

# NCRN Seasonal Close-out & Evaluation

## Standard Operating Procedure

### 1. Revision Log

Revision	Description of Change	Author	Effective Date

### 2. Purpose

The NCRN Inventory and Monitoring Program implemented a number of vital signs monitoring protocols all of which generate large quantities of data and a diversity of data products. It is imperative that Network staff take the necessary steps to ensure that the final data and data products are properly reviewed, evaluated and processed. This document describes the things that should be done at the end of a field season or (in the case of those protocols that are monitored year round) at the end of the calendar year to ensure that monitoring protocols are producing high quality data and data products.

### 3. Scope and Applicability

This document applies to all monitoring protocols conducted by the NCRN including those managed by cooperators and contractors. All project managers, staff and cooperators should be well versed with the guidance provided herein.

### 4. Definitions and Acronyms

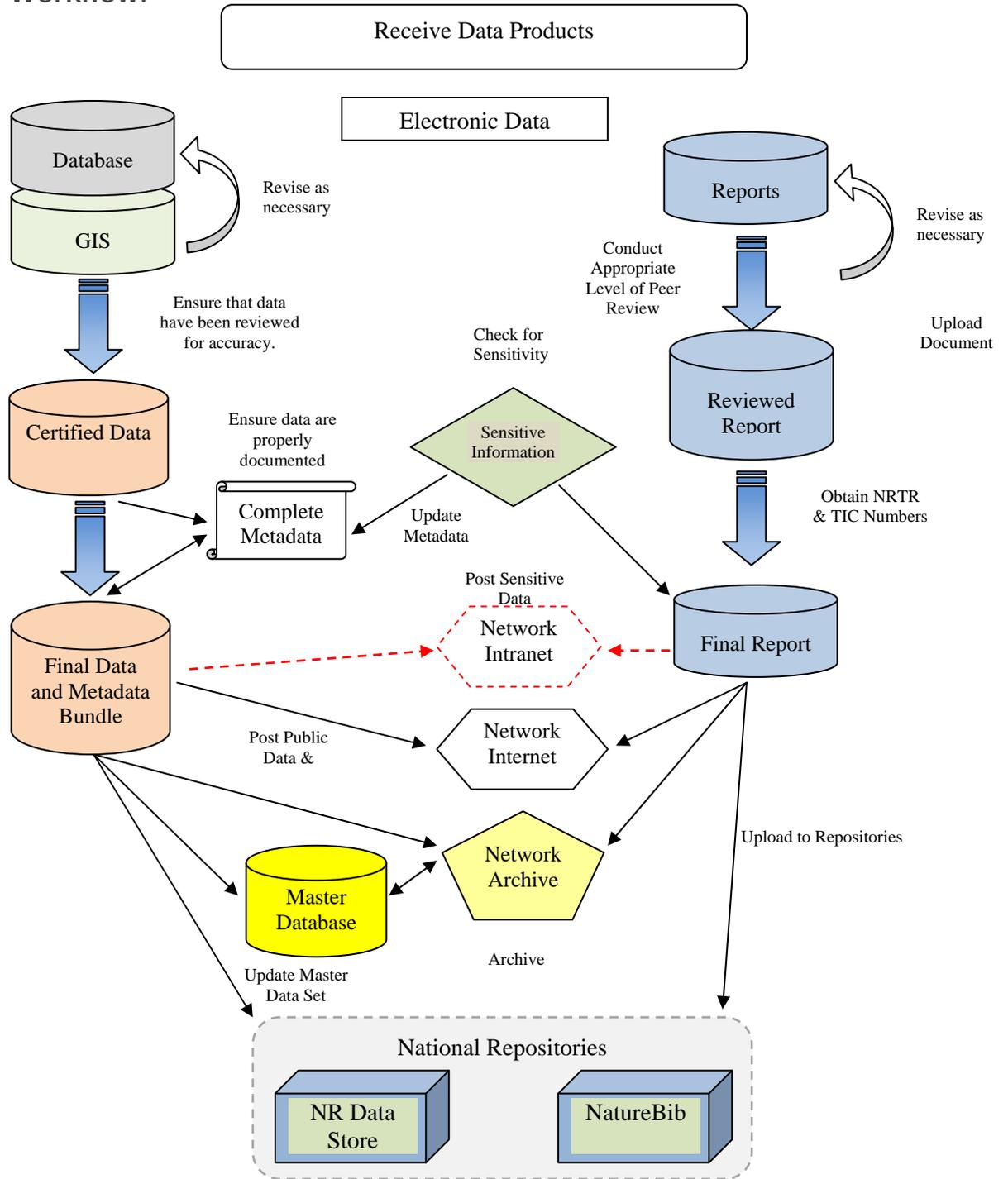
NCRN – National Capital Region Network

### 5. Reference Documents

- NCRN Data Management Plan
- NCRN Vital Signs Monitoring Plan
- NCRN Data Entry and Verification SOP
- NCRN Metadata SOP
- NCRN Electronic Data Storage and Archiving SOP

# NCRN Seasonal Close-out & Evaluation Standard Operating Procedure

## 6. Workflow:



# **NCRN Seasonal Close-out & Evaluation**

## **Standard Operating Procedure**

## **7. Procedures and General Requirements**

The NCRN has implemented a number of monitoring protocols that produce a diversity of data products on varying timetables. In order to make sure that all products meet Network standards separate procedural documents exist to instruct staff on specifics such as metadata standards, data quality control requirements and reporting standards. This document does not delve into those specifics but instead is meant to serve as a check-list for staff to help them determine and track the various tasks must be completed once the field season is complete.

A member of the NCRN Network staff has been designated as the project manager for every monitoring project currently underway. It is the project manager's responsibility to make sure that all of the "close-out" tasks are accomplished and meet all of standards required by the network. This does not mean the project manager is responsible for personally completing all of the necessary tasks but must track their status and make sure that all are accomplished correctly and in a timely fashion. The project manager will have to complete the "close-out" checklists (Appendix A) and certify that all of the products have been reviewed and all meet network standards.

### **7.1. Deliverables**

Monitoring projects generate a number of data products which generally are finalized and/or delivered upon the completion of the monitoring field season.

#### **7.1.1. Data**

All field data must be delivered in the appropriate format and meet specific network standards. Standards specific to the different types of field data are described in greater detail in separate procedural documents. The network data manager is available to provide the project managers assistance in reviewing data products.

#### **Field Data**

Field data must be formatted appropriately. All NCRN monitoring projects enter and manage field data in a database format that meets both national and network I&M standards. Project managers must make sure that all field data provided by cooperators or field crews working with the network are in the approved format.

If paper data sheets were used to record data, copies of these should be provided to the network.

#### **GIS Data**

All GIS data products must be properly formatted as ESRI shapefiles or geodatabases, be properly attributed and have topological correctness. If the GIS data was collected from GPS units, the raw GPS data should also be provided to network staff. Regardless of how GIS data was created all data files should be accompanied by a metadata file providing specifics about the creation and processing of the product.

# NCRN Seasonal Close-out & Evaluation

## Standard Operating Procedure

### 7.1.2. Data QA/QC

All data collected during the field season must undergo quality assurance and quality control checks. The degree to which this is done and how it is accomplished will vary from protocol to protocol. Each monitoring protocol has a procedural document that specifically outlines the steps involved with checking all of the field data. The project manager must ensure all of these steps are followed in a timely manner throughout the field season and certify that all data has been checked at the end of the field season.

### 7.1.3. Metadata

All project data sets, including spatial and non-spatial data, are required to have an associated metadata file. A metadata template exists for all NCRN monitoring protocols. This metadata file should be updated annually to reflect the specific details of what took place during the field season. The NCRN has a separate SOP documenting the specific metadata requirements which is available to all staff and provided to all cooperators. The following is a list of a few of the things that should be detailed in the annual metadata file:

- Who did the work?
- Where was the work done?
- When was the work done (date range)?
- How was the work done?
  - Methodology used?
  - Equipment used?
  - Protocol used?
    - Was the protocol modified? If so, what were the changes?
- How was the data processed or analyzed?
  - Provide information on lab tests used to analyze samples.
  - Detail methods used to check data. Were any special procedures used?

Some of these details may not change from one year to the next (e.g. methods may remain the same) for cases when changes are made or special procedures implemented, it is essential to capture these details. This information helps strengthen the validity of the data as well as the program as a whole.

All project metadata files are stored in XML metadata templates and are edited by either using the metadata tools in ESRI's ArcCatalog or through the NPS Metadata Tools and Editor. If cooperators, contractors or network personnel require assistance with working with these files they should contact the network data manager. If staff or non-network personnel are unable to work with the appropriate software, a formatted list of project updates must be provided to the network data manager.

## 7.2. Reporting

The national Inventory & Monitoring Program developed national reporting standards, accompanied by report templates and editorial guidance documentation, that all I&M networks are encouraged to follow. Additionally,

## NCRN Seasonal Close-out & Evaluation

### Standard Operating Procedure

the NCRN developed a procedural document detailing network specific reporting requirements. The template, guidance and network SOP should be provided to cooperators or contractors.

Project managers must make sure that reports meet NCRN standards:

- Report was created using the proper I&M reporting template
  - All of the appropriate sections of the report have been completed
- Coordinate with the regional reporting POC to see what level (if any) of peer review is required.
  - If minimal peer review is required, at a minimum, ensure that all comments from network and park staff are incorporated.
  - If a more rigorous level of peer review is needed, coordinate with the regional POC to arrange this. Make sure that all reviewers' comments are addressed.
- Report numbers (both series and TIC numbers) were requested and added to the report.

In addition the project manager must:

- Make sure that the manuscript submittal form has been completed
- Work with the Network data manager to make sure that the report is entered into NatureBib and posted to the appropriate websites for dissemination.
- The project manager should also notify park staff when the final report is available for circulation.

#### 8. Review for Sensitive Information

All data and data products must be reviewed to see if they contain any sensitive information. Sensitive information could include information on any of the following things:

- rare, threatened, endangered, or commercially valuable species
- rare habitats or habitats that are essential to an RTE species
- sensitive resources such as caves or wells
- minerals
- paleontological objects
- archeology resources
- ethnographic sites

The project manager should review all of the data and materials and consult with network staff and members of the field crew to confirm whether any sensitive information is present. Cooperators and contractors conducting any monitoring protocols monitoring should also be asked to provide any input on the possible existence of sensitive information. Finally, natural resource managers and other park staff should be asked to review the protocol data and products for the presence of sensitive information.

The following questions can aid in determining whether information is sensitive:

## NCRN Seasonal Close-out & Evaluation

### Standard Operating Procedure

- Has harm, theft, or destruction occurred to a similar resource on federal, state, or private lands?
- Has harm, theft, or destruction occurred to other types of resources of similar commercial value, cultural importance, rarity, or threatened or endangered status on federal, state, or private lands?
- Is information about locations of the resource in the park specific enough so that the park resource is likely to be found at these locations at predictable times now or in the future? (For example, raptor nests locations).
- Would information about the nature of the park resource, if available in conjunction with other public information, permit determining specific locations of the resource?
- Even if relatively out-dated, is there information that would reveal locations or characteristics of the park resource such that the information could be used to find the park resource as it exists now or is likely to exist in the future?
- Is the NPS unable to protect the park resource if the public knows or can infer its location?
- Is the information temporarily critical to some park's operations or negotiations (for a land purchase, water rights issue)?

Answering yes to any of the previous questions qualifies the information as sensitive. Any ambiguity in how the data should be classified results in the data being classified as sensitive. If a data set is deemed to contain sensitive information, the metadata for that data set must be updated to reflect that the associated data is sensitive. The sensitive classification should also be reflected in the NatureBib citation.

## 9. Cataloging and Archiving Project Materials

After all of the materials are received, reviewed and found to be in good order, they must be cataloged into the appropriate system and archived.

- Reports must be added to the NatureBib System paying close attention to whether the reports contain sensitive data.
  - *If the report does contain sensitive information make sure that the report is entered as an NPS or Park Only document.*
- Data and/or metadata should be posted to the NR Data Store, once again making sure that the metadata correctly indicates the sensitivity level of the data products.
- Paper data sheets should be stored in the NCRN Archive cabinet.
- A hard copy of the annual report should be added to the NCRN Archive cabinet.
- Network internet and intranet pages must be updated to reflect new products.
  - Any product identified as sensitive will not be available on the network internet site, only on the intranet site.
- Reports and data sets must be archived.
  - Project managers must consult with the network data manager to ensure that annual electronic data products are archived appropriately on the NCRN file server.

# NCRN Seasonal Close-out & Evaluation

## Standard Operating Procedure

- Annual data sets must be merged with the master database for each protocol.
  - Project managers must consult with the data manager to make sure that annual data sets are merged with the master project database.

### 10. Update Project Management System

The NCRN tracks the progress and status of network projects using a customized MS Access project tracking database. The database tracks the status of deliverables, budgets and general project information. Project managers should update the database for those projects they are responsible for.

### 11. Responsibilities

#### Data Manager:

- Assist project managers with product review and metadata generation.
- Archive final products
- Create NatureBib record for annual report
- Post data to national repositories (NR Data Store).
- Update Network web pages to reflect new products.

#### Project Manager:

- Work with project staff or PI to make sure they are aware of network requirements and have all necessary procedural documents.
- Review all project deliverables to ensure that they meet network standards.
- Ensure that all data products are accompanied by proper documentation.
- Review products for sensitive information.
- Work with network data manager to make sure that all products are posted to the appropriate repositories and websites.
- Work with network data manager to make sure that all products are properly archived.

## NCRN Seasonal Close-out & Evaluation

### Standard Operating Procedure

#### Appendix A. Data and Product Review Checklist

Project Title			
Date Range			
Yes	No	Data Review	
<input type="checkbox"/>	<input type="checkbox"/>	Field data received?	
<input type="checkbox"/>	<input type="checkbox"/>	Yes: <input type="checkbox"/>	No: <input type="checkbox"/> Paper data sheets used?
<input type="checkbox"/>	<input type="checkbox"/>	Yes: <input type="checkbox"/>	No: <input type="checkbox"/> If paper data sheets used, were they received?
<input type="checkbox"/>	<input type="checkbox"/>	Yes: <input type="checkbox"/>	No: <input type="checkbox"/> Electronic data received?
<input type="checkbox"/>	<input type="checkbox"/>	Field data reviewed for proper formatting and completeness?	
<input type="checkbox"/>	<input type="checkbox"/>	Yes: <input type="checkbox"/>	No: <input type="checkbox"/> Revisions necessary? If 'Yes', please describe:
<input type="checkbox"/>	<input type="checkbox"/>	Field data has complete metadata?	
<input type="checkbox"/>	<input type="checkbox"/>	GIS data product(s) received?	
<input type="checkbox"/>	<input type="checkbox"/>	GIS data reviewed for proper formatting and completeness?	
<input type="checkbox"/>	<input type="checkbox"/>	Yes: <input type="checkbox"/>	No: <input type="checkbox"/> Revisions necessary? If 'Yes', please describe:
<input type="checkbox"/>	<input type="checkbox"/>	GIS data has complete metadata?	
<input type="checkbox"/>	<input type="checkbox"/>	Data set contains sensitive information? If so, describe:	
<input type="checkbox"/>	<input type="checkbox"/>	Yes: <input type="checkbox"/>	No: <input type="checkbox"/> If data is considered sensitive has metadata been updated?
<input type="checkbox"/>	<input type="checkbox"/>	Data set certified?	
<input type="checkbox"/>	<input type="checkbox"/>	Annual data set archived?	
<input type="checkbox"/>	<input type="checkbox"/>	Master data set updated?	
<input type="checkbox"/>	<input type="checkbox"/>	Draft report received/completed?	
<input type="checkbox"/>	<input type="checkbox"/>	Yes: <input type="checkbox"/>	No: <input type="checkbox"/> Report reviewed and comments incorporated?
<input type="checkbox"/>	<input type="checkbox"/>	Peer review required?	
<input type="checkbox"/>	<input type="checkbox"/>	Yes: <input type="checkbox"/>	No: <input type="checkbox"/> Peer review comments addressed?
<input type="checkbox"/>	<input type="checkbox"/>	Report contains sensitive information? If so, describe:	
<input type="checkbox"/>	<input type="checkbox"/>	Yes: <input type="checkbox"/>	No: <input type="checkbox"/> If document contains sensitive information has disclaimer been added.
<input type="checkbox"/>	<input type="checkbox"/>	NRTR report number received and added to report?	
<input type="checkbox"/>	<input type="checkbox"/>	TIC number received and added to report?	
<input type="checkbox"/>	<input type="checkbox"/>	Final report received and approved?	
<input type="checkbox"/>	<input type="checkbox"/>	Annual report archived?	
<input type="checkbox"/>	<input type="checkbox"/>	Report citation added to NatureBib and report uploaded?	
<input type="checkbox"/>	<input type="checkbox"/>	Yes: <input type="checkbox"/>	No: <input type="checkbox"/> NatureBib citation reflects sensitivity level?
<input type="checkbox"/>	<input type="checkbox"/>	Data/report posted to Network Internet site?	
<input type="checkbox"/>	<input type="checkbox"/>	Data/report posted to Network Intranet site?	
<input type="checkbox"/>	<input type="checkbox"/>	Final data bundle uploaded to national data repository (e.g. NPS Data Store or NPStoret)?	
<input type="checkbox"/>	<input type="checkbox"/>	NCRN Project Management System updated?	
Certified By:			
Certified Date			