



Case Study: Aquatic Center Spray Line

COMPLETE RELINE OF THE 300,000 GALLON AQUARIA FOR
TEXAS FRESHWATER FISHERIES CENTER





The Project

OVERVIEW

The state-of-the art 45 pond, 37-acre Texas Freshwater Fisheries Center (TFFC) in Athens Texas has been in operation since 1991. The facility includes a visitor center with educational exhibits and aquariums, recreational fishing ponds, a conservation center, wetland trail, and freshwater fish production hatchery.

Originally constructed more than 20 years ago of molded concrete, the 300,000-gallon aquaria had been patched and repaired but needed complete restoration.

Having worked with Mustang Extreme on other projects, the Fisheries' facilities personnel were aware of Mustang's use of polyurea spray liner and its successful application on a variety of surfaces. Through a collaborative effort between Mustang and TFFC, a plan to line the ponds to achieve a water-tight seal and the desired aesthetic effect was created.

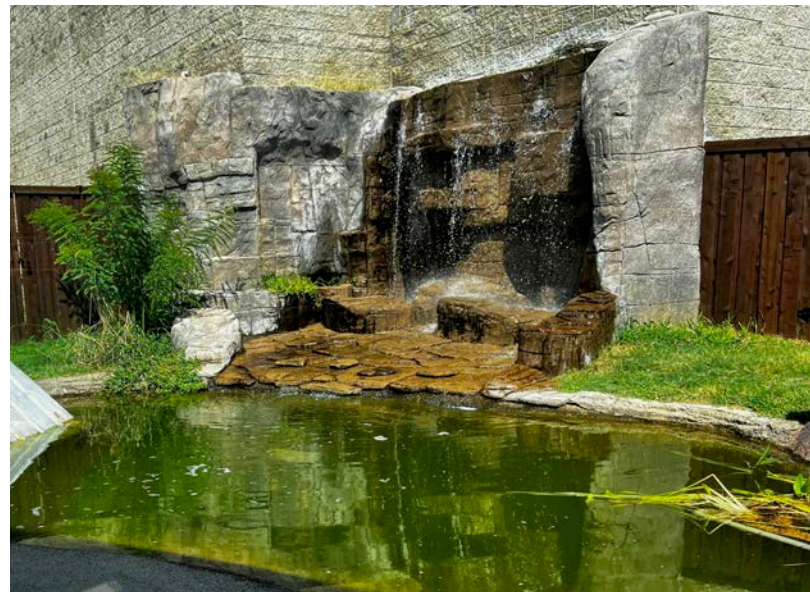
To ensure tight seams and to mitigate the risk of leaks, a flexible, pliable spray liner material was needed to create the appearance of natural undulating lagoons. PPG AQUATAFLEX spray liner was chosen for its chemical resistance, flexibility, abrasion resistance, and its fast-curing time.

BACKGROUND

Before work could begin, the site required a full week of preparation. TFFC staff power-washed the ponds, while Mustang crews handled surface patching and priming. To ensure proper installation and address any nuances in the material's application, the Mustang crew also underwent additional training and manufacturer recertification.

To maximize efficiencies and minimize the potential for leaks, geotextile was first installed on the floors of the ponds where cracking had occurred. The spray liner was meticulously applied over the textile and to the walls, edges of the ponds and rock decorations. Special care was taken to prevent overspray on the acrylic viewing panels.

Mustang engaged a 3rd party to spark test the ponds to identify any potential leaks. Additional spray liner was applied as needed.





Critical Requirements

CHALLENGES

One advantage of AQUATAFLEX spray liner is the speed at which it sets and cures. This, however, created a challenge for the crew due to the abundance of pine trees surrounding the ponds that constantly dropped needles onto the newly sprayed surfaces. To combat the issue, a second crew followed behind the sprayers with leaf blowers to remove the pine needles before they could become embedded in the liner.

The intricate design of the ponds, complete with rocks to simulate a natural stream bed, required extreme attention to detail, with the crew manipulating the spray nozzles to reach every corner and crevice of the ponds.

In addition to relining the viewing ponds, Mustang crews lined the raceways – the long narrow concrete channel used to raise fish. Since the raceways are used throughout the year, the crew had a very short window to complete the work.



Mustang Delivered

OUTCOME

Despite the extra time needed to prep and respray areas of the pond, the crews completed the project in two weeks.

TFFC handled the finishing touches, painting the liner to blend in with the natural colors of the terrain.

TFFC was extremely pleased with the outcome of the project. Mustang met the goal of lining a water-tight, aesthetically beautiful aquaria.

The Mustang crew, who traveled back to the aquaria after the facility was back in operation, were overwhelmed at the end result and the pride they have in their work was evident!

TFFC BY THE NUMBERS:

- 106 acres
- 23,000 square foot Visitor Center
- 300,000 gallons of aquaria
- 24,000 square feet of indoor hatchery and laboratories
- 3 acres of public fishing ponds
- 1.2-mile wetland trail
- 25,000-gallon dive tank aquarium
- 56 species of fish and reptiles on display in natural habitats



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