent to where the springs are; and if you go to the end of the campground and walk down a little hill, there's all this volcanic rock. And from that rock, you'll see water bubbling up all over the place.

From here, it flows to Crowley Lake—originally named Long Valley Reservoir—the largest reservoir on the Los Angeles Aqueduct system. It has a huge capacity of 183,000 acre-feet, which can supply half a million people a year. That water is stored in Crowley until it's needed and, of course, it's let out constantly, raising and lowering the level depending on what's coming into it.

From there the water goes into a pipe and tunnel and into three hydroelectric plants because Crowley Lake is about 2,400 feet above the Owens Valley floor, and that's a great way to generate electricity. They run the water through three hydroelectric plants built in the 1950s and put the water back into the river just above Bishop, at a much lower elevation.

Then from there it flows in its normal river channel until it comes to the intake, about thirty miles south of Bishop, where Mulholland determined he needed to take

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the water out of the original Owens River channel and put it into an artificial conveyance system—the aqueduct—so he could take it all the way to Los Angeles via gravity. There’s no pumping on the system; it all flows downhill via gravity. The other way to think about it is that the aqueduct intake is the one place where, from there south, everything is at a lower elevation. Water is taken out of the river and put into the aqueduct. It’s amazing. For a stretch of about 10 miles, it only drops about a foot per mile; it’s a very gradual flow. Most of the section in the Owens Valley is open to air.

We have an unlined stretch—I call it the “big ditch”; it’s just a 40-foot wide ditch—that the water flows in. The groundwater is so high in that portion of the Owens Valley that it makes water. More water comes in than is lost to groundwater infiltration.

Then it goes into a lined concrete channel that’s open to air for about another 35 miles and in the south end of the valley. Once the aqueduct skirts around Owens Lake, it spills into Hayley Reservoir. There are actually two reservoirs there; both are fairly long and narrow.

From there south, the water is all in conduit tunnel and pipe, all the way to Los Angeles; and it first appears at the LA Aqueduct filtration plant at the intersection of Interstate 5 and Highway 14, just above Los Angeles. **B**

Note

Transcribed from Kim Stringfellow’s *There It Is—Take It!* project. Chris Plakos is a public relations officer with the Los Angeles Department of Water and Power.





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The Los Angeles Aqueduct. PHOTOGRAPH BY CHAD RESS/CENTER FOR SOCIAL COHESION.