

Assessment of Established Survey Protocols

Inventory and Monitoring Initiative, National Wildlife Refuge System

Protocol Title: Version: Date of Publication (mm/yyyy): Contact for experience with protocol use:		
Organization Name	Authors and Affiliations	
Reviewer Name Date of Review:	Reviewer Affiliation (include e-mail address)	
Previous Protocol Reviews <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> No prior reviews available <input type="checkbox"/> Internal (within Region) review <input type="checkbox"/> External to organization peer review (unpublished) <input type="checkbox"/> Scientific peer review leading to publication </div> <div> <input type="checkbox"/> Reviews available with protocol <input type="checkbox"/> Reviews available by permission (contact owner of ServCat record: </div> </div>		
Recommendation / Protocol Status (Check One): <input type="checkbox"/> Not Recommended for use <input type="checkbox"/> Approved for use as a Protocol Framework		
Content Summary (See <i>How to Develop Survey Protocols: A Handbook</i>) For each protocol element, score 0 if needed but absent; 1 if addressed but lacking many needed details, 2 if addressed but lacking moderate amount of detail, 3 if addressed but lacking a few needed details, 4 if addressed and in sufficient detail, or not addressed because it is not applicable.		
Element	Score	Missing or Insufficient Subject Matter
Introduction		
Sampling Design		
Field Methods and Data Collection		
Data Management and Analysis		
Reporting		
Personnel Requirements and Training		
Operational Requirements		
References		
Total Score:		_____ of (8 x 4 = 32) Sufficiently Detailed

Reviewer's Comments: (Provide comments on how best this protocol may be used and whether or not it may require supplemental information before use as a protocol framework in the Refuge System. Also identify any issues there may be in using this protocol).

Instructions

Use this form to conduct a quick assessment of the information content in a previously (prior to 2013) approved inventory or monitoring (survey) protocol. Established survey protocols may be those in use by other government agencies or non-governmental cooperators. The purposes of this assessment are to promote awareness of the protocol, determine whether it meets established standards and provide recommendations on how it can be used for surveys within the National Wildlife Refuge System (Refuge System). This form should be used to document the assessment prior to including the survey protocol with an 'Approved' status in ServCat. Previously approved protocols that get assessed and uploaded into ServCat will serve as frameworks for developing site-specific protocols for conducting surveys at a particular refuge. This quick assessment does not replace the more formal process used to review and approve protocols developed for National Wildlife Refuge System surveys described in [How to Develop a Survey Protocol: A Handbook](#) (Survey Protocol Handbook)

The assessment form provides a check of the protocol's content relative to Refuge System standard for survey protocols. Optimally, a survey protocol framework will provide general guidance on eight fundamental elements of a survey (see Table 1 and the *Survey Protocol Handbook*), unless it is clear that an element is only relevant at the more site-specific level. A site-specific survey protocol will usually need to include additional details implementing a survey at a refuge. For example, you would not expect a previously approved protocol for conducting monitoring of one or more attributes in a National Forest or Park to have a map of sampling locations or adequate directions to those locations at a National Wildlife Refuge. These details would need to be added before it can be used, and the form provides a simple scoring procedure to inform the potential user of the amount of detail present, or inversely, how much detail would need to be added to produce a site-specific protocol from the candidate protocol framework.

This assessment is designed to be quick. Quality and suitability of particular methods is not the main focus of the assessment. This is because suitability of methods is partly dependent on the objectives and intended use of the survey results. Thus, suitability of a protocol framework's methods has to be decided during the protocol assignment process, when the objectives of a particular survey are known. In doing this quick assessment we will rely on the type of previous review and approval to gauge the quality of protocol methods. For example, protocols that were approved following scientific peer-review are more likely to include methodology considered reliable by the scientific community. In addition, reviews by peers external to an agency or institution will generally be more objective and rigorous than those conducted from immediate colleagues or supervisors (internal reviews), and internal reviews are better than no review. Although, an in depth review of the methods exceeds the scope and intent of this quick-assessment and recommendation process, a potential user of the protocol should be made aware of the type of review that was conducted that led to the approval of the protocol by the sponsoring agency, institution, or NGO. Keep in mind, that the decision on whether a protocol provides the quality needed for conducting a particular survey will need to be evaluated by those with knowledge of a survey's objectives, required rigor and the refuge's capability. To avoid limitations stemming from a single assessor's opinion, subsequent and alternative assessments can be written and attached to the protocol framework in ServCat. These supplemental assessments can provide additional evaluation about the quality of methods or approaches in the protocol framework.

The assessment should be provided or coordinated by an Inventory & Monitoring (I&M) staff member. In cases where survey methods are specialized, subject matter experts can be asked to conduct the assessment. When using this form, the reviewer's comments need to culminate with a recommendation on how the protocol might best be used and whether additional guidance would be warranted before it is used as a protocol framework. The I&M lead of the assessment will need to input or arrange for the protocol framework to be put into ServCat. A previously approved protocol would have to be very incomplete or superseded by a more widely recommended protocol before censoring as a reference in ServCat (e.g., total score < 20% of needed detail).

Prior to completing the form, please examine the additional considerations provided in Table 2. Then, fill in the form according to the specific instructions below.

Protocol Title and Version: enter the title and version as given on the cover of inside page (front piece) of the protocol. Include a series or report number if present.

Date of Publication: enter date information to level of detail provided by the protocol using the following format (mm/dd/yyyy). If only the year is provided, then just enter the year.

Contact for experience with protocol use: provide the e-mail address or phone number if you have spoken with someone that has used the protocol and can provide additional details to anyone interested in finding out more about its use.

Organization Name: provide the name of the organization, institution, or agency sponsoring the protocol. If this is not clear, then leave blank.

Authors and Affiliations: give the initials of first and middle names, along with full last name of the authors. If there are more than 3 authors, give the name of the first author along with '*et al.*' Also, provide the affiliations of (organization names and, if available, associated URL) the first three authors.

Reviewer Name and Affiliation: print your (the reviewer's) name above and sign below it. Add your affiliation and provide your current e-mail address.

Date of Review: put the date (mm/dd/yyyy) that the review was completed.

Previous Protocol Reviews: check the appropriate box to indicate the type of previous reviews of this protocol that have been conducted. If the reviews are available they should be zipped in a folder and archived in ServCat as an Additional Digital Holding with the Survey Protocol Framework. If reviews are available but need to remain confidential except to those conducting an assessment for I&M, then archive the zipped folder in a separate record in ServCat and set the permissions so that these reviews are only available to the record owner. Others wanting to read the reviews will need to first contact the ServCat record owner. The ServCat record reference number for the separated reviews should be recorded in the blank on the form and prior to January 2014, noted in the comments field of the ServCat record for the Survey Protocol Framework, with the following statement 'cross references the following <reference record number for the reviews>'. After January 2014, use the formal cross-reference feature to link the protocol with the separate (permission restricted) reviews.

Recommended Protocol Status: check the most appropriate box (the choices are intended to be mutually exclusive). Previously approved protocols that are marginal in detail or that underwent less rigorous reviews may need to be revised or further developed into a draft and submitted for the review process described in the *Survey Protocol Handbook*.

Content Summary: as the reviewer, use your judgment to indicate a score (0—4) for each of the eight fundamental protocol elements. The score definitions are provided in the form and represent the level of needed detail to provide a usable protocol framework. This assessment will be coarse by design—remember that in many cases the externally developed protocols will have undergone a review and approval process. Provide brief notes on the subject matter that might be needed by someone using the protocol as a Refuge System protocol framework.

Total Score and (%): sum the 8 scores to get a total value. Divide the total value by 32 (the maximum possible score for a fully sufficient protocol framework = 8 elements x max value of 4 per element) and then multiply the result by 100. Round the result to the nearest 1 percent (no decimal values needed). The percent value provides a quick assessment of the amount of information in the protocol framework, and in turn, an idea of how much additional work may be needed to produce a site-specific survey protocol from the framework. For example, an existing protocol that contains only 40% of information deemed relevant (see Table 1) would indicate that more work and time would be needed to develop a site-site specific survey protocol from the framework compared to another protocol framework that has 90% of the relevant information. This is not a rating on the quality or suitability of the methods.

Reviewer's Comments: provide comments on how best this protocol may be used and whether or not it may require supplemental information before use as a protocol framework in the Refuge System. Also identify potential issues in using this protocol. Consider the following questions in summarizing your recommendation:

- Are the purpose and objectives of a survey guided by this protocol clear from the document? If not, please provide a brief statement on the kind of survey that can be guided by this protocol.
- Is the protocol guidance written in a manner that can be understood without specialized training?
- Is there any general guidance or instructions for conducting an inventory or monitoring project that is missing and should be added?
- If used for developing a site-specific survey protocol, what details (relative to the eight fundamental elements) will need to be specified to conduct the survey at a particular refuge?
- Given this quick assessment of the protocol and information about previous reviews and approval, are the procedures described in the protocol likely to be considered reliable by the scientific community? Are there recommended alternatives that may need to be considered when greater rigor is needed?
- If the protocol is not recommended for use as a framework, what are the reasons in addition to those mentioned above?

Table 1. Fundamental elements of a protocol used to guide an inventory or monitoring project (taken from USFWS. 2013. [How to Develop a Survey Protocol: A Handbook](#)).

<i>Narrative</i>	<i>Narrative (continued)</i>
<ol style="list-style-type: none"> 1. Introduction <ul style="list-style-type: none"> • Background • Objectives 2. Sampling Design <ul style="list-style-type: none"> • Sample design • Sampling units, sample frame, and target universe • Sample selection and size • Survey timing and schedule • Sources of error 3. Field Methods and Sample Processing <ul style="list-style-type: none"> • Pre-survey logistics and preparation • Establishing sampling units • Data collection procedures (field, lab) • Processing of collected materials • End-of-season procedures 4. Data Management and Analysis <ul style="list-style-type: none"> • Data entry, verification, and editing • Metadata • Data security and archiving • Analysis methods • Software 	<ol style="list-style-type: none"> 5. Reporting <ul style="list-style-type: none"> • Report content recommendations • Reporting schedule • Report distribution 6. Personnel Requirements and Training <ul style="list-style-type: none"> • Roles and responsibilities • Qualifications • Training 7. Operational Requirements <ul style="list-style-type: none"> • Budget • Staff time • Schedule • Coordination 8. References <p><i>Standard Operating Procedures</i></p> <p><i>Supplemental Materials (Appendices)</i></p>

Table 2. Steps for quickly assessing survey protocols and archiving in ServCat.

- Review the *Survey Protocol Handbook* (USFWS. 2013). Understand the fundamental elements and level of detail that should be present in a survey protocol for use in the Refuge System.
 - If you are a survey coordinator (e.g., a Refuge Biologist or other Service employee in charge of a survey) please consult with an I&M affiliate to determine who will do the quick assessment. I&M staff have the responsibility of coordinating protocol reviews, assigning protocol status, and arranging for protocols to be properly archived in ServCat.
 - Record the name of the protocol being assessed and other pertinent data about the assessment in the [I&M Protocol Quick Assessment Log](#). Save the file with a new name using the following convention: Protocol_QA_<title of assessed protocol>_<last name of assessor>.
- #####Determine the extent of previous review by contacting the lead or the appropriate co-author. When possible, secure copies of any previous review.
- € Conduct the quick assessment and fill out the form. Use the information to make recommendations on how the protocol should be used and to assign a protocol status.
- Upload a survey protocol framework or site-specific survey protocol into ServCat, following the [guidance](#) for a Survey Protocol Framework. If the document is uploaded as any other reference type, it will not be recognized in PRIMR as a protocol framework and protocol status will not be recorded. **Do not** use the 'Protocol' or 'SOP' reference types. Even if these reference types seem appropriate, they are used for other types of documents. Use the 'Survey Protocol Framework' reference type.
 - Zip any previous review documents as a folder. Upload this folder as an Additional Digital Holding to the survey protocol framework in ServCat. If confidentiality of the previous reviews needs to be maintained, the archive the reviews separately, set the permission for owner only and cross-reference the record for the review to the record for the archived Survey Protocol Framework. Others may be granted permission in the future by contacting you (the ServCat record 'owner' of the previous reviews).
 - Upload the form as another Additional Digital Holding for the protocol framework. If you are not the person that uploaded the protocol framework in ServCat, or are not listed as an owner to the metadata record for that protocol framework, send your assessment form to the owner for uploading into ServCat. Permissions can remain public on the quick-assessment.
 - If you are providing a supplemental assessment, send your completed form to the owner of the ServCat metadata record of the protocol framework so that it can be uploaded as an Additional Digital Holding.

Protocol Supplemental Reviewer Comments

Inventory and Monitoring Initiative, National Wildlife Refuge System

Protocol Title:	
Version:	
Date of Publication (mm/yyyy):	
ServCat Record ID:	
Organization Name	Authors and Affiliations
Reviewer Name	Reviewer Affiliation (include e-mail address)
Date of Supplemental Review:	
Supplemental Comments: (Identify any uses, limitations or issues there may be in using this protocol that were not identified in previous quick assessments).	

Supplemental Comments (continued):