

# XR<sup>®</sup> GEOMEM<sup>®</sup>

## Seaman Corporation's Potable Water Fabrics Installed in 35-acre Raw Water Reservoir at Tennessee Water Treatment Plant

By Seaman

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CASE HISTORY



The City of Franklin, located just outside of Nashville, Tennessee, selected Seaman Corporation's potable water grade XR geomembrane fabrics to line its 35-acre raw water storage reservoir. The raw water reservoir is the sole source of water for the existing 2.0 mgd water treatment facility located on an adjacent site.

All of the water treated by this plant comes from the Harpeth River. Normal operation is to pump water from the river to the reservoir; the plant then pumps it from the reservoir into the treatment facility. The City of Franklin relies on this water as its emergency supply of drinking water when primary sources run low.

The project was part of a rehabilitation effort to fix leaks in the reservoir caused by several deep fissures in the reservoir's earthen basin. Because of these leaks, two years ago when the city experienced a drought, the reservoir ran dry. When the Tennessee government released economic stimulus dollars, this site was among the top 10 projects earmarked to receive funding.

After a failed attempt to use a natural clay liner, the city selected a potable water grade reinforced geomembrane fabric liner by Seaman Corporation to solve its water containment issues. Ninety percent of the reservoir, primarily the basin, is lined with the company's XR-3<sup>®</sup>PW product. Seaman Corporation's brand new XR-5<sup>®</sup>PW product, which is specially formulated with extra weather resistance characteristics, lines the side slopes of the reservoir. The company recommended this design because the slopes will experience greater exposure to the elements. Both fabrics are highly engineered with excellent tensile strength and puncture resistance. These qualities were particularly important to the city which has plans to expand this facility and the impoundment in a future growth effort.

AECOM, the engineer for the project, specified Seaman Corporation's PW products for the job. Colorado Lining fabricated the panels in their Houston based plant and Geosynthetics Incorporated (GSI) installed the 1.3 million square foot liner to cover the reservoir's base and side slopes.

The City of Franklin Water Treatment Plant Raw Water Reservoir will be completed in early September. The project goes on record as one of Seaman Corporation's top 10 largest geomembrane projects ever and as the largest installation using the company's NSF 61 approved potable water fabrics.

For more information about XR<sup>®</sup> Geomembrane Systems please contact Bill Shehane by phone at 330-262-1111 extension 3003 or email at [bshehane@seamancorp.com](mailto:bshehane@seamancorp.com)



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