

# PROJECT PROFILE



## Residential dock rebuild

**Lake Whatcom, WA** Completion: Spring 2009

Contractor: Whatcom Waterfront Construction



**Challenge:** This residential dock was completely deteriorated through age and the elements. The timber piles and dock surface needed replacement. The possible solutions were to re-permit and completely rebuild (an expensive and timely option), or restore the pile remnants in place, avoiding re-permitting and driving new piles. **Constraints:** Repairing existing pilings with damage this extensive would require a unique solution.

Approximately 85,700 people, over half the county population, rely on Lake Whatcom as a drinking water source, so environmental safety was key. Additionally, WA State Department of Fisheries required a "fish test" of the FX-70-6 MP Marine Epoxy Grout to gauge its effect on trout fry, before issuing a building permit. The FX-70-6 performed exceptionally well, and was approved for the project. **Solution:** Structurally restore damaged piles in place using the Fox Industries FX-70® System.



FOX Industries materials still visible on newly-restored dock, awaiting final surface installation.

*Severe structural deterioration caused by corrosion exists in concrete, steel and wood all over the world. The **FX-70® Inert Corrosion-Free System** can be utilized to restore the structural integrity and provide corrosion protection of any pile, pier, column or pole. This patented system can be used to restore structural integrity in or out of water. This complete structural restoration can be accomplished without interrupting use of the structure, regardless of location. For marine applications, costly de-watering is not necessary.*

**How it works:** A pile is repaired through reinforcement with an outer fiberglass jacket. The permanent jackets are custom manufactured from inert, corrosion-free materials. Each jacket is positioned on a pile, with vertical seam secured by **FX-763 Trowel Grade Epoxy** and ss screws, and then bottom seal is installed of **FX-70-6 MP Marine Epoxy**.

After setting at least twelve hours the annulus is filled with **FX-225 Cementitious Non-Shrink Non-Metallic Underwater Grout**. This grout is pumped through strategically-placed pumping ports pre-positioned on each jacket. Once the annulus is filled, **FX-763 Trowel Grade Epoxy** is used to top-bevel the jacket.

**Why use the FX-70® System:** 1) Repair of the timber pile restores the pile to its original or greater structural capacity. 2) Repair process does not interrupt structure use. 3) System has been in use for over thirty years, constantly being improved by advances in technology and practical application from contractors.



Finished dock on Lake Whatcom, Spring 2009.

**For information on Fox Industries FX-70® System or this project visit [www.schraderco.com](http://www.schraderco.com)**

*Schrader Co. presents **environmentally-conscious products** for the industrial marine market and other applications for a variety of uses including piers, wharves, marinas, bridges, boardwalks, and seawalls.*

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