

PROJECT:
Restoration of Metal
Irrigation Flumes

LOCATION:
Kennewick, WA

OWNER:
Columbia Irrigation District

APPLICATOR:
Matheson Painting

SYSTEM:
Polyshield SS™ 100

TOTAL AREA:
26,000 square feet

COMPLETION DATE:
March 2000

PROBLEM:

Three galvanized steel flumes originally constructed in 1984 were corroded and leaking. The replacement of the flumes and other repair methods were evaluated, but not feasible due to cost. The irrigation district chose Polyshield SS™ 100 for its corrosion resistance, its ability to bond to steel, and it was determined to be the most economical solution.

SOLUTION:

Preparation of the flumes consisted of grit-blasting a 3 to 4 mil anchor profile. One flume was so badly corroded that blasting created holes in the steel.

Polyshield SS™ 100 was used to coat the outside of the flume. This section then acted as a mold-form for the interior to be blasted and sprayed. The result was a new flume section consisting of SPI

Polyshield SS™ 100 applied at 50 mils to the exterior and 100 mils on the interior of this section.

RESULTS:

In 2008, Tom Matheson of Matheson Painting re-inspected the flumes. Matheson stated that initially the Polyshield SS™ 100 system was to be a temporary fix. Nine years later, not having to replace the steel, it is estimated to have saved the owner over \$3,000,000.00. Matheson went on to say, "There is no sign of wear, and the product is performing like new."

