

Monroe County and Islamorada Canal Restoration Demonstration Projects



Pre-Construction Meeting, Treasure Harbor

- ▶ Held October 15, 2014, on-site
- ▶ Reviewed plans, schedules, and permit requirements



Phase 1: Land Side Work, Treasure Harbor

- ▶ Compressor installation and electric hookup
- ▶ Eight high flow (21 cfm) compressors placed inside two compressor cabinets for the air curtain
- ▶ One large lake compressor in a separate cabinet for basin aerator upgrade
- ▶ Installation completed on October 30, 2014

Restoration Technology: Air Curtains

There are three Air Curtain Demonstration Projects:

1. Canal 287 Atlantic Estates between Hollerich and Atlantic Drives, Big Pine Key – Stand Alone Air Curtain
2. Canal 266 Drives Arm between Witters and Bailey Lanes, Big Pine Key – Combination Air Curtain and Organic Removal
3. Canal 137 Plantation Key, Islamorada – Combination Air Curtain and Aerator Upgrade



Weed barriers consisting of an engineered air curtain at the mouths of these canals was designed to prevent future loading of seaweed.



The strong participation and leadership of the Treasure Harbor Homeowner's Association facilitated the selection of this canal for the demonstration program. The association initiated the original funding request and design concept, assisted with the installation, and will assume long term operation and maintenance of the system.

Estimated date of completion for Canal 266 and 287 is summer 2015. Treasure Harbor installation was completed November 2014.



Phase 2: In-Water Work — Air Curtain, Treasure Harbor

- ▶ Diffuser installation and pipe laying
- ▶ 20 Teflon coated membrane air diffuser disks mounted on 10 emitter assemblies set in an arc at canal mouth
- ▶ Self-weighted tubing installed from air curtain to HOA park – location of compressors
- ▶ Air curtain installation completed November 3 to 4, 2014



Phase 3: In-Water Work — Basin Aerators, Treasure Harbor

- ▶ Six airstations, each comprised of five diffusers, installed throughout basin
- ▶ Elevated 18-inch base
- ▶ Basin aerator installation completed November 4, 2014