

SOLUTIONS BY **NETAFIM™**



Hualapai Tribe's **Grand Canyon Skywalk**

The glass skywalk is positioned 4,000 feet above the Grand Canyon floor, higher than the Empire State Building and the Sears Tower – combined.

PROJECT OVERVIEW

Buzz Aldrin, the astronaut who was one of the first to walk on the moon, declared that it was a “magnificent first walk.”

Aldrin is referring to his walk on the new Grand Canyon Skywalk. Grand Canyon West, a vacation destination owned and operated by the Hualapai Tribe at the Grand Canyon's western rim, expanded its tourist options with the construction of the Grand Canyon Skywalk. It is a cantilever shaped glass walkway suspended 4,000 feet above the Canyon's floor and extending seventy feet from the Canyon's rim.

The Skywalk opened on March 28, 2007 with the inaugural walk by Buzz Aldrin, former NASA astronaut. The tribe is currently using a temporary visitor's center and the soon to be completed visitor's center will include a museum, movie theater and cafés.

THE ISSUES BEING FACED

The Hualapai reservation is about 90 miles west of Grand Canyon National Park and accessible only after an arduous drive over unpaved, twisting roads.

In order to properly manage the influx of tourists, infrastructure upgrades were required. One of them was to the on-site wastewater system. For that, they called on Cromaglass Corporation of Williamsport, Pennsylvania.

Cromaglass Engineering Service Representative, Robert Chacey of Moriarty, New Mexico has an established working relationship with Native American tribes in the Southwest and has supplied systems for other visitor's centers and tribal schools. Continuing this trend, the Hualapai Tribe selected a Cromaglass System because of its effective treatment, small footprint, and ease of installation.

GRAND CANYON SKYWALK SUMMARY

LOCATION

Hualapai Indian Reservation, Arizona

ON-SITE WASTEWATER TREATMENT SUPPLIER

Cromaglass Corporation,
Williamsport, Pennsylvania

ISSUES TO ADDRESS

- Secluded location only accessible by unpaved, winding roads
- Increased amount of visitors requiring a reliable on-site wastewater system
- Hualapai tribe requested a cleaner effluent that can be dispersed into the ground

NETAFIM PRODUCTS USED

- Netafim SewaClear® Tertiary Treatment System

RESULTS

- Expanded wastewater treatment for a development with a widely varying population
- High volume effective treatment through Cromaglass system
- Further polishing of wastewater to BOD/TSS levels of 5/5 with the SewaClear system
- A reliable long term solution to a property in a remote region

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THE NETAFIM SOLUTION

Cromaglass, a national and international supplier of on-site wastewater treatment systems and Netafim USA Wastewater Distributor, furnished a complete treatment system comprised of a 3,000 gallon pre-equalization tank followed by a 3,000 gallon per day (GPD) treatment system. A 1,500 gallon sludge processing tank was also included for managing sludge production. In addition, because the Tribe wanted an even cleaner effluent, a Netafim SewaClear® system was installed after the Cromaglass treatment system.

SewaClear, a tertiary treatment system from Netafim USA of Fresno, California is designed to further polish secondary treated wastewater. The result is water that can easily be dispersed into the ground with dripperline used for other applications where non-potable water is acceptable such as firefighting, or in some cases even allowed to flow into lakes or streams.

The secret of SewaClear is its ability to add coagulants to the incoming water and the way it then filters the water. Incoming water is blended with chemicals such as alum to concentrate microscopic debris in the water into larger, easier to capture "floc". The water then slowly flows through one of 4 media tanks with 3 different layers of material that are designed to capture even very small particles. The result is water can be processed from a BOD/TSS of 20/30 to 5/5 in one small, easy-to-operate unit.

The SewaClear system is available in flow rates ranging from 10 to 120 GPM and offers options including flocculation, chlorine dosing, free chlorine monitoring, and turbidity management.

