Southeast Coast Network

National Park Service
Inventory & Monitoring Program

Standard Operating Procedure (SOP) #2.1.2

Southeast Coast Network Reporting Guidelines

Please cite this as:

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Summary

The Natural Resources Program Center has established three report series for publishing I&M reports. National guidance and the latest templates for each series are available at http://www.nature.nps.gov/publications/NRPM/index.cfm. Additionally, the SECN produces reports in three Network-level formats: Resource Briefs, Program Summaries, and Standard Operating procedures. The following Standard Operating Procedure (SOP) should be used as guidance on selecting which series should be used, authorship, (in some cases) content, and peer review standards when publishing SECN reports.

Revision Log

Previous Version #	Revision Date	Author	Changes Made	Reason for Change	New Version #
0.9	1/17/2013		Clarifications to SOP document type	Text corresponds to wording in protocols	1.0

Templates

National guidance and the latest templates for each series are available at http://www.nature.nps.gov/publications/NRPM/index.cfm. The templates (and associated style format) for each of the report types presented below are evolving documents. Although major changes to the template will be rare, there are semi-annual updates and the Network Program Coordinator will notify SECN report authors when new templates become available. Using the most up-to-date template will facilitate the review process and ensure that the format of reports meets the national requirements.

Natural Resource Data Series

The Natural Resource Data Series (NRDS) is intended for timely release of basic data sets and data summaries. This series is intended to provide data sets or data summaries that will later be compiled, analyzed, and interpreted after enough data has been collected to do so adequately.

For the SECN, NRDS reports are primarily used to routinely report data collected under the Network's approved monitoring protocols. Data reports may be produced in a single- or multi-park format, (all parks for a FY for example). However, multi-park reports should only be produced in those cases where doing so does not hinder the timely publication of data for one or more parks.

Data summary reports include information about the methods and study area as well as several summary figures and tables that are prescribed in each vital sign's approved protocol. In most cases these figures and tables are automated and can be generated "on demand" by any SECN staff, park staff, or cooperating agency personnel with access permissions to the SECN intranet SharePoint site. As per the monitoring plan, data summary reports will be published within one year of collecting vital sign monitoring data. However, the goal is to publish NRDS reports within 30 days of validating and certifying data for any vital sign.

The model for these reports is the USGS water data reports which include basic metadata-level information related to the purpose of monitoring efforts, combined with automated database outputs of tables, figures, and summary statistics. These reports should be viewed as "compiled" rather than "authored" reports.

Authors

The person who does the report should be the primary author. The author of the protocol should not be an author unless he or she authors the data report, which most likely will be the case on the "first run" of the reports. After protocols are complete and the SECN data system has been programed to produce the requisite figures and tables, the production of data reports should become part of the annual workload of our biologists and interns. Secondary authors should include anybody who significantly contributed to the data collection.

Peer Review

The goal of SECN NRDS reports is to ensure they qualify for the following statement: "*Data in this report were collected and analyzed using methods based on established, peer-reviewed*

protocols and were analyzed and interpreted within the guidelines of the protocols." As long as fall into that category, the Network Program Manager has the delegated authority to approve the report for publication rapidly.

In the event that there is no NPS protocol to cite, we should always cite a) the protocols upon which ours are based and b) the monitoring plan (which has the justifications for why we're monitoring and an overview of the sampling design). We should never cite draft protocols as they have not yet been peer reviewed. If for some reason the combination above is not appropriate, the Network Program Manager will determine and obtain the appropriate level of peer review prior to publishing the report. However because of the volume of NRDS reports the network is scheduled to produce, we want to minimize the reviewing needs for this series.

Recommended Outline

The following is a recommended outline for NRDS reports. Chapter headings marked with an (*) are required for all data summary repots.

1. * Contents
2. List of Figures
3. List of Tables
4. List of Terms
5. * Executive Summary, which should include the following in bullet form:
    a. Overview of the program, Vital Sign, and methods used (cite them explicitly)
    b. Number of sites monitored and any notes related to the level of inference
    c. Dates and/or time of monitoring
    d. Additions to the park species list, if appropriate
    e. Observations of non-native species and a note as to whether they are considered invasive.
    f. Observations of any species of management concern
    g. Any notable summary bullets from the automated figures and tables.
    h. A link to the main IRMA portal page to find more information.
    i. State Of The Park-style report card table (required for approved protocols only).
6. *Introduction, including information on the vital sign, and the full list of approved monitoring objectives as listed in the monitoring plan, climate plan, and/or approved protocol.

7. Methods

    a. * Study area. Descriptions of the study area are found within the monitoring plan, watershed condition assessments, resource condition assessments, and resource stewardship strategies.

    b. * Sampling design/locations and map.

    c. Sampling methods. Note this section can be omitted if you can cite an approved protocol in the introduction.

    d. Data Analysis methods. Also can be omitted if you can cite an approved protocol in the introduction.

    e. Assessment criteria. Only to be included for vital signs where approved criteria have been identified and approved by other agencies (such as the EPA Coastal Assessment criteria), or through NPS planning processes (Resource Condition Assessments, Resource Stewardship Strategies, or State of the Park reports).

8. Findings. Format for this section will vary, but the report should include all data outputs prescribed in the monitoring protocol. Additional analyses <u>should not be included</u> in the data summary unless the protocol's reporting SOP has been updated and approved to include the new outputs.

9. Literature Cited.

10. One or more of the following appendices

    a. Distribution maps for birds and amphibians.

    b. "Species Found" tables for birds, amphibians, and plants, comparing the certified species list to the current-report list.

    c. Other ancillary data collected as a part of the report.

Natural Resource Technical Reports

Natural Resource Technical Reports (NRTRs) are used to disseminate results of scientific studies in the physical, biological, and social sciences for both the advancement of science and the achievement of the National Park Service mission. The series provides contributors with a forum for displaying comprehensive data that are often deleted from journals because of page limitations. The NRTR typically follows the "Introduction - Methods - Results - Discussion" type organization that is standard for many scientific journal publications and technical reports. Examples of NRTR reports include: periodic data summaries with analysis and interpretation, inventory reports, monitoring reports, or species status reports.

For the SECN, NRTRs fall into one of two categories: improved data series reports or “not-quite-journal” reports. When comparing these to data series reports, the main difference is that NRTRs have more interpretation or explanation of findings from an ecological or management perspective. If the report has or warrants a “discussion” section then it most likely doesn’t belong in the data series. For most of our vital signs reports the SECN will be able to publish NRDS reports. But a NRDS report isn’t necessarily appropriate if we have significant findings where we want to explain the ecological significance of the findings (i.e., why is it important that dissolved oxygen is at 0%, what might be the causes, and what might be some recommendations).

Authors: Nine times out of ten this should be the protocol lead if it is based on a vital sign, but when we have exceptions, the protocol lead should be an additional author. If we have findings that are significant enough to warrant discussion, the protocol lead needs to be involved enough in the report to warrant the authorship. Other than that, “enhanced data reports” should follow the authorship guidelines in the data series. For reports that do not originate in vital signs, we should always defer to the general authorship guidelines.

Peer Review: Reports published in the NRTR series should have *at least* formal internal review by people not involved with the data collection and analysis. For some reports the peer review manager might opt to require additional external peer review, and in some cases I might ask that the Regional Inventory & Monitoring Coordinator do the final approval.

Note: In some cases these reports might warrant publication in an external journal rather than the technical series. This is encouraged for reports that are not enhanced data series reports. However, we never want to delay publishing data reports because we think we have a more scholarly outlet. In cases where there might be a conflict it is better to a) publish a data series report, b) cite the data report in a journal article, and c) brief the park(s) so that they have the information necessary to act appropriately on the information.

Natural Resource Reports

Natural Resource Reports (NRRs) are used to disseminate high-priority, current natural resource management information with managerial application. The series targets a general, diverse audience, and may contain NPS policy considerations or address sensitive issues of management applicability. Reports organized into Chapters, such as monitoring plans and protocols, are best suited for the NRR, which has a more flexible "open format" layout. Examples of the diverse array of reports published in this series include: vital signs monitoring plans, data management plans, monitoring protocols, natural resource condition assessments, "how to" resource management papers, annual reports of resource programs or divisions of the Natural Resource Stewardship and Science offices, and resource action plans.

For the SECN, the following should always be published in the NRR series:

1. Watershed Condition Assessments
2. Natural Resource Condition Assessments

3. Protocols
4. Plans
5. Checklists

Authorship guidelines should follow the established SECN Authorship Guidelines (SOP 2.1.3; Southeast Coast Network 2012) and peer review will be decided on a case-by-case basis by the appropriate peer review manager.

Network-Specific Report Series

The SECN maintains three additional report "series" to provide information to parks, partners, or internal staff. The Network Program Manager is responsible for ensuring that all documents receive the appropriate level of peer review for all publications produced in these series.

Resource Briefs

The SECN frequently produces *Resource Briefs* as short-format versions of longer reports. These are no longer than two pages, and follow the site bulletin template in use by the NPS as a part of the Graphic Identity program.

In general, resource briefs should be park-specific summaries of NRDS reports (required for all vital signs data reports), and should be produced wherever feasible for NRR and NRTR reports. Because of the limited amount of space, resource briefs are typically only appropriate in cases where you wish to present information that is relatively limited in scope and time. In cases where it is inappropriate to summarize the longer NRR and NRTR reports without oversimplifying (or changing) the interpretation of findings in the longer reports, authors should consider using the program summary template instead.

The SECN has produced several Resource Briefs for a variety of topics, examples of which can be downloaded from the network's web page:

Vegetation Monitoring at Cape Hatteras National Seashore, 2010.

Landbird Monitoring at Chattahoochee River National Recreation Area, 2009.

Assessment of estuarine water and sediment quality at Canaveral Natl Seashore, 2010.

Program Summaries

Program summaries are typically 4-8 page documents that provide more in-depth descriptions of programmatic areas, findings, etc., than can be achieved in a two-page format. In general the audience for program summaries is non-technical in nature, but it can be assumed that the reader has a basic level of knowledge or interest that would prompt them to be reading the product.

Again, the SECN has produced several Program summaries, such as the following examples:

Status of freshwater monitoring, 2011.

Climate change vital signs monitoring, 2011.

I&M Program Status Report: Timucuan Ecological & Historic Preserve, 2011.

Standard Operating Procedures

To ensure consistent procedures network-wide as Standard Operating Procedures (SOPs) are revised, updated, and re-published, the Southeast Coast Network maintains a single library of SOPs that are shared across all network protocols and operations. All approved SOPs are published as a network-level report seriess and the latest approved versions of operational SOPs are always available for download at the NPS Integrated Resource Management Applications portal at http://irma.nps.gov.

All SECN SOPs conform to a standard three-part numbering system to aid in the identification of the portion(s) of the program to which the procedures apply (Table 1). Because SOPs are regularly updated, the SECN maintains the complete collection of the most-recent and working versions of all SOPs in the SECN Operations Manual, housed on the SECN SharePoint at: http://inpserosecn2/staff/Lists/Network%20Operations%Manual/Tree.aspx.

Table 1. Numbering system and categories for Standard Operating Procedures (SOPs) used by the Southeast Coast Network. Within each category, SOPs are numbered sequentially as they are produced.

Level 1	Level 2	Topic
1	1.1.x	General field methods shared by multiple branches of the SECN. Typically those related to GIS, GPS location, photopoints, or use of shared instrumentation.
	1.2.x	Field methods for water resource monitoring
	1.3.x	Field methods for coastal resource monitoring
	1.4.x	Field methods for terrestrial resource monitoring (plants and animals)
2	2.1.x	Data management procedures shared by multiple branches of the SECN, such as those pertaining to reporting, file management,
	2.2.x	Data management procedures related to water resource monitoring
	2.3.x	Data management procedures related to coastal resource monitoring
	2.4.x	Data management procedures related to terrestrial resource monitoring (plants and animals)
3	3.1.x	Field Safety
	3.2.x	Equipment use and maintenance
4	4.1.x	Network administration
5	5.1.x	User Manuals

Examples can be viewed as follows:

SOP 1.4.07 – Chytrid Fungus Sampling

SOP 2.3.07 – Data management and technical documentation for salt marsh elevation and vegetation monitoring

SOP 3.1.04 – Motor vehicle accident reporting procedures

Other Considerations

Acknowledgments

It's never a bad idea to thank people, and while not required, an *Acknowledgments* section is often appropriate. If the report is being done by a contractor, they are often required to include the section part of the contract language and they can thank who they want. If NPS authors the report, inclusion of the report is to be determined by the primary author with the following considerations:

1. First and foremost, if there is someone who you feel needs special acknowledgment for their efforts, a line in a report well after the deed is the least personal way to do it. Write a thank you note, or work with the Network Program Manager to write a note, laud praises to said person's supervisor, give them an award, or find a more-personal and direct way to thank them for their contributions.
2. Although it is in the template, it is not usually appropriate for acknowledgments to be included in NRDS reports, especially since these are largely automated and/or cut-and paste efforts. Inspection of the USGS series upon which ours is based shows that it is not typically included.
3. Technical series reports generally *should* have acknowledgments. For the NRR series, there's no clear pattern, but the recommendation is that the greater the amount of time or investment for producing the report, the more likely (and lengthier) an acknowledgments section should be.
4. If you include an acknowledgments section it shouldn't be an Oscar-award-winning laundry list of everyone who contributed along the way. It should be limited to people who went above and beyond the call of duty to help get the report done who can't be otherwise acknowledged through citations, appendices, or thank-you notes.
5. Authors of reports should never be acknowledged.
6. Reviewers usually shouldn't be acknowledged. If they're paid to review the document they almost certainly shouldn't be acknowledged.
7. Meeting participants/planners shouldn't be acknowledged. If it's important enough for the document they should be coauthors of the report, authors of an included, or cited authors of a separate meeting report.
8. Acknowledgments aren't required for peoples' efforts (especially NPS folks) when they're routine things such as providing access to sites, lodging, advice, compliance

assistance. Volunteering time, improving logistics, or assisting with emergencies are generally outside the norm and likely warrant acknowledging. But not necessarily in the report.

9. Data collectors who aren't in the author list might be worthy of acknowledgments at the authors' discretion. But if you acknowledge one person, you should acknowledge everyone, and there should be a clear reason why some data collectors warrant authorship and others do not.
10. If someone does the maps for a report it warrants an acknowledgment. Unless the maps warrant authorship.
11. If you acknowledge folks and forget someone you'll cause more grief than if you didn't acknowledge anyone.

Style

All reports are published following approved templates and instructions to authors guidance provided by the Natural Resource Publications Management program at http://www.nature.nps.gov/publications/nrpm/hints.cfm#guides.

All reports will be published following the *Editorial Style Guide for "Park Science" and "Natural Resource Year in Review"* (Selleck and KellerLynn 2008), except where superseded by specific report series guidance (NPS 2010). In cases where NPS style guides do not contain applicable guidance, authors should instead follow the style guidance contained in the USGS Suggestions to Authors (USGS 2001), followed by the APA Style guide (2009) in order of preference.

It is the role and responsibility of the SECN Technical Editor to ensure that all published reports comply with appropriate and consistent style. In cases where multiple interpretations of style guidance exist, the technical editor makes the final determination on the standards to be used by the SECN and ensures that future reports are consistent with those decisions.

Literature Cited

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