



# Phoenix Lake Preservation and Restoration Project Update

February 16, 2021

The District is pleased to announce that the Phoenix Lake Preservation and Restoration project is nearing completion!

Last summer, over 160,000 cubic yards of sediment were removed from the reservoir. If that volume of sediment were to be placed on a football field, it would reach a height of nearly 100 feet. Many portions of the lake's bottom have been deepened and new channels were constructed to give the lake a new form and enhanced function. The improvements will reduce the growth of prolific invasive aquatic vegetation while improving water quality, cold water habitat for fish, and for use as a domestic water supply.

Most importantly, the sediment capture basin on the north side of the lake is now complete and operational. Absent the new sediment capture basin, sediment would continue to be broadcast throughout the lake and, over time, accumulate until the lake deteriorates to its former condition. The basin is critical to the on-going preservation of the lake.



The project is a success and an improvement to our community's water supply, but success did not come without challenges. Access to the eastern portion of the lake (East Pool – see picture above), was hampered by wet conditions and soil types that made dewatering and conventional excavation impractical. To remove sediment in this area, a wet based hydraulic or mechanical dredging operation would need to be employed. Unfortunately, the cost to “wet” dredge greatly exceeds the District's remaining budget. The District will continue to investigate funding sources and construction methods that can be used to improve these areas in the future.



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Although the majority of the dredging work is finished, the District will be undertaking a few other activities this summer. Sediment will be removed from Chicken Creek, which is a tributary on the north western side of the lake. Over the years, Chicken Creek has become filled with sediment and overgrown with brush. A 550 ft long section of the creek will be cleared out and up to 2,000 cubic yards of sediment will be removed. An additional 400-500 cubic yards of sediment will also be removed from an area near the concrete spillway that is located on the far western side of the lake. That sediment is being removed as part of a separate project to rehabilitate the dam and spillway to improve safety and reliability. In addition to the sediment removal, the District is also planning on removing vegetation on along the southern and eastern shorelines. Vegetation removal will also improve water quality and aesthetics on that side of the lake.

While these projects are under construction, residents can expect lower than normal water levels in the lake, similar to what was experienced last summer.

For project updates please visit [www.tudwater.com](http://www.tudwater.com)



*Construction of the Sediment Capture Basin*

Picture to left: View of the Central Pool (lower left), East Pool (upper left), and water circulation berm (lower right to middle). The water circulation berm will be under water for more than half the typical year. The berm was engineered to promote water circulation, cooler water temperatures, and better water quality.