PROJECT: Roza Irrigation District Main Canal Rehabilitation Project

LOCATION: Sunnyside, WA

CONTRACTOR: Matheson Painting

SYSTEM: Aqualastic™

TOTAL AREA: Numerous cracks in 7,200 Linear Feet in main canal

COMPLETION DATE: Winter 2006

PROBLEM: Two 3,600 linear ft. sections of the main canal had substantial leaks due to a number of cracks in the concrete. The cracks were caused by expansion and contraction from seasonal freeze thaw cycles.

SOLUTION: The project involved spray applying Aqualastic™ on the cracks, which has now been successfully fielded for 9 years. The objective was to eliminate enough leakage, before the next water shortage, to make application of the product cost effective. The project would have to eliminate at least 88% of leaks to be successful.

Project preparation entailed sand blasting a 3 to 4 inch wide strip on each side of the cracks in the concrete. The contractor then applied approximately 80 mils (2 mm) of Aqualastic™ to the cleaned strips, bridging the cracks to create a water-tight seal to eliminate the water loss.

RESULTS: After completion of the project it was calculated that Aqualastic™ eliminated 99% of leaks, far exceeding the required 88%. Wayne Sonnichsen, of Roza Irrigation District, reported that prior to the project, the estimated water loss was 1,220 acre-feet per irrigation season. During the 2007 irrigation season total water loss was approximately 14 acre-feet, for a net savings of 1,206 acre-feet. Sonnichsen estimated net water savings from this project will have a monetary value of $143,500.00 annually. The project will more than pay for itself during the next drought season.