

Monroe County Selection of Demonstration Canals for WEED BARRIERS

Canal ID: 266 Big Pine Key

Location: MM 31 Doctor's Arm subdivision, Bayside

Summary of Water Quality Impacts: Primary – Weed wrack entry into canal; Secondary – organics accumulation on canal bottom

Restoration Technology: Weed barrier to prevent additional entry of weed wrack; Secondary - organic removal from canal bottom to eliminate on-going source of organic decomposition.

Site Conditions: The canal faces due east and discharges into Bogie Channel. A small area of submerged shoreline shows as privately owned on the aerials although the property appraiser's details of the property do not reflect private ownership. Further research is needed. Sediment characterization data is available indicating sediment can be disposed as clean fill.

Existing Treatment: Air curtain/physical barriers not operating effectively

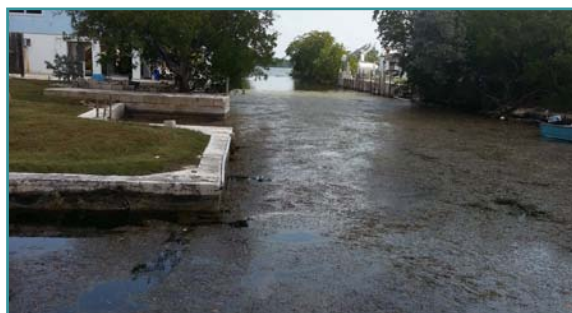
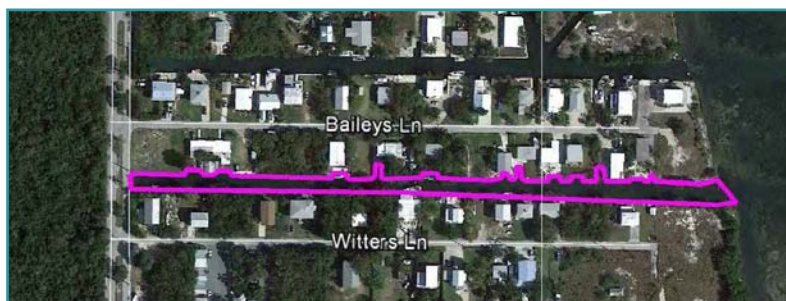
Homeowner Communication: Very interested homeowner group contacted Monroe County about the need for an upgrade to their weed barrier and removal of accumulated organics from the canal bottom. Sharon Ripley 305-797-7251

Water Quality Summary*

D.O. (mg/L / % Saturation)	Turbidity (NTU)	W.Q. Summary & CMMP Ranking	Demo Ranking
0.04 / 0.5% at 5 ft	Not Measured	Poor 115	74

Characteristics

Size (acres)	1.1
**Average Depth (ft)	-7.18
**Min Depth (ft)	-10.93
Degree of Stagnation	-0.3
Number of Mouths	1
Organic Thickness (ft) Average	0.86
Parcels	37
WBID	6012A Impaired
WWT	FKAA/Cudjoe Regional - Not Completed
FKNMS Monitoring Station	1.43 miles



Abbreviations: Dissolved Oxygen (D.O.); Nephelometric Turbidity Unit (NTU); milligrams per liter (mg/L); Water Body Identification (WBID); waste water treatment (WWT); Feet (ft).

*Information presented in the 2013 Monroe County Canal Management Master Plan.

**Data collected during the 2013 Monroe County Canals Bathymetric Survey.