APPLICATION GUIDELINES FOR RESEARCH AND COLLECTING PERMITS

August 2000

Grand Canyon National Park
Research Office
823 N. San Francisco St., Suite B
Flagstaff, AZ 86001
(520) 226-0163 • Fax (520) 226-0170

Table of Contents

APPLICATION PROCEDURES FOR
RESEARCH AND COLLECTING PERMITS

GRAND CANYON NATIONAL PARK AND
GLEN CANYON NATIONAL RECREATION AREA

December 1999

POLICY AND GENERAL REQUIREMENTS

The National Park Service (NPS) is responsible for protecting and regulating use of Grand Canyon National Park and Glen Canyon National Recreation Area. The Superintendents of these NPS areas recognize that timely and reliable scientific information is essential for sound management decisions and for quality interpretive programming. We welcome proposals for scientific studies designed to increase understanding of the natural, cultural, and recreational resources within these areas as well as the ecological processes and other factors that influence park resources.

When is a permit required?

A research/collecting permit is required for most types of studies in NPS areas, including any study involving NPS funding or participation, specimen collection, waiver of any regulation, or having the potential to disturb resources or visitors. Other permits may also be required by the NPS or by other agencies depending on the specific activities described in the proposal. It is the responsibility of the principal investigator to secure all required permits prior to the initiation of the project. The Research Office can provide copies of most NPS research-related permit applications and general information regarding some other permits.

Who may apply?

Any "representative of reputable scientific or educational institution or a State or Federal agency" may apply if they have qualifications and experience to conduct scientific studies (CFR 36 2.5 (b)). The principal investigator named in the application is the person primarily responsible for ensuring that projects are conducted in a scientifically credible and professional manner, that resources are protected from potentially damaging field activities, and that all project deliverables are provided to the park.

When to apply?

Apply at least 90 days in advance of your first planned field activities. Projects requiring access to restricted locations or proposing activities with especially sensitive resources (e.g., cultural remains, endangered species) may require more extensive review and more than 90 days to consider.

Where to apply?

Mail all application materials to the NPS area in which you plan to work. If your study is to be conducted in ***both*** Grand Canyon National Park and Glen Canyon National Recreation Area, contact Grand Canyon National Park Research Office.

Grand Canyon National Park – Research Office
823 N. San Francisco St., Suite B
Flagstaff, AZ 86001
Phone: (520) 226-0163
Fax: (520) 226-0170

or

Research Coordinator
Glen Canyon National Recreation Area
P.O. Box 1507, 691 Scenic View Drive
Page, AZ 86040-1507
Phone: (520) 608-6272
Fax: (520) 608-6283

Study proposals

Study proposals are required. Please provide six (6) high-quality copies with your application to facilitate prompt completion of peer and administrative reviews coordinated through this office. Proposals should include all elements outlined in the *Guidelines for Study Proposals.*

Review of Proposals

The National Park Service may seek qualified independent peer review of any research proposal received. To expedite this process, applicants are invited to recommend reviewers and to provide photocopies of peer reviews already conducted for other purposes (e.g., funding or cooperating agency, graduate committee, etc.)

Permit stipulations

General stipulations (requirements, conditions, and restrictions) for studies in Grand Canyon National Park and Glen Canyon National Recreation Area are attached (Appendices 4-8). Other stipulations may also be added to the permit when warranted by sensitivity of the resource or the nature of the specific activities proposed by the investigator. An NPS permit is valid only for activities authorized in the permit and described in the original proposal. The principal investigator must notify the NPS in writing of any changes to the proposal (e.g., objectives, participants, scope, duration, schedule, collections, research products, etc.) Significant changes may necessitate re-evaluation of the permit conditions or development of a revised proposal. The NPS is under no obligation to approve changes to an already permitted study.

Advance Notification and Access Permit Requirements

Permits are required for boat or aircraft use, camping, and for entering restricted areas in Grand Canyon National Park. Restrictions also apply to some locations in Glen Canyon National Recreation Area. Applications for Grand Canyon National Park access permits should be submitted to the Research Office, in triplicate, at least 45 days in advance of any planned field activities, earlier if possible. Access to many areas is limited and popular destinations are frequently booked for several months in advance. A photocopy of the investigator's current Research and Collecting Permit should be provided with each access permit application (unless both applications are submitted together).

Research products and deliverables

Researchers working in NPS areas are required to provide written progress reports for each year of the permit, including the final year. The NPS also requires copies of all publications (reports, maps, data discs, etc.) produced as a result of studies in NPS areas. Additional deliverables may be required of studies involving NPS funding or participation.

REVIEW AND APPROVAL PROCESS

The Research Office welcomes high quality scientific investigations in a wide variety of subject areas relevant to management and interpretation of the parks' natural and cultural resources. This office was established to promote development of a comprehensive research program within these areas, to facilitate research permitting, and to coordinate communications between investigators, resource managers, and visitor service.

Investigators contemplating new or continuing research must get an approved NPS research permit prior to any field surveys, inventories, research collections, experimentation, or similar activities undertaken within National Park Service boundaries, or below the high-water line of the Colorado River in Grand Canyon, Glen Canyon, or Lake Powell. Depending on the nature of the work being proposed, other permits may also be required from the NPS or from other agencies. Examples include work involving endangered species, antiquities, Colorado River travel, or backcountry camping.

A formal research proposal, approved by the NPS unit in which the research is to be conducted, is required before any research-related permits can be issued. Potential Grand Canyon investigators must also submit a completed Application for Research and Collecting form. The proposal must include information in enough detail that an educated non-specialist can understand exactly what is planned.

When all required materials have been submitted to the Research Office, copies of the proposal will be sent to the GRCA Science Center and the Glen Canyon Research Coordinator's office for comment and review, allowing a 2-3 week waiting period for

comments. Depending on the proposal, external peer reviews may also be required. After all comments have been received, the proposal is thoroughly reviewed by the research assistant, and the need for a Minimum Requirement analysis decided at that time (see *Minimum Requirement Decision Process* for an explanation of that process). The Senior Scientist is consulted after the review is complete, and the decision to issue a Research and Collecting permit made then. The original signed permit is sent to the principle investigator and copies are sent to the Superintendent, Chief Ranger, Fee Collections and the Glen Canyon NRA Research Coordinator. A final copy goes into the researcher's file, where all correspondence and relevant papers are permanently stored.

United States Department of the Interior
National Park Service

Your proposal should include each of the required information items listed below, in enough detail that an educated non-specialist can understand exactly what you plan to do. If you have already prepared a relevant proposal for a funding application, work plan, formal agreement, or similar document, then your original proposal may partially or completely satisfy NPS proposal requirements. You should compare your original proposal to these guidelines to be certain that you have provided all the required information. If additional information is required, you can provide it in a cover letter or supplement to your proposal, as appropriate. If a required topic does not apply to your proposed study, simply list the topic and write "not applicable."

The length of your proposal depends primarily on the complexity of the work planned. In some cases, a proposal may consist of a couple of pages for a study expected to have no significant impact on park resources or visitor experiences. However, proposals for lengthy or complex research problems, for extensive collecting, and for work with special status species or sensitive cultural resources are typically longer, more detailed, and well-organized. Incomplete, disorganized, or illegible proposals may be returned for revision.

I. **INTRODUCTION**

A. **Title**

B. **Date of proposal**

C. **Investigators -** Provide the name, title, address, telephone number, FAX number, email address, and institutional affiliation of the principal investigator and the name and affiliation of all additional investigators listed in the proposal.

D. **Table of contents** - Recommended for long or complicated proposals.

E. **Abstract** - Provide a brief summary description of the proposed project. Include up to five keywords that can be used by the National Park Service to quickly identify the proposal subject (for example, microbiology, geology, ecology).

II. **BACKGROUND** - Summarize the proposed project by describing in general the problem or issue being investigated as well as any previous pertinent research.

A. **Statement of issue** - Describe the importance and relevance of the issue to be investigated to science and to the park. Provide relevant background

information that clarifies the need for the project and why it is valuable for the research and/or collecting to be conducted in the park as opposed to areas outside the park.

B. **Literature summary** - Summarize the relevant literature regarding the issue, problem, or questions that will be investigated.

C. **Scope of study** - Describe the overall geographic and scientific scope of the project.

D. **Intended use of results** - Describe how the products will be used, including any anticipated commercial use.

III. **OBJECTIVES/HYPOTHESES TO BE TESTED** - Describe the specific objectives of the proposed project. Where appropriate, the objectives should be stated as specific hypotheses to be tested.

IV. **METHODS** - Describe how the proposed methods and analytical techniques will achieve the study objectives or test the stated hypothesis/question. Provide pertinent literature citations.

A. **Description of study area** – Clearly describe the study area in terms of park name(s), geographic location(s), and place names. You should provide maps, park names, or geographic coordinates as appropriate. Indicate whether your work will take place in an area designated or managed as "wilderness" by the National Park Service.

B. **Procedures** - Describe the proposed study design that addresses the stated objectives and hypotheses. Explain the methods and protocols to be employed in the field and laboratory.

C. **Collections** - Describe the type, size, and quantity of specimens or materials to be collected, sampled, or captured, and your plans to remove them from the collecting site. Describe existing collections of similar specimens and why additional collecting is necessary. Provide scientific nomenclature where possible. Provide information on all other applicable federal or state permits where required.

D. **Analysis** - Explain how the data from the study will be analyzed to meet the stated objectives or test the hypotheses. Include any statistical techniques or mathematical models necessary to the understanding of the analysis.

E. **Schedule** - Provide a schedule that includes start of project, approximate dates or seasons of fieldwork, analysis, reporting, and completion dates.

F. **Budget -** Briefly outline the expenses associated with this project and identify your expected funding source(s). Include the anticipated costs pertaining to the cataloging of collected and permanently retained specimens or materials.

V. **PRODUCTS**

A. **Publications and reports** - Describe the expected publications or reports that will be generated as part of this study.

B. **Collections** – Describe the proposed disposition of collected specimens or materials. If you propose that the NPS lend the specimens or samples to a non-NPS institution for long-term storage, identify that institution and give a brief justification for this proposal.

C. **Data and other materials** - Describe any other products to be generated as part of the project, such as, photographs, maps, models, handouts, exhibits, software presentations, raw data, GIS coverages, or videos, and the proposed disposition of these materials. If data is to be collected from the public as part of this study, provide a copy of the data collection instrument (survey, questionnaire, interview protocol, etc.).

VI. **LITERATURE CITED** - Include full bibliographic citations for all reports and publications referenced in the proposal.

VII. **QUALIFICATIONS -** Provide a background summary or curriculum vitae for the principal investigator and other investigators listed in the proposal. Identify their training and qualifications relevant to the proposed project and their ability to conduct field activities in the environment of the proposed study area. Describe previous research and collecting in NPS areas, including study and permit numbers if available.

VIII. **SUPPORTING DOCUMENTATION AND SPECIAL CONCERNS** - Provide information on the following topics where applicable. Attach copies of any supporting documentation that will facilitate processing of your application, such as other required federal and state permits, copies of peer reviews, letters of support and funding commitments, and certifications. Collection of information

from the public when federal funds are used may require approval from the Office of Management and Budget.

A. **Safety** - Describe any known potentially hazardous activities, such as electrofishing, rock climbing, scuba diving, whitewater boating, aircraft use, wilderness travel, wildlife capture, handling or immobilization, use of explosives, etc.

B. **Access to study sites** - Describe the proposed method and frequency of travel to and within the study site(s). Explain any need to enter restricted areas. Describe duration, location, and number of participants for planned backcountry camping.

C. **Use of mechanized and other equipment** - Describe any field equipment, markers, or supply caches by type, number, and location. You should explain how long they are to be left in the field. Explain the need to use these materials in restricted areas and the alternatives that were considered.

D. **Chemical use** - Identify chemicals and hazardous material that you propose using within the park. Indicate the purpose, method of application, and amount to be used. Describe plans for storage, transfer, and disposal of these materials and describe steps to remediate accidental releases into the environment. Attach copies of Material Safety Data Sheets.

E. **Ground disturbance** - Describe the type, location, area, depth, number, and distribution of expected ground-disturbing activities, such as soil pits, cores, stakes, or latrines. Describe plans for site restoration of significantly affected areas.

Proposals that entail ground disturbance may require an archeological survey and special clearance prior to approval of the study. You can help reduce the extra time that may be required to process such a proposal by including identification of each ground disturbance area on a USGS 7.5-minute topographic map.

F. **Animal welfare** - If the study involves vertebrate animals, describe your protocol for any capture, holding, marking, tagging, tissue sampling, or other handling of these animals (including the training and qualifications of personnel relevant to animal handling and care). If your institutional animal welfare committee has reviewed your proposal, please include a photocopy of their recommendations. Describe alternatives considered, and outline procedures to be used to alleviate pain or distress. Include

contingency plans to be implemented in the event of accidental injury to or death of the animal.

G. **NPS assistance** - Describe any NPS assistance needed to complete the proposed study, such as use of equipment or facilities or assistance from staff.

H. **Wilderness "minimum requirement" protocols** - If some or all of your activities will be conducted within a location administered by the NPS as a designated, proposed, or potential wilderness area, your proposal should describe how the project adheres to wilderness "minimum requirement" and "minimum tool" concepts. Refer to the park's wilderness management plan for further information.

I. GENERAL PERMITS

X **Research and Collecting Permit:** Required for studies and specimen collecting within NPS areas.

X **Certificate of Insurance:** Required for studies and specimen collecting within NPS areas. Requirements include written proof of general liability and accidental injury/death insurance covering all individuals participating in field studies (employees and volunteers). For legally self-insured entities, including Federal and state agencies, a signed statement by a knowledgeable authority indicating self-insurance and Workers Compensation coverage of employees and volunteers will suffice. Other applicants should provide a photocopy of their current certificate of insurance. Certificates of insurance, which list the insured organization and the limits of coverage, can be obtained from your insurance agency. Approval for certain activities may be denied on the basis of insufficient insurance ($1 million general liability coverage is recommended).

II. PERMITS FOR ARCHAEOLOGIC STUDIES:

X **Archaeological Resources Protection Act Permit** (ARPA Form DI-1927): Required for archaeology or cultural resource studies.

X **Assessment of Effect on Cultural Resources** (Form 10-58): Required for review of archaeological site location data and site surveys without collection or excavation.

III. PERMITS NEEDED FOR ACCESS TO RESTRICTED LOCATIONS: The Research Office is your first point of contact for all of the following permits. We must be notified at least **45 days** in advance.

X **Aviation Permit:** A Flight Request Form is required prior to each aircraft use within the Grand Canyon National Park Special Flights Rules Area.

X **Backcountry Use Permit**: Required for all overnight camping.

X **Cave Permit:** Required prior to each cave trip.

X **River Trip Permit**: Required prior to each research river trip below Lees Ferry. This permit authorizes river travel and camping on sand bars along the river.

X **Backcountry Use Permits** are also required for any off-river camping in Grand Canyon National Park during river trips.

PERMITS ISSUED OR REQUIRED BY OTHER AGENCIES

X GENERAL

X **Bird Banding and Salvage Permit (USFWS) :** Required for capture, tagging, or marking of live birds and for salvage of dead specimens.

X **Endangered Species Permit:** NPS permits for work with endangered species are only valid when attached to a current U.S. Fish and Wildlife Service permit. If your work will involve endangered species please provide a photocopy of your USFWS permit with your application for an NPS Research and Collecting permit.

X **Migratory Bird Scientific Collecting Permit (USFWS)**: For taking of migratory birds, nests or eggs.

X **Native Plant Collecting Permit (State Department of Agriculture):** To transport native plants protected under state laws.

X **OMB Survey Approval (Federal, Office of Management and Budget):** For Federally-supported public surveys (e.g., visitor surveys).

X **Scientific Collecting Permit (State Game and Fish Department):** To collect and transport fish and wildlife protected under state laws.

ACTIVITIES ON FEDERAL OR NATIVE AMERICAN LANDS ADJOINING NPS AREAS

X **Federal Lands (USDA Forest Service, Bureau of Land Management):** Contact the responsible land management agency regarding activities on Federal lands outside park boundaries.

X **Native American Lands:** Contact the tribes directly regarding permits for activities on Native American lands. (Navajo Tribal Lands are located along the left or east side of the Colorado River beyond the canyon rim or outside NPS jurisdiction, and upriver of the confluence of the Little Colorado and Colorado Rivers. Havasupai Tribal Lands are located on the left or south side of the canyon outside the boundary and jurisdiction of the National Park Service, including Havasu Canyon upstream of Beaver Falls. Hualapai Tribal Lands are located along River Mile 165 through River Mile 273 on the left or south side of the canyon above the historical high water line.)

CLOSED AREAS

The following areas are closed to camping:

X Redwall Cavern
X River Mile 47 (above high water line)
X Little Colorado River confluence with Colorado River
X Phantom Creek and Phantom below 3600 feet
X Elves Chasm
X Manuel River Drainage
X Havasu Creek
X Matkatamiba Canyon below Redwall Formation
X Grandview historic mining district
X Dripping Springs
X Clear Creek drainage from the Colorado River to the first major side canyon from the east, except for river parties at the Colorado River
X Page Spring
X Deer Spring
X Phantom Ranch (except for designated sites)
X All limestone caves in Redwall Formation
X The Basin Use Area
X Manzanita Use Area
X Uncle Jim Point
X Transept Use Area
X Long Jim Use Area
X Deer Creek Falls
X Shinumo Creek

From: Grand Canyon National Park Compendium of Closures and Use Restrictions
September 1998

RESTRICTED AREAS

Contact appropriate authorities before entering any restricted area.

Anasazi Bridge, River Mile 43, right bank: Closed except by permission of the GRCA Cultural Resources Program Manager.

Furnace Flats archaeological site - River Mile 71.0 to River Mile 71.3 right bank: Closed except by permission of the GRCA Cultural Resources Program Manager.

Caves and mine shafts or adits are restricted to persons and activities specified in NPS permits, including but not limited to:

Bass Mine, River Mile 111 (Hakatai Canyon): The area surrounding the mine, talus slope, and camp is closed except by permission of Park Superintendent (asbestos hazard, requires approved safety plan).

Hance Mine, along trail from River Mile 77.0, right bank to and including Hance Mine: Closed except by permission of Park Superintendent (asbestos hazard, requires approved safety plan).

Hopi Salt Mine, River Mile 62.0 to River Mile 62.5, along the left bank of the Colorado River: Closed except by permission of the GRCA Cultural Resources Program Manager.

Orphan Mine, South Rim: Restricted access (radon and collapse hazards, requires approved safety plan).

Maricopa Point, Endangered Plan Area

Note: Official notice of closed areas and activity restrictions in Grand Canyon National Park is included in the Superintendent?s Compendium of Closures and Restrictions, the Backcountry Management Plan (9/88) and the Colorado River Management Plan (9/89). A summary of backcountry use restrictions for Grand Canyon National Park is also included in the Backcountry Trip Planner available from the Backcountry Office, Grand Canyon National Park, P.O. Box 129, Grand Canyon, AZ 86023. Other areas may be closed through placement of conspicuous signs or through notices posted at the Backcountry Office or Lees Ferry when warranted for the protection of park resources or visitor safety. An approved research authorization does not convey or imply license to cross lands owned or managed by other entities. Boundaries of Grand Canyon National Park and Glen Canyon National Recreation Area are depicted on the official maps and guides issued by the respective areas. For information about adjacent areas outside the boundaries of Grand Canyon National Park and Glen Canyon National Recreation Area, contact the tribe or agency having management authority.

WILDERNESS RESEARCH PROGRAM
GRAND CANYON NATIONAL PARK

The Wilderness Act of 1964 defines wilderness to be:

> A. . . an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements of human habitation which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man=s work substantially unnoticeable . . . and (4) may also contain ecological, geological, and other features of scientific, education, scenic, or historical value.@

In 1998, the Grand Canyon National Park adopted the Draft Wilderness Management Plan to address wilderness and backcountry issues in the context of the Wilderness Act. The Wilderness Act includes research as a valid use of wilderness, as does the National Park Service:

> AThe statutory purposes of wilderness include scientific and educational use, and the National Park Service will fully support the value of wilderness areas as natural outdoor laboratories. A research project may be conducted in wilderness if it meets all of the following requirements:
> 1) The research activities are otherwise allowable under federal laws and regulations.
> 2) There is no alternative to conducting the research in a wilderness area.
> 3) The project will not adversely affect physical or biological resources, ecosystem processes, or aesthetic values over an area or duration greater than necessary to meet research objectives@ (Grand Canyon National Park Draft Wilderness Management Plan, 1998).

Approval for scientific studies within wilderness areas is guided by principles established by Congress. Among these principles are that the imprint of man=s work be substantially unnoticeable, that the wilderness area have outstanding opportunities for solitude, that it be preserved and used in an unimpaired condition, and that it contain ecological, geological, or other features of scientific, educational, scenic, or historical value. In many cases, Federal law and Departmental policy allow sufficient latitude to achieve the investigator's objectives:

> AAn area should not be excluded from wilderness designation solely because established or proposed management practices require the use of tools, equipment or structures, if these practices are necessary for the health and safety of wilderness travelers, or the protection of the wilderness area. Managers will use the minimum tool, equipment or structure necessary to successfully, safely and economically accomplish the objective . . . economic factors should be considered the least important of the three criteria. The chosen tool or equipment should be the one that least degrades wilderness values temporarily or permanently@ (USDI, 1972).

MINIMUM REQUIREMENT DECISION PROCESS FOR GRAND CANYON NATIONAL PARK

The purpose of the Minimum Requirement process is to determine the Aminimum tool or administrative practice necessary to successfully and safely accomplish the management objective with the least adverse impact on wilderness character and resources.@ (NPS Management Policies, 6:4)

For the Minimum Requirement process to work, it is important to develop and seriously consider a range of realistic alternatives. This process involves a tiered analysis beginning with the least obtrusive, non-mechanized alternative.

> *Primitive skills:* Primitive skills involve the proficient use of tools and skills of the pre-motorized or pioneering era (e.g., the double-bit axe, the crosscut saw, the pack string, and oar-powered and paddle-powered water craft).
>
> *Mechanized Use in Wilderness*: The use of motorized equipment is prohibited when other reasonable alternatives are available to protect wilderness values. While Congress mandated a ban on motors and mechanized equipment, it also recognized that managers may occasionally need those sorts of tools. While this provision complicates the decision-making process, it remains an *exception* to be exercised very sparingly and only when it meets the test of being the *minimum necessary* for *wilderness purposes* (GCNP Draft Wilderness Plan, 1998).

The net result of a Minimum Requirement analysis is a carefully weighed project or action found to be the most effective way of meeting wilderness objectives and the *minimum necessary* for Wilderness Act purposes.

The following Minimum Requirement matrix should be completed for administrative activities in the proposed wilderness. These activities include, but are not limited to, fire management, wildlife management, archaeological monitoring and treatments, research, and resource protection. The Minimum Requirement decision process may be applied at a programmatic level but should describe specific activities.

MINIMUM REQUIREMENT DECISION PROCESS

The purpose of the minimum-requirement process is to determine the “minimum tool or administrative practice necessary to successfully and safely accomplish the management objective with the least adverse impact on wilderness character and resources" (Grand Canyon National Park Draft Wilderness Management Plan, 1998). For the minimum requirement process to work, it is important to develop and seriously consider a range of realistic alternatives. This process involves a tiered analysis beginning with the least obtrusive, non-mechanized alternative.

Primitive skills: Primitive skills involve the proficient use of tools and skills of the pre-motorized or pioneering era (e.g., the double-bit axe, the crosscut saw, the pack string, and oar-powered and paddle-powered water craft).

Mechanized use in the wilderness: The use of motorized equipment is prohibited when other reasonable alternatives are available to protect wilderness values. While Congress mandated a ban on motors and mechanized equipment, it also recognized that managers might occasionally need those sorts of tools.

The use of motorized equipment is prohibited when other reasonable alternatives are available to protect wilderness values. Allowing motor boats for research activities then becomes an *exception* to be used sparingly.

The process of Minimum Requirement analysis in the Research Office is to list alternatives to the proposed action and to provide compelling justification for why the alternatives will or will not accomplish the research objectives. Sometimes we find that an alternative, such as the use of rowboats instead of motor boats is the minimum tool and is appropriate for getting the work done. We will then recommend for that. However, we are more than willing to work with both the researcher and NPS staff to help get approval for use of motorized equipment if its use is the only safe and effective way to do the work. After we finish our analysis and recommendations, we send it on to the Science Center Director, who then makes the final decision. At times, this can be a time-consuming, sometimes frustrating, process but it is the process agreed on at present.

The net result of a Minimum Requirement analysis is a carefully weighed project or action found to be the most effective way of meeting wilderness objectives and the *minimum necessary* for Wilderness Act purposes.

NON-DISCLOSURE POLICIES
CONCERNING SENSITIVE RESOURCE INFORMATION

What are the non-disclosure policies regarding specific location information about caves, cultural sites, special status species, and other sensitive resources within Grand Canyon National Park?

Service policies require that specific site location information about rare and valuable resources *shall not be included* in reports for public distribution. Other information identifying the specific or approximate location of sensitive resources should also be omitted from reports for public distribution. Such information includes, but is not limited to:

1) Descriptions of the route to the site
2) Geographic coordinates (map or GPS)
3) River mile notation
4) Inclusion of specific location maps
5) References to map features or aerial photos,
6) Reference to or photos of cave entrances, adjacent landmarks and other distinct topographic features (watershed, drainage, mesa, plateau, historic landmarks etc).

What kind of information can be included in research reports?

Grand Canyon National Park can provide researchers with a permanent and unique site identification number (catalogued in the Grand Canyon National Park resource inventory system) to serve the same purpose as the site name in the scientific literature.

To meet federal non-disclosure requirements, sensitive resource sites should be referenced only by park inventory number, park name, county, state, and geologic formation, and provide basic location descriptions needed for research reports. We recommend that elevation and geomorphic descriptors related to sensitive sites be included only when relevant to the topic of the study. Also, information about other sensitive resources that are fortuitously discovered within or near the research site (fossils, historic or archaeological relics, rare mineral types, etc.) should be omitted from reports for public distribution, unless fully relevant to the project objectives and approved by the park. Any new resource discoveries made in the course of your research should be reported to park management.

What about bibliographic references?

The Service recognizes that it may be appropriate to cite previously published articles, even though they refer to sites by name or provide other detailed site information. We encourage researchers to consider the benefits of maintaining site confidentiality in the selection of references as well as in the text of their reports. However, we recognize that previous work at a given site is often highly pertinent to a publication, and we do not intend to restrict the choice of bibliographic citations for scientific publications. Additional information about the specific legal basis for non-disclosure of sensitive site information data is available on request. The Research Office would be pleased to provide additional information, and to review information contained in draft research reports.

FEDERAL RESTRICTIONS REGARDING RELEASE OF INFORMATION ABOUT THE SPECIFIC LOCATION OF SENSITIVE RESOURCES

Section 207 of the 1998 National Parks Omnibus Act includes legislative language protecting location information about certain resources from FOIA requests:

CONFIDENTIALITY OF INFORMATION.
Information concerning the nature and specific location of a National Park System resource which is endangered, threatened, rare, or commercially valuable, of mineral or paleontological objects within units of the National Park System, or of objects of cultural patrimony with units of the National Park System, may be withheld from the public in response to a request under section 552 of title 5 United States Code, unless the Secretary determines that--
(1) disclosure of the information would further the purposes of the unit of the National Park System in which the resource or object is located and would not create an unreasonable risk of harm, theft, or destruction of the resource or object, including individual organic or inorganic specimens; and
(2) disclosure is consistent with other applicable laws protecting the resource or object.

Cave locations are protected by section 5 of the Federal Cave Protection Act of 1988 (16USC 4301) which states that:

(a) IN GENERAL.- Information concerning the specific locations of any significant cave may not be made available to the public under section 552 of title 5, United States Code, unless the Secretary determines that disclosure of such information would further the purposes of this Act, and would not create a substantial risk of harm, theft, or destruction of such cave.
(b) EXCEPTIONS. - Notwithstanding subsection (1), the Secretary may make available information regarding significant caves upon written request by Federal and state government agencies or bona fide educational and research institutions. Any such written request shall at a minimum:
(1) describe the specific site or area for which information is sought;
(2) explain the purpose for which such information is sought; and
(3) include assurances satisfactory to the Secretary that adequate measures are being taken to protect the confidentiality of such information to ensure the protection of the significant cave from destruction by vandalism and unauthorized use.

For regulatory implementation of the cave provisions, see 43 CFR 37.12, which imposes some additional protections, by, for example, prohibiting DOI employees from releasing information that could be used to determine the location of any significant cave, and requiring recipients of cave location information to provide written assurances that they will maintain the confidentiality of the information.

FOSSIL, ROCK AND MINERAL COLLECTING

What is the goal of paleontological research at Grand Canyon National Park?

The goal of the paleontological research program at Grand Canyon National Park is to advance a more complete understanding of the history of life on earth, while preserving opportunities for future scientific discovery and public appreciation of fossil materials in their original setting whenever possible. Long term preservation of fossil resources, by careful consideration of all appropriate means, is inherent in this goal. The management of Grand Canyon National Park recognizes the scientific importance of fossil deposits and promotes their conservation through scientific documentation, physical protection, and law enforcement.

How may I obtain a permit for paleontological research?

A Research and Collecting permit is necessary for scientific studies of paleontological resources in Grand Canyon National Park All research proposals will be reviewed by park resource management and research program staff prior to a permit being issued. Studies that involve excavation of significant subsurface fossil deposits, or require removal of any fossils by means other than simple hand tools (e.g., hand pick and trowel) will also undergo external peer review to weigh potential scientific benefits against potential resource damage, before a permit is issued. Peer review will also be required for any studies involving excavation or collection of vertebrate fossils, vertebrate trackways, or cave sedimentary deposits believed to contain significant fossil materials. All fossil and mineral materials collected are to remain the property of the National Park Service and be catalogued in the NPS collection, except when authorized for consumptive analysis.

May I collect rare specimens that I did not plan to encounter and were not identified in my proposal? (Serendipitous collecting)

Occasionally, vertebrate fossils and trackways will also be discovered in the course of other resource surveys and research. These should be thoroughly documented by photography and field notes, with copies provided to the park natural resource program manager and senior scientist promptly upon return from the field. The decision to recover such specimens should not be made lightly. *Such fossil discoveries are to be left in-situ, except when specifically authorized under a valid and current research and collecting permit or when all of the following conditions are met:*

1) The discovery team includes individuals having professional training in paleontology or closely related fields of science (geology, archaeology) and are authorized by permit or other specific federal authority to collect similar fossil types in this National Park. (Evidence of such authority should always be carried in the field and should be displayed to park staff on request.)

2) The fossils are recognized by expert authorities as being profoundly important to science by nature of their rare occurrence or their exceptional state of preservation, and are definitively

recognized as not being human remains. (Protection and recovery of human remains are covered under other authorities.)

3) The fossils are determined to be at imminent risk of damage or loss due to rapid erosion, weathering, construction activity, or theft. For example, a fossil in soft sediments might be determined to be at risk if it were exposed by recent flooding, bank collapse, or unauthorized digging, but not if it is encased in hard bedrock on a remote hilltop. The determination of imminent loss involves a serious professional judgment based on 1) the potential to mitigate the immediate risk of loss or damage by slightly moving it out of harms way (e.g., off trail or out of the river) and b) the remoteness of the location, which affects both the probability of theft and the likelihood that park resource professionals could return and find the site again to recover the item later.

4) Sufficient personnel, equipment, supplies, funding, and commitment are available to professionally document the location, safely recover and preserve the specimen.

5) A federally authorized depository has already been identified and has indicated its willingness to assume long-term responsibility for curation of such specimens according to accepted professional standards as outlines in the NPS Museum Handbook and other sources.

6) The individuals agree to notify park management about finds promptly on their return from the field, to consult with the park museum curator about specimen disposition, to provide clear copies of all relevant field notes and photographs, and to comply with any applicable requirements regarding nondisclosure of sensitive resource site to unauthorized persons.

SHORT-NOTICE FLOOD CONTINGENCY PLANS

Researchers who plan to launch a river trip in the event of a Beach Habitat Building Flow (BHBF) or a Beach Habitat Maintenance Flow (BHMF) should include a **Contingency Plan for a BHBF Event** with their research proposal. Glen Canyon Dam gives roughly 30-days notice of a BHBF; therefore, it is important that all researchers provide us with their plan of action well in advance of such an event. The park will not allow activities that have not been reviewed in the proposal; therefore, extra trips or extra activities or equipment will not be approved for use during a BHBF unless identified in the initial research proposal.

What should the contingency plan include?

1) Describe what you plan to do. For instance, let us know if you plan to use one of your already scheduled river trips, or if you would add one more trip in the event of a BHBF.
2) Consider the wilderness issues that would need to be addressed because of:
    - motorized vehicles
    - motorized boats
    - sport boats
    - cableways
    - aircraft overflights
    - visitor impacts
    - Threatened and Endangered species

All of the above would require a Minimum Requirement analysis by the Research Office. There is not enough time to go through this process within the 30-day period before a BHBF, making approval unlikely for wilderness variances. This is an important reason for getting your plan approved along with your proposal.

NPS HELICOPTER USE FOR TRANSPORTING RESEARCH EQUIPMENT

1. Does the park helicopter make routine flights to Phantom or elsewhere?

No. There is no set schedule, but routine flights to Phantom Ranch average 2-3 per week The Helibase usually has 3-10 days advance notice of routine flights. There is no charge for the flight. There are also non-routine flights, such as med-evacs or other emergencies.

2. How should you arrange to have equipment carried on a helicopter?

First, the researcher needs to contact the Research Office and explain what equipment needs to be taken down, and the date. We then call the Helibase and check to see if any flights are scheduled to occur on or near that date. Contact Eric at (520) 638-7823, or whoever is knowledgeable about flight scheduling. After notifying the researcher of the expected flight schedule, it is OK for him/her to contact the Helibase themselves if they want to.

3. What is the general procedure for researchers to follow?

The researcher should go to the Helibase with the equipment. There are shelves in the hanger with labels for locations the helicopter goes to. These shelves are checked before every flight and whatever is there is taken. There is also a refrigerator and a freezer available. Equipment may be placed on the shelves in an unofficial capacity (no pre-arrangement), but there is no guarantee when the stuff will get to its destination.

The Phantom Rangers should be notified by phone that this equipment will be arriving on a particular date. (Once it is unloaded from the helicopter, the pilot and crew no longer take responsibility for it.) The rangers will see that the equipment is put on holding shelves for the researcher to pick up.

To have equipment carried out of Phantom, the same system operates. Have the equipment placed on the Aout-going@ shelves for the helicopter that is flying out. At the Helibase, the equipment will be placed on holding shelves for the researcher to pick up.

4. How should the equipment be prepared for the flight?

The equipment should be secured in such a way that nothing will get loose, fall apart, or otherwise get broken or lost. Everything must be clearly labeled with researcher=s name, and the destination. The most important piece of information is the weight. A scale is there and the weight of the article must be marked in a prominent place.

5. Are there any restrictions on the type of equipment that the helicopter will carry?

No flammable or hazardous material can be transported. One exception is chainsaw gas, if it is properly contained. The main restriction is weight.

USING STOCK ANIMALS

NPS stock animals may be available for researchers to use for transporting equipment from the South Rim to Phantom Ranch. Weight limits are 60 lbs per mule. Please contact the Research Office if you need to make arrangements. Arrangements can also be made with other stock animal outfitters. Please contact the Research Office for a list of suggested outfitters.

Please be advised that certain trails are too dangerous or sensitive for pack animals. If you propose to use mules in an area not listed below, please provide details to the Research Office so your request may be submitted for consideration. If activities require a variance from current management plans, a Minimum Requirement is needed.

Stock are permitted on the following designated trails within the **proposed wilderness**:

Cape Solitude	Tiyo Pint
Fort Garrett	Uncle Jim
Brady Hollow	Whitmore
Kanab Plateau	Cove

Stock are permitted on the following **nonwilderness** trails and roads:

South Bass Trailhead Road	Point Sublime Road
Havasupai point Road	Arizona Trail
North Bass Trailhead Road	Cross-Canyon Corridor

*(AMFAC, the Grand Canyon Concessioner, also has mules available for transportation to Phantom. However, these are costly and typically not used for research purposes).