

HIGHLIGHTS

Client relationship spanning nearly 20 years.

Design of new 15-mgd water treatment facility and subsequent expansion to 40 mgd.

Pilot testing to examine the use of ozone and biological filtration to meet long-term finished water quality goals.

Design of ozonation facilities.

In the early 1980s, the Town of Gilbert recognized the need to plan for future growth, and that an alternative to pumping groundwater was necessary. At this same time, Arizona enacted the state's progressive Groundwater Code, which addressed the groundwater overdraft problem and provided a means for allocating Arizona's limited groundwater resources. In 1984, Gilbert selected Carollo to develop a water resource plan. Four years later, Gilbert passed the water system improvement bond election that authorized the funding for the development of its first water treatment plant. Gilbert retained Carollo to provide planning, design, and construction of the 15-mgd Gilbert Water Treatment Plant.

In a subsequent project, Carollo performed a study to evaluate Gilbert's current water treatment process and completed design and construction for expanding the plant from 15 mgd to 40 mgd. The expansion design included a pilot study to examine ozonation and biological filtration to meet Gilbert's long-term finished water quality goals. The main objectives of the work were to comply with future regulations, to minimize the public health risk associated with chlorine-resistant microbial pathogens, and to improve the aesthetic quality of water, mostly in terms of taste and odor. Based on the results of the pilot study investigations, Gilbert included ozone for the 30-mgd water treatment plant in the 15-mgd expansion.



Ozonation and biological filtration will improve aesthetic and health-related water quality for the Town of Gilbert, AZ.

Construction of the 15-mgd expansion and new ozone facilities was complete in 2002. In addition, Carollo also reviewed Gilbert's current master plan to determine if the plant's ultimate capacity could be increased from 40 mgd to 60 mgd. The results of the study helped town officials determine what improvements/changes were needed to meet Gilbert's future needs.