

Southeast Coast Network

National Park Service
Inventory & Monitoring Program



Standard Operating Procedure (SOP) # 1.2.2

Field Evaluation of Coastal Assessment Sampling Locations

Please cite this as:

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Summary

This Standard Operating Procedure (SOP) outlines the procedure for accessing sites and determining if they meet site selection criteria set by USEPA and the National Park Service. The purpose of this SOP is to ensure that field teams use standardized criteria from year to year and from park to park. The techniques and procedures outlined in this SOP are based on the USEPA National Coastal Condition Assessment Field Operations Manual (2009) and modified to reflect concerns at parks due to possible disturbance of sea grass beds by boat or sampling equipment.

Revision Log

Previous Version #	Revision Date	Author	Changes Made	Reason for Change	New Version #
0.9	1/17/2013		Citation updated	Protocol publication	1.0

Equipment/Materials List

- Global Positioning System (GPS)
- List of sites and alternates sites
- Site assessment and suitability data sheet

Site Evaluation Overview

1. Prior to sampling, a list of sampling locations and prioritized alternate locations should be printed and/or loaded into a boat mounted or handheld GPS device. It is preferable to display potential sampling sites on detailed navigational charts or other maps prior to beginning fieldwork to reduce the chances of access issues while conducting sampling.
2. Use boat mounted or hand-held GPS to navigate to within 0.02 nautical miles (NM) (± 120 ft.) of designated sampling location.
3. Perform a suitability assessment (instructions below). If site characteristics or access restrictions preclude data collection at the exact sampling location, any location within 0.02 NM (± 120 ft.) may be used to collect samples.
4. If a suitable sampling location cannot be located within the 0.02 NM area, effort should be taken to collect samples within 0.05 NM (± 300 ft.) of the sampling location. Record reason for shift on field sheet.
5. In some cases the entire area within 0.05 NM of the sampling location may be unsuitable for sampling. In these cases, note the reason for inaccessibility on the back of field form and attempt to access the first site on the prioritized list of alternate sampling locations.

Suitability Assessment

Suitability of the sampling location depends on the overall sampling objectives at the site, which vary based on the park being sampled and the year. Water quality samples are always collected, but sediment samples are typically only collected once every other sampling event. As a result, site suitability must be evaluated based on the samples being collected at the time of protocol implementation. Because the SECN samples sediments during every other sampling event, the criteria for suitable sites are more stringent during years when sediments are sampled due to our effort to protect submerged beds of aquatic vegetation. If sediment collection is to occur, the area must have a soft bottom (i.e., not rocky) and be free of submerged aquatic vegetation.

1. Upon anchoring at an accessible site that meets the locational requirements above, record the date, time and *actual* coordinates of the sampling location on the data sheet.
2. If collecting a water sample is the only objective of the site visit, proceed with sampling according to SOP 1.2.3 Coastal Assessment Field Measurements and SOP 1.2.4 Coastal

Assessment Water Sample Collection. Sites must be within the accessibility and locational parameters listed above.

3. For locations where sediment samples are also to be collected, locations must meet the following sediment sampling location criteria as well:
 - a. Be collected within 120 ft. of the water sampling location.
 - b. Have benthic substrates that allow for adequate sediment sampling: they must be soft-bottomed.
 - c. Be clear of submerged aquatic vegetation.
4. If sites do not meet the suitability requirements for *all* samples to be collected, neither water nor sediments should be sampled and an alternate site must be located using the next site on the list of prioritized alternate sampling locations

Habitat Assessment

Indicate on the site verification form the basic habitat type and bottom composition present at the sampling location. Note the presence and type of any marine debris, submerged aquatic vegetation (SAV), and/or macroalgae present in the area.

Site Photographs

Site photographs are optional but should be considered if the site has unusual natural or man-made features associated with it. If you do take photographs with a digital camera at a site, date-stamp the photograph and include the site ID.

Station Form
Coastal Assessment – Southeast Coast Network

Station Name

Water Body Name/
Staging Area: _____

Station Depth (m): _____

Day

Date: (MM/DD/YY)

Arrival Time: (HH:MM)

Depart Time: (HH:MM)

GPS

UTMX:

UTMY:

UTM Zone: (16, 17, or 18)

Datum:

Site within 0.02 NM: ☐ Yes or ☐ No If No, explain in "Notes"

Crew

Captain:

Visitor 1:

Crew 1:

Visitor 2:

Crew 2:

Visitor 3:

Weather

Conditions at Station:

Habitat
Type

☐ Tidal River
☐ Open Water
☐ Bayou/Inlet

☐ Inter-tidal
☐ Rocky / Shell Bottom
☐ Coral Reef

☐ Marsh
☐ Oyster Bed
☐ Other...

SAV

Present? ☐ Yes or ☐ No

Marine
Debris

Present? ☐ Yes or ☐ No

Type: ☐ Plastic ☐ Wood
☐ Glass ☐ Cans ☐ Other

Recorded By: _____

Computer Entry By: _____

Check here for Comments ☐ and write comments on back of form.

Literature Cited

USEPA. 2009. National Coastal Condition Assessment: Field Operations Manual. EPA-841-R-09-003. U.S. Environmental Protection Agency, Washington, DC. 133 p.