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NATIONAL PARK SERVICE

U.S. DEPARTMENT OF THE INTERIOR

Interim Guidance Document Governing Code of Conduct, Peer Review, and Information Quality Correction for National Park Service Cultural and Natural Resource Disciplines

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This guidance document will remain in effect until amended or superseded.

1 Interim Guidance Document Governing Code of Conduct, Peer
2 Review, and Information Quality Correction for National Park Service
3 Cultural and Natural Resource Disciplines

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16 **I. BACKGROUND AND PURPOSE**

17 **I.a. Background**

18 Sound management and interpretation of National Park System resources and National Park Service
19 technical assistance programs depend on authoritative information from scientific and scholarly
20 activities. Peer review provides the appropriate process for ensuring technical quality and accuracy
21 of these activities, which include inventory, monitoring, research, assessment, and management
22 projects. This peer review must be applied appropriately at all stages, which may include proposals
23 at the funding decision point, detailed proposals or plans of action at the point of initiating an
24 activity, progress of an activity at key points during its duration, and results and draft reports of
25 accomplishments of the activity.

26
27 The scientific and scholarly guidance presented in this document ensures that the review
28 requirement is met using a consistent, conscientious, and appropriate level of effort. Such technical
29 peer review is essential to demonstrate the professional stature and ensure the accountability of the
30 National Park Service's acquisition and application of scientific and scholarly information. Such
31 scientific peer review complements, and is part of, administrative review.

32
33 **I.b. Purpose**

34 NPS issues this guidance to ensure that NPS scientific and scholarly activities comply with the
35 OMB Final Information Quality Bulletin for Peer Review (70 FR 2664-2677), the Department of
36 the Interior draft 305 DM 4 Peer Review, NPS Director's Order 11B: Ensuring Quality of
37 Information Disseminated by the National Park Service, and the Secretary of the Interior's
38 December 21, 2007 memorandum "Ensuring Integrity in Scientific Activities". This guidance is
39 expected to:

- 40
41 A. Enhance the quality, objectivity, utility, and integrity of scientific and scholarly
42 information generated or supported by the NPS;

1 B. Increase the credibility of decisions to which these and other scientific information
2 contributes; and
3

4 C. Extend application of the concepts of the OMB Final Information Quality Bulletin for
5 Peer Review (70 FR 2664-2677), henceforth referred to as the OMB Peer Review Bulletin, to
6 information disseminated by the Service that is neither a highly influential scientific
7 assessment nor influential scientific information.
8

9 **I.c. Policy**

10 The NPS shall ensure appropriate peer review of all scientific and scholarly information prior to
11 use in decision-making, regulatory processes, or dissemination to the public and regardless of
12 media (i.e., print, digital, audiovisual, or Web). Any information that the NPS determines to be
13 either “influential scientific information” and/or “highly influential scientific assessment” will
14 require more specific, independent peer review consistent with the OMB Peer Review Bulletin.
15 NPS will place these guidelines, its peer review agendas for influential scientific information and
16 highly influential scientific assessment (as defined by the OMB Peer Review Bulletin), and its
17 information quality correction site on a publicly available webpage. These guidelines become
18 effective on an interim basis February 1, 2008.
19

20 **I.d. Scope**

21 These guidelines apply to all scientific and scholarly information and assessments produced,
22 used, or sponsored by the NPS. The guidelines identify the ethical standards within which
23 employees and volunteers will conduct NPS-sponsored scientific and scholarly activities. The
24 peer review component of these guidelines applies to scientific and scholarly activities. It does
25 not apply to policy or management decisions, although it does apply to the underlying scientific
26 and scholarly information that, along with other factors, informs a decision maker. For example,
27 proposed management options associated with Environmental Impact Statements (EIS) or other
28 parts of the NEPA process would not be subject to peer review whereas consolidated technical
29 components of an EIS that present a scientific or scholarly evaluation or other related products or
30 analytical models are subject to peer review. These guidelines do require that all scientific and
31 scholarly information disseminated to the public in any format meets the requirements of D.O.
32 11B: Ensuring Quality of Information Disseminated by the National Park Service.
33

34 **I.e. What Is “Peer Review”?**

35 Peer review is the critical evaluation of the scientific or scholarly merits of an activity conducted by
36 impartial subject-matter experts who are not directly associated with the activity. Peer review may
37 be formal or informal. It may be authored or anonymous. It may involve open exchange of views
38 and ideas between reviewers and managers of the activities being reviewed during the process of the
39 review, or it may consist of reviewers conducting their observations and writing their reports
40 without any contact with those managers. No matter how it is conducted, it must be objective to
41 achieve its purpose of ensuring that the quality, objectivity, utility, and integrity of scientific and
42 scholarly information meets scientific, scholarly, and technical community standards.
43

44 Peer review may be conducted by scientists and scholars from the National Park Service, other
45 federal or state agencies, universities, or other organizations. Peer reviewers may submit their

1 comments separately to the National Park Service or they may submit their comments jointly as part
2 of a team report, subject to appropriate provisions of the Federal Advisory Committee Act.

3
4 Peer review is different from public comment and other stakeholder processes, which are not
5 addressed in this document. The selection of peer reviewers is based on their demonstrated
6 expertise, independence, and lack of conflict of interest.

7 8 **I.f. What is Administrative Review?**

9 The scientific and scholarly peer review process outlined here does not eliminate the need for
10 administrative review of scientific and scholarly activities by managers. Managers conduct
11 administrative review to ensure that:

- 12 • proposed activities are compatible with Park Service policies and regulations;
- 13 • proposed activities are pertinent to park purposes, programs, and needs; and
- 14 • personnel, logistical (e.g., housing, permits, and transportation), and supplementary (e.g.,
15 equipment and supplies) operating needs are identified and authorized prior to commencement
16 of a project.

17 18 **II. AUTHORITY TO ISSUE THIS REFERENCE MANUAL**

19 **II.a. Guidance for Science, Peer Review, and Information Quality**

- 20 • [305 DM 2](#) requires that science must be integrated into and used in setting regulatory and
21 management policies in the Department and its bureaus;
- 22
23 • [DOI Information Quality Guidelines](#) establish policy to ensure and maximize the
24 objectivity, utility, and integrity of information disseminated to the public by the
25 Department. These guidelines implement the Information Quality Act (P.L. 106-554
26 Section 515) and associated OMB Guidelines (67 FR 8452-8460);
- 27
28 • [E.O. 12866](#) establishes a government-wide policy that each agency shall base its regulatory
29 decisions on the best reasonably obtainable scientific, technical, economic and other
30 information; and
- 31
32 • [OMB Final Information Quality Bulletin for Peer Review](#) (70 FR 2664-2677) establishes
33 government-wide requirements for the peer review of “influential scientific information”
34 and “highly influential scientific assessments.” It also establishes requirements for posting
35 peer review plans on a website and annual reporting of associated peer review activities to
36 the OMB.

37 38 **II.b. Guidance for Scientific Code of Conduct**

- 39 • [5 U.S.C. 301](#) allows the head of an executive department to prescribe regulations for the
40 conduct of its employees;
- 41
42 • [43 CFR 20.501](#) requires employees of the Department to comply with all Federal statutes;
43 Executive Orders; and Office of Government Ethics, Office of Personnel Management,
44 and Departmental regulations;

45

- 1 • [43 CFR 20.502](#) states that employees are required to carry out the announced policies and
2 programs of the Department;
- 3
- 4 • [43 CFR 20.502\(a\)](#) states that an employee is subject to appropriate disciplinary action if he
5 or she fails to comply with any lawful regulations, orders, or policies;
- 6
- 7 • [Federal Policy on Research Misconduct](#), 65 FR 76260-76264, December 6, 2000; and
- 8
- 9 • [Standards of Ethical Conduct for Employees of the Executive Branch](#), 5 CFR 2635.

10

11 **II.c. General Authority**

- 12 • [16 U.S.C. 1 through 4](#) (the National Park Service Organic Act).

13

14 **II.d. Other Relevant Policy and Guidance**

- 15 • [NPS Management Policies 2006](#)
16 Chapter 1, The Foundation, Sections 1.8 (Managing Excellence); 1.9.4 (Public
17 Information and Media Relations);
18
19 Chapter 2, Park System Planning, Sections 2.1.2 (Scientific, Technical, and Scholarly
20 Analysis), 2.1.3 (Public Participation); 2.3.1.4 (Science and Scholarship);
21
22 Chapter 4, Natural Resource Management, Sections 4.1.2 (Natural Resource
23 Information); 4.2 (Studies and Collection); 4.8.2.1 (Paleontological Resources and Their
24 Contexts); 4.8.2.2 (Caves);
25
26 Chapter 5, Cultural Resource Management, Sections 5.1.1 (National Park Service
27 Research); 5.2.3 (Confidentiality); 5.3.5.3.2 (Sacred Sites); 5.3.5.5.4 (Acquisition,
28 Management, Disposition, and Use); 5.3.5.5.6 (Archives and Manuscripts);
29
30 Chapter 7, Requirements for All Interpretive and Educational Services, Section 7.5.4
31 (Research and Scholarship);
32
33 Chapter 8, Use of the Parks, Sections 8.5 (Use by American Indians and Other
34 Traditionally Associated Groups); 8.11 (Social Science Studies);
35
36 Chapter 10, Commercial Visitor Services, Section 10.2.4.9 (Natural and Cultural
37 Resource Management Requirements).
38
- 39 • [DO #11B Ensuring Quality of Information Disseminated by the National Park Service](#);
- 40
- 41 • [DO #12 Environmental Impact Analysis](#);
- 42
- 43 • [DO #19 Records Management](#); and
- 44
- 45 • [DO #78 Social Science](#), Section III.I (Peer Review).
- 46

1 **III. CODE OF SCIENTIFIC AND SCHOLARLY CONDUCT**

2 To enhance their contribution to quality, objectivity, utility, and integrity of such information, all
3 NPS employees working with scientific and scholarly information will, in performing their
4 duties:

- 5 • act in the interest of the advancement of knowledge and contribute the best, highest
6 quality scientific and scholarly information for the NPS;
- 7 • conduct, process data from, and communicate the results of scientific and scholarly
8 activities honestly, objectively, thoroughly, and expeditiously;
- 9 • be responsible for the entrusted resources, including equipment, funds, work time,
10 employee work time, and prompt and accurate use and reporting of financial resources
11 and scientific and scholarly work;
- 12 • fully disclose all research methods used, available data, and final reports and publications
13 in a timely manner and consistent with applicable laws and policy;
- 14 • respect, to the fullest extent permitted by law, confidential and proprietary information
15 regarding interests and resources that are studied or affected by scientific or scholarly
16 activities or the resulting information;
- 17 • neither hinder the scientific or scholarly activities of others nor engage in dishonesty,
18 fraud, deceit, misrepresentation, coercive manipulation, or other scientific or scholarly
19 misconduct;
- 20 • welcome constructive criticism of scientific and scholarly activities, welcome and
21 participate in appropriate peer reviews, critique others' work respectfully and objectively,
22 and substantiate comments with care;
- 23 • be diligent in creating, using, preserving, documenting, and maintaining collections and
24 data, ensuring established quality assurance and quality control programs, follow the
25 NPS's records retention policies, and comply with Federal law and agreements related to
26 use, security, and release of confidential and proprietary data;
- 27 • adhere to appropriate standards for reporting the results of scientific and scholarly
28 activities, including respecting the intellectual property rights of others;
- 29 • to the extent possible and practical, differentiate among facts, opinions, hypotheses, and
30 professional judgment in reporting the results of scientific and scholarly activities to
31 others, including scientists, decision makers, and the public;
- 32 • be responsible for the quality of collected data and interpretations, and for the integrity of
33 conclusions drawn in the course of scientific and scholarly activities; and
- 34 • place integrity, utility, and objectivity of scientific and scholarly activities and reporting
35 of their results ahead of personal gain or allegiance to individuals or organizations.

36 37 **IV. INFORMATION QUALITY**

38 **IV.a. Administrative Record**

39 Whenever the NPS relies on **influential** scientific information (including a **highly influential**
40 scientific assessment) to support a regulatory action or policy decision, it shall include in the
41 administrative record for that action a certification explaining how the NPS has complied with
42 the requirements of the OMB Peer Review Bulletin and the Information Quality Act.

43 44 **IV.b. Information Quality Correction Procedures**

45 **IV.b.1. Complaints About Quality of Scientific and Scholarly Information**

1 Persons who have complaints about NPS-provided scientific and scholarly information may avail
2 themselves of any of the four methods outlined in D.O. 11B for notifying the NPS of their
3 complaints. These four methods include informally discussing their complaint in person with
4 park or program office staff, informally directing complaints about the quality of disseminated
5 information to the superintendent of the park or manager of the program office responsible for
6 disseminating the information, formally directing complaints about the quality of disseminated
7 information by mail to the NPS Washington Administrative Program Center, or formally
8 directing complaints to the Correspondence Control Unit by e-mail.

9
10 Persons submitting a formal request for correction of such information must submit all
11 information identified in D.O. 11B, the technical components of which include the specific
12 reasons for believing the information fails to meet OMB, DOI, or NPS standards, along with any
13 supporting documentation; a detailed description of the specific material in question, including
14 where the material is located (that is, publication title, date, and publication number, if any; the
15 website and web page address; or other source where the material exists); and the specific
16 recommendations for corrective action.

17 Upon receipt of a formal request for correction of information, NPS shall post the request on the
18 appropriate park or program office Information Quality web page with a link to the NPS web
19 page (www.nps.gov/notices.htm). All interim and final responses also shall be posted on the
20 appropriate web page at the time they are sent to the complainant.

21 **IV.b.2. Processing Complaints**

22 The CCU will route formal complaints it receives regarding scientific or scholarly information to
23 the park or office that disseminated the information and track response to assure that the
24 response complies with the requirements of Director's Order 11B. The park or office receiving
25 the complaint, regardless of the manner of receipt, will notify the complainant of receipt within
26 10 working days. The disseminating office will evaluate the complaint within 60 calendar days
27 of the day it is received by the NPS, in accordance with the OMB guidelines, and notify the
28 complainant as to whether the information has been corrected, deleted, or confirmed to be
29 accurate. The Service will respond to additional complaints on the same subject according to the
30 processes delineated in D.O. 11B.

31 **IV.b.3. Appeals Process**

32 If a complainant does not receive the notice or the response within the time frames described
33 above, or wishes to appeal a determination of merit, or wishes to appeal the proposed correction
34 of information, the complainant may appeal to the Director, National Park Service. Appeals must
35 follow the requirements in D.O. 11B. All appeal requests shall be posted on the park or program
36 office Information Quality web page upon receipt, with a link to the NPS Information Quality
37 web page.

38 If the Director determines that an appeal of a determination has merit or the proposed correction
39 of information has merit, the affected program office or park will be notified. The challenged
40 information will be withdrawn, to the extent practicable, from the public domain and will not be
41 used in any NPS decision-making process until it is corrected. The Director will make a decision
42 on the final appeal within 60 calendar days.

V. THRESHHOLDS FOR PEER REVIEW

V.a. When is Peer Review Required?

Although peer review generally benefits all scientific and scholarly activities, existing workloads do not permit conducting the same intensity of peer review in every case. As a result, supervisors apply professional judgment to each activity to determine what level of peer review is required at any step in the implementation process. In general the need for peer review should be decided by a supervisor or program leader at least one level above the person who conducts the work. The following factors are examples of considerations used in making this professional judgment:

- the amount of funding involved;
- the number of researchers involved;
- the length of time involved;
- whether or not the activity involves significant experimentation or use of new technology or methods;
- the degree to which the information may contradict prior findings and results or is likely to be precedent-setting;
- potential for the activity to have applicability to other similar projects;
- the geographical scale involved;
- specific properties of, and values assigned to, natural and cultural resources involved;
- the potential for risk to both target and non-target resources;
- the potential for risk to visitor enjoyment or park operation;
- whether the act of conducting the activity or the probable results of the activity have potential to generate broad implications beyond the project, itself;
- the probable degree of controversy likely to be associated with the activity or the management, regulatory, or policy decision that it informs;
- the potential for societal and resource impacts associated with management, regulatory, or policy decisions that the information might influence; and/or
- the presence of legal mandates or unusual, unanticipated, or time-sensitive requirements that might preclude carrying out peer review.

V.b. Scientific and Scholarly Information Not Requiring Peer Review.

Activities that generally do **not** require independent peer review are those that are unlikely to be controversial or of a sensitive nature; involve routine, well-established practices; and pose no unacceptable impact to resources, visitor enjoyment, or operations. In such cases, administrative, NEPA, and Section 106 review may provide a sufficient alternative to peer review. When in doubt, however, it is better to conduct peer reviews.

Other information that does not require peer review under this guidance includes:

- A. Items found in the list of exemptions under Section IX of the [OMB Peer Review Bulletin](#):
 - related to certain national security, foreign affairs, or negotiations involving international trade or treaties where compliance with this Bulletin would interfere with the need for secrecy or promptness;
 - disseminated in the course of litigation, adjudication or a permit proceeding (including a registration, approval, licensing, or a site-specific determination), unless the agency determines that peer review is practical and appropriate and that the influential

1 dissemination is scientifically or technically novel or likely to have precedent-setting
2 influence on future adjudications and/or permit proceedings;

- 3 • a health or safety dissemination where the agency determines that the dissemination is
4 time-sensitive (e.g., findings based primarily on data from a recent clinical trial that was
5 adequately peer reviewed before the trial began);
- 6 • an agency regulatory impact analysis or regulatory flexibility analysis subject to
7 interagency review under Executive Order 12866, except for underlying data and
8 analytical models used;
- 9 • routine statistical information released by federal statistical agencies (e.g., periodic
10 demographic and economic statistics) and analyses of these data to compute standard
11 indicators and trends (e.g., unemployment and poverty rates);
- 12 • accounting, budget, actuarial, and financial information, including that which is generated
13 or used by agencies that focus on interest rates, banking, currency, securities,
14 commodities, futures, or taxes; or
- 15 • information disseminated in connection with routine rules that materially alter
16 entitlements, grants, user fees, or loan programs, or the rights and obligations of
17 recipients thereof.

18
19 B. Information published either in a peer-reviewed journal listed on the [Thomson Scientific](#)
20 [Master Journal List](#) or in an official report of the National Academies of Sciences.

21
22 C. Routine statistical data used to compute standard indicators and trends that are gathered
23 using methods based on well-established, peer-reviewed protocols and are analyzed and
24 interpreted within the guidelines of the protocols.

25
26 D. An Environmental Impact Statement prepared as part of the NEPA process, except for
27 underlying scientific and scholarly products and analytical models that provide information
28 serving as the principal basis for a decision. In such cases, peer review that was conducted
29 must have been appropriate to the context in which the information will be used or an
30 additional peer review will be required.

31
32 E. Information performed by other federal agencies following the requirements of the [OMB](#)
33 [Peer Review Bulletin](#).

34 35 **VI. PEER REVIEW POLICIES AND INSTRUCTIONS**

36 **VI.a. The Peer Review Process**

37 The peer review process begins when the project manager (or supervisor) of a scientific or scholarly
38 information activity, such as a proposal, nomination, progress report, review of previous studies, or
39 product, identifies the need for peer review. Project managers or supervisors may be program
40 scientists or scholars, resource managers, science coordinators, or other professionals.

41
42 The submission, which may be in the form of a proposal, study plan, inventory and monitoring plan,
43 conceptual model, protocol, interim report, draft report, database, action plan, or scientific

1 assessment should be peer reviewed in accordance with the following peer review process prior to
2 funding, authorization, execution, publication, or incorporation into a decision:
3

4 A. The project manager assigns the submission to a peer review manager, who is not the
5 performer of the activity but may be the project manager, to provide appropriate technical
6 oversight and ensure appropriate quality performance throughout the life of the activity. The
7 project manager consults appropriately with park, regional office, and Washington office
8 experts to obtain advice on selecting the best-qualified peer review manager. For some
9 activities, a park resource management specialist may be the most appropriate peer review
10 manager. For other activities, the peer review manager might come from other NPS offices
11 at the regional, network, or national level. The peer review manager ensures that an
12 appropriate critical review process is conducted of the activity, determines validity of
13 reviewer comments received, ensures that valid comments are incorporated into the activity,
14 and ensures that records of the reviews, revisions, and approvals are properly filed and
15 archived. The peer review manager may also serve as the contracting/agreement officer's
16 technical representative.
17

18 B. The peer review manager identifies the structure of the peer review and recruits one or more
19 highly qualified individuals with technical expertise in the specific appropriate disciplines to
20 provide peer review of each relevant component of the activity. Peer reviewers may be from
21 within or outside the Park Service. Peer reviewers may have neither direct involvement with
22 the activity nor a direct stake in the outcome of the review. The peer review manager may
23 obtain recommendations for appropriately skilled reviewers from other knowledgeable
24 people, in addition to using competent reviewers known to the peer review manager.
25 Depending on the nature of the peer review, the peer review manager may serve as one peer
26 reviewer if otherwise qualified. The reviewers carry out their tasks independently, without
27 interaction among themselves, or together, depending on the structure of the review process.
28

29 The peer review manager may determine that an alternative peer review process may be
30 accepted whenever it can be demonstrated that a reputable scientific body has already
31 completed a formal peer review on a scientific or scholarly activity or product. (See Section
32 IV.b. Scientific and Scholarly Information Not Requiring Peer Review.) Documentation
33 of reliance on this alternative review process should be included in the peer review file.
34
35

36 C. The peer review manager ensures that peer review adequately addresses the technical merits
37 of the methods, the professional techniques, data analysis, conclusions, and suggested
38 management outcome scenarios and that activities requiring significant data analysis or
39 sampling design receive additional review by peer reviewers with expertise in statistics and
40 experimental design.
41
42

43 D. Because reviews of funding proposals must be performed in a timely manner, given the
44 necessity to obligate funds within a given fiscal year and the short time usually available for
45 obligating funds the peer review manager should schedule peer reviews to allow enough
46 time for the development of cooperative agreements or contracts, including solicitor review.

1 Therefore, it is critical that reviewers be selected who can provide fast turnaround as well as
2 scientifically sound reviews.
3

4 E. Proposals solicited through competitive procurement or cooperative agreement processes will
5 be subjected to a technical review process selected by the contracting/agreement officer
6 upon recommendation of the contracting/agreement officer's technical representative.
7 Typically, the peer review panel and the technical review panel are one and the same.
8

9 F. The peer review manager will negotiate with the performer of the activity regarding revisions
10 to the information as recommended by peer reviews, will ensure that the project manager is
11 notified of these recommended revisions, and will maintain a record of the reviews, activity
12 revisions, and approvals in accordance with NPS records disposition requirements.
13

14 G. Once all appropriate changes and modifications have been completed in response to peer
15 review comments, the peer review manager recommends technical acceptance of the activity
16 in a written record documenting the process. The project manager has the final authority to
17 either approve or reject an activity.
18

19 In those cases where peer reviewers recommend rejection of the activity, the peer review
20 manager should write a summary of the reasons for the recommendation and be prepared to
21 supply the author with reviewer comments.
22
23

24 **VI.b. Peer Review Objectives**

25 The peer review manager should define clearly the objectives of each peer review using
26 questions that all reviewers are given and are expected to answer. Examples of potential peer
27 review questions include:

- 28 - Are purpose for and methodology underlying the activity clearly presented, appropriate,
29 and valid?
- 30 - Are appropriate field, laboratory, library, and statistical methods used for data collection,
31 analysis, and characterization of uncertainty, and are they sufficiently described to allow
32 for replication?
- 33 - Does the communication plan address communication needs and audiences
34 appropriately?
- 35 - Is the combination of involved scientific, scholarly, or technical disciplines sufficient to
36 adequately measure and test the hypothesis or to meet the activity's stated objectives?
- 37 - Is the work original?
- 38 - Does the activity address significant, new, or novel circumstances?
- 39 - Does the activity include an appropriate literature review that puts the work in the context
40 of previous work?
- 41 - Are conclusions reasonable and supported by data and other evidence and are alternative
42 conclusions or counter arguments taken into account?
- 43 - Is written information well-written, logical, and understandable?
- 44 - What are the strengths, limitations, and potential usefulness to park managers and others
45 of the activity?

1 - Does the performer of the activity have a level of recognized authority, technical and
2 project management experience, and past record of success in the field of effort to
3 adequately accomplish the stated objectives?
4

5 **VI.c. Number of Peer Reviewers**

6 One or more qualified individuals with technical expertise in the appropriate discipline(s) should be
7 asked to provide peer review of informative scientific or scholarly information. Each review of
8 “Influential Scientific Information” and “Highly Influential Scientific Assessment” must include a
9 minimum of two independent peer reviewers. (See VI.k for procedures governing reviewer
10 selection.)
11

12 **VI.d. Peer Review Structure**

13 Peer reviews may be structured in various ways, ranging from one or more individual reviewers
14 (probably the most appropriate model for most NPS endeavors) to review panels or advisory
15 committees. The choice will depend on the novelty and complexity of the scientific information
16 and whether the desired result is individual reviews or a consensus among reviewers. In
17 determining the structure of a given review, the NPS must observe the requirements of the
18 Federal Advisory Committee Act (FACA), where applicable. If the review does not involve
19 convening a group of reviewers as a committee, the review is probably not subject to FACA.
20 Consensus panels may not be subject to FACA if established, controlled, and managed by an
21 outside organization, such as a contractor.
22

23 **VI.e. Peer Review Manager**

24 In general, reviews for information that will benefit from peer review but are not deemed
25 “influential” or “highly influential” will be managed by a park, region, or other office peer
26 review manager following the guidelines in this document. The peer review manager for
27 “influential” and “highly influential” NPS scientific or scholarly information activities will be
28 selected by the responsible Senior Executive Service (SES) manager.
29

30 **VI.f. Required Disclaimer**

31 The peer review manager must ensure that each product distributed for peer review under this
32 chapter is imprinted with the following disclaimer:
33

34 *This information is distributed solely for the purpose of pre-dissemination peer*
35 *review under applicable information quality guidelines. It has not been formally*
36 *disseminated by the National Park Service. It does not represent and should not*
37 *be construed to represent any National Park Service determination or policy.*
38

39 **VI.g. Disposition of Peer Review Comments**

40 The peer review manager must make all review comments available to the authors of the work
41 being reviewed, usually without identifying the reviewer’s identity. Authors may disagree with
42 peer reviewer comments on scientific or scholarly grounds. Where comments of a substantial
43 nature are not incorporated in a revision:

44 A. The author should document the decision not to incorporate the comments; and
45

- 1 B. The peer review manager should document appropriately the comments, how the author
2 responded to the comments the author used, the reasons for the author not incorporating
3 comments the author rejected, and the peer review manager's concurrence with the
4 decision.

6 **VI.h. Peer Review Costs**

7 Traditionally, peer review is carried out at no cost. The NPS recognizes that increasing demands
8 for reviewer time and associated travel may occasionally necessitate payment for reviewer time
9 and for associated travel, especially for review of “influential” and “highly influential” activities.

11 **VI.i. Peer Review Confidentiality**

12 Peer review must be conducted in a manner that respects confidential business information and
13 intellectual property. Reviewers must agree to not disclose or divulge any results or conclusions,
14 or make any public statements regarding the reviewed information before it is published and
15 released.

17 **VI.j. Peer Review Documentation**

18 Each peer review manager must maintain a written administrative record for all formal peer
19 reviews.

- 20 A. Documentation must be sufficient for an uninvolved person to understand the process
21 used and any changes made as a result of the review.
- 22
- 23 B. Peer review records will be appropriately maintained under direction of the responsible
24 SES manager, who should describe where and how long each administrative record
25 remains in the working files and identify the archives where the record will be stored.
- 26
- 27 C. At a minimum, the records must include:
- 28 • The name and position of the responsible peer review manager;
 - 29 • The name, affiliation, and pertinent qualifications of each peer reviewer;
 - 30 • Applicable confidentiality and conflict of interest documentation for each peer
31 reviewer (see Appendix B);
 - 32 • The objectives and structure of the peer review;
 - 33 • A copy of all peer reviewer comments, and
 - 34 • Explanation of how peer review comments were addressed.
- 35

36 **VI.k. Selection of Peer Reviewers**

- 37 A. Peer reviewers must be true peers who are selected on the basis of their relevant scientific,
38 scholarly, and technical expertise and their objectivity. They must not be associated
39 directly with the work being reviewed. Reviewers should represent a range of viewpoints,
40 especially where legitimate scientific controversy exists. Reviewers should be able to
41 ensure that the information is effectively presented with the intended audience in mind
42 and be cognizant of controversial or high-visibility issues that may be relevant to public
43 policy;
- 44
- 45 B. Potential reviewers may be recommended by NPS staff members, scientific and
46 professional societies, members of the public, or authors of scientific and scholarly

1 products, but actual selection of reviewers rests solely with the peer review manager and
2 should be based on specific criteria for peer reviewers. Supervisors of potential NPS
3 reviewers are expected to encourage their employees to serve whenever feasible.
4

5 C. Peer review managers should use the widest range of sources of scientific, scholarly, and
6 technical expertise as is practical and appropriate for an information's expected degree of
7 influence. Sources may include other federal and state agencies, Tribal governments,
8 professional societies, colleges and universities, private companies, non-profit
9 organizations, and the National Research Council, a part of the National Academies.
10

11 D. If standing panels are created to perform consistent peer review, membership should
12 rotate across the pool of qualified reviewers.
13

14 E. For all **influential scientific information** (including highly influential scientific
15 assessments), peer review managers must ensure that all reviewers comply with federal
16 ethics requirements and must adopt or adapt the National Academy of Sciences policy for
17 committee selection with respect to evaluating the potential for conflicts (e.g., those
18 arising from investments; employer and business affiliations; grants, contracts and
19 consulting income). The NAS policy is available at:
20 http://www.nationalacademies.org/coi/bi-coi_form-0.pdf. All peer reviewers for
21 **influential** NPS information products must agree to be bound by the strictest scientific
22 ethics and sign the NPS Conflict-of-Interests and Confidentiality statement (see
23 Appendix B). For scientific information relevant to specific regulations, the NPS shall
24 examine a reviewer's financial ties to regulated entities (e.g. businesses), other
25 stakeholders, and the NPS.
26

27 F. For **highly influential scientific assessments**, the use of formal peer reviewers employed
28 by the National Park Service is prohibited unless the reviewer is employed only for the
29 purpose of conducting the peer review (i.e., special government employees). (This
30 restriction does not exclude informal, internal reviews in addition to the formal peer
31 review process.)
32

33 i. The only exception to this prohibition would be the rare case where the NPS
34 determines, using the criteria developed by the National Academy of Sciences for
35 evaluating use of "employees of sponsors," that a premier government specialist is not
36 in a position of management or policy responsibility and possesses essential expertise
37 that cannot be obtained elsewhere.
38

39 ii. To be eligible for this exception, the specialist must be employed by a different park,
40 region, or office of the NPS than is disseminating the scientific information. The use of
41 such an exception must be documented in writing and approved, on a non-delegable
42 basis, by the Secretary or Deputy Secretary prior to the specialist's appointment. In
43 addition, peer review managers shall avoid repeated use of the same reviewer on
44 multiple assessments unless his or her participation is essential and cannot be obtained
45 elsewhere.
46

VI.l. Peer Reviewer Anonymity

Peer review managers should clearly inform prospective peer reviewers whether –

- A. Reviewer names will be disclosed and comments will be specifically attributed;
- B. Reviewer names will be disclosed but comments will not be specifically attributed;
- C. Reviewer names will not be disclosed but comments will be disclosed; or
- D. Neither reviewer names nor comments will be disclosed.

To the extent information about a peer reviewer (name, credentials, affiliation) will be disclosed along with his or her comments or analysis (see also Section VI.q), the peer review manager must comply with the requirements of the Privacy Act, 5 U.S.C. § 522a as amended, and OMB Circular A-130, Appendix I, 61 Fed. Reg. 6428 (February 20, 1996) to establish appropriate routine uses in a published System of Records Notice.

VI.m. Standards Governing Peer Reviewers' Conduct

The peer review manager must ensure that each potential peer reviewer has been asked to disclose any personal information or situation that may create or appear to create a conflict of interest. Prospective formal peer reviewers sign a statement disclosing any potential conflicts of interest (see Appendix B). Each peer review manager must provide appropriate documentation in the administrative record. Conflict of Interest statements are subject to the confidentiality policy stated in Section VI.l.

VI.n. Public Participation

Whenever feasible and appropriate, the peer review manager must make a draft of each **highly influential scientific assessment** available to the public for comment at the same time it is submitted for peer review (or during the peer review process).

- A. The office producing the assessment will add an explicit prefatory statement to the disseminated material that states the material being disseminated to the public is concurrently being submitted for peer review and, therefore, may be subject to change and then reiterate this prefatory statement when sponsoring any public meeting where interested members of the public can provide the peer reviewers with oral presentations on scientific or scholarly issues of concern to the public.
- B. When employing a public comment process as part of the peer review, the peer review manager shall, whenever practical, provide peer reviewers with access to public comments that address significant scientific, scholarly, or technical issues. To ensure that public participation does not cause undue delay, the peer review manager shall specify time limits for public participation throughout the peer review process.

VI.p. Peer Review Plans for Influential Scientific and Scholarly Information

Each SES manager will post a list of the manager's Park, Region, or Office's planned and ongoing **influential** scientific and scholarly information along with associated peer review plans on an Information Quality webpage accessible to the public. This webpage shall be updated at

1 least every six months. The webpage will provide contact addresses to allow the public to
2 comment on the adequacy of the peer review plans. Each peer review plan shall include:

- 3 A. The title, subject and purpose of the planned scientific information along with an
4 electronic link to the information (when available) and a contact person.
5
6 B. The timing of the review (including deferrals).
7
8 C. The structure of the review (e.g., individual letters, panel) including the number of
9 planned reviewers and the primary disciplines or expertise needed.
10
11 D. The method for reviewer selection and whether the public can nominate prospective
12 reviewers.
13
14 E. Whether there will be opportunities for the public to comment on the information to be
15 peer reviewed, and if so, how and when these opportunities will be provided.
16
17 F. Whether the agency will provide significant and relevant public comments to the peer
18 reviewers before they conduct their review.
19

20 **VI.q. Peer Review Reports for Scientific and Scholarly Information**

21 The peer review manager shall prepare a report that describes the nature of the review along with
22 findings and conclusions. The report shall either include a verbatim copy of each reviewer's
23 comments (with or without specific attribution) or represent the views of the group as a whole,
24 including any dissenting views. The report shall contain the names of reviewers and their
25 organizational affiliations. Reviewers must be notified in advance regarding the extent of
26 disclosure and attribution. For influential scientific information (including highly influential
27 scientific assessment), NPS shall disseminate the peer review report (including the peer reviewer
28 information) on a webpage accessible to the public. In addition, where scientific or scholarly
29 information is specifically used to inform a rulemaking, the peer review report shall be discussed
30 in the preamble to that rulemaking and included in the administrative record for any related NPS
31 action.
32

33 **VI.r. NPS Annual Peer Review Report**

34 With respect to influential scientific information and highly influential scientific assessments,
35 each SES manager shall provide appropriate information for compilation into the Service's
36 report to the Office of the Secretary by December 1 of each year. This information should
37 include the following:

- 38 A. The number of peer reviews conducted for **influential scientific information** and **highly**
39 **influential scientific assessments**;
40
41 B. The number of times alternative procedures (e.g., relying on refereed journal reviews)
42 were invoked;
43
44 C. The number of times waivers or deferrals were invoked (and in the case of deferrals, the
45 length of time elapsed between the deferral and the peer review);
46

1 D. Any decision to appoint a reviewer pursuant to any exception to the applicable
2 independence or conflict of interest standards, including determinations by the Secretary
3 under provisions of the OMB Peer Review Bulletin;

4
5 E. The number of peer review panels that were conducted in public and the number that
6 allowed public comment;

7
8 F. The number of public comments provided on the agency's peer review plans; and

9
10 G. The number of peer reviewers that the agency used that were recommended by
11 professional societies.

12
13 The Associate Director, Natural Resource Stewardship and Science, will consolidate the SES
14 managers' reports into the Service report and will submit the Service report to the Department.

15 **VII. RESPONSIBILITIES**

16 **VII.a. The Director**

17 The Director addresses appeals of responses to information quality complaints. The Director may
18 waive or defer some or all of the peer review requirements where warranted by a compelling
19 rationale. If the Director defers the peer review requirements before dissemination, peer review
20 must be conducted as soon as practicable.

21 **VII.b. Associate and Regional Directors**

22
23 The Associate and Regional Directors are responsible for ensuring that their staffs implement
24 these policies and procedures.

25 **VII.c. Senior Executive Service Official Responsible for Conducting Scientific Reviews**

26
27 The Senior Executive Service manager directly responsible for a park, region, or directorate will
28 designate an official (the SES manager) to have overall responsibility for implementation of
29 these guidelines. Where the responsibility for a specific action or actions may not be delegated
30 to a subordinate, this should be so stated.

31 **VII.d. Project Manager**

32
33 The project manager, as the overseer of an activity, applies these guidelines to determine whether
34 or not the activity requires peer review and, for an activity that does require peer review, is the
35 person who designates the peer review manager and who oversees implementation of these
36 guidelines with respect to the specific activity.

37 **VII.c. Peer Review Manager**

38
39 The peer review manager:

40 A. Determines what level of peer review is required;

41
42 B. Establishes the peer review process by setting objectives, structure, and timeframe for
43 completing the review, as appropriate, by:

44 i. Submitting the information to an appropriate refereed journal or other, credible,
45 professional peer review program.
46

- 1 ii. If the information is deemed “influential” or “highly influential,” conducting a
- 2 formal peer review using the process outlined in this guidance.
- 3 iii. If the information is not deemed “influential” or “highly influential,”
- 4 continuing a peer review process according to these guidelines.

5
6 C. Provides review findings to authors.

7
8 D. Ensures that the authors address comments adequately and fairly.

9
10 E. Ensures that proper records are kept.

11
12 F. Oversees independent entities or contractors commissioned to manage the peer review
13 process.

14
15 **VII.d. Parks and Offices Responsible for Releasing Information to the Public**

16 Parks and offices responsible for releasing information to the public must follow the
17 requirements of D.O. 11B by:

18 A. Ensuring that the information they release to the public, in any manner and at each
19 appropriate stage of information development, is developed from reliable sources and
20 meets Service standards for information quality.

21 B. Documenting the quality of all information that they release to the public, including
22 information on the internet.

23 C. Notifying formal complainants of the receipt of their complaint within 10 working days
24 of their receipt of the complaint from the Correspondence Control Unit.

25 D. Responding to formal complaints about information quality within 60 calendar days from
26 receipt of a complainant in CCU.

27 E. Responding accurately and appropriately to informal complaints about information
28 quality.

29 **VII.e. The NPS Correspondence Control Unit (CCU) in the Washington Administrative**
30 **Program Center** is responsible for:

31 A. Routing public complaints they receive about information quality to the information
32 disseminating office.

33 B. Reminding offices of their deadlines to respond to pending complaints forwarded by the
34 CCU.

35 C. Generating annual reports to the Department of the Interior of the number, nature, and
36 resolution of complaints received by the CCU.

37 **VII.f. Chief, Office of Policy**

38 The Chief, Office of Policy ensures that Servicewide information quality policies and procedures
39 are available on the web, including links to regional, network, office, and park information

1 quality web pages that are maintained by the respective officials responsible for conducting
2 scientific reviews.

4 **VIII. DEFINITIONS**

5 The following definitions apply to this document:

6
7 Conflict of Interest. Any financial or other interest which conflicts with the actions or judgments
8 of a reviewer because it (1) could significantly impair the individual's objectivity or (2) could
9 create an unfair competitive advantage for any person or organization. National Park Service
10 employees must avoid conflicts of interest and the appearance of a lack of impartiality, in
11 accordance with 18 U.S.C. 208 and 5 CFR 2635 Subparts D and E.

12
13 Dissemination. NPS initiated or sponsored distribution of information to the public.
14 Dissemination does not include distribution limited to government employees or NPS contractors
15 or grantees; intra- or inter-agency use or sharing of government information; and responses to
16 requests for agency records under the Freedom of Information Act, the Privacy Act, the Federal
17 Advisory Committee Act, or other similar law. This definition also does not include distribution
18 limited to correspondence with individuals or persons, press releases, archival records, public
19 filings, subpoenas or adjudicative processes.

20
21 Fabrication. Making up data or results and recording or reporting them.

22
23 Falsification. Manipulating research materials, equipment, or processes; or changing or omitting
24 data or results such that the research is not accurately represented in the research record.

25
26 Highly Influential Scientific or Scholarly Assessment. A scientific or scholarly assessment that
27 could have a potential impact of more than \$500 million in any year, or is novel, controversial, or
28 precedent-setting or has significant interagency interest. Such an assessment is a subset of
29 "influential scientific or scholarly information."

30
31 Independent peer reviewer. An internal or external peer reviewer who the NPS determines to
32 meet the requirements of section II (3)(c) of the [OMB Final Information Quality Bulletin for](#)
33 [Peer Review](#) (70 FR 2664-2677), and is not associated with the information under review –

- 34 1. by direct involvement in its development;
- 35 2. indirectly, by significant consultation during development or by supervising the personnel
36 who conducted it; or
- 37 3. by significant personal relationship to persons directly involved in development of the
38 information.

39
40 Influential Scientific or Scholarly Information. Scientific or scholarly information that the
41 Service reasonably can determine will have or does have a clear and substantial impact on
42 important public policies or private sector decisions but that does not meet the definition of
43 "highly influential scientific assessment." Influential scientific information is a subset of
44 "informative scientific information." Information is influential in determining important policies
45 or decisions if the same decision would be difficult to reach in the absence of the information.
46 Information has a clear and substantial impact when the specific information serves as the

1 principal basis for a decision that affects significant numbers of private sector entities outside
2 parks or not associated with NPS assistance activities.

3
4 Information. Any communication or representation of knowledge (e.g., fact or data), in any
5 medium or form, including textual, numerical, graphic, cartographic, narrative, or audiovisual
6 forms. This definition includes information that an office disseminates from a web page, but does
7 not include the provision of hyperlinks to information that others disseminate. This definition
8 does not include opinions, where the office's presentation makes it clear that what is being
9 offered in someone's opinion rather than fact or the office's views.

10
11 Informative Scientific or Scholarly Information. Scientific or scholarly information that serves
12 to inform scientific, scholarly, and management awareness and decision-making generally but
13 that does not provide the sole or major component of information used in decision-making and
14 does not, by itself, lead to a change in the direction of decision-making or to a decision that
15 creates a clear and substantial impact on important public policies or private sector decisions.

16 Integrity. Systematically and objectively developed and maintained information that is protected
17 from unauthorized access or revision to ensure that the information reflects the circumstances of
18 its acquisition and is not compromised through corruption or falsification.

19 Inventory. Process of acquiring, managing, and analyzing information on park resources, including
20 but not limited to the presence, distribution, and condition of plants, animals, soils, water, air,
21 natural features, biotic communities, cultural resources, and natural and cultural resource processes.

22
23 Mitigation. Maintenance of the existing form and integrity of natural and cultural resource systems
24 or system components, consistent with park management objectives, in the face of harm or potential
25 harm from human activities within or outside the park. Mitigation is also the conversion of a
26 resource, altered by human activity, to a more functional or desired state consistent with
27 management objectives. As such, mitigation encompasses preservation and restoration activities.

28
29 Monitoring. Systematic collection and analysis of natural and cultural resource data at regular
30 intervals, in perpetuity, to predict or detect natural and human-induced changes, and to provide the
31 basis for appropriate management response.

32
33 Resource Management. Understanding of natural and cultural resource processes and human-
34 induced effects; mitigation of potential and realized effects; monitoring for ongoing or future trends;
35 protecting existing natural physical, biological, and cultural resources, systems, and processes; and
36 interpreting these resources, systems, and processes to people. This function can be broken down
37 into seven major activities: research, inventory, monitoring, mitigation, protection, interpretation,
38 and administration.

39
40 Objectivity. "Objectivity" involves two distinct elements, presentation and substance. It includes
41 whether disseminated information is being presented in an accurate, clear, complete, and
42 unbiased manner. This involves whether the information is presented within a proper context. In
43 addition, "objectivity" involves a focus on ensuring accurate, reliable, and unbiased information.

1 In a scientific, financial, or statistical context, the original and supporting data shall be generated,
2 and the analytic results shall be developed, using sound statistical and research methods.

3
4 Peer Review. A quality control process in which the scientific merit of scientific information is
5 critically evaluated by independent peers, meaning persons who are not associated directly or
6 indirectly with the information under review and whose background and expertise puts them on
7 par technically and scientifically with the authors of the information.

8
9 Plagiarism. The appropriation of another person's ideas, processes, results, or words without
10 giving appropriate credit.

11
12 Quality. An encompassing term comprising utility, objectivity, and integrity. Therefore, the
13 guidelines sometimes refer to these three statutory terms, collectively, as "quality."

14
15 Reporting. Dissemination or disclosure of the results of scientific or scholarly activities.
16 Dissemination and disclosure may be oral or in any media, including print and digital media.

17
18 Research. Investigation aimed at the discovery and interpretation of facts, the revision of accepted
19 theories in light of new facts, or the development of practical applications of such new revised
20 theories.

21
22 Research Misconduct. Fabrication, falsification, or plagiarism in proposing, performing, or
23 reviewing research, or in reporting research results. Research misconduct does not include
24 honest error or differences of opinion. (This definition is quoted from The Federal Policy on
25 Research Misconduct [65 FR 76260-76264].)

26
27 Science. Knowledge obtained and tested through the use of the scientific method. Science may
28 also include the observation and classification of facts with the goal of establishing verifiable
29 knowledge derived through induction and hypothesis.

30
31 Scientific or Scholarly Activities. Activities involving inventorying, monitoring,
32 experimentation, study, research, modeling, and scientific assessment. Scientific or scholarly
33 activities are conducted in a manner specified by standard protocols and procedures and include
34 any of the physical, biological, cultural, or social sciences as well as landscape architecture,
35 engineering, and mathematics that employ scientific or scholarship methods. Inspections for
36 regulatory compliance and resulting records are not included, even though they may require use
37 of complementary methods.

38
39 Scientific or Scholarly Assessment. Scientific or scholarly information constructed to provide an
40 evaluation of a body of scientific or technical knowledge, typically by synthesizing multiple
41 factual inputs, data, models, assumptions, and/or by applying best professional judgment to
42 bridge uncertainties in the available information.

43
44 Scientific or Scholarly Information. Scientific and scholarship outputs that consist of proposals,
45 hypotheses, models, written documents, records of all kinds, and assessments. This definition
46 does not include opinions, where the presentation of an output makes clear that what is being

1 offered is someone's opinion rather than fact or the agency's views. Scientific or scholarly
2 information includes all of the following:

3
4 (1) Factual inputs, data, models, analyses, technical information, or scientific or
5 scholarly assessments based on the behavioral, cultural, and social sciences, health and
6 medical sciences, life and earth sciences, engineering, or physical sciences.

7
8 (2) Any communication or representation of knowledge such as facts or data, in any
9 medium or form, including textual, numerical, graphic, cartographic, narrative, or
10 audiovisual forms.

11
12 (3) Information that an agency disseminates from a web page, but does not include the
13 provision of hyperlinks to information that others disseminate.

14
15 Scientific Method. A method of research in which a question is identified, relevant data are
16 gathered, a hypothesis is formulated from these data, and the hypothesis is empirically tested.

17
18 Scientific or Scholarly Misconduct. Fabrication, falsification, or plagiarism in proposing,
19 performing or reviewing scientific or scholarly activities and their products.

20 Utility. Usefulness of the information to its intended users, including the public. In assessing the
21 usefulness of information that the NPS disseminates to the public, the office needs to consider
22 the uses of the information not only from the perspective of the office, but also from the
23 perspective of the public. As a result, when transparency of information is relevant for assessing
24 the information's usefulness from the public's perspective, the office must take care to ensure that
25 transparency has been addressed in its review of the information.

26 **IX. LEGAL EFFECT**

27 These guidelines are intended only to improve the internal management of the National Park
28 Service relating to information quality. Nothing in these guidelines is intended to create any right
29 or benefit, substantive or procedural, enforceable by law or equity by a party against the United
30 States, its agencies, its offices, or any other person. These guidelines do not provide any right to
31 judicial review.

32

1 **APPENDIX A**

2 **NATIONAL PARK SERVICE PEER REVIEW TEMPLATE**

3 *The following material provides potential questions and rankings that may be appropriate to ask*
4 *peer reviewers to address. The peer review manager should not feel constrained by these*
5 *suggestions and should add, modify, or delete questions or text, as appropriate to the specific*
6 *informative or influential scientific or scholarly product under review.*

7
8 *The disclaimer at the foot of each page is required by [OMB Final Information Quality Bulletin](#)*
9 *for Peer Review (70 FR 2664-2677).*

10
11 Thank you for agreeing to provide your experience and expertise in evaluating this information
12 for the National Park Service. Your efforts help enhance the quality of this NPS generated
13 scientific/scholarly product and increase the credibility of decisions managers may make based
14 on this information. Your review ranking and comments will be provided to the author(s) and
15 others preparing this material. However, your name will remain confidential unless you
16 specifically give permission to provide your name or we specifically tell you that your name will
17 not remain confidential.

18
19 TITLE OF PRODUCT: _____

20 REVIEWER # _____

21 I GIVE PERMISSION TO INCLUDE MY NAME ON REVIEWS PROVIDED TO THE AUTHOR(S) (*OPTIONAL*
22 *STATEMENT*) Signed by _____

23
24 1. Are the purpose and methodology of this information clearly presented, appropriate and valid?
25 Are appropriate methods used for data collection, analysis, and characterization of uncertainty,
26 and are they sufficiently described to allow for replication?

27 Strongly disagree ↔ Strongly agree*

1 2 3 4 5

Methodology is appropriate and valid

28 *Double click on each box to select 'checked' as the default value

29 Comments:
30
31
32
33
34
35
36
37

38 *This information is distributed solely for the purpose of pre-dissemination peer review under applicable information*
39 *quality guidelines. It has not been formally disseminated by the National Park Service. It does not represent and*
40 *should not be construed to represent National Park Service determination or policy.*
41

1 2. Is the work novel? Does the information present significant, new or novel findings?
2 Strongly disagree ↔ Strongly agree*

	1	2	3	4	5
The work and findings are significant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The work and findings are new	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The work and findings are novel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3 *Double click on each box to select 'checked' as the default value

4 Comments:

5
6
7
8

9 3. Does this information include an appropriate literature review that puts the work in the context
10 of previous work?

11 Strongly disagree ↔ Strongly agree*

	1	2	3	4	5
An appropriate literature review is included	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12 *Double click on each box to select 'checked' as the default value

13 Comments:

14
15
16
17
18

19 4. Are the conclusions reasonable and supported by the data and other evidence? Are alternative
20 conclusions or counter arguments discussed and taken into account?

21 Strongly disagree ↔ Strongly agree*

	1	2	3	4	5
Conclusions are reasonable & supported	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

22 *Double click on each box to select 'checked' as the default value

23 Comments:

24
25
26
27
28

29 *This information is distributed solely for the purpose of pre-dissemination peer review under applicable information*
30 *quality guidelines. It has not been formally disseminated by the National Park Service. It does not represent and*
31 *should not be construed to represent National Park Service determination or policy.*

32

1 5. Is the information well-presented, logical, and understandable?
2

Strongly disagree ↔ Strongly agree*

1 2 3 4 5

Paper is well-presented

3 *Double click on each box to select 'checked' as the default value

4 Comments:
5
6
7
8
9
10
11

12 6. Please comment on the strength and limitations of the overall product and its potential
13 usefulness to managers and others.
14

Strongly disagree ↔ Strongly agree*

1 2 3 4 5

Product is strong & useful to managers & others

15 *Double click on each box to select 'checked' as the default value

16 Comments:
17
18
19
20
21
22
23

24 7. Other concerns or comments?
25
26
27
28
29
30
31

32 *This information is distributed solely for the purpose of pre-dissemination peer review under applicable information*
33 *quality guidelines. It has not been formally disseminated by the National Park Service. It does not represent and*
34 *should not be construed to represent National Park Service determination or policy.*
35

1 **APPENDIX B**

2
3 **CONFLICT-OF-INTERESTS AND CONFIDENTIALITY STATEMENT**
4 **FOR INFLUENTIAL NPS SCIENTIFIC INFORMATION REVIEWERS**
5

- 6 1. **POTENTIAL CONFLICTS-OF-INTERESTS:** As a National Park Service scientific information
7 reviewer, you must declare any potential conflict situations. Please read the examples of
8 potentially biasing affiliations or relationships on the second (or back) page and identify any
9 concerns to the NPS peer review manager.
- 10 2. **YOUR OBLIGATION TO MAINTAIN CONFIDENTIALITY:** A peer reviewer for a potentially
11 influential NPS information product must agree to be bound by the strictest scientific ethics.
12 For this reason, you must not copy, quote, or otherwise use or disclose to anyone any
13 material revealed during this review process. If you believe a colleague can make a
14 substantial contribution to the review, please obtain permission of the NPS peer review
15 manager *before* disclosing any portion of the contents of the material under review.
- 16 3. **AVAILABILITY OF THE REVIEWERS NAMES AND IDENTITIES:** *Unless otherwise agreed upon,* the
17 National Park Service will be free to provide a list of peer reviewer names and affiliations to
18 the author and the public. The NPS may, also, provide the author and the public with access
19 to the reviewer’s comments and rankings, either verbatim or in a summary report. The Park
20 Service may or may not directly attribute comments, reviews, or rankings to a specific
21 reviewer.
22

23
24 **YOUR CERTIFICATION**

25 **YOUR POTENTIAL CONFLICTS**

26 I have read the list of affiliations and relationships that could prevent my participation in matters involving such
27 individuals and institutions. To the best of my knowledge, I have no affiliation or relationship that would prevent me
28 from performing my review duties. I understand that I must contact the NPS peer review manager if a conflict exists
29 or arises during my service. I further understand that **I must sign and return this Conflict Statement to the peer**
30 **review manager before I may serve.**

31 **MAINTAINING THE CONFIDENTIALITY OF OTHERS**

32 I will not divulge or use any confidential information that I may become aware of during my service.
33

34 **YOUR IDENTITY AS A REVIEWER**

35 I understand my identity as a reviewer of specific NPS scientific or scholarly products and/or my comments may be
36 made available to the author and the public. Unless I am told otherwise, I understand my comments will **not** be
37 directly attributed to me.

38 Reviewer’s Name (Please print or type) _____

39 Reviewer’s Signature _____ Date _____

40 Name of product: _____

41 Reviewer’s Position and Affiliation _____

1 **APPENDIX C**

2
3

4 Dear XXXXXXXX,

5

6 The National Park Service relies on both internal and external reviewers to ensure the quality of
7 NPS generated and sponsored scientific and scholarly information products and to validate the
8 credibility of decisions land managers may make based on these documents. We invite you, as a
9 specialist to review the following information product,

10 _____, as we believe you can provide
11 important experience and knowledge about this topic. The XX page manuscript will be
12 accompanied by a form that asks you to rank the paper on six qualities and provide any
13 additional comments you believe will be helpful. We ask that reviews be returned by _____.

14

15 I will be coordinating the reviews. Please let me know if you are able to assist us in this
16 important task and I will e-mail you the material. Please indicate to me and provide a mailing or
17 delivery address if you prefer receiving a paper copy of the manuscript and review form.

18

19 We recognize that professional reviews take time from your busy schedule and appreciate your
20 willingness to consider helping with this important process.

21

22 Sincerely,

23