

MONITORING OF KEIL COVE SCAR

Monitoring the injured site is necessary to determine whether the area is recovering and that services are improving. It is also meant to assess the potential need for mid-course corrections to ensure that the natural recovery trajectory meets the performance standards discussed below. The design of this monitoring program will permit the detection of, and response to, significant changes in eelgrass recovery rates. Additionally, the eelgrass immediately surrounding the injury site (e.g. “reference site”) will also be monitored. Monitoring of reference sites will include documentation of percent cover by Braun Blanquet quadrat analysis.

Monitoring Variables

The following parameters will be tracked at the injured location in Keil Cove.:

- Scar channel (depth and width)
- Re-colonization of eelgrass into scar (abundance and cover)
- Distribution and abundance of eelgrass in adjacent “reference” sites.

Monitoring Data

Monitoring events will assess the morphology of the Keil scar as well as the natural re-colonization of eelgrass with measures of shoot density (abundance) and areal coverage documented with photos and side scan. The monitoring data will be used to determine if natural recovery has occurred and if it is on an appropriate recovery trajectory. If not, these data will be used to plan and execute remedial restoration.

Monitoring Schedule

The monitoring of the Keil Cove scar site will occur once a year for a total of five years. Monitoring shall take place during spring in either April or May starting in the year 2010. Each monitoring event will consist of three to four biologists working approximately two days for each monitoring event to survey the scar and eelgrass abundance. It will take approximately four to six hours to enter data, analyze data and work toward report preparation following each monitoring event. Also included in this period is the time necessary to transcribe field notes, and identify and record all photographic slides and/or videotapes as well as clean field sampling gear. Side scan imagery shall be taken once a year during the month of April/May starting in 2010 and will be overlaid the original post-injury scan taken of Keil cove in 2008. Two biologists will be performing side scan surveys over the entire Keil cove bed.

Total for 5 years of monitoring: **\$98,811.63** (see spread sheet)