

Playa Venao, Azuero Coast, Panama



Images courtesy of Playa Venao



Playa Venao is a resort community consisting of 205 units of houses and condos, 3 hotels, 4 restaurants, 8 retail shops located on one of Panama's finest surfing beaches. Besides beautiful beaches and wonderful surf, a river runs through it.

One of the challenges that NSI faces when working with resort communities is protecting the off-shore ecology and the water quality of rivers and streams in the resort property. The solution that we typically use is to avoid any discharge of wastewater into the ocean, streams or rivers. In this particular project we collect the wastewater from the resort buildings and pump it to a wastewater treatment site where the water is treated to U.S. Advanced Wastewater Treatment Standards. After disinfection with an UltraViolet disinfection system, the reclaimed water is used for irrigation and as a supply for water closets and urinals. This reuse minimizes the total potable water demand.

The wastewater treatment system consists of trickling filters, subsurface flow constructed wetlands, and recirculating sand filters. This treatment is followed by mechanical filtration and UV disinfection. This level of treatment exceeds local standards, but the most significant factor in protecting the beaches and river is the reuse of reclaimed water and the remaining nutrients to enhance the landscape.