

# Southeast Coast Network

National Park Service  
Inventory & Monitoring Program



## Standard Operating Procedure (SOP) #2.1.1

### Revision of Southeast Coast Network Protocols and Standard Operating Procedures

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### Summary

This Standard Operating Procedure (SOP) explains how to make and track changes to the Narrative and Standard Operating Procedures for monitoring protocols implemented by the Southeast Coast Inventory & Monitoring Network (SECN). Individuals editing the Protocol Narrative or any one of the SOPs need to follow these procedures to eliminate confusion on how data are collected and analyzed. All observers conducting the monitoring should be familiar with this SOP in order to identify and use the most current methods.

### Revision Log

| Previous Version # | Revision Date | Author | Changes Made | Reason for Change | New Version # |
|--------------------|---------------|--------|--------------|-------------------|---------------|
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# Introduction

This document explains how to make and track changes to the Southeast Coast Network's monitoring protocols, including their associated Standard Operating Procedures (SOPs). Although approved protocols have been developed using current standardized methodology, all long-term monitoring programs need to be flexible to adapt to changes. As new technologies, methods, and equipment become available, protocols will necessarily need to be updated as appropriate.

SECN protocols typically consist of four sections:

**Protocol Narrative.** This is the main body of the protocol, explaining the “who,” “what,” “when,” and “why” and an overview of “how” a protocol is to be implemented at each intended park. The protocol narrative follows a standard outline as detailed in Oakley et al. (2003), and along with appendices and associated standard operating procedures, is subject to external peer review and approval by the Regional or National I&M Program Coordinator prior to implementation.

**Appendices.** In-depth explanatory information related to each protocol narrative that is not expected to change over time. Depending on the content, appendices might require independent peer review and/or approval prior to review and approval of the overall protocol.

**Standard Operating Procedures.** Each protocol is accompanied by one or more (typically 10-15) standard operating procedures that detail “how” each protocol is to be implemented. Each protocol's SOPs cover aspects of field implementation, data management, analysis, reporting, safety, and equipment maintenance to ensure consistent implementation of methods over time. SOPs are intended to be “living documents” that are updated over time; in general, all changes related to a protocol should be made at the SOP level rather than to the protocol narrative or supporting appendices.

**Key References.** In almost all cases, SECN protocols include one or more externally-published document critical to their implementation. These documents include reference manuals, user guides, field identification guides, or monitoring protocols developed by partnering agencies (USGS, EPA, NOAA).

Revision of network protocols and associated documents will be the responsibility of the Network Coordinator in consultation with the SECN branch chiefs (Terrestrial Ecologist, Coastal Ecologist, Aquatic Ecologist, and Data Manager) as well as statisticians. All changes will be made in a timely manner with the appropriate level of review.

# Procedures

The following procedures will ensure that both minor and major revisions to this document will align with the monitoring plan.

## General Procedures

1. Prior to making changes, proposed edits must be discussed with the Network Program Manager and Network Data Manager. It is imperative to consult with the Data Manager prior to making changes because certain types of changes may jeopardize dataset integrity unless they are planned and executed to avoid this. Also, because certain changes may require altering the database structure or functionality, advance notice of changes is important to minimize disruptions to project operations.
2. Attempt to incorporate the changes by first modifying only the SOP(s), without making changes to the protocol narrative. However, if it is clear that changes will also be needed on the narrative, then revise it as well.
3. Make all revisions using the Track Changes feature of Microsoft Word. For minor changes, at least one other person must review the revision. If the change is more extensive, a discussion of the changes by Network staff is warranted before acceptance of the revision. For major changes, review from outside of the Network should be sought. Examples of major changes include modifications of the sampling design, significantly altered field methods, and revised analysis techniques.
4. Record the changes in the revision history log of the SOP and/or in the narrative, as appropriate. Include the date of revision, full name(s) and affiliation(s) of author(s), description of and reasons for the changes, and section of SOP or narrative where changes were made.
5. Record all changes to a protocol document (Protocol Narrative or SOP) in the document's revision history log, even minor edits like fixing typos or formatting changes. It is not necessary to record the specific edits made, rather just the fact that typos were fixed or formatting changes were made. For minor edits, record the same document version number in the revision history log. For actual protocol changes (e.g., changes in methods, equipment), assign a new version number in the revision history log. Depending on the significance of the changes, it may be okay to combine multiple changes in the same entry in the revision history log. Version numbers increase incrementally by hundredths (e.g. version 1.01, version 1.02, etc.) for minor changes. Major revisions should be designated with the next whole number (e.g., version 2.0, 3.0, 4.0 ...). Record the previous version number, date of revision, author of the revision, and the reason for the changes along with the new version number (if applicable).
6. Notify the data manager of the change(s) so that the metadata of the SECN information management system will be updated.

7. Distribute the revised version to all appropriate parties, including the members of the field crew and appropriate SECN staff. The revised version must also be posted on the network's website, and the NPS Integrated Resource Management Applications portal (IRMA).
8. Previous versions should be retained on the SECN intranet SharePoint and archived in accordance with standard SECN data management policies (Wright et al. 2008a, 2008b). Such historical information may be crucial for understanding, interpreting, and analyzing data.
9. All edits require review for clarity and technical soundness. Small changes to existing documents (e.g., formatting, simple clarification of existing content, small changes in the task schedule or project budget, or general updates to information management handling SOPs) may be reviewed in-house by project cooperators and SECN staff. However, major changes to data collection, analysis techniques, sampling design, or response design necessitate an external peer review.
10. Narrative and SOP updates may occur independently. That is, a change in one SOP will not necessarily invoke changes in other SOPs; a narrative update may not require SOP modifications.

### **Additional Guidance for Updating Protocol Narratives and Appendices**

1. In general, substantive changes should *not* be made to the protocol narrative. The following are acceptable (and expected) reasons for updating the protocol narrative:
  - a. Changes to the sampling design or response design(s) following
    - i. Revisions based on a formal protocol review at the Network, Regional, or National Level,
    - ii. Addition or subtraction of monitoring objectives.
  - b. Formal inclusion of assessment criteria in the network's analysis and reporting procedures. This will typically include a new monitoring objective to "Determine the status and trends of the condition of resources."
2. Protocol Narratives are published to IRMA as "Protocol" document types.
3. All changes to protocol narratives require approval by the Regional or National I&M Program Coordinator prior to implementation.
4. Note: Expansion of the study area where a protocol is to be implemented (such as newly-acquired lands) does not typically warrant a revision provided that the protocol is implemented in the new areas as prescribed in the protocol and associated SOPs.

## **Additional Guidance for Updating Standard Operating Procedures**

1. All SOPs should be reviewed and revised as necessary prior to annual protocol implementation.
2. SOPs should not be updated / altered midway through a field season except where required for safety purposes, or unless expanded to include relevance to other SECN protocols. This will ensure that within-park and within-year data are collected consistently.
3. Field alterations to protocols should only occur with consultation and approval by the appropriate Branch Chief.
4. The complete list of SECN SOPs is located on the SECN SharePoint at <http://inpserosecn2/staff/Lists/Network%20Operations%20Manual/Tree.aspx>. Each SOP has a permanent number based on topic, and should not change over time.
5. Standard Operating Procedures are published to IRMA as “Standard Operating Procedure” document types. This allows SOPs to be linked to one or more protocol documents.
6. All changes to protocol narratives require approval by the Network Program Coordinator and responsible Branch Chief prior to implementation.

## **Literature Cited**

- Oakley, K. L., L. P. Thomas, and S. G. Fancy. 2003. Guidelines for long-term monitoring protocols. *Wildlife Society Bulletin* 31(4):1000-1003.
- Wright, C. J., J. C. DeVivo, and K. Funk. 2008a. Information management and archiving plan, Southeast Coast Inventory and Monitoring Network. Natural Resource Report NPS/SECN/NRR—2008/062. National Park Service, Fort Collins, Colorado.
- Wright, C. J., J. C. DeVivo, K. Funk, S. McCort, B. Blankley, E. Davie, M. W. Byrne, T. Curtis, D. Lagana, and N. Russell, Editors. 2008b. Southeast Coast Network Information Management and Archiving Plan Appendices. Natural Resource Report NPS/SECN/NRR—2008/062. National Park Service, Fort Collins, Colorado