COMMON PRACTICES AND MISTAKES TO AVOID

1. Keep your sentences short and to the point. The current record for a sentence is 152 words.

2. Avoid the use of superfluous words; the italicized word in the following list indicates the redundant element:

   - big in size
   - close proximity
   - consensus of opinion
   - continue present (or existing) uses
   - filled to capacity
   - integral part
   - local resident
   - rehabilitate the existing building
   - last of all
   - very unique

3. Use simple words: for example, use instead of utilize.

4. When using quotation marks, the comma and the period are placed inside the closing quotation mark. The semicolon is placed outside the closing quotation mark.

5. Use only one space after a period, not two. This is based on publishing industry standards and typesetting practices.

6. When making tables, use tabs or indents to advance to the next column of information, do not use the space bar to space over to where it looks like the text is aligned; or use the table feature in MS Word or WordPerfect.

7. Do not hyphenate -ly modifiers (e.g., a federally listed species, not a federally-listed species).

8. Do not capitalize titles of individuals unless they precede a name.

9. Minimize the use of initials and acronyms in documents. Their excessive use (as shown in the following example) would probably confuse the general public. (Initials for agencies are acceptable as adjectives.)

   This GMP/EA describes four alternatives for management of BICY by the NPS. BLM and USGS, as well as USFS, have participated as cooperators. After a 30-day public review, either a FONSI or NOI to prepare a DEIS will be prepared.

10. Use that for clauses that restrict the meaning of a sentence; use which for clauses that provide additional information and are not necessary to understand the sentence. In the following example, the first sentence means that only bears eating out of garbage cans will be removed. The second sentence means that all bears will be removed, regardless of where they eat.

    Bears that eat out of garbage cans will be removed from the park.
    Bears, which eat garbage out of garbage cans, will be removed from the park.
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INTRODUCTION

This reference manual has been developed by the editorial staff at the Denver Service Center to suit the particular requirements of documents produced by this office. It is primarily a reference manual for editors; however, others may find it a useful reference for matters such as capitalization or compound words. Style decisions are based on The Chicago Manual of Style (14th ed. rev.; hereafter cited as Chicago). Other style manuals, including the GPO Style Manual, Kate Turabian’s A Manual for Writers (5th ed.), and Words into Type (3rd ed.), are used on occasion but are not considered primary references. Policy and procedural guidelines (NPS-2, NPS-12, etc.) are referred to in the organization, formatting, and substantive editing of documents.

House styles have been adopted for formatting, numbers, capitalization, compounding, and some aspects of footnoting and bibliography preparation, as discussed in this manual. Specific questions concerning style, format, grammar, and organization should be referred to the DSC editing staff, Resource Planning, (303) 969-2940.
ABBREVIATIONS AND ACRONYMS

Most documents prepared by the Denver Service Center are meant to be read by the general public; therefore, the excessive use of in-house abbreviations or acronyms should be avoided. Frequently, these abbreviations are useful shortcuts inside the agency, but for the general reader they can turn an otherwise simple sentence into gibberish:

The NPS, after consulting with the BLM and USFWS, will prepare a DEIS/DCP for the tertiary sewage treatment plant at LAME after the GMP has been approved; no work on this project will begin until 30 days after the ROD is issued by the WRO.

Generally, limit the use of abbreviations to common ones included in the dictionary; it is also permissible to abbreviate agency names used as adjectives or unit modifiers (e.g., NPS guidelines or BLM land). Identify abbreviations parenthetically after the full name is used the first time. If you do not use an abbreviation in the document, then there is no need to identify it.

The National Park Service (NPS) will study impacts on the grizzly bear in Yellowstone National Park.

But The NPS study team held nine public meetings.

Generally avoid the use of abbreviations for document names: GMP, DCP, D/FEIS, HSR, etc.; instead use a short title (the plan, or the environmental impact statement) (see also “Short Titles and Modifiers” section, page 75).

The following standard abbreviations are acceptable:

- Abbreviate with periods and no spaces:
  U.S., A.D., B.C., A.M., P.M. (temporal abbreviations are in small caps)

- Abbreviate with periods and spaces:
  pers. comm. (personal communication)

- Abbreviate without periods (no spaces):

  Standard abbreviations (check the dictionary if in doubt about the acceptability of an abbreviation):
  cfs, mph, gpd, kV, kW, kWh, MW
  sec., min., hr., mo., yr.
  in., ft., sq. ft., lin. ft., mi., km, m (meter), ha

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Abbreviations and Acronyms

N/E/S/W/NE
10°F, 20°C (note no space between degree symbol and temperature scale
ORV or RV (after once spelled out)

• FY for fiscal year (spell out the first time): FY 97, FY 97/98, but FY 2000

• Initially, spell out state roads, then use state abbreviations style (New Mexico 57, NM 57).

• Use two-letter state abbreviations for states in lists, tables, notes, and bibliographies (e.g. AZ for Arizona).
APPROVAL BLOCKS

An approval block is printed inside the front cover on all final general management plans and development concept plans. Approval blocks are not required on final environmental impact statements, even when combined with a GMP or DCP, because the plan technically cannot be approved until 30 days after the announcement of publication appears in the Federal Register and a record of decision has been signed.

As of the date of this guideline, the superintendent recommends the plan, and the regional director approves.

Scanned-in signatures are not required in approval blocks — names, titles, and dates should be typed. Dates must be included for all recommendations and approvals; the job captains are responsible for obtaining the necessary documentation and providing the names and dates.

On all approval pages the recommended and approved blocks should be flush left, the dates flush right and on the same line as the name. The bottom line of the approval block should be 3.75" from the bottom of the page (to line up with the cross-page line on the title page; see page 95).

Also see “Inside Front Cover,” page 47.
RECOMMENDED:

Robert W. Reynolds
Superintendent, Acadia National Park

APPROVED:

Marie Rust
Director, Northeast Region

Printed on recycled paper.

July 17, 1996
September 10, 1996
In a report the bibliography may either be titled “References Cited” if it only contains references cited in the text, or “Selected Bibliography” if it contains additional works.

BIBLIOGRAPHIC REFERENCES

Two methods of citation are used in DSC documents: the standard method, which is a modified version of the author-date system shown in Chicago (chapters 15 and 16) and its companion volume, Turabian (chapters 10, 11, and 12); and the history/humanities system, which is an accepted method of citing works in humanities publications (Chicago, chapter 15). Kate L. Turabian’s A Manual for Writers is intended to be a companion volume to Chicago; therefore, guidance in the two publications is essentially parallel except that Chicago gives instructions for printed material and Turabian is directed at writers of manuscripts.

The author-date method is used in most DSC documents, including all types of plans and environmental documents. This method consists of internal citations in the text, with author and date in parentheses and a reference list that is arranged and formatted as shown in the author-date examples shown in this chapter. Abbreviations are typically used for government agencies, such as USDI for the U.S. Department of the Interior and USGS for the U.S. Geological Survey; place a list of abbreviations before the bibliography if text citation abbreviations are lengthy or confusing.

The history method is used in historic resource studies, historic structure reports, and similar documents. This method consists of consecutively numbered notes in the text (cited at the bottom of the corresponding text page or at the end of each chapter) and a bibliographical listing arranged and formatted like the history examples in this chapter. Footnotes are numbered consecutively by chapter or throughout the document, depending on the length of the work.

Authors are responsible for ensuring that references are complete and accurate.

TITLES OF WORKS

The information on the title page of a published book should be copied exactly. If a title has been displayed in several lines (a matter of design), it may be necessary to insert punctuation for it to make sense, but do not add words. In the following example, adding to may seem to make sense, but it is not accurate. Therefore,

Hamilton’s Guide
Yellowstone
National Park

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becomes Hamilton's Guide: Yellowstone National Park, with the addition of a colon to indicate what the guide is to.

A title displayed on the title page as

Nez Perce Country
A Handbook for
Nez Perce National Historical Park
Idaho

is shown in the reference list as Nez Perce Country: A Handbook for Nez Perce National Historical Park, Idaho, with the addition of a colon to indicate the subtitle and a comma to set off the state name.

Some government documents do not have a proper title page; in these cases look on the cover, inside front cover, or elsewhere in the first few pages, particularly for dates. If the date or place of publication is not given, but you are sure of the year or place (city) of publication, that information can be included in brackets, as [1987] or [Casper, WY]. Otherwise indicate “n.d.” for “no date” or “n.p.” for “no place.” (“N.p.” can also indicate “no publisher given” if a work is obviously published but no publisher is listed.)

AUTHORS OF PUBLIC DOCUMENTS

Public documents — those written by NPS employees or by employees of other government agencies during on-duty hours — are referred to under the agency name, not under the name of the individual author(s). The name of the individual is shown within the reference (see “Government Documents, Author or Authors Named” below). This practice is based on the public documents cataloging system used by the Library of Congress and other large libraries. In citing a publication written by a federal employee (for example, David Hesker, an NPS employee, wrote Subterranean Bats of Carlsbad Caverns) the internal citation may be (NPS 1996b) or (NPS, Hesker 1996b). In the reference list or bibliography, complete bibliographical information about this document should be given under National Park Service, U.S. Department of the Interior.

Documents prepared for the National Park Service or other government agencies by individuals or companies should be listed under the preparers. An annotation can be included in the entry to indicate that this was a contracted work. It is not necessary to include the contract number.

University of Colorado, Weather Sciences Department

OR
Jones, Jeremy  

The criterion for distinguishing published from unpublished works is availability to the public. Any document that is distributed to the public or is available through libraries, other depositories, or on the Internet is considered published. Published works are referred to in italics. Unpublished materials are single-copy typed manuscripts and other documents reproduced in-house that are not available to the public. The titles of unpublished works are enclosed in quotation marks; no publisher is shown, but the place of preparation is indicated if known, and where the document is on file is also indicated. Current computer software makes the use of italics as easy as underlining; therefore, preparers of bibliographies or footnotes are encouraged to use italics for book and magazine titles (as in Chicago) rather than underlining (as shown in Turabian) so that additional time will not be required to convert underlines to italics before publication.

PERSONAL COMMUNICATIONS

Do not cite in-house personal communications. Cite other personal communications in the following order: agency or organization (if any), name of individual, type of communication (phone call, memo, interview — or pers. comm. if you don’t know) and date. Chicago 15.269 suggests that since personal communications are not usually available to the public, there is little point in putting them in the bibliography. (If they are listed, they should follow the same order as above.)

EXAMPLES OF REFERENCE ENTRIES

The following examples show text references or notes and bibliographic entries for the author-date system and for the history system. See chapters 11 and 12 of Turabian and chapters 15 and 16 in Chicago for additional examples.

For subsequent references to the same work, the information is simply repeated in the author-date system. In the history system subsequent references to a work may be shortened to the last name of the author if only one work by that author is being cited, or to the last name and a shortened title if there are references to multiple works. Ibid. may be used in the history system only if the next reference is to the same work; ib ed. is not used. The author should alert the reader to any abbreviations or shortened references that would not be immediately apparent; for example, Harry S. Truman Library (hereafter cited as HSTL).

Page numbers are normally not cited in text references in the author-date system; however, if they are essential, the page reference should be the final element in the citation, separated from the year by a comma (Mandel 1984, 67). For a reference that includes several pages, the second number includes only the changed part of the first number (85–6, 19–26, 298–312; see Chicago 8.70).
Books

One Author (with second book by same author). Note that Chicago specifies a three-em dash for the history style to indicate that an additional book by the same author.

Author-Date
(Conners 1988a)
(Conners 1988b)

Conners, John A.


History


Two Authors

When documents with two or more authors are included in a bibliography, only the first name is inverted (Unwin, L. P., and Joseph Galloway). See Chicago, 16.5–8 for further reference. Author’s initials are separated by a space.

Author-Date
(Ruby and Brown 1986)

Ruby, Robert H., and John A. Brown

History

Three Authors (and edition other than the first)

Author-Date
(Gill, Wegman, and Méndez-Faith 1995)
Gill, Mary McVey, Brenda Wegmann, and Teresa Méndez-Faith

History

More than Three Authors

Note that either “et al.” or “and others” is acceptable in notes and parenthetical citations (as long as usage is consistent throughout the document), but names of all authors must be given in the bibliography or reference list.

Author-Date
(Sorensen et al. 1997)
Sorensen, Gregory, Linda Russo, Christy Fischer, Sandy Schuster, Lou Layman, Kathy Dimont, and Jon Nickolas

History/Humanities

Organization, Agency, or Company as “Author”

Author-Date
(CEQ 1978)
(Idaho Historical Society 1968)
(Idaho Department of Commerce 1992)
(William McDonough Architects 1992)
Council on Environmental Quality, Executive Office of the President
1978 “Regulations for Implementing the Procedural Provisions of the National

Idaho Historical Society

Idaho Department of Commerce

William McDonough Architects

History


Editor or Compiler as “Author”

Author-Date
(Woodburne 1993)

Woodburne, Michael O., ed. (or comp.)

History


Government Documents, Author or Authors Named

Author-Date
(NPS 1963) or (NPS, Bienvenue 1963)
(NPS 1964) or (NPS, Olszewski 1964)
(USGS 1987)
National Park Service, U.S. Department of the Interior


History


Parts of Books

Chapter or “Component Part” by One Author in a Book Edited by Another

Author-Date
(Hodge 1899)
(Johnson 1966)

Hodge, Frederick Webb

Johnson, Lyndon Baines
History


Chapter or “Component Part” within a Work by One Author (when you want to specify one chapter rather than the whole book)

Author-Date
(Nickolas 1995)

Nickolas, Jon

History

Component Part of a Separately Titled Volume in a Multivolume Work

Author-Date
(Fowler and Liljeblad 1986)

Fowler, Catherine S., and Sven Liljeblad
History


SECONDARY SOURCE OF A QUOTATION

Author-Date
(Wright 1920)
(McFarland 1990, 1:vi)

Wright, Orville

McFarland, Marvin W., ed.

History


PUBLISHED PROCEEDINGS OF A MEETING

Author-Date
(Dodge 1989)

Dodge, D. P., ed.
Examples of Reference Entries

History

Authored Article in Published Proceedings of a Meeting

Author-Date
(Fremling et al. 1989)

Fremling, C. R., J. L. Rasmussen, R. E. Sparks, and S. P. Cobb

History


Reprint Edition

Author-Date
(NPS 1993)

National Park Service, U.S. Department of the Interior
1993 National Parks for the 21st Century: The Vail Agenda, Report and Recommendations to the Director of the National Park Service. Published with the assistance of the National Park Foundation. Reprint, Montpelier, VT: Capital City Press.

History

BIBLIOGRAPHIC REFERENCES AND NOTES

NONBOOK PUBLISHED MATERIALS

When preparing bibliographic references to computer materials, see Chicago 15.421–15.424 and 16.208–16.209, where references are discussed in detail.

Computer Programs and Electronic Documents

In general, material obtained through the Internet is treated like printed material, except that the computer address replaces the city of publication and publisher name; for further information see Chicago 15.421–6, 16.207–9.

Author-Date

(Flax and Nickolas 1997)
(Microsoft 1995)
(USFWS 1996)

Flax, Rosabel, and Jon Nickolas

Microsoft Corporation

U.S. Fish and Wildlife Service, U.S. Department of the Interior

History


UNPUBLISHED MATERIALS

Theses or Dissertations [for a thesis, substitute “M.S. thesis” or “M.A. thesis” for “Ph.D. diss.”]

Author-Date
(Sandoval 1978)

Sandoval, David Alex

History

Paper Presented at a Meeting

Author-Date
(Royce 1988)

Royce, John C.

History

Letters and Personal Communications

Author-Date:
(USFWS, Barclay, letter [or memo or pers. com.], Nov. 22, 1991)

U.S. Fish and Wildlife Service, U.S. Department of the Interior
1991 Letter [or memo or pers. com.] from L. A. Barclay, Field Supervisor, Cookeville, TN, to D. A. Falvey, National Park Service, Denver, November 22.

Note: The information is usually confined to references in the text and not included in the reference list. However, if it is important to include in the reference list, follow the above example.
History


Electronic Mail Communications

Author-Date
(Durrant 1996)

Durrant, Steve
1996 Electronic mail message from Durrant, Jones and Jones Architects, Seattle, to Jackie Powell, National Park Service, Denver, Aug. 15.

History
1. Steve Durrant, Jones and Jones Architects, Seattle, electronic mail message to Jackie Powell, National Park Service, Denver, Aug. 15, 1996.

Durrant, Steve, Jones and Jones Architects, Seattle, to Jackie Powell, National Park Service, Denver, Aug. 15, 1996.
BOOKMAKING

The general guidelines for bookmaking (sequence and content of book parts, procedures for preparing manuscripts for printing, etc.) are based on standard bookmaking practices (see Chicago part 1). NPS-2: Planning Process Guideline and NPS-12: National Environmental Policy Act Guideline are followed in preparing EISs and EAs, except that the back matter is organized according to Chicago. Odd numbers are always printed on the right-hand page, even numbers on the left-hand page (also see “Page Numbers,” 71).

The general organization of documents:

<table>
<thead>
<tr>
<th>PART</th>
<th>PAGE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front Matter</td>
<td>(start with roman numeral i)</td>
</tr>
<tr>
<td>Title Page (including abstract for an EIS)</td>
<td>odd (i) [pg. no. not printed]</td>
</tr>
<tr>
<td>Summary</td>
<td>odd (iii)</td>
</tr>
<tr>
<td>Table of Contents (titled simply “Contents”)</td>
<td>odd</td>
</tr>
<tr>
<td>List of Maps or Illustrations</td>
<td>odd or even</td>
</tr>
<tr>
<td>List of Tables</td>
<td>odd or even</td>
</tr>
<tr>
<td>Text</td>
<td>(start with Arabic 1)</td>
</tr>
<tr>
<td>EA or EIS:</td>
<td></td>
</tr>
<tr>
<td>Purpose of and Need for Action</td>
<td>odd (1)</td>
</tr>
<tr>
<td>Alternatives, Including the Proposed Action</td>
<td>odd or even</td>
</tr>
<tr>
<td>Affected Environment</td>
<td>odd or even</td>
</tr>
<tr>
<td>Environmental Consequences</td>
<td>odd or even</td>
</tr>
<tr>
<td>Consultation and Coordination</td>
<td>odd or even</td>
</tr>
<tr>
<td>Plan, study, or report:</td>
<td></td>
</tr>
<tr>
<td>Introduction</td>
<td>odd (1)</td>
</tr>
<tr>
<td>Each part or chapter</td>
<td>odd or even</td>
</tr>
<tr>
<td>Back Matter</td>
<td>odd</td>
</tr>
<tr>
<td>Appendixes (designate appendixes as A, B, C, etc.)</td>
<td>odd</td>
</tr>
<tr>
<td>Glossary (optional)</td>
<td>odd or even</td>
</tr>
<tr>
<td>Selected Bibliography or References Cited</td>
<td>odd or even</td>
</tr>
<tr>
<td>Planning Team or List of Preparers</td>
<td>odd or even</td>
</tr>
<tr>
<td>Index (required for an EIS)</td>
<td>odd or even</td>
</tr>
</tbody>
</table>

The organization of the front matter and back matter is similar for all documents. The rationale for placing the summary after the title page and before the table of contents is based on the assumption that people who are only interested in the summary should be able to find it quickly, and they will probably not be interested in how the full document is organized.

Divider pages for parts of a document are a useful tool for lengthy documents because they add another level of heading (see page 63); if divider pages are used, they are always on a right-hand (odd-numbered) page and usually blank on the back unless there is display type (such as a quotation or text highlight). Divider pages are not physically numbered. The first page of text after a divider page is on the right.
CAPITALIZATION

The editors have generally adopted a “down” or lowercase style, based on *Chicago*, chapter 7. A down style helps avoid a “big brother” government image, and most newspapers also follow a down style. Exceptions are made in cases where it is likely that a phrase will be misunderstood or misread.

*Chicago* 7.2 — “Modern publishers of works in the English language, American perhaps more than British, usually discourage excessive use of capital letters in text. Proper nouns are still conventionally capitalized, but many words derived from or associated with them may be lowercased with no loss of clarity or significance.”

TITLES AND OFFICES

*Chicago* 7.16 — “Civil, military, religious, and professional titles and titles of nobility are capitalized when they immediately precede a personal name, as part of the name.”

    President Johnson
    General Eisenhower

When such titles are used in apposition to a name, they are not part of the name and so are lowercased:

    the emperor Maximilian (i.e., the emperor who was Maximilian)
    French president François Mitterand (better: President François Mitterand of France)

*Chicago* 7.18–21 — “In text matter, titles following a personal name or used alone in place of a name are, with few exceptions, lowercased.”

    the secretary of the interior; the secretary; Secretary Babbitt; Bruce Babbitt, secretary of the interior
    the state historic preservation officer
    the president of the United States; the president; the presidency; presidential; President George Washington; President Washington; President and Mrs. Washington; George Washington, president of the United States; the Washington administration; Vice President Garner; John Nance Garner, vice president of the United States
    the secretary of state; the secretary; Secretary of State George C. Marshall; Secretary of State Marshall; George Catlett Marshall, secretary of state
    the senator; the senator from Ohio; Senator Howard M. Metzenbaum; Senator Metzenbaum; Howard M. Metzenbaum, senator from Ohio
    the state senator; the senator; Olga Parker, Ohio state senator; state senator Parker
the congressman from Oregon; the congresswoman from Ohio; the representative from New Mexico; Congressman Olin Paprowski; Congresswoman Deborah Baron; Congresswoman Baron; Representative Paprowski; Deborah Baron, representative from Ohio; Olin Paprowski, congressman from Idaho
the general; commander in chief; General Ulysses S. Grant, commander in chief of the Union army; General Grant
the pope; the papacy; Pope John XXIII
the president; the president's office; President Serafina; Olga Serafina, president of Causwell University; Alfred Beamish, president of Hostwell Corporation; Mr. Beamish, president of the corporation
the queen; the queen of England; Queen Elizabeth; Elizabeth II, queen of England

POLITICAL DIVISIONS

Chicago 7.40 — "Words such as empire, state, county, city, kingdom, colony, territory, and so forth, which designate political divisions of the world, are capitalized when they are used as an accepted part of the proper name. When not used as an accepted part of the proper name, or when used alone, such terms are usually lowercased."

Washington State; the state of Washington
New England states; Middle Atlantic states
Hennepin County; the county of Hennepin
New York City; the city of New York
Indiana Territory; the territory of Indiana
Evanston Township; the town of Evanston
Kweneng District; the district

TOPOGRAPHICAL NAMES

Chicago 7.42 — "Names of mountains, rivers, oceans, islands, and so forth are capitalized. A generic term such as lake, mountain, river, or valley is also capitalized when used as part of the name, whether or not it is capitalized in the gazetteer or atlas."

Bering Strait
Great Barrier Reef
Iberian Peninsula; the peninsula
Nile Delta
the Sea of Azov
Walden Pond

Chicago 7.43 — "The University of Chicago Press now recommends that when a generic term is used in the plural either before or after more than one proper name, the term should be capitalized if, in the singular form and in the same position, it would be recognized as part of each name."

Lakes Erie and Huron

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the Adirondack and Catskill Mountains
the Hudson and Mississippi Rivers

*Chicago 7.44* — “When a generic term is used descriptively rather than as part of the name, or when it is used alone, it is lowercased.”

the Hudson River valley
the French coast (*but* the West Coast [U.S.])
the California desert
the Indian peninsula (*but* the Malay Peninsula)
along the Pacific coast (*but* Pacific Coast *if the region is meant*)
Cape Cod, the Cape
Chesapeake Bay, the Bay; the San Francisco Bay Area

**STRUCTURES AND PUBLIC PLACES**

*Chicago 7.47* — “Such terms as *avenue, boulevard, bridge, building, church, fountain, hotel, park, room, square, street,* or *theater* are capitalized when part of an official or formal name. When the plural form is used before or following more than one name and constitutes, albeit in the singular, part of each name, the term is capitalized (see 7.43). Standing alone, however, such terms are lowercased.”

Adler Planetarium; the planetarium
the Empire State and Chrysler Buildings
First Congregational Church; the church
Lincoln Park; the park
Westminster Abbey
a temple of Venus

Applied to NPS uses, this would mean

Yellowstone National Park; the national park; the park
Curecanti National Recreation Area; the national recreation area
Yosemite and Redwood National Parks; the parks

**TITLES OF WORKS**

Capitalize the first and last words and all nouns, pronouns, adjectives, verbs, adverbs, and subordinating conjunctions (*if, because, as that,* etc.). Articles (*a, an, the*), coordinating conjunctions (*and, but, or, for, nor*), and prepositions, regardless of length, are lowercased unless they are the first or last word of the title or subtitle. The *to* in infinitives is also lowercased (*Chicago 7.127*).
Book Titles in Text

Title of a published work: capitalize major words and italicize. Use the full title only as a first reference:

*Draft Environmental Impact Statement, Fire Island National Seashore*
*General Management Plan, Great Smoky Mountains National Park*

Short title of a published work: capitalize and italicize (same as the full title).

*Draft Environmental Impact Statement*
*General Management Plan*
*Land Protection Plan*

Avoid the overuse of italicized short titles; use general references whenever possible.

General reference, published work: lowercase:

the (this) plan
the management or development plan
this environmental impact statement; this impact statement

Title of an unpublished work: capitalize major words, enclose in quotation marks (see *Chicago* 7.147):

“Task Directive for the General Management Plan, Cape Lookout National Seashore”
“Collection Preservation Guide, Mount Rainier National Park”

Title of a plan that has not yet been done: lowercase, no quotation marks:

A resource management plan will be done after the general management plan has been completed.

Part (signified by a divider page), chapter, and section titles: capitalize major words, enclose in quotation marks:

the “Affected Environment” part of this document
the “Natural Resources” chapter of the “Affected Environment”
the “Characteristics of Visitors” section of the “Visitor Use” chapter

Lowercase, standard type, no quotation marks for passing references and cross-references to book parts (foreword, preface, introduction, contents, appendix, glossary, bibliography, index); see examples below (which are based on *Chicago* 7.140 and 8.32).

alternative B (*but* the “Alternative B: Proposed Action” section)
appendix A (*but* “Appendix A: Legislation”)
article 37
chapter 2 (*but* “Chapter 2. The Fall of Rome”)
figure 3
illustration 5
number (no.) 13
page 35  
part II  
section I.B.2.a.  
table 22  
volume (vol.) 6  

Map/figure/table titles: capitalize words in title only, with roman type and no quotation marks.  

the Landownership map  
the Visitor Statistics table but table 3 or figure 2 (as shown above)  

**Hyphenated Words in Titles**  

For hyphenated and open compounds in titles, always capitalize the first element; capitalize subsequent elements unless they are articles, prepositions, or coordinating conjunctions. Second elements attached to prefixes are not capitalized unless they are proper nouns or proper adjectives.  

No-Action Alternative  
Spanish-Speaking People  
Long-Term / Short-Term Impacts  
Indentured Servitude in the Post–Revolutionary War Era  

**TRADEMARKS**  

Trademarks are usually indicated in the dictionary and are capitalized. Where possible use the generic equivalent, as using the registered name may imply favoritism.  

<table>
<thead>
<tr>
<th>Trademark</th>
<th>Generic Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clivus Multrum toilet</td>
<td>composting toilet</td>
</tr>
<tr>
<td>Frisbee</td>
<td>four-wheel-drive vehicle, offroad vehicle</td>
</tr>
<tr>
<td>Jeep</td>
<td>inline skating</td>
</tr>
<tr>
<td>(jeep [lowercase “j”] refers to a military vehicle)</td>
<td></td>
</tr>
<tr>
<td>Rollerblading</td>
<td>xerographic copy, photocopy</td>
</tr>
<tr>
<td>Xerox</td>
<td></td>
</tr>
</tbody>
</table>

**HOUSE STYLE CAPITALIZATION DECISIONS**  

The following house style decisions have been adopted and are not necessarily based on *Chicago* rules. See table 1 for other examples.
Nationalities, Tribes, and Other Groups of People

The names of specific racial, tribal, religious, and other groupings of people are capitalized:

- American Indian or Native American
- Alaska Native
- African-American, but black
- Chinese-American
- Euro-American
- Japanese-American
- Hispanic
- Native Hawaiian
- white


Generally lowercase all such names unless they refer to organizational bodies or have widely known and commonly accepted appellations (see table 1 for specific examples). When using established abbreviations or acronyms, remember what the abbreviated title stands for; for example, the Retired Senior Volunteer Program is abbreviated RSVP, so it would be redundant to say the “RSVP program.”

Roads and Trails

Capitalize the full and short names of federal, state, county, and local roads, as designated in the road atlas or on USGS maps (Interstate 5, I-5; U.S. Highway 12, U.S. 12; Colorado State Highway 35, Colorado 35, CO 35; Elbert County Highway 317, Elbert County 317). Also capitalize the popular names — designated or regionally accepted — of these and other roads (Route 66, Hagerstown Pike, Generals Highway, Trail Ridge Road). Use the regionally accepted name, rather than the standard short title, if it is known (County Road 42 in the El Malpais region; M-5, etc., for the Michigan state highway system). Roads named for the area they pass through may be capped, depending on popular acceptance (Oak Creek Road, but the Dry Gulch road). Other roads are usually lowercased (local road 2, Forest Service road 27).

Capitalize the full and short names of designated trails (Appalachian National Scenic Trail, Appalachian Trail; Santa Fe National Historic Trail, Santa Fe Trail). Also capitalize the popular names of trails, if they are widely accepted. Most trails within parks, which are named for the areas they pass through, are lowercased (the Pleasant Valley trail).

Adjectives with Geographic Names

Generally lowercase greater/lesser and upper/lower, capitalize north/south, but always check a map or verify with the author. Examples:

- the Entrada sandstone formation
- the greater Colorado River basin
- the greater New York metropolitan area (descriptive)
but the Lesser Antilles (formal name)
the North Branch of Steel Creek; North Branch
the North Fork of the South Platte
the North Platte River
but the north(ern) Colorado River region
the Piedmont physiographic province
the South Fork of Smith River
the upper Green River
but the Upper Delaware River

Government Entities

Follow Chicago 7.40:

the Denver city government has agreed
the city has agreed
the Park Service will cooperate with the state (use the state agency name if known)
<table>
<thead>
<tr>
<th>TABLE 1: GUIDE TO CAPITALIZATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>act, organic act, act of 1916,</td>
</tr>
<tr>
<td>appropriations act, but</td>
</tr>
<tr>
<td>Endangered Species Act,</td>
</tr>
<tr>
<td>National Environmental Policy</td>
</tr>
<tr>
<td>Act</td>
</tr>
<tr>
<td>administration, the Nixon</td>
</tr>
<tr>
<td>administration</td>
</tr>
<tr>
<td>advisory council</td>
</tr>
<tr>
<td>African-American</td>
</tr>
<tr>
<td>Afro-American</td>
</tr>
<tr>
<td>Alaska Native</td>
</tr>
<tr>
<td>alternative A, 1, etc.</td>
</tr>
<tr>
<td>appendix, appendix A (but</td>
</tr>
<tr>
<td>&quot;Appendix A: Legislation&quot;)</td>
</tr>
<tr>
<td>archeological district, but the</td>
</tr>
<tr>
<td>Anasazi Archeological District</td>
</tr>
<tr>
<td>armed forces</td>
</tr>
<tr>
<td>army, Union army, but U.S. Army,</td>
</tr>
<tr>
<td>Army, Fifth Army, Army</td>
</tr>
<tr>
<td>Corps of Engineers</td>
</tr>
<tr>
<td>battlefield, national battlefield, but Fort Necessity National Battlefield</td>
</tr>
<tr>
<td>bay</td>
</tr>
<tr>
<td>Bay Area (San Francisco)</td>
</tr>
<tr>
<td>the Bay (Chesapeake Bay)</td>
</tr>
<tr>
<td>board, advisory board, but</td>
</tr>
<tr>
<td>National Park System Advisory</td>
</tr>
<tr>
<td>Board</td>
</tr>
<tr>
<td>building, the federal office</td>
</tr>
<tr>
<td>building, but the Empire State</td>
</tr>
<tr>
<td>Building (formal name)</td>
</tr>
<tr>
<td>campground, the Kirk Creek</td>
</tr>
<tr>
<td>campground</td>
</tr>
<tr>
<td>Cape Cod, the Cape</td>
</tr>
<tr>
<td>capitol, state capitol, but South</td>
</tr>
<tr>
<td>Dakota State Capitol</td>
</tr>
<tr>
<td>category 1, category 2 (species)</td>
</tr>
<tr>
<td>cemetery, the Racine (town)</td>
</tr>
<tr>
<td>cemetery, but Mt. Zion Cemetery</td>
</tr>
<tr>
<td>church, the Methodist church</td>
</tr>
<tr>
<td>(organization), but Central</td>
</tr>
<tr>
<td>Presbyterian Church</td>
</tr>
<tr>
<td>city, city of New York, but New</td>
</tr>
<tr>
<td>York City</td>
</tr>
<tr>
<td>civil rights</td>
</tr>
<tr>
<td>class I, class II (air quality)</td>
</tr>
<tr>
<td>code, but Life Safety Code,</td>
</tr>
<tr>
<td>National Electric Code,</td>
</tr>
<tr>
<td>Uniform Building Code commission (capitalize if formal part of name, lowercase when used alone)</td>
</tr>
<tr>
<td>committee (capitalize if formal part of name, lowercase when used alone)</td>
</tr>
<tr>
<td>commonwealth, commonwealth of Pennsylvania</td>
</tr>
<tr>
<td>conference (capitalize if formal part of name, lowercase when used alone)</td>
</tr>
<tr>
<td>congressional, congressional</td>
</tr>
<tr>
<td>hearings, but the</td>
</tr>
<tr>
<td>Congressional Budget Office</td>
</tr>
<tr>
<td>council (capitalize if formal</td>
</tr>
<tr>
<td>part of name, lowercase when</td>
</tr>
<tr>
<td>used alone)</td>
</tr>
<tr>
<td>Advisory Council on Historic</td>
</tr>
<tr>
<td>Preservation, but the</td>
</tr>
<tr>
<td>advisory council</td>
</tr>
<tr>
<td>county, the county of Denver,</td>
</tr>
<tr>
<td>but Denver County</td>
</tr>
<tr>
<td>Delta (region in Mississippi)</td>
</tr>
<tr>
<td>director, assistant director,</td>
</tr>
<tr>
<td>regional director, but Director</td>
</tr>
<tr>
<td>Kennedy</td>
</tr>
<tr>
<td>district, central business district, but Caribou district. District as a popular name for Washington, D.C. See also archeological district, historic district</td>
</tr>
<tr>
<td>Eastern Seaboard, Eastern</td>
</tr>
<tr>
<td>Shore (of Chesapeake Bay)</td>
</tr>
<tr>
<td>environmental assessment, but</td>
</tr>
<tr>
<td>the Yellowstone National Park,</td>
</tr>
<tr>
<td>Bridge Bay, Development Concept</td>
</tr>
<tr>
<td>Plan and Environmental Assessment</td>
</tr>
<tr>
<td>environmental impact statement,</td>
</tr>
<tr>
<td>but the Voyageurs National Park</td>
</tr>
<tr>
<td>Draft Environmental Impact</td>
</tr>
<tr>
<td>Statement</td>
</tr>
<tr>
<td>estate, the William Floyd estate</td>
</tr>
<tr>
<td>Euro-American</td>
</tr>
<tr>
<td>executive order, but Executive</td>
</tr>
<tr>
<td>Order 11953, “Protection of</td>
</tr>
<tr>
<td>Wetlands”</td>
</tr>
<tr>
<td>farm, the Overton farm, but</td>
</tr>
<tr>
<td>Paradise Farm (formal name)</td>
</tr>
<tr>
<td>federal, federal agency, federal</td>
</tr>
<tr>
<td>government, federal program, but</td>
</tr>
<tr>
<td>the Federal Reserve Bank (formal</td>
</tr>
<tr>
<td>name)</td>
</tr>
<tr>
<td>figure 1, but Figure 1: Average</td>
</tr>
<tr>
<td>Income, 1980–90</td>
</tr>
<tr>
<td>flyway, Pacific flyway</td>
</tr>
<tr>
<td>fort, but Fort McHenry, Forts</td>
</tr>
<tr>
<td>Jefferson and Frederica</td>
</tr>
<tr>
<td>Great Plains</td>
</tr>
<tr>
<td>guideline, natural resource</td>
</tr>
<tr>
<td>management guideline, but</td>
</tr>
<tr>
<td>Guideline for Sustainable Design:</td>
</tr>
<tr>
<td>or NPS-28: Cultural Resource</td>
</tr>
<tr>
<td>Management Guideline</td>
</tr>
<tr>
<td>headquarters, park headquarters,</td>
</tr>
<tr>
<td>Fort Hancock headquarters</td>
</tr>
<tr>
<td>highway</td>
</tr>
<tr>
<td>Alabama Highway 95 (AL 95 or</td>
</tr>
<tr>
<td>Alabama 95)</td>
</tr>
<tr>
<td>Elbert County Highway 317</td>
</tr>
<tr>
<td>(Elbert County 317)</td>
</tr>
<tr>
<td>U.S. Highway 6 (U.S. 6)</td>
</tr>
<tr>
<td>Route 66, Generals Highway,</td>
</tr>
<tr>
<td>Trail Ridge Road (popular names)</td>
</tr>
<tr>
<td>historic district, but the</td>
</tr>
<tr>
<td>Skagway Historic District</td>
</tr>
<tr>
<td>(formal designation)</td>
</tr>
<tr>
<td>historic site, national historic</td>
</tr>
<tr>
<td>site, but Longfellow National</td>
</tr>
<tr>
<td>Historic Site, Eisenhower and</td>
</tr>
<tr>
<td>Friendship Hill National Historic Sites home, the Lincoln home, the boyhood home</td>
</tr>
</tbody>
</table>

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house, the Miller house, but Octagon House (formal name), the White House

Industrial Revolution initiative, sustainable design initiative Internet interstate, the interstate highway, but Interstate 95 (I-95)

landfill, Red Tank sanitary landfill lake
Lake Superior, Lakes Michigan and Huron, Yellowstone Lake, Ouzel and Blue Lakes lakeshore, national lakeshore, but Pictured Rocks National Lakeshore, Apostle Islands and Sleeping Bear Dunes National Lakeshores landmark
historic landmark, national historic landmark, but Wounded Knee National Historic Landmark (formal designation) natural landmark, national natural landmark, but Point Lobos National Natural Landmark (formal designation)

Life Safety Code lighthouse, the Cape St. Elias lighthouse list (capitalize formal names of lists) List of Classified Structures World Heritage List

mall (capitalize formal names, e.g., the National Mall in Washington, D.C.) mansion, the Shorter mansion map, the Landownership map memorandum of agreement memorial, national memorial, but Mount Rushmore National Memorial, the Lincoln Memorial, Coronado and Chamizal National Memorials

monument, national monument, but Hovenweep National Monument, Navajo and Casa Grande National Monuments movement, civil rights movement museum, the state museum, but the Denver Art Museum

nation national forest, historic landmark, historic site, lakeshore, memorial, monument, natural landmark, park, recreation area, seashore (but capitalize a proper name, such as Arapaho National Forest, Blair House National Historic Landmark) National Electric Code National Register of Historic Places, but the national register National Registry of Natural Landmarks, but the national registry National Wetlands Inventory Native American, Alaska Native, Native Hawaiian navy, but U.S. Navy number office (capitalize formal department/division names) the Washington Office the Office of the Governor (if official name) the Office of the Secretary

Paleo-Indian park, national park, but Acadia National Park, Yellowstone and Grand Teton National Parks physiographic province (capitalize only proper part of name), the Coastal Plain physiographic province Plains Indians plan corn subsidy plan, wetland species protection plan, but Marshall Plan, 12-Point Plan development concept plan general management plan, but the Denali National Park, General Management Plan plantation, the Shorter plantation policy fire management policy land protection policy open door policy president, but President Lincoln presidential, a presidential proclamation, but Presidential Proclamation 624 program coastal zone management program community block development grant (CBDG) program general revenue-sharing program historic property leasing program land protection program national flood insurance program national historic landmarks program national natural landmarks program Retired Senior Volunteer Program (RSVP; proper name) Volunteers-in-Parks (VIP) program (proper name) project, Little Calumet River project, trans-Alaska pipeline project, but Auburn Neighborhoods Revitalization Project (organization) proposed action province. See physiographic province public law, but Public Law 99-545 or PL 99-545 pueblo, but Sand Canyon Pueblo

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ranch, the Anderson ranch, but Empire Ranch (proper name)
ranger station, the Avery ranger station
recreation area, national recreation area, but Bighorn Canyon National Recreation Area, Golden Gate and Gateway National Recreation Areas
register, national register, but the National Register of Historic Places
registry, national registry, but the National Registry of Natural Landmarks
report, but Senate Report 95-171
Retired Senior Volunteer Program
reservation, but the Navajo Reservation, the Pine Ridge and Rosebud Reservations
river, Hudson River, Green and Yampa Rivers, the North Fork of the Flathead River
road, north corridor road (a proposed road)
Oak Creek Road, Morrison and Sagebrush Roads, County Road 42, Road C-22 (all proper names)
but the Dry Gulch road (descriptive of road’s location)
room, living room, room 17, but the Persian Room, the East Room of the White House
ruin, Easter ruin, Ansel Hall ruin
scale
international scale of river difficulty
seashore, national seashore, but Cape Lookout National Seashore, Canaveral and Gulf Islands National Seashores
secretary, the secretary of the interior, but Secretary of the Interior Babbitt
service
Forest Service
National Park Service, Park Service (but the service)
service (cont.)
service center
U.S. Fish and Wildlife Service, Fish and Wildlife Service (proper name is United States Fish and Wildlife Service)
site
standard
national ambient air quality standards (NAAQS)
state, state of Washington, but Washington State
state historic preservation officer, but State Historic Preservation Office (if the proper name of the office in a particular state)
storehouse, the Eagle Point storehouse, storehouse 4
superintendent, park superintendent, but Superintendent Robert Evans
survey, but Geological Survey (proper name United States Geological Survey), Historic American Buildings Survey
symposium, the Vail symposium
synagogue, but Touro Synagogue
system
civil service retirement system
international metric system
interstate highway system
national park system, park system, Florida park system, Denver park system
national wilderness preservation system
national timber reservation system
national wild and scenic rivers system
social security system
table 1, A-2, but “Table 1: Population”
task force (capitalize if formal part of name, lowercase when used alone)
town, but Company Town No. 1 township, but Hennessey Township
trace, but Natchez Trace
trail, national trail, national scenic/recreational/historic trail, but Appalachian National Scenic Trail, Appalachian Trail, Santa Fe National Historic Trail, the Santa Fe Trail
the Longs Peak trail (describing the trail to Longs Peak), the river trail, the Pleasant Valley trail
Uniform Building Code
unit (lowercase as a descriptive term for park management units), north unit, south unit, Turner River unit
U.S. Army Corps of Engineers Corps of Engineers, the Corps
valley, the river valley, the Red River valley, Ohio River valley, but Yosemite Valley
visitor center, the Grant Grove visitor center, but the Henry R. Loomis Visitor Center (formally designated)
West (the West), Rocky Mountain West, West Coast
wilderness, the Yosemite wilderness area, but Big Jack Wilderness (legislatively designated)
world heritage site, but Redwood National Park
World Heritage Site
World Wide Web
zones (plant life)
Boreal region
Arctic zone
Hudsonian zone
Canadian zone
Transition zone
Austral region
Upper Austral zone
Upper Sonoran zone
Carolinian zone
Lower Sonoran zone
Australriparian zone

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CAPTIONS AND LEGENDS

Captions (titles) and legends (explanations) are used for tables, figures, and maps; they are also sometimes used for photographs or other illustrations. The type for captions and legends should be one or two points smaller than the body of the text.

The caption briefly indicates what is shown in a figure, photograph, table, or map, while a legend contains additional information. Legends may be used instead of captions on figures or photographs, or sometimes combinations of the two are used. Unlike a map legend, which is a key to the map symbols, a legend for a figure or photograph is explanatory material in one or more sentences.

CAPTIONS

All important words are capitalized in captions or titles. Table captions should be in bold caps and small caps (also see "Tables," page 83); other captions may be in caps and small caps, bold type, or roman type, as long as consistency is maintained throughout a document. The following are examples of captions:

- **TABLE 7: BIRDS COMMONLY FOUND IN THE PARK**
- **PHOTO 9. HISTORIC CHURCH IN THE PARK**

LEGENDS

Examples of legends from unnumbered photos are shown below. Capitalization in a legend is sentence style rather than title style, as in captions.

- The Somerwell House on Main Street in Yorktown, home of ferryman Mungo Somerwell, survived the 1781 siege.

- The Connellsville coke region flourished as coke ovens burned around the clock. Operations like this one dotted the landscape, creating jobs for immigrant workers.
COMBINING CAPTIONS AND LEGENDS

In a combined caption and legend, the caption precedes the legend. The legend may be in a line following the caption line, or the two may be run on, with a period following the caption, as shown in the third example below.

PHOTO 9. HISTORIC CHURCH IN THE PARK
This church was built in 1789 by Frederic Fudd, who used marble quarried from a hill just west of Fuddsville.

Figure 4. Schematic Encapsulation of Pyritic Material
Fill is terraced into the existing bedrock. A 12" layer of crushed limestone is placed between the fill and original ground, as shown. Filter fabric placed above and below the crushed limestone permits the passage of water and prevents fines from clogging the filter layer.

THE SOMERWELL HOUSE ON MAIN STREET IN YORKTOWN. This house, which was the home of ferryman Mungo Somerwell, survived the 1781 siege.

PLACEMENT

Captions of maps are placed below the map; table titles are placed at the top of the table. Figure and photo captions may be placed either above or below the illustration, as long as placement is consistent within the document.

If a table, figure, map, or photograph must be turned to run the long way of the paper (broadside; landscape), the caption must also be turned so that it runs the same direction. Running heads (headers) should not be used on a page with a broadside table or illustration. Page numbers for broadside tables should appear in the same position as on the other text pages.

The top of a broadside page should always be at the reader's left so that any caption or text reads up, not down.

PERMISSION TO USE, SOURCE LINES, CREDIT LINES

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Permission to reprint must be obtained for material under copyright. A credit line is generally included with any reproduced material. Follow as closely as possible the form of credit specified by the person who granted permission.
Source credits may appear under a photo or figure in very small type, or in parentheses at the end of the legend. Sometimes it is possible to work the facts into the legend copy so that a separate credit line is not necessary. If all the photographs in a document are from one source, that fact may be acknowledged in the preface or in an acknowledgments section.

If a credit appears on a line by itself, end punctuation is omitted. Some examples of credit lines are shown below. The word source should be in italics or caps and small caps.


Source: Map redrawn from Doughty 1987

Section numbering plan courtesy of Bureau of Land Management, U.S. Department of the Interior


Photograph courtesy Archives and Historical Division, State of Wyoming

Examples of credit information worked into the text are shown below.

This church, photographed in 1939 by James Smith, was built in 1789 by Frederic Fudd, who used marble quarried from a hill just west of Fuddsville. (Photo courtesy of Colorado State Archives.)

PHOTO 9. HISTORIC CHURCH IN THE PARK
This church was built in 1789 by Frederic Fudd, who used marble quarried from a hill just west of Fuddsville. Photo by James Smith, 1939, provided by Colorado State Archives.

THE SOMERWELL HOUSE ON MAIN STREET IN YORKTOWN. This house, shown in a historic photograph from the Library of Congress, was the home of ferryman Mungo Somerwell. The house survived the 1781 siege.

More information on credit lines is available in Chicago 11.34–43; source notes are discussed in 15.70–73.
COMPOUND WORDS

A house style for compound words (solid, open, or hyphenated) has been developed based on the principles and guidelines in *Chicago* (6.32–42 and table 6.1). The general rules of compounding are discussed below; table 2 lists words frequently encountered in NPS work.

**GENERAL RULES**

Rule 1. Whenever you have a question about the status of a compound, check *Webster’s Tenth New Collegiate Dictionary* and *Webster’s 3rd New International Dictionary* and follow the style established. If the compound is not in either dictionary, follow the appropriate rule.

Rule 2. Noun or adjective modifier + noun: As a noun compound (subject or object), leave open; as a unit modifier, hyphenate *only* if misreading is likely.

Common examples in our work (see also table 2):

- adaptive use
- air quality
- case study
- coastal zone
- cooperative agreement
- cooperative management
- day visit(or)
- day use
- flood control
- food service
- land classification
- land protection
- land use
- law enforcement
- mass transit
- middle range
- multiple use
- open space
- public use
- recreation vehicle
- resource management
- special use
- visitor use
- water quality

Examples of cases where hyphens are (and are not) necessary in noun (adjective) + noun unit modifiers are shown in *Chicago* 6.38–42. However, try whenever possible to conform to an “open compound” style, and use discretion in adding hyphens. If the compound appears only once in a document, try to rephrase the sentence to avoid it; if it is used throughout, be sure to record the hyphenated compound on your style sheet and be consistent.

There may be rare cases where the compound itself is modified, and a hyphen is required in the compound to clarify the meaning of the phrase (e.g., a policy of open land use — does this phrase mean use of open land or open use of land?). Be careful not to change the meaning of such compounds by putting the hyphen in the wrong place. Also, if hyphenated compounds like open land-use are visually distracting, rephrase the sentence to avoid them. *Words into Type*, pp. 229–30, contains other examples of this form.
A few noun (adjective) + noun compounds have been made solid or hyphenated as a house style (see table 2). The dictionaries contain others that have become accepted permanent compounds in one form or another (large-scale, long-term, one-way, open-air — as adjectives). Always check the lists and the dictionary before making decisions about compounding.

Rule 3. Noun + verbal:

b. Noun + present participle (adjective form): hyphenate as unit modifier, generally leave open as predicate adjective.
c. Noun + past participle (adjective form): hyphenate as unit modifier, generally leave open as predicate adjective.

Examples:
Cost sharing [noun + gerund used as the subject] will be discussed at the meeting.
The agreement will provide for cost sharing [noun + gerund used as an object].
Cost-sharing [adjective or unit modifier] arrangements will be included in the proposal.
Dust-producing [adjective or unit modifier] activities will be minimized.
Rain machines will reduce the effects of construction activities that are dust producing [predicate adjective].
Beach-related [unit modifier] sports will be emphasized.
Plans emphasize sports that are beach related [predicate adjective].

This rule is amplified in Chicago, table 6.1. Common examples in our work (see also table 2):

<table>
<thead>
<tr>
<th>Gerund/present participle</th>
<th>Past participle</th>
</tr>
</thead>
<tbody>
<tr>
<td>land managing</td>
<td>concession operated</td>
</tr>
<tr>
<td>management zoning</td>
<td>park related</td>
</tr>
<tr>
<td>master planning</td>
<td>water oriented</td>
</tr>
</tbody>
</table>

Check the dictionary for possible permanent compounds or words that are always hyphenated, e.g., timesharing, bookkeeping, air-conditioning, time-consuming.

Rule 4. Noun + adjective: Generally hyphenate in all positions; check dictionaries for possible solid compounds. This is a house style rule not covered in Chicago.

Examples:
cost-effective (dictionary)
transit-dependent
flood-prone
Transit-dependent people will not be adequately served.
The park is unlikely to serve people who are transit-dependent.

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Rule 5. Adjective + noun to which -d or -ed has been added: Generally hyphenate in all positions; check dictionaries for permanent compounds, and see *Words into Type*, p. 234, for other examples.

Examples:

- blue-eyed
- dim-witted
- old-fashioned
- open-ended
- life-sized
- all permanent

If the first part of the compound carries an adverb modifier, omit the hyphen (fine-grained sugar, but extra fine-grained sugar).

Rule 6. Adverb + adjective or participle: Check dictionaries for possible solid compounds; otherwise, hyphenate as a unit modifier (unless the expression carries a modifier), generally leave open as a predicate adjective. See *Chicago*, p. 221.

Examples:

- It is a well-organized program.
- The program is well organized.
- He is heavyhearted [permanent form].

If the adverb ends in -ly or the modifier could not be misread, leave open (equally effective proposals, less severe climates).

Common adverbs used in this form:

- above, fast, less(er), much, slow
- below, full, light, narrow, small
- better, heavy, little, near, so
- best, high, long, off, up
- close, ill, low, on, well
- deep, in, medium, out, wide
- direct, large, middle, quick, worse
- down, least, more, right, worst
- far, left, most, short

Rule 7. Verb + preposition or adverb: Leave open as a verb; hyphenate or close up as a noun or an adjective or unit modifier.

Examples:

- check in (v.) set back (v.) take out (v.) cleanup (n., u.m.)
- check-in (u.m.) setback (n.) takeout (n., u.m.) clean up (v.i.)

Table 2 contains examples common in our work; *Words into Type*, pp. 230–1, contains other examples.
OTHER RULES AND GUIDELINES

An -ly adverb + adjective or participle: Leave open in all forms (see Chicago, p. 221).

Example: highly developed area

Number + century: Leave open in all forms.

Example: 19th century mansion

Other cardinal numbers + units of measurement: Hyphenate as unit modifiers only.

Examples: 10-mile limit, but a limit of 10 miles
11-inch margin, but a margin of 11 inches

For numbers with $ and ¢, leave open in all forms (see Words into Type, pp. 231–2, for other examples).

Examples: a $5 bill, a 72¢ purchase

Fractions under one: Hyphenate (see Chicago, p. 223).

Examples: a one-third interest
only one-third of the total

Colors (combined): Color-term compounds in which one term modifies the other are open unless they constitute a hyphenated element in an established term. If the color terms are of equal importance in the compound and do not denote a blend of colors, the compound is hyphenated before a noun and open after a noun (see Chicago, p. 222).

Examples: bluish green paint
waters that are bluish green
gray blue sky
coal black wall
black-and-white print
The print was black and white

 forums, red-green colorblindness (established term)

Proper noun or adjective: Leave open in most forms (see Chicago, p. 224).

Examples: North American countries
Civil War era
African-American family
Afro-American scholar
Austro-Hungarian
When a combining prefix precedes a proper noun or adjective, add a hyphen.

Examples: un-American, non-Indian
(Note that an en dash is used when the second element consists of a proper noun of more than one word: pre–Civil War era.)

Form dependent on position or meaning: see *Words into Type*, pp. 227, 229.

Examples: ballfield (house style), but baseball field
schoolboy, but high-school boy
Anyone may go.
but Any one of them may go.

For all of the following, check *Chicago*, table 6.1.

- suspended compounds (iron- or steel-plated, steel-plated or -sided, overused and underused)
- phrases (less-than-fee purchase or fee-simple purchase, but purchased in less than fee)
- kindred (grandfather)
- two nouns of equal value (city-state)
- noun and possessive (bird’s-eye view)
- chemical compounds (carbon dioxide concentration)

**Mid:** Use a hyphen with *mid* when it is followed by a proper noun or a number, e.g., mid-18th century or mid-19th century building, mid- and late-19th century, or mid-August.

**Double modifiers:** State-owned and -maintained; “federal or state-listed species” is awkward — change to something else such as “species that are listed by state and federal agencies.”

**VEGETATION COMMUNITIES**

Mixed forest type designations are linked by a forward slash (/) instead of a hyphen (-).

Spruce-fir suggests that one tree has characteristics of both the spruce and the fir; spruce/fir indicates two separate tree types.

- spruce/fir forest
- riverbottom cypress/tupelo/sweetgum
- oak/hickory forest

Other designations are spelled out:

- northeast hardwood forest
- short grassland
- creosote bush shrubland

Be careful not to confuse forest types that are hyphenated in text (spruce-fir would be changed to spruce/fir) with specific plants that have hyphenated names, such as Douglas-fir, Joshua-tree, and Alaska-cedar.
### Table 2: Guide to Compounding

Words followed by an indented list may be used as either a solid or hyphenated compound; a dash preceding a word indicates that word is used as the last part of a compound. Abbreviations: adv — adverb, n — noun, u.m. — unit modifier (adjective), p.a. — predicate adjective, v — verb, * — dictionary (Merriam Webster’s Collegiate Dictionary, 10th ed.), † — verb forms are open (e.g., A hazardous waste cleanup was required, but the maintenance staff was asked to clean up the site). Also check the dictionary for lists of compounds of several prefixes (co-, counter-, hyper-, inter-, mis-, multi-, non-, out-, over-, post-, pre-, re-, self-, sub-, super-, ultra, un-).

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Example Words</th>
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<td>runabout (n.), but run about (v) †</td>
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<tr>
<td>-American</td>
<td>-American African-American Chinese-American Euro-American Japanese-American</td>
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<tr>
<td>anti</td>
<td>antiwar †</td>
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<td>around</td>
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Table 2: Guide to Compounding

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### Compound Words

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parkland ♦ (as a descriptive term, *but*
park land for land
belonging to a park)
park related (p. a.)
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CONTENTS

TEXT ENTRIES

The example table of contents (simply titled "Contents") is for a document ready to be printed for public distribution; tables of contents for all draft review copies are generated through the standard word-processing feature, which means that headings will appear as they do in the text (that is, in full caps or in caps and lowercase). Page numbers follow the heading entries (four spaces between entry and page number).

Chapter titles should be similar in tone. Each title should give a reasonable clue to what is in the chapter. Relatively short titles are preferable to long ones, both for appearance on the page and for use in running heads. Chapter titles for EAs and EISs follow the guidance in NPS-2 and NPS-12.

In determining the level of headings to be included in the contents, consider the importance of the lower level material to the document’s subject and whether sections are cross-referenced in the text. Some topics may need level 3 headings to be listed, and other topics may not; that is permissible as a house style. (Normally, the table of contents lists the titles of all sections of the book; Chicago 1.40–2).

The levels of marking correspond with the heading levels (see “Headings,” page 63). Heads on divider pages, as well as chapter titles, are marked as a level 1 heading; however, in the table of contents divider page headings are centered and in boldface, while chapter headings are flush left and in a normal typeface. In WordPerfect make sure the marking codes are placed inside the bold codes so that the contents entries do not appear in boldface (although you may include boldface codes and centering codes within the mark text codes for headings on divider pages).

For the contents in documents going to the public, put all headings in caps and lowercase; center and bold the part (divider page) titles. Set tabs at every 0.3” (and reset to standard setting at the end of the contents). Number the parts if needed (see second example).

LISTS OF ILLUSTRATIONS AND TABLES

If short enough, the lists of illustrations and tables (or maps, figures, and tables) may be placed on the same page, immediately following the contents. There should be three hard returns (two blank lines) between the end of each list and the next heading.

Table and figure titles may be shortened in the contents list.

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COVERS

OUTSIDE FRONT COVER

For all documents the outside front cover includes the document name, park name, specific area name (if any), and park type and state (see the following examples). The font type matches the type used in the text. The cover design may include a photograph or drawing (vertical or horizontal), a logo, or no artwork. The park name may be printed in color to match the artwork; all other type is in black. If the site is a world heritage site, this logo is incorporated into the front cover design. If the document is a draft, the word draft goes on the cover.

INSIDE FRONT COVER

The inside front cover contains the required approval blocks (for approved plans and reports only) and the recycled paper logo. See “Approval Blocks” for examples of required information. The recycle logo should be centered 0.6” from the bottom of the page.
INSIDE BACK COVER

The inside back cover displays the USDI and NPS logos, the departmental paragraph, and the document identification number, which is obtained from the DSC Technical Information Center when the document is ready for printing for public review (after all internal reviews have been completed).

Generally the date next to the NPS number is the date the document is released to the public. This date should correspond with the date on the title page for plans (see also "Title Pages").

OUTSIDE BACK COVER

On the outside back cover is the following identification in 10-point type, centered, and 0.6" from the bottom of the page.

United States Department of the Interior • National Park Service
As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.
(Example outside back cover)
EDITING

The editorial function consists of two processes: mechanical editing and substantive editing.

- Mechanical editing is concerned with the mechanics of written communication. This process involves a close reading of the manuscript with an eye to such matters as consistency of capitalization, spelling, and hyphenation; agreement of verbs and subjects, and other matters of syntax; punctuation; beginning and ending quotation marks and parentheses; number of ellipsis points; numbers given as numerals or spelled out; and many similar details of style, as shown in this reference manual.

- Substantive editing involves rewriting, reorganizing, or suggesting other ways to present material. Since every manuscript is unique in the amount and kind of substantive editing desirable, no rules can be devised for the editor to follow.

Steps for editing and preparing a document for printing consist of the following:

1.Mechanically editing the text, and noting where sections are rough and need to be substantively edited.
2. Substantively editing the text.
3. Proofreading — This is a final check for consistency, accuracy, and clarity. Because of time constraints, this step is usually done just before the document is ready for printing for public distribution. Ideally, two people proof the text (one person reads the text, as the other person follows a printed copy). If time and budget constraints do not allow text to be double proofed, a second editor should read titles and introductory sections (e.g., on an EIS this individual would check the table of contents against the text; read the abstract, the summary, purpose and need, and possibly introductions to other major sections).
4. Final check — The primary editor, as well as a second editor with a fresh eye, should check the camera-ready text for the consistency of layout and headers, pagination, and the accuracy of end-of-line hyphenation to ensure that there are no hyphenated words at the end of a page (a hyphenated word from a left-hand page immediately to a right-hand page, with no intervening material, is acceptable).
5. Printer’s (blue-line) proof — Generally, visual information specialists and editors have only 24 hours to check a printer’s proof (the short turn-around is required because at this point in the process the printer has already scheduled press time, and any delays permit the printer to adjust the delivery date and/or add a surcharge). Editors should check pagination, spelling on display pages and titles, the contents, and the placement of maps and other graphics for accuracy. While this is the last chance to correct obvious mistakes, changes must be minimized to avoid delaying the project and incurring additional costs. If the text has been checked as outlined above, no pages should have to be reshot.

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ELECTRONIC FILES

When naming electronic files, use names that will be meaningful to others who may be searching for a particular section or who may be compiling numerous files. That is, do not use the name of the park and numbers [GRCA1, GRCA2]; if several people are working on the different sections of the same document and use the same type of naming system, it is impossible to locate specific files without searching each one. Create a discrete subdirectory or folder for each park so that you do not have to use letters to identify the park in the file name. You may wish to use the three-letter extension to identify the original author or the editor. Start with the document name followed by the specific section. For example,

Subdirectory or folder: GRCA
- eis_ae.kl EIS, affected environment; Karen Lusby, author
- eis_alt1.sss EIS, alternative 1; Sandy Schuster, editor
- eisvegim EIS, vegetation impacts
- gmp_intr general management plan, introduction
- clr_inv cultural landscape report inventory

When the document is archived (that is, copied to a network drive or a CD-ROM), use the three-letter extension to identify the software used to format the final document:

CD-ROM, floppy disk — label with park name; for network drive — use park name as subdirectory or folder: GRCA
- eis_pn.wp5 EIS, purpose and need; formatted in WordPerfect 5.1
- gmp_app.wp6 EIS, appendixes; formatted in WordPerfect 6.1
- mp_dcp.wd6 Mather Point DCP; formatted in MS Word 6
- hsr_ovlk.wpv historic structure report, Overlook Hotel; WordPerfect document formatted in Ventura

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EISs

"Alternatives, Including the Proposed Action" heading — Use the comma after "Alternatives." Generally, use the term "proposed action," not "preferred alternative." The term "preferred alternative" should be reserved for the agency's designation of a preferred alternative in the EIS, which may or may not be the proposed action.

Comment and Response Letters — Text for responses should be reduced (preferably to 9 or 10 point) to better match text size of the scanned comment letters.

Cumulative Impacts — The National Environmental Policy Act regulations of the Council on Environmental Quality define cumulative impacts as "the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions." If there are no cumulative impacts, do not list the topic. State up front that cumulative impacts will be discussed only when there are such impacts.

Cumulative impacts should be listed for each alternative, not just the proposed action. For a simple project, the cumulative impacts of an entire alternative could be listed; for larger, more complex projects each impact topic should discuss cumulative impacts. Cumulative impact analysis must include impacts of other plans and outside actions. That's what makes them cumulative. Cumulative impacts must consider both NPS and non-NPS actions (per Jake Hoogland, WASO).

Dates — Listing a date (month and year) on the title page for a draft or final EIS is permissible and should coincide with the date for the beginning of the review period. For a final EIS the abstract should state that the document is available for a 30-day (or longer) review and that the proposed action has not yet been approved. The issuance of a record of decision will signify the approval of the selected alternative.

Environmental Consequences (Impacts) — This section analyzes the effects of alternative actions on the environment, which are described by topic areas (e.g., impacts on threatened or endangered species, historic structures, or the local economic environment). It is not simply a restatement of the actions comprising the alternatives; the purpose is to objectively characterize and evaluate impacts resulting from specific actions, including the magnitude of that impact. The selection of impact topics is based on the identification of issues of concern to the public, as well as an objective analysis of how the environment will be affected.

The preference is to present impacts by alternative so the reader has a better understanding of the total effect of the alternative. Presenting impacts by topic (and describing the impacts of each alternative for that topic) requires the reader to go through all topic discussions before being able to understand the overall effect of an alternative. This is cumbersome for someone wanting to focus on the impacts of one alternative, and it is difficult to use the summary table of impacts for this purpose because it does not give the full impact analysis.
The impact discussion is to include any adverse environmental effects that cannot be avoided, the relationship between short-term uses of man’s environment and the maintenance and enhancement of long-term productivity, and any irreversible or irretrievable commitments of resources. These topics must be addressed for the proposed action, and they should be addressed for all alternatives because all alternatives are to be treated equally.

Discussions of sustainability are generally directed at engineering solutions (low-flush toilets, picnic tables built from recycled plastic). If sustainability is addressed for one alternative, it should be addressed for all.

**Index** — Place at the very end of the document (after the appendixes) so readers can easily find it. Do not index consultation and coordination, appendixes, or the summary sections. The index word list may be sent out for review, but it may not be cost-effective to generate and format the index until the document is ready for printing and public distribution.

**Mitigation or Mitigating Measures** — Include mitigation in the alternatives section or in a separate section at the end of the alternatives section. In the environmental consequences section, state that impacts have been assessed assuming implementation of mitigating measures.

**Preparers and Consultants** — Place at the end of the document, just before the index. The reason is so that this list is in the same location in all of our documents.

**Summary Tables** — The summary table of alternatives is followed by the summary table of impacts at the end of the alternatives section.

In tables, say “same as alternative 2,” but in the text briefly explain what is the same as a previous alternative.

**Volumes** — If two volumes are required (for example, when comments and responses are longer than 500 pages), the appendixes and index are included in the second volume.

**Will/Would** — *Will* (grammatically, the indicative mood) represents a definite action and implies that a decision has already been made; *would* (the subjunctive mood) represents an action as contingent or possible. In EISs use the subjunctive mood (would, could, might) when describing any proposed action or impact because the action is contingent on a final decision being made (and documented in the record of decision). Use the indicative mood (will, can, may) when describing facts. (Also see “Grammar,” page 59).

Do not change *would* to *will* in a final EIS because the plan is not final until a record of decision has been signed. This is based on advice from solicitors in the Department of Justice.
FONT STYLES AND SIZES

Standard documents are produced in either a serif style (e.g., Time New Roman) or sans serif (e.g., Arial). The font style for a document should be indicated on the graphics/editing project agreement form when work is submitted.

The following font sizes are recommended:

- Main body of the text — 11- or 12-point type; if the text is set in columns, and depending on type style, a slightly smaller font may be desirable.

- Back matter (from the appendixes on) — one point smaller than main text, including the U.S. Department of the Interior block and the document number.

- Footnotes — two points smaller than main text.

- Tables, figures — two points smaller than main text or smaller if necessary (depending on the information presented). Titles (or captions) are in large and small caps.

- Photo captions — two points smaller than main text.

If the text is set in a serif font, a sans serif font may be used for tables, figures, or other display type.
FOOTNOTES / ENDNOTES

Use a footnote or reference in the text when something might be questioned or to give credit for someone else's research. Footnotes or endnotes are most often used in history reports.

Individual file items are listed only in the note, not in the bibliography:

Footnote

Bibliography reference

In the text reference the number is superscripted. In the note the number and period are flush left, on the same line as the note, with text returning to the left margin (it does not hang). The font size for footnotes is two or three points smaller than the accompanying text.¹

Also see the chapter, “Bibliographic References and Notes.”

¹. Footnotes are set two or three points smaller than the text (this note is in 9 point, the text in 12 point, Times New Roman). When long enough, the text wraps back to the left margin. The number in the footnote is set flush on the line of text (not superscripted).
GRAMMAR

INDICATIVE AND SUBJUNCTIVE MOODS (WILL vs. WOULD)

The indicative mood is used for statements of objective fact, while the subjunctive mood is specifically used for expressing contingent or possible conditions.

The subjunctive mood is used in environmental impact statements where a range of alternatives is being considered as a range of hypothetical conditions. The subjunctive case includes the forms would, might, and could. The proposed actions, as well as the impacts, are stated in the subjunctive.

Proposed action: A parking lot for 450 vehicles would be built at Mather Point.

Impact analysis: Building a parking lot for 450 vehicles would affect 7.8 acres of sagebrush community and would result in a loss of habitat for rodents.

Maintain consistency of mood for all verbs (see Bernstein 431–2). In the following sentences, came is the subjunctive form of come, and were, the subjunctive form of are.

Constructing the visitor center would improve orientation and information for visitors who came (not come) to the park during the summer.

Housing for park employees would be constructed when the funds were (not are) provided.

Use the indicative mood only for statements of fact. If a final plan is prepared for public distribution after a record of decision or finding of no significant impact has been signed, then change the subjunctive form to the indicative.

A visitor center will be built at the Wellbrook site.

SPLIT INFINITIVES


Like parallel fifths in harmony, the split infinitive is the one fault that everybody has heard about and makes a great virtue of avoiding and reproving in others. Again like the musical bugbear, the split infinitive has its place in good composition. It should be used when it is expressive and well led up to. Long before Fowler’s defense of splitting, Shaw had delivered the controlling opinion: “Every good literary craftsman splits his infinitives when the sense demands it. I call for the immediate dismissal of the pedant on your staff [who chases split infinitives]. It is of no consequence whether he decides to go quickly or to quickly go.”

One fact has not been noted, or if noted, not made enough of: the temptation to split an infinitive is extremely rare in spoken English, because the voice supplies the stress needed by the unsplit form or conceals by a pause the awkwardness of the adverb placed before or after.
It is in written work that splitting is called for, and desk sets should include small hatchets of silver or gold for the purpose.


There is nothing wrong with splitting an infinitive. . . . The natural position for a modifier is before the word it modifies. Thus the natural position for an adverb modifying an infinitive should be just ahead of the infinitive and just after the *to* (usually designated the “sign of the infinitive”). . . .

Reasonable or unreasonable, the unsplit infinitive must be accepted as today’s norm; it is what readers as well as writers have been taught is correct. Stylistically there is sometimes much to be said for the unsplit infinitive, particularly if a long phrase intervenes between the *to* and the infinitive. . . .

Starting from the premise that the unsplit infinitive is the current norm, let us examine when it is preferable to depart from it:

1. When avoiding the split infinitive produces ambiguity. “The Thanksgiving Day setback was sure to defer further American hopes of keeping pace with the Soviet Union in lunar exploration.” Does “further” modify “defer” or “hopes”? All would be clear if it read “to further defer.”

2. When avoiding the split infinitive is almost impossible. “Rumania’s Communist rulers expect the nation’s industrial output to more than double in the next five years.”

3. When avoiding the split infinitive produces clumsiness or artificiality. . . . “The Premier proceeded to admonish sharply the ten die-hard Opposition speakers.” A reader can only wonder why “sharply” is in that position. . . .

When an infinitive contains an auxiliary — a part of the verb *to be* or *to have* — even the most hair-splitting anti-infinitive-splitter does not contend that an adverb cannot stand before the main verb. Complete sanction is given to such a construction as “His aim in life was to be constantly improving.” . . .

The issue of the split infinitive has been undergoing a gradual change. It may well be that fifty years from now the taboo will be dead. But for the present the careful writer will in general observe it and when necessary disregard it.

**PLACEMENT OF ADVERBS**

Follett, *Modern American Usage*:

Where to put the adverb in the sentence is . . . a new question: until a few decades ago instinct about rhythms of the mother tongue served instead of principles. Now explicit ones are needed to fill the place of instinct. The chief ones are these: (a) An adverb intended to be emphatic goes before the subject (*Unfortunately he could not foresee this consequence*). (b) An adverb not required for emphasis comes after the subject of a simple verb (*The Smiths generally dine with us once a week*). (c) With a compound verb — that is one made with an auxiliary and a main verb — the adverb comes between auxiliary and main verb (*He will probably telephone before starting / I have often had that thought myself / The clock is consistently losing five minutes a day*). (d) If the verb is compounded with two or more
auxiliaries, the adverb comes after the first auxiliary when its force is to apply to the whole compound (They have certainly been forewarned / He will undoubtedly have had some news by this time). (e) If the adverb modifies the participle alone it comes immediately before the participle (It has been confidently asserted / It will have become firmly established). (f) An adverbial element that runs to several words is put outside a compound verb — ordinarily after it (He has been asked over and over again / We have been hearing this particular argument off and on for several years past.)

Bernstein, The Careful Writer:

The fear of allowing an adverb to come between the parts of an infinitive often, though not always, has a reasonable foundation. But some writers, blinded by the split-infinitive obsession, seem determined not to split anything except hairs. Thus, they will not permit an adverb to divide elements of a compound verb. There is no reasonable foundation for this attitude. The truth is that more often than not the proper and natural place for an adverb is between the parts of a compound verb. Here is an improper and unnatural placement: “If the period of the truce were used by the enemy to build up bases, the Allied advantage largely would disappear.” The proper and natural form is “would largely disappear.”
Headers should be used for all documents 25 pages or longer.

Headers (also known as running heads) must be used consistently throughout the text; however, they should not appear on divider pages or the first page of the summary, table of contents, chapters, appendixes, etc. Headers and footers should be two or three points smaller than the main text; the font size is consistent throughout the text and appendixes. Place the header at 0.75”; the first line of text is at 1.1”. (In WordPerfect setting the top margin at 0.78” will place the first line of text at 1.1”. ) See the example text pages (pages 89 through 93).

If divider pages are used in a document, use the part (divider) title in the header on the left-hand page. If there are no divider pages, use the chapter title on the left-hand page, and the level 2 heading on the right-hand page. If there are two or more level 2 headings on an even-odd spread, use the last heading for the right header.

<table>
<thead>
<tr>
<th>HEADER EXAMPLES</th>
<th>LEFT-HAND PAGE</th>
<th>RIGHT-HAND PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front Matter:</td>
<td>SUMMARY</td>
<td>Summary</td>
</tr>
<tr>
<td></td>
<td>CONTENTS</td>
<td>Contents</td>
</tr>
<tr>
<td>Text:</td>
<td>PART TITLE</td>
<td>Chapter Title</td>
</tr>
<tr>
<td></td>
<td>CHAPTER TITLE</td>
<td>Level 2 Heading</td>
</tr>
<tr>
<td></td>
<td>AFFECTED ENVIRONMENT</td>
<td>Natural Resources</td>
</tr>
<tr>
<td></td>
<td>APPENDIXES</td>
<td>Appendix A: Legislation</td>
</tr>
<tr>
<td></td>
<td>BIBLIOGRAPHY</td>
<td>Bibliography</td>
</tr>
<tr>
<td></td>
<td>INDEX</td>
<td>Index</td>
</tr>
</tbody>
</table>

For documents with no divider page for the appendix, use “appendix” for the left-page header. If there is a divider page for “Appendixes, Bibliography, and Preparers,” the even-page header for the appendixes should just say APPENDIXES, not APPENDIXES, BIBLIOGRAPHY, AND PREPARERS.
HEADINGS

Headings reflect the organization of the document, and they correspond directly with the outline for the report.

The standard heading format used at the Denver Service Center provides five levels of headings — generally enough to separate and distinguish the material in a section. Other formats may be used in special circumstances, as identified when the document is submitted to the branch. It is essential that heading styles be consistent throughout the text so that the reader is not mislead about the organization of the document. The following headings are illustrated on the sample text pages (see pages 89 through 93):

LEVEL 1: CENTERED, FULL CAPS, BOLD

Text or level 2 heading starts after 3 hard returns (2 blank lines).

LEVEL 2: FLUSH LEFT, FULL CAPS, BOLD*

Text starts here. (At end of section three hard returns [two blank lines] before a level 2 or level 3 heading.)

Level 3: Flush Left, Caps and Lowercase, Bold

Text starts here. (At the end of the section use three hard returns [two blank lines] before a level 2 or 3 heading or two hard returns [one blank line] before a level 4 heading.)

Level 4: Flush Left, Caps and Lowercase, Bold, Period. Text is run-on. (At the end of the section use two hard returns [one blank line] before another level 4 heading or a level 5 heading, or three hard returns [two blank lines] before a level 2 or 3 heading.) On level 4 headings, the period is also bold.

Level 5 (if needed): Italics, lowercase, with em dash — Text is run-on. If it is helpful, the text may be block indented. (Same spacing as for level 4 heading.)

* When a level 2 heading is immediately followed by a level 3 heading, or a level 3 heading is immediately followed by a level 4 heading, the headings should be separated by one blank line (two hard returns instead of three).
Using larger type sizes for level 1 and 2 headings is optional, as long as consistency is maintained throughout the document. Using heading styles in word processing software programs is one way to ensure that headings are consistent; the styles can also be edited to change the appearance of headings.

Avoid using more than five levels of headings; if it is essential, discuss the format of the level 6 heading with the editing staff.

Headings for levels 2 and 3 that are more than one line should be flush left, and hard returns should be used to make the lines relatively even (ragged right instead of justified). For example, in two columns

change
CHEROKEE RELATIONS WITH THE U.S. GOVERNMENT

to
CHEROKEE RELATIONS WITH THE U.S. GOVERNMENT
LISTS

Generally prepare lists indented left, and use a lowercase style (no caps, no lead or end punctuation); use caps, colon, and periods only when the list contains sentences. When a list contains sentence fragments, only a few of which are followed by explanatory sentences, put the sentences in parentheses behind the lowercased sentence fragments, or use an em dash.

Examples of List Styles

Declarative sentences — caps, periods, colon (or period) for introductory sentence:

When Congress enacted title V of Public Law 96-550, the mandates it placed on planning and management were based on the following premises:

Public knowledge of and interest in the Chacoan system has increased greatly in recent years.

The San Juan Basin is currently undergoing changes related to a variety of energy exploration and development activities.

Imperative sentences — same (these include management objectives):

Priorities for phasing construction activities will be as follows:

Rehabilitate the Metcalf Bottoms bridge.

Construct a new picnic area and trailhead in Wears Valley.

Phrases following a complete sentence (example 1) — lowercase, no periods, colon after the introductory sentence or no punctuation:

Although somewhat subjective, these scores were assigned based on several factors:

the uniqueness or singularity of a site

the volume of archeological deposits at a site

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Phrases following a complete sentence (example 2, with an intervening sentence) — same as 1:

Chacoan outliers are distinguished by one or more of the following characteristics (any outlier that has these characteristics can be considered for designation as an archeological protection site):

- presence of one or more Chacoan structures
- presence of archeological features indicating the existence of a Chacoan community

Run-on clauses or phrases — lowercase, no periods, open introductory clause or phrase:

Before approval of surface-disturbing actions, the administering agency will ensure that any proposed decision is consistent with the policies set forth above advise the management group of the proposed actions and allow 10 working days for written comment

The Park Service will preserve and protect natural and cultural resources by monitoring and mitigating external threats to resource integrity monitoring the effects of visitor activities and backcountry use

Items following a complete sentence — lowercase, no periods, colon following the introductory sentence:

The following partial list of topics suggests the range of interpretive themes to be presented:

- regional cultural system
- prehistoric roads and water systems
- Chacoan outliers
- settlement patterns

Run-on items (example 1) — lowercase, no periods, no punctuation following the introduction:

High-priority theme topics for this specialized library include

- Chacoan outliers/prehistoric roads
development complex/evolution of the Chacoan culture
- Fajada Butte/solstice marker
Run-on items (example 2, with additional material) — same as 1:

The minimum requirements of the New York facility are

a sheltered ticket-dispensing area — at least four boat ticket windows, with a secure
dispensing areas and an office/cash room

a sheltered ticket holders’ line for the boats — room to line up two partially full boat
loads (about 700 people) during inclement weather; in good weather, when the boats
would be full, shelter would not be needed for all visitors

When two lists relate and are close together in the document, it is preferable to put them in the
same form.
MARGINS

For standard documents, left and right margins are 1.1", the top and bottom margins are 1.1" and 0.6". These margin settings will allow sufficient room for binding and microfilming text. On pages with large tables (such as a summary of alternatives) it may be necessary to use smaller margins to get the text to fit; however, do not allow less than 0.75" on the binding edge.

If headers are used, the top margin should be 0.75" (0.78" in WordPerfect).

The gutter for documents in two columns should be 0.3".
NUMBER STYLE

DSC editors follow a newspaper style for numbers — numbers from one through nine are written out, numbers above nine are expressed as numerals (see Chicago, 8.3, footnote 1). However, the house style is to use numbers in text with symbols and for physical quantities and measures.

Measure
(use numerals in all cases)

- abbreviations (3 mi, 30 min, 4 hr, 6 sec)
- area (9 acres)
- decimals (0.75, 3.2)
- degrees (10° F)
- distance (47 miles)
- fractions over one (1-1/2, 2-3/4)
- latitude/longitude (lat. 40°20'N/long. 24°15'30"W, 49th parallel)
- length (35 feet, 6 inches)
- money ($3, $6.75, $9.5 million, 75¢, £45 19s. 6d.)
- page numbers in text references (page 4)
- percentages (12%)'
- symbols (3", 9' × 18', 12%, 10° C, $2.15)
- time of day (5 A.M., 11:15 P.M., but midnight, noon)
- volume (40 cubic centimeters)
- weight (18 pounds)

Count
(use under–10 rule)

- age (five-year-old child, 56-year-old man)
- buildings, rooms
- fractions under one (one-third; except with a measurement, e.g., 0.75 acre; a fraction less than one takes a singular verb)
- ordinals (fourth day, 20th century; except with a measurement)
- people
- sites
- time²
- seconds (four seconds, 35 seconds)
- minutes
- hours
- days
- weeks
- months
- years
- decades
- centuries

1. Use symbols, even in running text — house style.
2. Whenever time is expressed with an abbreviation, use a numeral.

OTHER RULES

Treat like items consistently within a paragraph (that is, if you use a number for one category, use a number for all items in that category). For example, There are 12 species of birds and 3 species of reptiles in the park, according to a survey conducted two years ago.

Use symbols and numerals for money because they are easier for the reader to recognize.

Spell out numbers that begin sentences (or rephrase to avoid beginning with a number).

For round numbers over a million, use figures and units (3.2 million, $5 million).
OTHER EXAMPLES

English vs. decimal style: Use decimal style as much as possible — e.g., 0.3 acre, not 3/10ths of an acre.

2%-4% (use en dash); use symbol with each number.

10°F–50°F (no space between ° and F)

2½-story house and a 1-story garage (use numbers when fractions and whole numbers are used together)
a one-story house and a one-story garage (spell out when no fractions and no numbers over 10 are involved)

two- to five-car parking
2- to 4-foot board
two to four cars; 15–17 vehicles; 2–4 feet (use en dashes)

pages 35–7; pages 230–45 (use en dashes)

8′ × 11′ (use ×, not an “x”); use the symbol after each number, not 16 × 16′

8″ × 11″

8½- by 11-foot board (do not use the × when spelling out the quantity/dimension)

Fiscal years — FY 1997, FY 97/98, but FY 2000

Bridges and roads — Use long or high when describing bridges and other structures to avoid confusion, e.g., 130-foot-long (or 130'-long) bridge that is 45 feet high.

Decades — Following Chicago, use “the first decade of the 19th century” or “the years 1800–1809.” House style is to use “the 1810s” for the decade 1810–19. Do not use an apostrophe for decades: 1860s, not 1860’s.

No. and nos. — Delete the abbreviations no. and nos. from text references and caption titles (building no. 3, illustration no. 12).

Township/range/section — T25N, R15E, S3

Universal Transverse Mercator (UTM) Grid System — Used for mapping historic and archeological sites, as well as GIS applications:

Format: Zone Easting Northing

Z(2 digits)#E(6 digits)m#N(7 digits)m

Example: Z11 E273940m N4729031m

NOTE: Most UTM's are calculated in meters (m); occasionally, however, they are computed in feet. To avoid any confusion, use m after the easting and northing coordinates.
PAGE NUMBERS

All pages in a document are numbered, although the numbers do not appear on the title page, blank pages, maps, divider pages, or display pages in the printed copy. Recto (right-hand) pages always have odd numbers, and verso (left-hand) pages always have even numbers. The front matter (title page, epigraph, contents, list of illustrations, forward, preface) is numbered with lowercase roman numerals. The text is numbered with Arabic numerals; the first page of text may be 1 or 3, depending on whether there is a divider page. Page numbers remain the same size throughout the document. The title page, although not physically numbered, should be considered page i.

Fold-out maps are usually printed so they fold out to the right, and they are printed with a blank back (to reduce the cost of printing); therefore, allow two pages for each fold-out map — the front (an odd number) and a blank back (an even number). Map pages in the editor's draft will be replaced by the map itself in the printed copy; no page numbers appear on maps.

Page number locations for full-across text are on the bottom outside edge on alternating pages; for text in double columns, page numbers are at bottom center.
PLANNING TEAM / PREPARERS

The document preparers or the members of the planning team are listed at the end of the document (after appendixes), but just before the index. Do not use abbreviations / acronyms (e.g., SWRO, WASO, DSC) for the offices of planning team members; either spell out or list by office.
The general house style for punctuation is an open style — punctuate only when necessary to prevent misreading.

**Comma:** In a series of three or more elements, separate the elements with a comma so the sentence cannot be misunderstood. (Example: The alternatives consider actions to improve visitor use, to more effectively manage natural resources, and to streamline park operations.) Do not use commas after short, introductory prepositional phrases. For basic guidelines, consult *Chicago*, chapter 5, and *Words into Type*, pages 172–224.

Jr. — Harrison Ford (no comma) Jr. — *Chicago* no longer requires the comma before Jr.; but Martin Luther King, Jr., National Historic Site (legislated name).

**Colon:** Use a colon to mark a break in grammatical construction equivalent to a semicolon, but a colon emphasizes the content relationship between the separated elements. Also use a colon to introduce statements, quotations, or lists (*Chicago* 5.97–103).

**Dash:** Use an em dash (with spaces) for sudden breaks, abrupt changes, explanatory phrases, and other parenthetical sentence elements:

Scene restoration — restoring historic roads, farmhouses, and fields — would enhance visitor experiences.

Use em dashes in level-5 headings.

*Impacts on Street Vendors* — Local street vendors . . .

Use an en dash to indicate continuing or inclusive numbers:

*but* from 1968 to 1972 (*not* from 1968–72); between 1985 and 1990 (*not* between 1985–90)

Also use en dashes in compound adjectives where one element is two words:

post–Civil War period San Francisco–Los Angeles flight

See *Chicago* 5.105–17.

**Ellipsis Marks:** Three dots (with a space between each) indicate an omission within a quoted sentence or fragment of a sentence. If an entire sentence within a quotation is omitted, or if what remains is grammatically complete, use four ellipsis points: the first point serves as the
sentence punctuation, and the other three points denote the ellipsis. Do not use ellipsis points at the beginning or end of a quotation. See *Chicago* 10.48–61.

**Parentheses:** Use parentheses to set off amplifying, explanatory, or digressive elements. When Latin names for genus and species are shown in parentheses and italics, the parens are also italicized: *(Falco peregrinus).*

**Quotation Marks and Other Marks of Punctuation:**

- **Comma or period** — A period or comma is always placed inside the closing quotation mark, in conformance with the American style (see *Chicago* 5.11).

- **Semicolon** — A semicolon is placed outside the closing quotation mark.

- **Question Mark or Exclamation Point** — The placement of a question mark or exclamation point depends on the meaning of what is being quoted. If the quotation itself is a question or an exclamation, then the punctuation mark goes inside the closing quotation mark. However, if the entire sentence (including the quoted material) is a question or exclamation, then the punctuation is placed after the quotation mark.

**Slash:** Use a slash to show a connection or relation between two things, alternative choices, or certain compounds:

- human/bear encounters, *rather than* human-bear encounters, which could be construed as a compound element (a human that is also bear)

- aspen/fir forest

- A/E — architectural/engineering

- and/or — Avoid wherever possible.

- either/or

- FY 97/98
SHORT TITLES AND MODIFIERS

AGENCIES

Capitalize two-word short titles when they are descriptive of a single function or an organization (Park Service, Fish and Wildlife Service). Lowercase two-word short titles that could apply to a number of organizations (service center, regional office, advisory council, state historic preservation office/officer, steering committee, task force). Lowercase all one-word short titles (department, bureau, agency, service).

Advisory Council on Historic Preservation; the advisory council; use ACHP as modifier
U.S. Army Corps of Engineers; the Corps of Engineers (or the Corps if used often)
U.S. Navy, navy
National Register of Historic Places; the national register
National Park Service; the Park Service; use NPS as modifier.
United States Army; the army or the American army, the armed forces, but the Fifth Army
United States Coast Guard; the Coast Guard
United States Marine Corps, U.S. Marines; the marines
United States Signal Corps; the Signal Corps
U.S. Fish and Wildlife Service; Fish and Wildlife Service; use USFWS as modifier
U.S. Forest Service; the Forest Service; use USFS as modifier
U.S. Geological Survey; the Geological Survey; use USGS as modifier (note this goes under U.S. in the bibliography, not under G)

DOCUMENTS

Cape Cod National Seashore General Management Plan, the General Management Plan, the plan

Big Cypress National Preserve Final Environmental Impact Statement, the Final Environmental Impact Statement,

NPS Management Policies (not NPS Management Policies; NPS is not part of the title)
NPS-28: Cultural Resource Management Guideline (NPS-28 is part of the title)

National Parks for the 21st Century: The Vail Agenda but The Vail Agenda as a short title.

In notes when citing different books by the same author, shorten the title to its essential elements. For example, William Seale has written several publications dealing with the White House. The title The White House: The History of an American Idea could be shortened to White House for subsequent references.

2. If the actual title of the office is the State Historic Preservation Office, it would be capped; however, in many states this is not the case. State Historic Preservation Officer would be capped if used with the officer’s name (see “Capitalization” section).

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SPELLING AND WORD USE

SPELLING AND PLURALS

Generally follow *Webster's Third New International Dictionary* or *Webster's Tenth New Collegiate Dictionary* for spelling. If two spelling variations are given, the first is preferred.

The following spellings have been adopted as house style.

- aesthetic
- appendixes (*not* appendices)
- archeology, archeological
- commenter (*not* commentor or commentator)
- concessioner (*not* concessionaire)
- exceedance (air quality)
- indexes
- interpretive (*not* interpretative)
- memorandums (*not* memoranda)
- piñon (*not* piñyon)
- potsherd (*not* potshard)
- preventive (*not* preventative)
- volunteerism (*not* voluntarism).

WORD USE

affect/effect — Use *affect* only as a verb meaning “to produce an *effect* upon.” For example: Construction would affect 20.6 acres of pine/juniper forest. (*Affect* as a noun is only used in psychological contexts.)

Use *effect* as a noun meaning “something that inevitably follows an antecedent (as a cause)”; it is synonymous with *impact* in our work. As a verb *effect* means “to cause to come into being” or to accomplish. For example: The superintendent will effect these changes by June 1.

disburse/disperse — Use *disburse* as a verb meaning “to make payment; to pay out.” Use *disperse* as a verb meaning “to cause to become spread widely.”

elicit/illicit — Use *elicit* as a verb meaning “to call forth or draw out (as information or a response).” Do not confuse with *illicit*, which is an adjective meaning unlawful.

ensure/assure/insure — Use *ensure* as a verb when the meaning is to make certain something will happen: The plan will ensure the preservation of resources.
Use the synonym *insure* for providing or obtaining insurance: The national flood insurance program insures against loss.

Use *assure* to inform positively: I assure you it will be done.

handicapped people — change to people with disabilities
handicapped access — change to universal access, *but* handicapped parking is OK
handicap ramp — change to wheelchair ramp

historic/historical — *Historic* means important or memorable in history, as a historic structure, scene, area, site.

*Historical* means relating to history, as a historical park, architect, significance, character, novel, sign.

NOTE: In American English, the indefinite article should be *a* before a pronounced *h*: *a* historic(al), *not* *an* historic(al); see *Chicago* 6.60 for other examples.

impacts on, *not* impacts to

recreation/recreational — Use *recreation* when referring to facilities, as a recreation facility, resource, area, potential, trail.

Use *recreational* when referring to the experience or to an activity that is a form of recreation — recreational program, opportunity, driving, visits; also the dictionary defines recreational vehicle as "a vehicle designed for recreational use."

resource management, *not* resources management

sight impaired, *not* visually impaired; sight-impaired visitors

seasonal — as noun to refer to seasonal park employees is OK

Also see “Style,” page 80.
The spine of any document exceeding 75 pages includes the same information as the front cover; the spine of a history document (HRS, HSR, etc.) also includes the name of the author or authors (see sample spines). The use of bold on spines is optional. Point size is also optional down to 8-point.

One line —
Final General Management Plan / Environmental Impact Statement

Two lines —
Final General Management Plan
Environmental Impact Statement

Three lines —
Final
General Management Plan
Environmental Impact Statement
STYLE

Style applies to rules of uniformity in matters of punctuation, capitalization, word division, spelling, and other details of expression, many of which may vary according to custom. *House style* is the set of rules adopted by the editors at the Denver Service Center.

STYLE SHEET

In addition to the style guidelines presented in this reference manual, editors use a style sheet to track how words specific to a park are being treated in a publication. Style for park-specific terms should be consistent with previous documents edited by the Denver Service Center. (Editors: File a copy of your style sheet with the document in the archives.)

OTHER MATTERS OF STYLE

A.D. — “between A.D. 1150 and 1600,” not “between A.D. 1150 and A.D. 1600.”

Forest Types
- Mixed forest type designations are linked by a forward slash (/) instead of a hyphen (-):
  - spruce/fir forest
  - riverbottom cypress/tupelo/sweetgum
  - oak/hickory forest
  - pinyon/juniper forest

- Other forest designations are spelled out:
  - northeast hardwood forest
  - short grassland
  - creosote bush shrubland

On the national register (not in the register).

Resource management — not resources management

Section descriptions (township/range) — Use the following form:

Parcel 3 is in T25N, R15E, and contains most of the . . .

Slashes — For phrases joined by the slash, use spaces; otherwise, no spaces are needed
- General Management Plan / Environmental Assessment (plan/environment would look like it could be a unit)
- information/orientation
- visitor experience / resource protection

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Themes — Groups: Themes in text — quotes, caps/lowercase; subthemes — lowercase.

Theme: “European Colonial Exploration and Settlement”
Subtheme: Spanish exploration and settlement

The — Do not omit the before a noun followed by a prepositional phrase:

the management of visitor use (or managing visitor use); not management of visitor use
the protection of natural resources (or protecting natural resources); not protection of natural resources

See Follett, Modern American Usage; and Bernstein, The Careful Writer.

Trademarks and trade names — use the generic equivalent (see page 24).

Also see “Word Use,” page 76.

BOLD AND ITALICS FOR EMPHASIS

Avoid the overuse of bold and italics to emphasize text. If everything is in bold or italics, then nothing is being emphasized.
### Sample Style Sheet: President's Park
June 1997

<table>
<thead>
<tr>
<th>ABCD</th>
<th>EFGH</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Red Cross National Headquarters</td>
<td>East Executive Park</td>
</tr>
<tr>
<td>Blair House</td>
<td>East Wing</td>
</tr>
<tr>
<td>Corcoran Gallery of Art</td>
<td>Executive Residence</td>
</tr>
<tr>
<td>Daughters of the American Revolution Memorial</td>
<td>first family</td>
</tr>
<tr>
<td>Continental Hall (National Society of the)</td>
<td>gatehouse</td>
</tr>
<tr>
<td>Decatur House Museum</td>
<td>gatepost</td>
</tr>
<tr>
<td></td>
<td>ground floor</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IJKL</th>
<th>MNOP</th>
</tr>
</thead>
<tbody>
<tr>
<td>lamp post</td>
<td>National Mall, Mall</td>
</tr>
<tr>
<td></td>
<td>NationsBank</td>
</tr>
<tr>
<td></td>
<td>Monumental Core</td>
</tr>
<tr>
<td></td>
<td>National Courts Building</td>
</tr>
<tr>
<td></td>
<td>New Executive Office Building (NEOB)</td>
</tr>
<tr>
<td></td>
<td>Office of the President</td>
</tr>
<tr>
<td></td>
<td>Organization of American States Building (Pan-American Union)</td>
</tr>
<tr>
<td></td>
<td>Old Executive Office Building (OEOB)</td>
</tr>
<tr>
<td></td>
<td>Olmsted Brothers</td>
</tr>
<tr>
<td></td>
<td>portico, north portico, south portico</td>
</tr>
<tr>
<td></td>
<td>President's Park</td>
</tr>
<tr>
<td></td>
<td>president</td>
</tr>
<tr>
<td></td>
<td>presidential</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>QRST</th>
<th>UVWXYZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renwick Gallery</td>
<td>west colonnade</td>
</tr>
<tr>
<td>sate floor</td>
<td>West Wing</td>
</tr>
<tr>
<td>south portico</td>
<td>East and West Wings</td>
</tr>
<tr>
<td>Riggs National Bank</td>
<td></td>
</tr>
<tr>
<td>streetpost</td>
<td></td>
</tr>
<tr>
<td>Treasury Annex</td>
<td></td>
</tr>
<tr>
<td>Treasury Building</td>
<td></td>
</tr>
</tbody>
</table>
# TABLES

## GENERAL GUIDELINES

The structure and appearance of tables are decided by the editor, depending on the information presented. Generally, the use of lines is minimized to make the tables look as clean as possible, and tables are designed to have a uniform appearance throughout a document.

The editor, visual information technician, and requester consult in determining when tabular material should be converted to a chart or graph. If you have information that you want in chart or graph form, identify it when the document is submitted.

It may be desirable to use a different font for tables to further differentiate them from the text; for example, if the text is in a serif font, choose a sans-serif font for tables. The font size for tables should be two or three points smaller than the text, with the exact size depending on the amount of information in the table.

The table title should be in the same size type as the body of the table, centered over the table, boldface, and in large and small caps. There is a blank line between title and table. For example,

**TABLE 1: THREATENED OR ENDANGERED SPECIES**

[Table starts here]

Use a single line around tables, if needed. For example,

<table>
<thead>
<tr>
<th>change this</th>
<th>to this</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Table" /></td>
<td><img src="image" alt="Table" /></td>
</tr>
</tbody>
</table>

If the text is in columns and a table stretches across the columns, put the table at the top or bottom of the page. Do not put the table in the middle of the page with text above and below.

Observe column width for placing tables and graphics in the text. If text is being set full across the page, tables and figures should be set full; of course you can center that element with white space on either side, but avoid wrapping text. If the text is in columns, place the table within the column. If it must be set full, place it at the top or bottom of the page. If it is necessary to wrap text around a figure/table, consult with a visual information technician.
All graphic information must be treated consistently — with the same format and size (two bar graphs showing the same kind of information shouldn’t be of different sizes). All table and figure titles should be in the same point size.

A table with two columns of information should be centered under the caption:

**Change**

**TABLE 1: AVERAGE ANNUAL INCOMES**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>$8,645</td>
</tr>
<tr>
<td>1991</td>
<td>7,456</td>
</tr>
<tr>
<td>1992</td>
<td>5,993</td>
</tr>
</tbody>
</table>

**To**

**TABLE 1: AVERAGE ANNUAL INCOMES**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>$8,645</td>
</tr>
<tr>
<td>1991</td>
<td>7,456</td>
</tr>
<tr>
<td>1992</td>
<td>5,993</td>
</tr>
</tbody>
</table>

A table that goes more than one page need not have the table title repeated at the top of the second page.

**TABLE NUMBERS**

Number tables consecutively throughout the text. To differentiate tables in the appendix, designate them with the appendix letter and a number, for example, if cost tables are in appendix B, the specific tables would be designated “Table B-1: Estimated Costs, Proposed Action,” and “Table B-2: Estimated Costs, Alternative 2.”

**NOTES IN TABLES**

Most notes in tables will be footnotes, but headnotes can be useful to help the reader understand the table at the outset, as in defining abbreviations. Headnotes can be placed in brackets and generally begin with [NOTE:...] or [ABBREVIATIONS:...] (see example T-2).

Table notes generally should be one point size smaller than the body of the table. However, if the table type is as small as 8 points, it may be better to use 7.5-point type for the notes. Also consider the complexity of the note: three or four words in very small type are easier to read than two paragraphs in the same type size.
**Order of Notes.** *Source* notes precede other footnotes, followed by *general notes*, which pertain to the whole table, followed by *specific notes*. A table title should never be footnoted; any such note that applies to the whole table is treated as a general note (see an example of a general note below). Each specific note is preceded by a number or letter that matches the key in the body of the table. If the table consists of words, numbers are easier to recognize as a footnote key; if the table is numbers, letters are easier to recognize as a key (also, ² or ³ with a number could be read as part of the number instead of as a footnote). In the body of the table the key is superscripted, but in the note itself the number or letter, followed by a period and a tab, is placed on the same line as the text of the note. In tables, use a hanging indent for notes longer than one line. It may be necessary to reset the tabs within the table to align footnotes the way you want them.

**Placement of Notes.** In a multipage table, source notes and general notes should be placed at the bottom of the first page; specific notes may be placed at the bottom of the last page or on each page they apply to. All table notes should be within the table box.

Examples of footnotes are shown below. See examples T1–T3 for additional examples of footnotes on complete tables.

**NOTE:** The above acreages are estimates based on the best available information. They are intended to give the reader a concept of the area involved. Some acreages may overlap.  
a. Crucial winter range.  
b. Wildlife population status.  
c. Includes known habitat and areas believed to be habitat for sage grouse and sharp-tailed grouse. Does not include isolated nesting areas.

**Example T-1: Table with Footnotes**

<table>
<thead>
<tr>
<th>Type of Contact/Specific Event</th>
<th>Date</th>
<th>Location</th>
<th>Estimated Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scoping</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public meeting</td>
<td>11/28/90</td>
<td>Glen Jean</td>
<td>30</td>
</tr>
<tr>
<td>Public meeting</td>
<td>11/28/90</td>
<td>McCreery</td>
<td>70</td>
</tr>
<tr>
<td>Meeting with commercial rafters ¹</td>
<td>1/16/91</td>
<td>Glen Jean</td>
<td>4</td>
</tr>
<tr>
<td>Meeting with private boaters ²</td>
<td>1/17/91</td>
<td>Glen Jean</td>
<td>3</td>
</tr>
<tr>
<td>Review of alternatives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meeting with private boaters ²</td>
<td>7/8/91</td>
<td>Charleston</td>
<td>18</td>
</tr>
<tr>
<td>Meeting with commercial rafters ¹</td>
<td>7/10/91</td>
<td>Glen Jean</td>
<td>6</td>
</tr>
<tr>
<td>Public meeting</td>
<td>7/10/91</td>
<td>Glen Jean</td>
<td>35</td>
</tr>
<tr>
<td>Public meeting</td>
<td>7/11/91</td>
<td>McCreery</td>
<td>45</td>
</tr>
<tr>
<td>Review of draft document</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Written review solicited</td>
<td>4/20/93</td>
<td>All partici-pants</td>
<td>300+ copies</td>
</tr>
<tr>
<td></td>
<td>5/20/93</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹. Members of the West Virginia Professional Outfitters Association.  
². Members of the West Virginia Wildwater Association.
### Example T-2: Table with Headnote and Footnotes

#### Table T-2: Special Status Plant Species in and near Colonial National Historical Park

[STATUS CODES: FC1 = federal category 1 candidate species; FC2 = federal category 2 candidate species; FC3 = former federal candidate species; FLE = federally listed endangered; FLT = federally listed threatened; VC = Virginia, candidate species; VLE = state-listed as endangered; VRE = state-recommended as endangered; VRSC = state-recommended for special concern; VRSU = state-recommended for status undetermined; VSU = Virginia status uncertain. The following plant species are known to exist in Colonial National Historical Park.]

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Federal Status</th>
<th>State Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitive joint vetch</td>
<td><em>Aeschynomene virginica</em></td>
<td>FC2</td>
<td>VC</td>
</tr>
<tr>
<td>Lake-bank sedge</td>
<td><em>Carex lacustris</em></td>
<td>none</td>
<td>VRSC</td>
</tr>
<tr>
<td>a spurge</td>
<td><em>Euphorbia ammanoides</em></td>
<td>none</td>
<td>VRSC</td>
</tr>
<tr>
<td>Reed mannagrass</td>
<td><em>Glyceria grandis</em></td>
<td>none</td>
<td>VRSC</td>
</tr>
<tr>
<td>Loesel's twayblade</td>
<td><em>Liparis loeselii</em></td>
<td>none</td>
<td>VRSC</td>
</tr>
<tr>
<td>Southern twayblade</td>
<td><em>Listera australis</em></td>
<td>none</td>
<td>VRSC</td>
</tr>
<tr>
<td>Florida adder's-mouth</td>
<td><em>Malaxis spicata</em></td>
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<tr>
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<td><em>Ophioglossum vulgatum, var. psuedopodum</em></td>
<td>none</td>
<td>VRSC</td>
</tr>
<tr>
<td>Gaping panicum</td>
<td><em>Panicum hians</em></td>
<td>none</td>
<td>VRSC</td>
</tr>
<tr>
<td>Shadow-witch</td>
<td><em>Ponthieva racemosa</em></td>
<td>none</td>
<td>VRSC</td>
</tr>
<tr>
<td>Dwarf chinquapin oak</td>
<td><em>Quercus prinoides</em></td>
<td>none</td>
<td>VRSC</td>
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<tr>
<td>Drooping bulrush</td>
<td><em>Scirpus lineatus</em></td>
<td>none</td>
<td>VRSC</td>
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<tr>
<td>Sweet-scent ladies' tresses</td>
<td><em>Spiranthes odorata</em></td>
<td>none</td>
<td>VRSC</td>
</tr>
<tr>
<td>Mountain camellia</td>
<td><em>Stewartia ovata</em></td>
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<td>VRSC</td>
</tr>
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<td>none</td>
<td>VRSC</td>
</tr>
<tr>
<td>Virginia least trillium</td>
<td><em>Trillium pusillum, var. virginianum</em></td>
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<tr>
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<td>Fibrous bladderwort</td>
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</table>

**Source:** Data from Division of Natural Heritage, Commonwealth of Virginia.

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a. The U.S. Fish and Wildlife Service classifies as a "candidate species" any taxonomic group or species of plant or animal being considered for listing as either threatened or endangered under the Endangered Species Act of 1973, as amended. Category 1 refers to species or taxonomic groups for which the has on file substantial information on biological vulnerability and threat(s) to support the appropriateness of proposing to list them as endangered or threatened. Data are being gathered on category 1 species concerning precise habitat needs and, for some, the precise boundaries for critical habitat designation.

b. Category 2 refers to species or taxonomic groups for which information in possession of the FWS indicates that listing them as endangered or threatened is appropriate, but for which substantial data on biological vulnerability or threat(s) are not known or on file. Further research and field study usually will be necessary to ascertain the status of category 2 species: some will be found not to warrant listing; others will be found to be in greater danger of extinction than some in category 1.
### TABLE T-3: CHARACTERISTICS OF SAMPLING SITES (FISHES AND BENTHIC MACROINVERTEBRATES)
**WEST PRONG, LITTLE PIGEON RIVER DRAINAGE SYSTEM**

<table>
<thead>
<tr>
<th>SITE</th>
<th>MAXIMUM WIDTH (M)</th>
<th>MAXIMUM DEPTH (CM)</th>
<th>QUALITATIVE BENTHIC INVERTEBRATE COLLECTIONS</th>
<th>QUALITATIVE FISH COLLECTIONS</th>
<th>QUANTITATIVE FISH COLLECTIONS</th>
<th>SITE AFFECTED BY SILTATION</th>
<th>NUMBER OF EPT TAXA*</th>
<th>TOTAL NUMBER OF INVERTEBRATE TAXA</th>
<th>RATIO OF EPT TAXA TO TOTAL INVERTEBRATE TAXA</th>
<th>NUMBER OF ORTHOClad TAxA</th>
<th>TOTAL NUMBER OF CHIRONOMID TAXA</th>
<th>RATIO OF ORTHOCladinae TAXA TO CHIRONOMIDAE TAXA</th>
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<tr>
<td>CC-1</td>
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<td>15</td>
<td>X</td>
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<td></td>
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<td>57</td>
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<td>X</td>
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<td>X</td>
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<td>X</td>
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<td>3</td>
<td>7</td>
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<tr>
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<td>38</td>
<td>X</td>
<td></td>
<td></td>
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<td>36</td>
<td>63</td>
<td>0.57</td>
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<td>X</td>
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<td>93</td>
<td>0.28</td>
<td>6</td>
<td>20</td>
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</tr>
</tbody>
</table>

* EPT = Total number of Ephemeroptera, Plecoptera, and Trichoptera taxa.
TEXT PAGES — STANDARD DOCUMENTS

Standard documents are defined as documents that are prepared in a standard word-processing program (WordPerfect or MS Word) and in an 8.5" × 11" format. Standard documents include general management plans, development concept plans, environmental impact statements, environmental assessments, trail studies, wilderness studies, special resource studies, and history studies. Customized documents (that is, documents that are printed in a size other than 8.5" × 11" or with special layouts, designs, and custom artwork) may be requested, and should be documented in the project agreement, with additional allowances for time and cost.

The following pages illustrate standard layouts for text set full across the page as well as in double columns. All standard documents are prepared in an 8.5" × 11" format. The column width for double columns is 3" and the gutter is 0.3".

When text is set in columns, the columns on short pages at the ends of sections should be of equal length. If columns cannot be balanced, the left column is generally longer (an exception would be if a heading must be positioned at the top of the right column).

Justification style (ragged right versus full justification) and hyphenation are optional.
1.1" N\textsc{atural} En\textsc{vironment}

Voyageurs National Park lies within the forested lake country along Minnesota’s northern border with Ontario, Canada, and it is part of a relatively undisturbed ecosystem of 2.7 million acres that includes the 1.2-million-acre Boundary Waters Canoe Area Wilderness and the 1.1-million-acre Quetico Provincial Park. This region typifies the Canadian shield topography—a forested land that has been shaped by glaciation into rolling hills and a complex system of lakes and waterways. Voyageurs encompasses approximately 218,055 acres, of which 83,789 acres are water. Land elevations in the western and northern sections of the park are rarely more than 100 feet above the major lake elevations, while the eastern and southern sections are commonly 200 to 300 feet above the lake level.

1.1" \textsc{GEOLOGY}

Many of the geologic features of Voyageurs National Park are not evident in other national parks. The Voyageurs region contains the most complete and extensive Precambrian geologic features in the United States, and the glacial activity of the Pleistocene era is well-illustrated in the park’s surficial geology. This part of Minnesota is in the southern portion of the Superior province of the Canadian shield, a vast peneplain of Precambrian rocks that form the core of the North American continent.

Pleistocene glaciation formed most of the surficial features seen today. The most recent period of glaciation, the Wisconsin period, lasted from 50,000 to 10,000 B.C. and resulted in the exposure of the Precambrian formations and the deposition of unconsolidated morainal materials in the park. As the last glaciers receded, glacial Lake Agassiz remained, and as this vast lake receded, lakes, swamplands, and localized sedimentary deposits were formed.

Subsequent weathering and the establishment of vegetation have added a thin soil layer to many areas of the park. In the eastern portion bedrock is well exposed, particularly along the lake shorelines. In the western portion of the park and on the Kabetogama Peninsula, the bedrock is covered by soil, unconsolidated glacial materials, and swamplands.

A greenstone belt across the park’s northwestern corner has good potential for mineral deposits, including gold (U.S. Geological Survey, Day 1985). The greenstone belt, which extends into Canada, has been an important mineral source for Canadian operations for many years, where significant deposits of gold and copper have been mined.

The greenstone belt in Voyageurs was prospected and mined around the turn of the century. The Little American Gold Mine on Little American Island produced $4,600 worth of gold in 1894–95. Other prospecting also occurred in the area, but no active mining has occurred since the turn of the century.
SOILS

Soil development has basically occurred in the Voyageurs region over the last 20,000 years, since the last glacial retreat. Three types of parent material converge in the area: silt to clay lacustrine deposits from the west, calcareous glacial till from the south, and noncalcareous glacial till from the east.

Two broad soil groups occur in the region (Arneman 1963). One is the Cloquet–Taylor–rock outcrops group, which is composed of coarse to fine textured forest soils and rock outcrops and occurs on glacial till and disintegrating bedrock. It is generally confined to gently rolling to hilly upland areas and supports jack pine on gravelly soils and aspen on clayey soils. Rock outcrops make up about a fourth of the landscape. The other broad group is Indus–Taylor–peat, which consists of coarse to fine textured forest soils and organic soils. This group occurs on glacial till and lacustrine deposits on level to undulating surfaces. Indus is somewhat poorly drained; Taylor is moderately well drained. On poorly drained sites, accumulation of plant matter has resulted in the formation of peats. Indus and Taylor soils support good stands of aspen trees.

WATER RESOURCES

Voyageurs National Park lies within the 14,900-square-mile Rainy Lake watershed; this watershed is the headwaters of the Winnipeg River, which flows into Hudson Bay.

About 83,789 acres in Voyageurs National Park (38.4% of the total park area) are covered by lakes. Kabetogama Lake and those portions of Namakan, Sand Point, and Rainy lakes that lie within the park make up 96% of the water area, and the rest is comprised of 26 smaller, interior lakes (excluding beaver ponds). The normal pool elevation of Kabetogama, Namakan, and Sand Point lakes (collectively known as the Namakan Reservoir) is 1,118 feet above mean sea level. The normal pool elevation for Rainy Lake is 1,108 feet above mean sea level. Lowest water levels normally occur in March or April, and the highest levels during June or July.

The Boundary Waters Treaty of 1909 provides for water use and reservoir water levels to be regulated by an International Joint Commission, which has appointed the International Rainy Lake Board of Control to monitor Rainy and Namakan reservoirs. The water levels of Namakan, Kabetogama, Sand Point, and Rainy lakes are currently controlled by Boise Cascade dams at Kettle Falls and International Falls.

Sand Point, Namakan, and Rainy lakes lie along the eastern and northern boundaries of the park. They have abundant dissolved oxygen, are low in dissolved solids and alkalinity, and have a doubly mixed circulation system. The chemical characteristics of these lakes are similar to those of the Namakan River, which drains an extensive area of exposed bedrock and thin noncalcareous glacial drift east of the park.
Natural Environment

In contrast, Kabetogama Lake, along the western and southern boundaries of the park, is shallower and rich in dissolved nutrients. It has seasonally low dissolved oxygen, significantly higher dissolved solids and alkalinity, and a mixed circulation system. Kabetogama Lake is fed by two streams that drain an area west and south of the park that is overlain by thicker, calcareous glacial drift. Samples from one of these streams showed that concentrations of dissolved solids were approximately five times those of the Namakan River and total alkalinity about eight times higher. The nutrient enriched waters had high levels of algal productivity.

Waters in the large lakes and embayments meet nearly all U.S. Environmental Protection Agency criteria for the protection of freshwater aquatic life, recreation, and drinking water. Some sites did not meet all the criteria because of the presence of oil, grease, phenols, sulfides, ammonia, and at one site a low concentration of PCBs (USGS 1986).

A reconnaissance sampling of 19 small interior lakes found them to be sharply stratified and very low in dissolved solids and alkalinity. Thirteen of these lakes can be classified as moderately sensitive to acid precipitation, and two as extremely sensitive. Approximately half were characterized by very low nutrient concentrations and low levels of algal productivity.

Bedrock at or near the surface and a shallow soil layer limit the potential for groundwater. Groundwater aquifer yields of less than 5 gallons per minute from fractured bedrock zones may be obtained locally. However, the low incidence and random occurrence of suitable sites and the availability of high-quality surface water make the potential for groundwater development low.

CLIMATE

The regional climate is severe, characterized by extreme temperature fluctuations on an annual as well as a daily basis. Weather is predominantly influenced by polar air masses that are moderated by drier continental air masses. Winters are long and cold, with January mean temperatures ranging from 51 °F to -9° F. Winter temperatures frequently fall well below zero degrees for extended periods, and wind chill temperatures may be 60° to 70° below zero. The large lakes freeze-up by mid-December and usually remain frozen until mid April. Summers are typically warm and moist, with July mean temperatures ranging from 77° F to 53° F. Temperatures during the summer rarely exceed 90° F.

Average annual precipitation is about 28 inches, with approximately two-thirds falling as rain between May and September. Typical annual snowfall averages approximately 70 inches and usually covers the ground an average of 140 days, with the snowpack persisting from November or December to April. Snowfall accounts for 14%-20% of mean annual precipitation. Wind speeds average approximately 15 miles per hour during most months, but speeds ranging from 30 to 50 miles per hour are not uncommon, especially on the park's major lakes.
NATURAL RESOURCES

The Roanoke Valley lies between the Blue Ridge Mountains to the east and the Allegheny Mountains to the west. The area includes portions of Roanoke, Bedford, and Franklin counties. The principal cities are Roanoke, Vinton, and Salem.

The climate is temperate, and the area is fairly well sheltered from major storm systems. The normal mean temperature for the year is 55.9°F. Precipitation is distributed throughout the year. Normal annual rainfall is 39 inches, and snowfall 24 inches.

TOPOGRAPHY

The city of Roanoke and its associated outlying areas lie at the point where the southern Appalachians bend from a northeast orientation to a 6 north-northeast orientation. A complex tectonic history, involving several mountain-building episodes, is manifested in the region's geologic composition, structural features, and topography.

The study area includes a segment of the Roanoke River characterized by steeply sloped mountain ridges and knobs dissected by deeply incised stream channels. Low, flat areas associated with floodplains in the region are characteristically narrow. Several sloped terraces step down to the river. Ridges trend to the northeast.

Slopes along the river range from 2% where the Roanoke River leaves the city of Roanoke, to 45% 1,750 feet south of Niagara Dam. A complete survey of slopes within the corridor is included in the 1987 Reconnaissance Survey (NPS) and in the Explore Park Master Plan (Jones and Jones 1987a).

The most severe slopes are along a 1-mile segment on the north side of the river in the vicinity of Pine Mountain. Elevations range from 1,467 feet above sea level at the summit of Pine Mountain to approximately 780 feet at Hardy Ford Bridge (see the Geologic Features map).

PHYSIOGRAPHY AND GEOLOGY

Within the study area the Roanoke River flows through portions of three physiographic provinces — the Valley and Ridge, the Blue Ridge, and the Piedmont. These provinces lay northeast to southwest, and the river cuts a transverse water gap through the center of the Blue Ridge province.

The study area lies almost entirely within the Blue Ridge province. The northernmost portion is in the Valley and Ridge province, and the eastern portion (just above Smith Mountain Lake) is in the Piedmont, where the river has cut steep slopes into an otherwise gentle terrain.

The Valley and Ridge province is represented by the Rome formation. The unit consists of maroon, greenish-gray, phyllitic mudstone interbedded with light-gray, fine-grained sand and siltstone and a few lenses of conglomerate. Numerous limestone and dolomite beds, 10–50 feet thick, are found throughout the Rome formation.

The Blue Ridge province consists of Precambrian igneous and metamorphic rocks, including granites, gneisses, and quartzites. These units are generally coarse grained, with massive to faint foliation. Feldspar and garnet are predominant inclusions in the gneiss.
Surface Water

Floodplain Boundaries. The 100-year floodplain boundaries of the Roanoke River and its major tributaries within the study area have been delineated for the national flood insurance program by the Federal Emergency Management Agency and the U.S. Army Corps of Engineers.

Within the study area the 100-year floodplain of the Roanoke River has a maximum width of approximately 2,500 feet in the city of Roanoke. The floodplain is narrowest (average width 400 feet) where the river flows through the Blue Ridge (see the 100-Year Floodplain map). Peak discharge at the Niagara Dam monitoring station during a 100-year flood is estimated to be 39,000 cfs (U.S. Department of Housing and Urban Development [HUD] 1977).

The Roanoke River has had six major floods of record (see table 2). During the most severe flood on November 4 and 5, 1985, the discharges at Niagara, Tinker Creek, and Back Creek all exceeded the predicted 100-year flood discharges.

Severe flooding of the Roanoke River in 1985 and previous years prompted several studies of stormwater management and flood damage reduction for the city of Roanoke and vicinity. Recommendations to reduce flood damage include widening the river channel, replacing low-water roadway bridges, and developing a flood-warning system (USACE 1984). The Corps of Engineers is working with the city of Roanoke on a Roanoke River flood loss reduction project, which includes plans for channel excavation and widening, bank stabilization, and bridge replacement.

Table 1 summarizes the average discharge data at the USGS gauging stations.

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>DRAINAGE AREA (SQ MI)</th>
<th>AVERAGE DISCHARGE (cfs)</th>
</tr>
</thead>
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<td>510</td>
</tr>
<tr>
<td>Tinker Creek</td>
<td>109.2</td>
<td>–</td>
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<tr>
<td>Wolf Creek</td>
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<td>–</td>
</tr>
<tr>
<td>Back Creek</td>
<td>60.7</td>
<td>–</td>
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</table>

Flooding History. Severe flooding on the Roanoke River results from heavy tropical rainstorms; whereas severe flooding on creeks can be caused by short, intense thunderstorms (HUD 1977). The areas most susceptible to periodic flooding are low-lying lands adjacent to the Roanoke River, Tinker Creek, and Wolf Creek.

The 100-year floodplains of Tinker, Wolf, Back, and Prater creeks are also shown on the 100-Year Floodplain map. Estimates of peak discharge at the mouth of Tinker Creek during a 100-year flood range from 16,500 cfs (USACE) to 20,500 cfs (HUD 1977). The estimated peak 100-year flood discharge of Wolf Creek is 4,250 cfs and Back Creek, 12,500 cfs (USACE 1972). No discharge estimates for Prater Creek are available.

The 100-year floodplain of the unnamed tributary crossed by alignment 4 has not be delineated. Even though the floodplain is undoubtedly small because of the stream’s size and the narrow, steep channel (slopes approaching 60%), it is assumed that road and bridge construction across the stream and the side channels would be within the 100-year floodplain. The floodplain would be delineated before construction.
TITLE PAGES

The title page should include all the information required for a bibliographic reference: the title of the document, the area within the park (if not the entire park), the name of the park and state, the agency name, and the date the document is released to the public or is approved. This is generally the same information as on the front cover, plus the date (month and year) and the publisher line. An EIS has a different standard title page that includes the abstract and other required information. For history documents, the name of the author(s) is also shown. Although a photo or other artwork may be used on a standard cover, it is not used on the title page.

Publisher. The “United States Department of the Interior • National Park Service” line on the title page should be 0.6” from the bottom of the page.

Date. The date on the title page is generally the month and year that a document is available to the public or that the plan has been approved. This date may be different from the date with the publication information (usually on the inside back cover), which is the date the document is sent to the printer. On final documents the date is when the document is approved by the regional director (text references would then be to the “1997 General Management Plan”). Reprinted documents should maintain the same date on the title page.

To clarify what stage a document is in, add a date on the title page for each round of review for draft documents, e.g.,

   Park/Region Review 3/16/94
   WASO Review 4/16/94

These dates are deleted before the document is printed for public distribution.

For standard documents the document title is in 16 point, the date is in 12 point, the park area (if any) is in 20 point, the initial park name is in 30 point (for long park names a smaller size may be needed so the name fits on one line), the end of the park name is in 12 point, and the USDI • NPS line is in 10 point.
Draft
Management Plan
Environmental Assessment

Park/Region Review 3/16/94
WASO Review 4/16/94
(Internal review dates above deleted on public copy)

North Fork Study Area
GLACIER
National Park · Montana

United States Department of the Interior · National Park Service

June 1997 ♦ 95
Development Concept Plan
Environmental Assessment

May 1996

North Fork Study Area
GLACIER
National Park · Montana

United States Department of the Interior · National Park Service

96 • June 1997
Final General Management Plan
Development Concept Plan
Environmental Impact Statement

PETRIFIED FOREST
National Park
Navajo and Apache Counties, Arizona

This Final General Management Plan/Development Concept Plan/Environmental Impact Statement presents a proposal and three alternatives for the management, use, and development of Petrified Forest National Park. The proposal, which constitutes the National Park Service’s general management plan for the park, calls for a reorientation of management and use to more adequately preserve and interpret the park’s globally significant paleontological resources and to manage them as integral parts of an evolving environment that also contains significant cultural, natural, and scenic values. Major features of the plan include a new visitor center at Tiponi Point, a research center at Tiponi Point, increased emphasis on trails and guided tours into the park’s resource sites, rehabilitation and public use of the historic Painted Desert Inn, replacement and expansion of inadequate administrative and maintenance facilities, relocation of some park housing to remove it from the Giant Logs visitor use area, and expansion of the park boundary to preserve significant paleontological and archeological resources that currently extend outside the park. The environmental consequences of this proposal would include increased protection and understanding of highly significant paleontological and archeological resources inside the park and of closely related resources currently outside the boundary. Directly, through their park experiences, or indirectly, through the knowledge learned from research, people would gain a better understanding of the history of life, which might promote a desire to live in better harmony with nature, an unquantifiable but very real contribution to the quality of life. About 22 acres of undisturbed habitat, mostly desert scrub near Tiponi Point, would be disturbed by development. No critical habitat for listed species would be negatively affected. Approximately 97,800 acres would be added to the park. Slightly more than half of these lands are currently in private ownership, and 45 percent are in state or federal ownership. The traditional use of these lands, livestock grazing, would be phased out, resulting in the loss of this source of income to the current owners. The expansive vistas visible from the park would be protected from encroachment of structures and possibly a waste dump. Many additional square miles of shortgrass prairie would recover from the effects of overgrazing.

The alternatives under consideration, in addition to the proposal, include the no-action alternative and two development options. One development option (minimum requirements) would replace and expand deteriorated and undersized facilities on their current sites. Under this option the north visitor center would remain at the headquarters area, rather than being relocated to Tiponi Point, and the residential area at Giant Logs would be expanded to meet staff housing needs. The other development option would remove most of the existing development from the Giant Logs area and replace it with a visitor center designed specifically to house the proposed interpretive program. In most other respects these alternatives would be the same as the proposal.

The environmental consequences of the proposed action and the other alternatives were fully documented in the DEIS and are re-presented with modifications in the FEIS. The public review period on the DEIS ended January 31, 1992. The results of public comment on the DEIS are included in the FEIS. For further information contact: Superintendent, Petrified Forest National Park, AZ 86028.
APPENDIX: GENERAL TEXT SUBMISSION PROCEDURES  
RESOURCE PLANNING GROUP, EDITING

**Purpose:** To ensure the best, most efficient, and most cost-effective services for text editing.

**General Procedures:** Submit complete jobs for the quickest turnaround time. Compile all sections written by various team members into a single document or computer file (for long documents you may have a computer file for each section or chapter, such as affected environment or impacts). Follow your outline in compiling the sections of the document.

Resolve all team questions and concerns about the document's content before submitting the text for editing.

Ensure that the text and maps agree before editing is started.

Ensure that the job captain, or a person designated to act in his or her absence, is available to communicate with and give changes to the editor.

**Project Agreement Form / Review Changes Form:** Submit new work with a *project agreement form*; indicate special design and layout requests, as well as review dates and the projected public release date. (A sample project agreement form is attached.)

After an edited document has been reviewed by the park, the regional office, or the Washington Office, briefly summarize the extent of changes on the *review changes form*. (A sample review changes form is attached.)

**Text Submission:** Submit text as a WordPerfect 5.1, WordPerfect 6.1 for Windows, or MS Word document on a 3.5" diskette or electronically by cc:Mail. Also provide one printout (hard copy) for reference, with page numbers, the approximate placement of maps and photos, and a table of contents or outline. Procedures for text to be scanned or typed are attached (see “Additional Information”).

Use standard word-processing methods to enter text. See “Additional Information” for suggestions about entering and formatting text.

**Review Changes:** Compile all review changes in one copy, preferably a hard copy. In cases where changes are extensive and you want to work with the computer file, get a copy of the up-to-date file or files from the editor. Do not change or delete any formatting codes or graphic boxes that may contain tables or figures. Highlight all changes; if you do not highlight the changes, we will consider the project to be a new start. See “Additional Information” for other recommendations about review changes.

**Deadlines:** Allow sufficient time for editing and preparing graphics (the workload analysis includes guidelines for estimating needed time). Incomplete jobs or numerous revisions to a document will delay the delivery date. Allow a minimum of four to six weeks for printing by the Government Printing Office.
Do not promise a printed document without first checking with the project manager to ensure that your project can be assigned a high priority and that there are no scheduling problems or other conflicts within other projects.

ADDITIONAL INFORMATION

General Procedures

Submit the main body of text at one time, along with bibliographic references. Appendix material may be submitted later than the main body of text; however, any appendix material that is closely related to the text should be provided at the same time.

If a project has not yet been assigned to an editor, submit all initial documents, materials, or disks directly to the quality leader; if a project has been assigned to an editor, submit additions and changes to that person.

Make sure that the text and maps agree in content and format. Any time there are discrepancies between the text and maps, questions about which version is correct must be resolved, which takes additional time. In one case the alternatives were written conceptually, while the maps were highly specific. Consequently, the text had to be revised to reflect the information on the maps, and the time already spent editing the text was wasted.

Formatting Text for Editing

Differences in the hardware and software capabilities of offices submitting documents result in coding and layout discrepancies when electronic files are opened. Submitting a hard copy of the document will show us the format you intended, especially for tables.

Frequently, special formats or layouts for documents done by the teams have to be redone to be compatible with the printers and software programs we use. Any special format requirements for customized documents should be discussed at an initial meeting of the editor, the visual information specialist, and the job captain. The format that has been adopted for standard documents is described in this reference manual.

Font Styles. All text within a document should be in the same font style and size (including headings); the editor may choose a different font for tables and display type. If you do not select a font, a default font will be inserted by the software program. We recommend that you minimize font changes within a document; the more font changes you insert, the longer it takes to search and replace them.

Text. All word-processing programs automatically wrap the text to the next line as you type. There is no need to insert a carriage return or hard return [HRT] at the end of each line. If you insert a hard return at the end of the line (as you view it), the printed page will not be justified. Use hard returns only between paragraphs.

Use the hard page or page break command [Control-Enter] rather than spacing down to the end of the page.
Use one space after periods and colons (referred to as close spacing). Using two spaces results in too much space between sentences, especially when the text is justified. Also, a number of successive open lines may produce the printing phenomenon called a river — white spaces meandering vertically down the page and distracting the reader.

**Tables.** Tables with columns can be quickly created using the Tables feature in either WordPerfect or MS Word. If you are not familiar with either of these features and you decide to type a table, be sure to set and use tabs for entering data in columns. Do not use the space bar to space over to where it looks like the information will line up in a column; when a different font is selected or when a table is reformatted for a Postscript printer, the spacing will change so that columns no longer line up. This means the table must either be reformatted or retyped. However, if you use tabs to enter the information, then the column format will be preserved, and the tab settings can be easily adjusted.

**Review Changes**

Text changes should be summarized on the review changes form, which should be submitted with the project directly to the assigned editor.

The most efficient way for text changes to be made is for the job captain to consolidate all changes into a single printed copy of the document. This allows the job captain to resolve discrepancies or conflicting review comments. Lengthy changes can be entered in a word-processing file, with each change denoted by page and paragraph numbers. The editor will then incorporate the changes into the document.

If changes are extensive and you prefer to make them directly to a computer file, please ask for a copy of the most up-to-date file or files from the editor or visual information technician assigned to your project. For the most efficient service, do not change or delete any formatting codes in the file. The document may not display properly on your screen, but all the text will be there. Highlight all text changes. We will use your file copy as a record copy, and the changes will be incorporated into our copy of the document. If changes are lengthy, type the inserts in an electronic file, with labels as to where they go (e.g., p. 78, insert a). This may seem time-consuming, but it will avoid the inadvertent deletion of formatting codes or graphic boxes that contain tables, graphs, or figures. If we do not know what has been changed in your document, we will treat the job as a new start, thus increasing the cost of your project.

**Documents To Be Scanned**

Documents to be scanned should be on 8.5" × 11" paper and as clean as possible. Any random marks or handwritten comments on the pages will introduce errors into the scanned text. If it is necessary to include handwritten comments with a document to be scanned, append them on a separate piece of paper with appropriate page references. Documents printed with condensed typefaces or where letters are touching will not scan. (Note: Handwritten materials can be scanned as graphics [for instance, response letters in EISs], but they cannot be edited or changed once they have been scanned.)
# GRAPHICS/EDITING PROJECT AGREEMENT

**Park Name / Area / Project Type / Product:**

---

**Requester:**  
**Phone No.:**

---

**Account No.:**  
**For graphics/editing use only**

**Alpha Code, Pkg. No., Work Element:**

**Project Manager:**

**Funds Available (for in house labor & reproduction/printing):**

**Format:**  
**Standard (81/2 x 11):**

**Func. Group/Field Area:**

**Priority #:**

---

**GRAPHICS REQUIREMENTS**

**No graphic services requested**

**Cover Artwork:**

<table>
<thead>
<tr>
<th>Total no. of maps in document</th>
<th>Computer-generated software</th>
<th># submitted now:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- # of maps to be created from team supplied roughs
- # of existing maps to be revised
- # of maps to be created by visual info. spec.
- # of final maps to be created on team

Other graphic materials (e.g., photos) – kind and number:

**No. of days budgeted:**

**Grade level:**

---

**EDITING REQUIREMENTS**

**No editorial services requested**

**Estimated # of double-spaced pages to be edited:**

*(If single-spaced, double the number of pages)*

**Is text complete? (yes/no)**

**What is missing?**

Provide text as electronic file, with one hard copy printout. Software and version of software used:

**Type of work requested:**

- writing/editing
- substantive editing
- copy editing
- composing

**No. of days budgeted:**

**Grade level:**

---

**DATES text/graphics needed:**

- Team Review
- DSC Review
- WASO Review
- Park/Field Area
- Public distribution
- Special Review

---

**ADDITIONAL INFORMATION – USE BACK OF THIS FORM**

---

**SIGNATURES**

**Job Captain:**  
**Project Manager:**

**QL Editing:**  
**QL Graphics:**

If work submitted exceeds the original estimate, or is late, delivery dates will be adjusted accordingly.

**ASSIGNMENTS (for graphics/editing use only)**

**Graphics:**  
**Editing:**  
**Electronic Publishing:**

**Start:**  
**Start:**  
**Start:**

---

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**REVIEW CHANGES**

<table>
<thead>
<tr>
<th>Park Name / Area / ProjectType / Product:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date:</td>
</tr>
<tr>
<td>Requester:</td>
</tr>
<tr>
<td>Account No.:</td>
</tr>
<tr>
<td>Project Managers' Signature:</td>
</tr>
</tbody>
</table>

**Type of Review (park/SSO/WASO):**

<table>
<thead>
<tr>
<th>Phone No.:</th>
</tr>
</thead>
</table>

| Pkg. No. & Work Element: |

---

**GRAPHIC CHANGES**

- Number of maps to be changed
- Number of new maps required

List maps and extent of changes required:

---

Additional graphics (e.g., illustrations, photos) requested in addition to those already identified:

---

**EDITING CHANGES**

<table>
<thead>
<tr>
<th>Additional text?</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of pages</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Type and extent of text changes:

---

**ADDITIONAL INFORMATION:**

---

**REVISED DATES text/graphics needed** (as specified in the task directive):

- Team review
- WASO review
- DSC review
- Public distribution
- Park/SSO review
- Special review

---

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As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.