

8. FY09 TECHNICAL PROJECT “WATER QUALITY TARGETS REFINEMENT” UPDATE: DRAFT SEAGRASS TARGETS FOR CHARLOTTE HARBOR

Mr. Tony Janicki, Janicki Environmental, will present the Draft Seagrass Targets for Charlotte Harbor as an update on the FY09 Technical Project “Water Quality Targets Refinement”. The draft seagrass targets are Task 1 of the project Scope of Work, following the Water Quality Segmentation Scheme refinement presented at the February 11, 2009 TAC meeting. The purpose of the Water Quality Targets Refinement project is to provide technically defensible quantitative habitat restoration and protection targets for the CHNEP based on seagrass water clarity needs.

A summary of the Draft Seagrass Targets for the Charlotte Harbor National Estuary Program is attached. The complete document is available on the CHNEP ftp site in the TAC April 8 2009 meeting folder at:

Address for CHNEP ftp site: <ftp://ftp.swfrpc.org>
User name: chnep
Password: chnepaccess
Folder: TAC 4-8-09

The draft results indicate that trends in seagrass distribution since 1950 varied by region of the estuaries (segment) throughout the CHNEP. Therefore, seagrass targets will vary among segments also. Five potential seagrass target definitions are suggested, including:

- the maximum areal extent observed in any of the survey years,
- the mean areal extent over all recent survey years,
- the mean areal extent over the last three survey years, or
- the most recent areal extent, i.e., 2006.

The definition of the most appropriate seagrass targets will be reached with input from the Technical Advisory Committee and subcommittee.

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Recommendation: Direct subcommittee to review Draft Seagrass Targets for Charlotte Harbor.

Attachments: Summary of Draft Seagrass Targets for Charlotte Harbor
Draft Seagrass Targets for the CHNEP Memorandum on ftp site

Janicki Environmental – April 2009

Summary of Draft Seagrass Targets for Charlotte Harbor by Segment

The objective of this project was to provide technically-defensible quantitative restoration and protection targets for seagrasses in the Charlotte Harbor ecosystem. Establishment of seagrass targets provides a necessary basis for management decisions regarding water quality and other issues that can influence the distribution and persistence of this resource. The primary goal of this project was to maintain and/or restore seagrass coverage to its historic extent. Restoration targets were defined through an analysis of historic and recent aerial surveys of the study area. Historic photos of the area were used to define a baseline condition based on 1950 aerial photograph and photo-interpretation of seagrass distribution. Permanent alterations to the study area, including shorelines and the construction of the Intracoastal Waterway (ICW) were classified as non-restorable areas. Segment specific trends in seagrass coverage were then analyzed throughout the CHNEP study area.

Trends in the distribution of seagrass varied by CHNEP segment. The analysis showed that Cape Haze, Lower Charlotte Harbor, Pine Island Sound, and San Carlos Bay are currently at their highest seagrass levels observed since 1950. The seagrass coverage in Coastal Venice, Upper Lemon Bay, Tidal Myakka River, and West Wall has remained very similar when comparing current seagrass to baseline levels. However, Lower Lemon Bay, Tidal Peace River, East Wall, Matlacha Pass, Tidal Caloosahatchee River, and Estero Bay have shown a decline in seagrasses since 1950, with the greatest losses occurring in Matlacha Pass.

Given the differences in trends among bay segments, the definition of seagrass targets will vary among segments. Five potential seagrass target definitions have been identified. These include:

- the maximum areal extent observed in any of the survey years,
- the mean areal extent over all recent survey years,
- the mean areal extent over the last three survey years, or
- the most recent areal extent, i.e., 2006.

The definition of the most appropriate seagrass targets will be reached with input from the Technical Advisory Committee.