APPENDIX C

LETTERS OF CONSULTATION ON PROTECTED SPECIES AND CULTURAL RESOURCES

This page intentionally left blank.

C. LETTERS OF CONSULTATION ON PROTECTED SPECIES AND CULTURAL RESOURCES

This appendix presents the letters of consultation concerning protected species and cultural resources for the four proposed SNS sites that were sent out by the Department of Energy (DOE), and the responses received from the agencies concerned. Agencies/individuals contacted include the affected States' Fish and Wildlife Services, Department of Environmental Conservation, and the U.S. Army Corps of Engineers (when applicable) concerning threatened and endangered species. Also contacted were the States' Historic Preservation Officers concerning cultural resources. The letters of consultation are presented in the following order:

Site	Letter Addressed To	Subject	Reply Addressed To
ORNL	James Widlak U.S. Fish and Wildlife Service	T&E Species	James L. Elmore U.S. Department of Energy
	Joseph Garrison TN Historical Commission	Cultural Resources	Ray T. Moore Department of Energy
	Reginald G. Reeves Department of Environment and Conservation	T&E Species	No Reply
	Lt. Col. Christopher Young U.S. Army Corps of Engineers	T&E Species	James L. Elmore U.S. Department of Energy
LANL	Jennifer Fowler-Propst U.S. Fish and Wildlife Service	T&E Species	G. Thomas Todd U.S. Department of Energy
	Lynne Sebastian Historic Preservation Division	Cultural Resources	No Reply
ANL	Benjamin Tuggle U.S. Fish and Wildlife Service	T&E Species	Michael Flannigan U.S. Department of Energy
	Anne E. Haaker Illinois Historic Preservation Agency	Cultural Resources	No Reply
BNL	Nancy Davis Ricci NYS Dept. of Environmental Conservation	T&E Species	K. Dean Helms U.S. Department of Energy
	Sherry Morgan U.S. Fish and Wildlife Service	T&E Species	K. Dean Helms U.S. Department of Energy
	Julian Adams NYS Office of Parks, Rec. & Historic Preservation	Cultural Resources	No Reply

This page intentionally left blank.

ORNL CONSULTATION LETTERS

This page intentionally left blank.

Department of Energy

Oak Ridge Operations Office
P.O. Box 2001
Oak Ridge, Tennessee 37831—

September 18, 1997

Mr. James C. Widlak
Fish and Wildlife Service
United States Department of Interior
446 Neal Street
Cookeville, Tennessee 38501

Dear Mr. Widlak:

INFORMAL CONSULTATION UNDER SECTION 7 OF THE ENDANGERED SPECIES ACT FOR THE PROPOSED SITING, CONSTRUCTION, AND OPERATION OF THE NATIONAL SPALLATION NEUTRON SOURCE

The U.S. Department of Energy (DOE) proposes to site, construct, and operate the National Spallation Neutron Source (NSNS) and is currently preparing an environmental impact statement (EIS), pursuant to the National Environmental Policy Act (NEPA) on this Federal action. The proposed NSNS facility would consist of a proton accelerator system, a spallation target and appropriate experimental areas, laboratories, offices, and support facilities to allow ongoing and expanded programs of neutron research. The proposed site for the NSNS is the DOE-owned Oak Ridge National Laboratory (ORNL) in Oak Ridge, Tennessee. The alternative sites under consideration include three other DOE-owned laboratories: Argonne National Laboratory, Argonne, Illinois; Brookhaven National Laboratory, Brookhaven, New York; and Los Alamos National Laboratory, Los Alamos, New Mexico.

The proposed NSNS would produce short pulses of neutrons for use in materials research. This would be accomplished through the "spallation" process wherein (1) subatomic particles, called protons, are accelerated to very high energies; (2) the high energy protons are "bunched" into a compact group; (3) the bunched, high energy protons are directed onto a target made of a high atomic number material, in this case mercury; and (4) the collision of the protons with the target produces a pulse of neutrons from the target material. Once the spallation process is completed and the neutron pulse is produced, the neutrons would be slowed to useful energy levels and guided onto samples of the materials being studied where the interactions of the neutrons and the specimens would be measured and analyzed, thus revealing information on the structure, properties, and behavior of the test material.

The proposed location of the NSNS at ORNL is on Chestnut Ridge, just west of Chestnut Ridge Road originating from the 7000 area of ORNL (see enclosed figure). The general terrain along

Mr. James C. Widlak -2- September 18, 1997

this ridge provides sufficient area for and burial of the linear accelerator portion of the NSNS. This site is close to utilities (electrical, water, and gas), is easily accessible via the existing road, lies close to a storage area for backfill material and spoils (the West Borrow Area), and is close to ORNL. The land cover is primarily oak-hickory forest.

Surveys for listed species, primarily associated with tributaries to Bear Creek, have been undertaken in the recent past and have identified several State of Tennessee listed species in Natural Area 52 and Habitat area 3, including *Collinsonia verticillata* (Whorled horse-balm) *Hydrastis canadensis* (Golden seal), *Panax quinquifolius* (Ginseng), and *Platanthera flava* var. *herbiola* (Tubercled rein-orchid). ORNL ecologists are surveying the proposed NSNS site for listed species to update previously collected data.

This letter is intended to serve as informal consultation under Section 7 of the Endangered Species Act. In this regard, DOE requests an updated list of protected species and habitat on and in the vicinity of the proposed NSNS site and solicits your recommendation and comments about the potential effects of this proposed action. Your input will be used in the preparation of the environmental impact statement . A reply by the end of October would be appreciated.

If you need further information on this request, please do not hesitate to call me at (423) 576-0938.

Sincerely,

James L. Elmore

James L. Elmore, Ph.D.
Alternate NEPA Compliance Officer

Enclosure

cc w/o enclosure:
D. Wilfert, ER-111, FEDC
D. Bean, EASI

United States Department of the Interior

FISH AND WILDLIFE SERVICE
446 Neal Street
Cookeville, Tennessee 38501

September 26, 1997

Dr. James L. Elmore
U.S. Department of Energy
P.O. Box 2001
Oak Ridge, Tennessee 37831

Re: National Spallation Neutron Source

Dear Dr. Elmore:

Thank you for your letter and enclosures of September 18, 1997, regarding the proposed project in Roane County, Tennessee. The Fish and Wildlife Service (Service) has reviewed the information submitted and offers the following comments.

According to our records, the following federally listed or proposed endangered or threatened species may occur in the project impact area:

Gray bat - Myotis grisescens (E)
Slender chub - Hybopsis cahni (T)
Yellowfin madtom - Noturus flavipinnis (T)
Red-cockaded woodpecker - Picoides borealis (E)
Spotfin chub - Hybopsis monacha (T)
American hart's tongue fern - Phyllitis scolopendrium var. americana (T)
Virginia spiraea - Spiraea virginiana (T)

The species records provided are based on the proposed location of your project. Freshwater mussel records have not been provided because your proposed project is not in the immediate vicinity of the Clinch River.

You should assess potential impacts and determine if the proposed project may affect the species. A finding of "may affect" could require initiation of formal consultation. We recommend that you submit a copy of your assessment and finding to this office for review and concurrence.

OFFICIAL FILE COPY
AMESQ
Log No. A 1672
Date Received SEP 30 1997
File Code

Information available to the Service does not indicate that wetlands exist in the vicinity of the proposed project. However, our wetland determination has been made in the absence of a field inspection and does not constitute a wetland delineation for the purposes of Section 404 of the Clean Water Act or the wetland conservation provisions of the Food Security Act. The Corps of Engineers or the Natural Resources Conservation Service should be contacted if other evidence, particularly that obtained during an on-site inspection, indicates the potential presence of wetlands. Our current assumption is that the proposed project will not be in the immediate vicinity of Bear Creek.

Thank you for the opportunity to comment on this action. If you have any questions, please contact Allen Robison of my staff at 615/528-6481.

Sincerely,

Lee A. Barclay, Ph.D.
Field Supervisor

Department of Energy

Oak Ridge Operations Office
P.O. Box 2001
Oak Ridge, Tennessee 37831—

December 9, 1997

Mr. Joseph Garrison
Tennessee Historical Commission
Department of Environment and Conservation
701 Broadway
Nashville, Tennessee 37243-0442

Dear Mr. Garrison:

NATIONAL HISTORIC PRESERVATION ACT, SECTION 106 COMPLIANCE; SPALLATION NEUTRON SOURCE (SNS), ROANE AND ANDERSON COUNTIES TENNESSEE

Enclosed are a project summary, maps, and an archeological reconnaissance survey for the proposed project. The proposed project would be located along the southern slope of Chestnut Ridge within the Oak Ridge National Laboratories (ORNL), approximately midway between the Y-12 Plant and the main ORNL facilities in Roane and Anderson Counties, Tennessee. Based on the enclosed archeological reconnaissance survey prepared by DuVall and Associates, Department of Energy Oak Ridge Operations (DOE ORO) has determined that the proposed project would have no effect on historical, archeological, or cultural resources included or eligible for inclusion in the National Register of Historic Places. This determination is included with the Project Summary. With your concurrence in this determination, DOE ORO's responsibilities for compliance with Section 106 of the National Historic Preservation Act will be completed for this project. If you have questions or need additional information related to this proposed project please call me at (423) 576-9574.

Sincerely,

Ray T. Moore

Ray T. Moore
DOE ORO Cultural Resources
Management Coordinator

Enclosure

cc w/enclosure:
EC Document Center K-25

cc w/o enclosure:
See Page 2

This page intentionally left blank.

TENNESSEE HISTORICAL COMMISSION
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
2941 LEBANON ROAD
NASHVILLE, TN 37243-0442
(615) 532-1550

December 29, 1997

Mr. Ray T. Moore
Department of Energy
Post Office Box 2001
Oak Ridge, Tennessee 37831

RE: DOE, ARCHAEOLOGICAL ASSESSMENT, SPALLATION NEUTRON SOURCE, OAK RIDGE, ROANE AND ANDERSON COUNTIES,

Dear Mr. Moore:

At your request, our office has reviewed the above-referenced archaeological survey report in accordance with regulations codified at 36 CFR 800 (51 FR 31115, September 2, 1986). Based on the information provided, we find that the project area contains no archaeological resources eligible for listing in the National Register of Historic Places.

Therefore, this office has no objection to the implementation of this project. If project plans are changed or archaeological remains are discovered during construction, please contact this office to determine what further action, if any, will be necessary to comply with Section 106 of the National Historic Preservation Act.

Your cooperation is appreciated.

Sincerely,

Herbert L. Harper
Executive Director and
Deputy State Historic
Preservation Officer

HLH/jmb

This page intentionally left blank.

Department of Energy

Oak Ridge Operations Office
P.O. Box 2001
Oak Ridge, Tennessee 37831—

December 29, 1997

Mr. Reginald G. Reeves, Director
Division of Natural Heritage
State of Tennessee
Department of Environment and Conservation
401 Church Street
Nashville, Tennessee 37243-0443

Dear Mr. Reeves:

CONSULTATION CONCERNING STATE-LISTED SPECIES FOR THE PROPOSED SITING, CONSTRUCTION, AND OPERATION OF THE SPALLATION NEUTRON SOURCE

The U.S. Department of Energy (DOE) proposes to site, construct, and operate the Spallation Neutron Source (SNS) and is currently preparing an environmental impact statement (EIS), pursuant to the National Environmental Policy Act (NEPA), on this federal action. The proposed SNS facility would consist of a proton accelerator system, a spallation target and appropriate experimental areas, laboratories, offices, and support facilities to allow ongoing and expanded programs of neutron research. The proposed site for the SNS is the DOE-owned Oak Ridge National Laboratory (ORNL) in Oak Ridge, Tennessee. The alternative sites under consideration include three other DOE-owned laboratories: Argonne National Laboratory, Argonne, Illinois; Brookhaven National Laboratory, Brookhaven, New York; and Los Alamos National Laboratory, Los Alamos, New Mexico.

The proposed SNS would produce short pulses of neutrons for use in materials research. This would be accomplished through the "spallation" process wherein (1) subatomic particles, called protons, are accelerated to very high energies; (2) the high energy protons are "bunched" into a compact group; (3) the bunched, high energy protons are directed onto a target made of a high atomic number material, in this case mercury; and (4) the collision of the protons with the target produces a pulse of neutrons from the target material. Once the spallation process is completed and the neutron pulse is produced, the neutrons would be slowed to useful energy levels and guided onto samples of the materials being studied where the interactions of the neutrons and the specimens would be measured and analyzed, thus revealing information on the structure, properties, and behavior of the test material.

Mr. Reginald G. Reeves
Page 2

The proposed location of the SNS at ORNL is on Chestnut Ridge, just west of Chestnut Ridge Road originating from the 7000 area of ORNL (see attached figure). The general terrain along this ridge provides sufficient area for and burial of the linear accelerator portion of the SNS. This site is close to utilities (electrical, water, and gas), is easily accessible via the existing road, lies close to a storage area for backfill material and spoils (the West Borrow Area), and is close to ORNL. The land cover is primarily oak-hickory forest.

Surveys for listed species, primarily associated with tributaries to Bear Creek, have been undertaken in the recent past and have identified several State of Tennessee listed species in Natural Area 52 and Habitat area 3, including *Collinsonia verticillata* (Whorled horse-balm) *Hydrastis canadensis* (Golden seal), *Panax quinquifolius* (Ginseng), and *Platanthera flava* var. *herbiola* (Tubercled rein-orchid). ORNL ecologists are surveying the proposed SNS site for listed species to update previously collected data.

This letter is intended to serve as a request for an updated list of state-protected species that may occur on and in the vicinity of the proposed SNS site and to solicit your recommendations and comments about the potential effects of this proposed action. Your input will be used in the preparation of the environmental impact statement . A reply by the end of January would be appreciated.

If you need further information on this request, please do not hesitate to call me at (423) 576-0938.

Sincerely,

James L. Elmore, Ph.D.
Alternate NEPA Compliance Officer

Enclosure

cc w/o enclosure:
D. Wilfert, ER-111, FEDC, Room 146
D. Bean, EASI, 663 Emory Valley Road, Oak Ridge, TN 37830
D. Arakawa, ER-112, ORNL Site Office, Bldg. 4500N, Room 0224

Department of Energy

Oak Ridge Operations
P.O. Box 2001
Oak Ridge, Tennessee 37831—

August 12, 1998

Lieutenant Colonel Christopher Young
Nashville District Engineer
U.S. Army Corps of Engineers
P.O. Box 1070
Nashville, Tennessee 37202

Dear Colonel Young:

CONSULTATION UNDER SECTION 404 OF THE CLEAN WATER ACT FOR THE PROPOSED SITING, CONSTRUCTION, AND OPERATION OF THE SPALLATION NEUTRON SOURCE

The U.S. Department of Energy (DOE) proposes to site, construct, and operate the Spallation Neutron Source (SNS) facility, and is currently preparing an environmental impact statement (EIS), pursuant to the National Environmental Policy Act (NEPA) on this federal action. The proposed SNS facility would consist of a proton accelerator system, a spallation target, appropriate experimental areas, laboratories, offices, and support facilities for neutron research. The EIS will include discussion of potential impacts at four alternative locations for the SNS, all DOE-owned laboratories: Oak Ridge National Laboratory (ORNL), Oak Ridge, Tennessee; Argonne National Laboratory (ANL), Argonne, Illinois; Los Alamos National Laboratory (LANL), Los Alamos, New Mexico; and Brookhaven National Laboratory (BNL), Upton, New York.

The proposed SNS would produce short pulses of neutrons for use in materials and biomedical research. This would be accomplished through the "spallation" process wherein (1) subatomic particles, called protons, are accelerated to very high energies; (2) the high energy protons are "bunched" into a compact group; (3) the bunched, high energy protons are directed onto a target made of a high atomic number material, in this case mercury; and (4) the collision of the protons with the target produces a pulse of neutrons from the target material. The neutrons would then be slowed to useful energy levels, and guided to samples of the materials being studied. The interactions of the neutrons and the specimens would be measured and analyzed, revealing information on the structure, properties, and behavior of the test material.

Construction of the SNS at ORNL would involve the taking of two small palustrine emergent wetlands on the Chestnut Ridge construction site (see Figures 4.1.2.1-1 and 4.1.5.2-1 from the preliminary draft EIS). These two wetlands have a combined area of 0.12 acres (0.05 ha). One of these small wetlands is an emergent wetland in an isolated depression (WOM14 on Figure 4.1.5.2-1). It is adjacent to another small wetland swale that lies immediately adjacent to

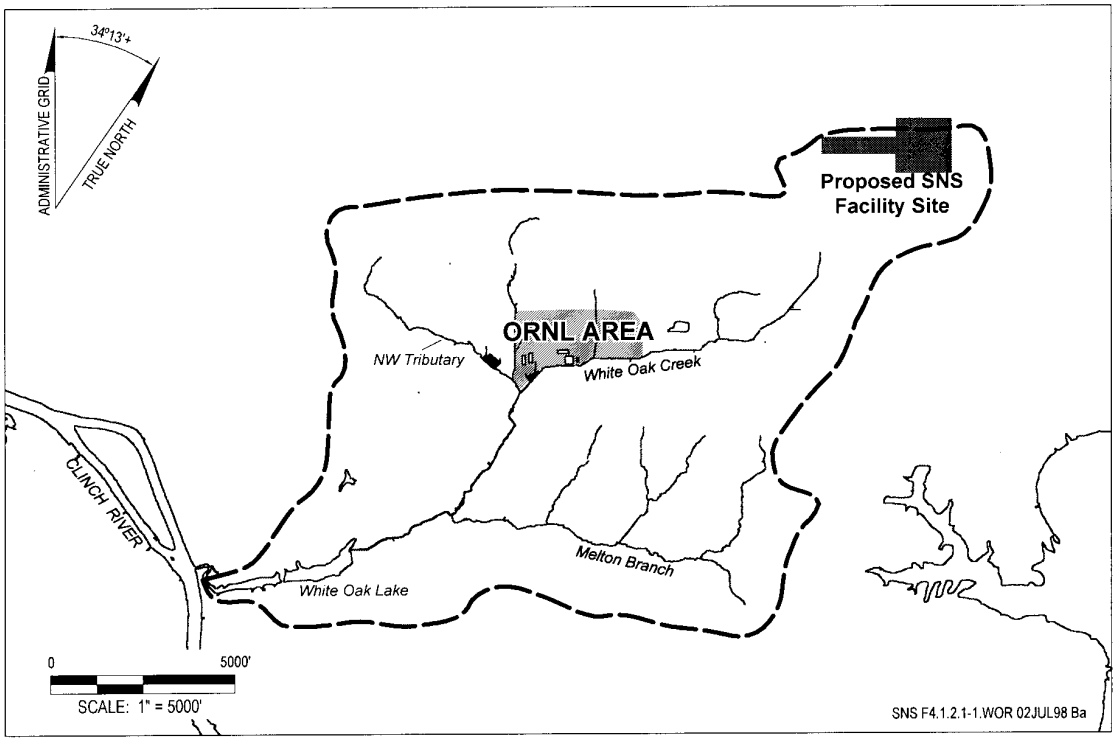

Figure 4.1.2.1-2. White Oak Creek drainage.

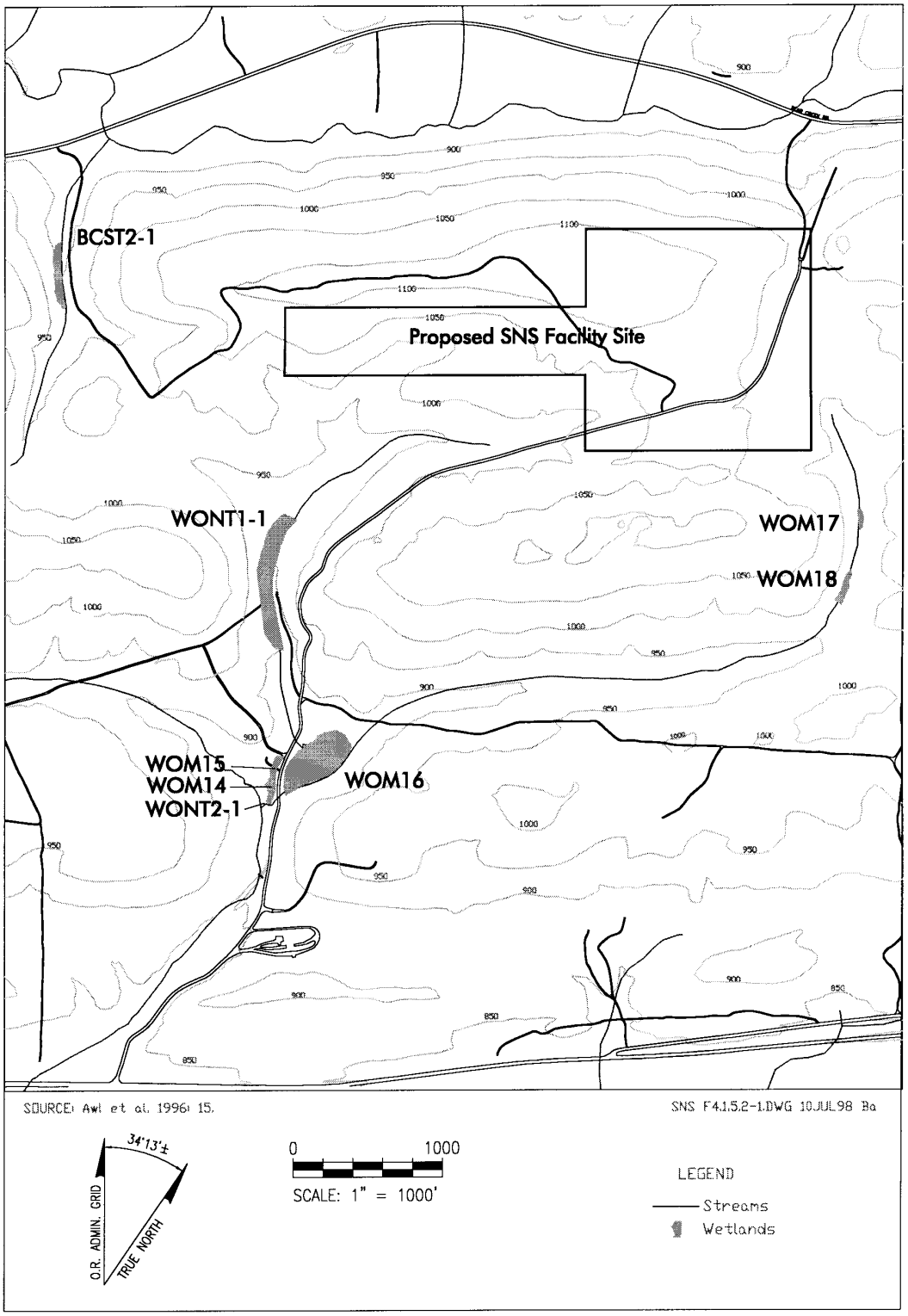

Figure 4.1.5.2-1. Wetland areas within and adjacent to the proposed SNS site.

Lieutenant Colonel Christopher Young 2

Chestnut Ridge Road near where it crosses White Oak Creek (WOM15). The depression does not appear to have a surface outlet to the swale or to nearby White Oak Creek. Upgrades needed to Chestnut Ridge Road and the laying of a gas pipeline would encroach on these areas and require the taking of the 0.12 acres of wetlands. A third wetland (WOM16) with an area of 1.6 acres (0.65 ha) could receive increased runoff and siltation during construction activities.

The purpose of this letter is to initiate consultation concerning permitting requirements under Section 404 of the Clean Water Act. It appears that these activities could be performed under nationwide permit number 26. Please advise as to whether this activity would be covered by a nationwide permit or if an individual permit would be needed. Also, include in your reply what types and extent of mitigation, if any, might be required. Any other comments on the Section 404 aspects of the project would be appreciated. I would be most grateful if you could reply by the end of August.

If you need further information on this request, please do not hesitate to call me at (423)576-0938.

Sincerely,

James L. Elmore, PhD
Alternate NEPA Compliance Officer

Enclosure

cc w/enclosure:
Dave Wilfert, ER-111
Dave Bean, EASI
Tim Joseph, SE-32
Clarence Hickey, ER-83

DEPARTMENT OF THE ARMY
NASHVILLE DISTRICT, CORPS OF ENGINEERS
P. O. BOX 1070
NASHVILLE, TENNESSEE 37202-1070

IN REPLY REFER TO

August 25, 1998

Regulatory Branch

Subject: Proposed Siting, Construction, and Operation of the Spallation Neutron Source Facility

James L. Elmore, PhD
Department of Energy
Oak Ridge Operations
P.O. Box 2001
Oak Ridge, Tennessee 37831

Dear Dr. Elmore:

We have received your letter requesting information concerning permit requirements for wetland impacts that may occur as a result of the subject work. Your letter states that upgrades to Chestnut Ridge Road and the placement of a gas pipeline would encroach upon approximately 0.12 acres of wetlands.

As we discussed on the phone today, the work would likely be covered under a nationwide permit (NWP). NWP 26 is scheduled to expire at the end of this year; however, there are NWP's that cover minor road crossings and utility line discharges.

Until detailed plans of the activities requiring a DA permit are received, we are not able to determine which NWP would apply or if an individual permit would be necessary. Also, mitigation requirements, if any, would have to be determined at that time.

If you have any question regarding this matter, please contact me at the above address, telephone(615)736-5183.

Sincerely,

Bradley N. Bishop
Project Manager
Construction-Operations Division

This page intentionally left blank.

LANL CONSULTATION LETTERS

This page intentionally left blank.

E Withers

Department of Energy
Albuquerque Operations Office
Los Alamos Area Office
Los Alamos, New Mexico 87544

DEC 08 1997

Ms. Jennifer Fowler-Propst
State Supervisor
U. S. Fish and Wildlife Service
Ecological Services
2105 Osuna Road, NE
Albuquerque, NM 87113

Dear Ms. Fowler-Propst:

The Department of Energy (DOE) is preparing an Environmental Impact Statement (EIS) for the siting, construction, and operation of the Spallation Neutron Source (SNS) Facility. This proposed facility would consist of a proton accelerator system, a spallation target, and appropriate experimental areas, laboratories, offices, and support facilities for neutron research, including parking areas. The EIS will include discussion of potential impacts at four alternative locations for the SNS: Oak Ridge National Laboratory (ORNL), Oak Ridge, Tennessee; Argonne National Laboratory, Argonne, Illinois; Brookhaven National Laboratory, Upton, New York; and Los Alamos National Laboratory (LANL), Los Alamos, New Mexico. At LANL, the site location identified as most suitable for this type of facility lies within Technical Area 70 along a mesa top about equidistant from Ancho Canyon to the southwest and an unnamed canyon to the northeast. The rims of both canyons would lie about one-quarter mile away from the facility site, with the Rio Grande being located to the east about 1.2 miles, and State Road 4 being located about one-quarter mile to the west. The vegetation in the proposed SNS site area is dominated by piñon-juniper woodlands with scattered juniper savannas.

Existing site information is being used for the analysis of alternatives presented in the Draft SNS EIS. If LANL is chosen as the preferred location for this facility, an in-depth analysis of the site would be performed, which would include the preparation of a Biological Assessment and consultation with the U. S. Fish and Wildlife Service (Service). In the initial stages of analysis, the species being considered for this Los Alamos County site and their current legal status are as follows:

- *Falco peregrinus anatum* (American peregrine falcon) - endangered
- *Strix occidentalis lucida* (Mexican spotted owl) - threatened
- *Empidonax traillii extimus* (Southwestern willow flycatcher) - endangered
- *Haliaeetus leucocephalus* (Bald eagle) - threatened
- *Falco peregrinus tundrius* (Arctic peregrine falcon) - threatened
- *Grus americana* (Whooping crane) - endangered
- *Mustela nigripes* (Black-footed ferret) - endangered

Jennifer Fowler-Propst 2 DEC 08 1997

The site includes foraging habitat for the American peregrine falcon and foraging and roosting habitat for the bald eagle. The nearest identified peregrine falcon nesting habitat is within White Rock Canyon about 1.2 miles from the site. Wintering bald eagles forage and roost within White Rock Canyon and its connecting canyons, including Ancho Canyon.

We request that the Service review this list for completeness of species considered and the accuracy of legal status in light of any changes in listing under the Endangered Species Act that may have taken place during the last year. Please either then concur with this list or supply us with an updated list.

We would like to thank the Service for its continued support and assistance in our LANL National Environmental Policy Act and Endangered Species Act compliance efforts. For your information and planning purposes, the current estimate for having a Draft LANL Sitewide EIS available for stakeholder review is the February 1998 time frame. It is expected that the Sitewide Biological Assessment will be delivered to your office before that time for your review and concurrence with our determination.

Sincerely,

G. Thomas Todd
Area Manager

LAAME:3EW-100

cc:
J. Elmore, ORNL
E. Withers, LAAME, LAAO
R. Enz, Scientech, LAAO
J. Huchton, ESH-20, LANL, MS-M887

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Mexico Ecological Services Field Office
2105 Osuna NE
Albuquerque, New Mexico 87113
Phone: (505) 761-4525 Fax: (505) 761-4542

January 7, 1998

Cons. #2-22-98-I-096

G. Thomas Todd, Area Manager
U.S. Department of Energy
Albuquerque Operations Office
Los Alamos Area Office
Los Alamos, NM 87544

Dear Mr. Todd:

This responds to your letter dated December 8, 1997, requesting a list of species federally listed or proposed to be listed as endangered or threatened. The Department of Energy (DOE) is preparing an Environmental Impact Statement for the siting, construction, and operation of the Spallation Neutron Source (SNS) Facility. The proposed facility would consist of a proton accelerator system, a spallation target, and appropriate experimental areas, laboratories, offices, and support facilities for neutron research. The proposed site location identified as most suitable for this type of facility lies within Technical Area 70 along a mesa top about equidistant from Ancho Canyon to the southwest and an unnamed canyon to the northeast. The rims of both canyons lie about one-quarter mile away from the facility site. The vegetation in the proposed SNS site area is dominated by pinon-juniper woodlands with scattered juniper savannas.

Due to staffing constraints, we are unable to develop site specific species lists for your action. However, we have enclosed a list of Federally endangered, threatened, and candidate species, and species of concern potentially occurring in Los Alamos County, New Mexico. Note that the Arctic peregrine falcon (Falco peregrinus tundrius) is listed as endangered, not threatened as indicated in your letter. Under the Endangered Species Act (Act), it is the responsibility of the Federal action agency or its designated representative to determine whether the proposed action "may affect" any listed or proposed species.

Candidates are those species for which the U.S. Fish and Wildlife Service (Service) has sufficient information on their biological status and threats to propose them as endangered or threatened, but for which issuance of a proposed rule is precluded by work on higher priority species. Species of concern include those for which further biological research and field study are needed to resolve their conservation status. Candidate species and species of concern have no legal protection under the Act and are included in this document for planning purposes only. However, the Service is

G. Thomas Todd, Area Manager 2

concerned and would appreciate receiving any status information that is available or gathered on these species.

Wetlands, riparian vegetation, and the above listed species' sensitive habitat(s) should also be protected. If adverse impacts cannot be avoided, we would appreciate discussing your project in more detail.

We suggest you contact the New Mexico Department of Game and Fish and the New Mexico Energy, Minerals and Natural Resources Department for information concerning fish, wildlife, and plants of State concern.

For further communication on this project, please refer to consultation #2-22-98-I-096. If we can be of further assistance, please contact Yvette Truitt of my staff at (505) 761-4525 ext. 120.

Sincerely,

Jennifer Fowler-Propst
Field Supervisor

Enclosure

cc: (wo/enc)
Director, New Mexico Department of Game and Fish, Santa Fe, New Mexico
Director, New Mexico Energy, Minerals and Natural Resources Department, Forestry and Resources Conservation Division, Santa Fe, New Mexico

Species List
Los Alamos County
January 7, 1998

Los Alamos

Big free-tailed bat, Nyctinomops macrotis (=Tadarida m., T. molossa), SC
Black-footed ferret, Mustela nigripes, E
Goat Peak pika, Ochotona princeps nigrescens, SC
Long-legged myotis, Myotis volans, SC
New Mexican meadow jumping mouse, Zapus hudsonius luteus, SC
Occult little brown bat, Myotis lucifugus occultus, SC
Spotted bat, Euderma maculatum, SC
American peregrine falcon, Falco peregrinus anatum, E
Arctic peregrine falcon, Falco peregrinus tundrius, E (S/A)
Bald eagle, Haliaeetus leucocephalus, T
Ferruginous hawk, Buteo regalis, SC
Mexican spotted owl, Strix occidentalis lucida, T
Loggerhead shrike, Lanius ludovicianus, SC
Northern goshawk, Accipiter gentilis, SC
Southwestern willow flycatcher, Empidonax traillii extimus, E
White-faced ibis, Plegadis chihi, SC
Whooping crane, Grus americana, XN
Flathead chub, Platygobio (=Hybopsis) gracilis, SC
Jemez Mountains salamander, Plethodon neomexicanus, SC

Index

E	=	Endangered
PE	=	Proposed Endangered
PE w/CH	=	Proposed Endangered with critical habitat
T	=	Threatened
PT	=	Proposed Threatened
PT w/CH	=	Proposed Threatened with critical habitat
PCH	=	Proposed critical habitat
C	=	Candidate Species
SC	=	Species of Concern
S/A	=	Similarity of Appearance
*	=	Introduced population
XN	=	Nonessential experimental

This page intentionally left blank.

Protected and sensitive species found on the LANL, as reported in the site-wide EIS for LANL.

SPECIES	FEDERAL STATUS/ SPECIES OF CONCERN	STATE STATUS	HABITAT NEEDS	COMMENTS
			ANIMAL SPECIES	
American Peregrine Falcon (*Falco peregrinus anatum*)	Endangered	Threatened	• Uses the juniper savannah, pinyon-juniper woodland, ponderosa pine forest, and mixed-conifer forest vegetation zones • Requires cliffs for nesting	• Forages on LANL. Nests and forages on adjacent lands.
Whooping Crane (*Grus americana)*	Endangered	Endangered	• Requires rivers and marshes • Roosts on sand bars	• Migratory visitor along the Rio Grande and Cochiti Lake
Southwestern Willow Flycatcher (*Empidonax traillii extimus*)	Endangered	Endangered	• Requires riparian areas and vegetation • Requires dense riparian vegetation	• Potential presence on LANL and White Rock Canyon • Potential nesting area on LANL • Present in Jemez Mountains • Present in riparian zone near Española
Bald Eagle (*Haliaeetus leucocephalus)*	Threatened	Threatened	• Rivers and lakes	• Observed as a migratory and winter resident along the Rio Grande and on adjacent LANL lands
Mexican Spotted Owl (*Strix occidentalis lucida*)	Threatened	Sensitive (informal)	• Mixed conifer, ponderosa pine • Prefers tall, old-growth forest in canyons and moist areas for breeding • Forages in forests, woodlands, and rocky areas	• Breeding resident on LANL, LAC, BNM, and SFNF lands • Critical habitat designated on SFNF lands
Jemez Mountain Salamander (*Plethodon neomexicanus)*	Species of Concern	Threatened	• Uses the mixed-conifer forest vegetation zone • Requires north-facing, moist slopes	• Permanent resident on LANL, LAC, BNM, and SFNF lands

Protected and sensitive species found on the LANL, as reported in the site-wide EIS for LANL (continued).

SPECIES	FEDERAL STATUS/ SPECIES OF CONCERN	STATE STATUS	HABITAT NEEDS	COMMENTS
Baird's Sparrow (*Ammodramus bairdii*)	Species of Concern	Threatened	• Uses the pinyon-juniper woodland, ponderosa pine forest and mixed-conifer forest vegetation zones	• Observed on SFNF lands
Spotted Bat (*Euderma maculatum*)	Species of Concern	Threatened	• Uses the pinyon-juniper woodland, ponderosa pine forest, and spruce-fir forest vegetation zones • Requires riparian areas • Roosts in cliffs near water	• Permanent resident on BNM and SFNF lands • Seasonal resident on LANL
New Mexico Jumping Mouse (*Zapus hudsonius luteus*)	Species of Concern	Threatened	• Uses the mixed-conifer and spruce-fir forest vegetation zones • Requires riparian areas • Requires water nearby	• Permanent resident on LAC and SFNF lands • Overwinters by hibernating
Flathead Chub (*Platygobio gracilis*)	Species of Concern	Unlisted	• Requires access to perennial rivers	• Permanent resident of the Rio Grande between Española and the Cochiti Reservoir
Ferruginous Hawk (*Buteo regalis*)	Species of Concern	Unlisted	• Uses the juniper savannah and pinyon-juniper woodlands vegetation zone	• Observed as a breeding resident on LAC, LANL, BNM, and SFNF lands
Northern Goshawk (*Accipiter gentilis*)	Species of Concern	Sensitive (informal)	• Uses the mixed-conifer, ponderosa pine, spruce-fir forest vegetation zones	• Observed as a breeding resident on LAC, LANL, BNM, and SFNF lands
White-Faced Ibis (*Plegadis chihi*)	Species of Concern	Unlisted	• Requires perennial rivers and marshes	• Summer resident and migratory visitor on the Rio Grande and SFNF lands

Protected and sensitive species found on the LANL, as reported in the site-wide EIS for LANL (continued).

SPECIES	FEDERAL STATUS/ SPECIES OF CONCERN	STATE STATUS	HABITAT NEEDS	COMMENTS
Loggerhead Shrike (*Lanius ludovicianus*)	Species of Concern	Unlisted	• Uses the juniper savannah, pinyon-juniper woodland, ponderosa pine forest, and mixed-conifer forest vegetation zones	• Observed on LAC, BNM, and SFNF lands
Big Free (Tailed Bat (*Nyctinomops macrotis)*	Species of Concern	Sensitive (informal)	• Uses the juniper savannah, pinyon-juniper woodland, and ponderosa pine forest, and mixed conifer forest vegetation zones • Roosts on cliffs	• Migratory visitor on LAC, BNM, and SFNF lands
Fringed Myotis (*Myotis thysanodes)*	Species of Concern	Sensitive (informal)	• Uses the juniper savannah, pinyon juniper woodland, ponderosa pine forest vegetation zones • Roosts in caves and buildings	• Observed on LANL, BNM, and SFNF lands
Long-Eared Myotis (*Myotis evotis)*	Species of Concern	Sensitive (informal)	• Uses the ponderosa pine forest, mixed-0conifer, and spruce-fir forests vegetation zones • Roosts in dead ponderosa pine trees	• Summer resident on LANL, LAC, BNM, and SFNF lands
Long-Legged Myotis (*Myotis volans*)	Species of Concern	Sensitive (informal)	• Uses the pinyon-juniper woodland, ponderosa pine forest, and mixed-conifer forest vegetation zones • Roosts in dead conifer trees	• Summer resident on LANL, LAC, BNM, and SFNF lands
Small-Footed Myotis (*Myotis ciliolabrum*)	Species of Concern	Sensitive (informal)	• Uses the juniper savannah, pinyon-juniper woodland, ponderosa pine forest, and mixed-conifer forest vegetation zones • Roosts in cliffs and caves	• Observed on LANL, BNM, and SFNF lands • Overwinters by hibernating
Yuma Myotis (*Myotis yumanensis*)	Species of Concern	Sensitive (informal)	• Uses the juniper savannah and pinyon-juniper woodland forest vegetation zones • Roosts in cliffs and caves near water	• Summer resident on LANL, LAC, and SFNF lands

Protected and sensitive species found on the LANL, as reported in the site-wide EIS for LANL (continued).

SPECIES	FEDERAL STATUS/ SPECIES OF CONCERN	STATE STATUS	HABITAT NEEDS	COMMENTS
Occult Little Brown Bat (*Myotis lucifugas occultus*)	Species of Concern	Sensitive (informal)	• Uses the pinyon-juniper woodland and ponderosa pine forest vegetation zones • Requires riparian areas • Forages over water	• Observed on SFNF lands
Pale Townsend's Big-eared Bat (*Plecotus townsendii pallescens*)	Species of Concern	Sensitive (informal)	• Uses the pinyon-juniper woodland, ponderosa pine forest, and mixed-conifer forest vegetation zones • Roosts in caves	• Observed on LANL and BNM lands • Overwinters by hibernating
Goat Peak Pika (*Ochotona princeps nigrescens*)	Species of Concern	Sensitive (informal)	• Uses the mixed-conifer and spruce-fir forests vegetation zones • Requires boulder piles and rockslides	• Observed on LAC and BNM lands
Gray Vireo (*Vireo vicinior*)	Unlisted	Threatened	• Uses riparian area in the juniper savannah and pinyon-juniper forests vegetation zones	• Observed on LAC, BNM, and SFNF lands
PLANT SPECIES				
Wood Lily (*Lilium philadelphicum L.* var. *andium* (Nutt. Ker)	Unlisted	Endangered	• Grows in the ponderosa pine forest, mixed-conifer, and spruce-fir forests vegetation zones • Requires moist soil	• Observed on LAC, BNM, and SFNF lands
Yellow Lady's Slipper Orchid (*Cyprepedium calceolus L.* var. *Pubescens* (Willd.) Correll)	Unlisted	Endangered	• Requires riparian areas • Grows in the mixed-conifer forest vegetation zones • Requires moist soil	• Observed on BNM lands
Helleborine Orchid (*Epipactis gigantea* Dougl.)	Unlisted	Rare and sensitive	• Requires riparian areas • Grows in the juniper savannah and pinyon-juniper woodland forests vegetation zones • Requires springs, seeps, or other wet areas	• Observed on LAC lands

Note: This listing was developed with information and guidance provided by biologists from LANL; the FWS; the USFS; the NPS; the National Biological Service; the NMDGF; the New Mexico Energy, Minerals, and Natural Resources Department; and the New Mexico natural Heritage Program, as well as consultations with independent consultants and reviews of the technical literature.

Department of Energy
Albuquerque Operations Office
Los Alamos Area Office
Los Alamos, New Mexico 87544

JUN 2 5 1998

Dr. Lynne Sebastian
State Historic Preservation Officer
Historic Preservation Division
228 East Palace Avenue, 3rd Floor
Santa Fe, NM 87503

Dear Dr. Sebastian:

The U.S. Department of Energy (DOE) is proposing to site, construct, and operate the Spallation Neutron Source (SNS) facility and is currently preparing a Draft Environmental Impact Statement (EIS) for this proposal pursuant to the National Environmental Policy Act (NEPA). This letter is to inform you of DOE's engagement in this decision-making process, which could potentially affect Los Alamos National Laboratory (LANL). The proposed SNS facility would consist of the construction and operation of a proton accelerator system, a spallation target, and appropriate experimental areas, laboratories, offices, and support facilities for neutron research. The Draft EIS will include discussion of potential impacts for siting the SNS facility at four alternative DOE laboratory locations: Oak Ridge National Laboratory (ORNL), Oak Ridge, Tennessee (the contemplated Preferred Alternative); Argonne National Laboratory (ANL), Argonne, Illinois; Brookhaven National Laboratory (BNL), Upton, New York; and LANL, Los Alamos, New Mexico.

The proposed location of the SNS at LANL is within Technical Area 70 (TA-70). The site is located on a mesa flanked by Ancho Canyon 0.27 mi (0.47 km) to the southwest and a small unnamed canyon an equal distance to the northeast. The Rio Grande is located about 1.2 mi (1.9 km) to the east of the site and State Road 4 is about 0.22 mi (0.35 km) to its west. Elevations range from 6,410 feet (1,954 m) to 6,490 feet (1,978 m). The total Area of Potential Effect is estimated to be about 110 acres and includes a 100-foot buffer around the construction site. To date, about 65 percent of the proposed SNS site area has been surveyed for historical, archeological, and cultural resources using linear pedestrian transects spaced 16-33 feet (5-10 m) apart. Five archeological sites have been identified that are deemed to be eligible for inclusion in the National Register of Historic Places under Criterion D. These sites are either single- or double-room field houses, or two- to eight-room pueblos from either the Coalition, Early Coalition, or Classic time periods.

Dr. Lynne Sebastian 2 JUN 25 1998

If DOE decides to select LANL as the preferred site for the SNS, rather than ORNL as is now currently contemplated, a comprehensive survey for cultural resources will be completed for the TA-70 LANL site. We will then engage in full and complete consultation with your office under Section 106 of the National Historic Preservation Act.

If you have any questions regarding this project, please call Dean Triebel at (505) 665-6353 or Elizabeth Withers at (505) 667-8690.

Sincerely,

C. S. Przybylek
Acting Area Manager

LAAME:3EW-109

cc:
Dave Wilfert
Oak Ridge National Laboratory
Bethel Valley Road
Oak Ridge, TN 37831
Dean Triebel, LAAME, LAAO
Tony Ladino, ESH-20, LANL, MS-M887

ANL CONSULTATION LETTERS

This page intentionally left blank.

Department of Energy
Chicago Operations Office
9800 South Cass Avenue
Argonne, Illinois 60439

DEC 11 1997

Mr. Benjamin Tuggle
Field Supervisor
U.S. Fish and Wildlife Service
Chicago Illinois Field Office
1000 Hart Road-Suite 180
Barrington, Illinois 60010

Dear Mr. Tuggle:

SUBJECT: INFORMAL CONSULTATION UNDER SECTION 7 OF THE ENDANGERED SPECIES ACT FOR THE PROPOSED SITING, CONSTRUCTION, AND OPERATION OF THE SPALLATION NEUTRON SOURCE

The U.S. Department of Energy (DOE) proposes to site, construct, and operate Spallation Neutron Source (SNS) and is currently preparing an Environmental Impact Statement (EIS), pursuant to the National Environmental Policy Act on this Federal action. The proposed SNS Facility would consist of a proton accelerator system, a spallation target and appropriate experimental areas, laboratories, offices, and support facilities for neutron research. The EIS will include discussion of potential impacts at four alternative locations for the SNS, all DOE-owned laboratories: Oak Ridge National Laboratory, Oak Ridge, Tennessee; Argonne National Laboratory (ANL), Argonne, Illinois; Los Alamos National Laboratory, Los Alamos, New Mexico; and Brookhaven National Laboratory, Upton, New York. This letter pertains to the potential site located at ANL.

The proposed SNS would produce short pulses of neutrons for use in materials and biomedical research. This would be accomplished through the "spallation" process wherein (1) subatomic particles, called protons, are accelerated to very high energies; (2) the high energy protons are "bunched" into a compact group; (3) the bunched, high energy protons are directed onto a target made of a high atomic number material, in this case mercury; and (4) the collision of the protons with the target produces a pulse of neutrons from the target material. The neutrons would be slowed to useful energy levels, and guided to samples of the materials being studied. The interactions of the neutrons and the specimens would be measured and analyzed, revealing information on the structure, properties, and behavior of the test material.

DEC 11 1997

Mr. Benjamin Tuggle - 2 -

The proposed location of the SNS at ANL is in the 800 Area in the northwest corner of the Laboratory (see enclosed figure). There are several areas of wetlands and floodplains that may be affected by construction of the SNS, however, impacts could probably be mitigated. According to our information, there would be no involvement of habitat for State or Federally-listed threatened or endangered species. I have enclosed a description of the ecological resources based on a recent biological survey of the site performed by ANL.

This letter serves as informal consultation under Section 7 of the Endangered Species Act. In this regard, DOE requests an updated list of protected species and habitat on and in the vicinity of the proposed SNS site and solicits your recommendation and comments about any potential effects this proposed action may have. Your input will be used in the preparation of the EIS. Reply at your earliest convenience would be appreciated.

If you need further information on this request, please do not hesitate to call W. S. White, of my staff, at (630) 252-2101.

Sincerely,

Michael J. Flannigan, Director
Safety and Technical Services

Enclosure:
As Stated

cc: D. Wilfert, OR, w/o encl.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Chicago Illinois Field Office
1000 Hart Road – Suite 180
Barrington, Illinois 60010
708/381-2253

IN REPLY REFER TO:
FWS/AES-CIFO

December 23, 1997

Michael Flannigan
U.S. Department of Energy
Chicago Operations Office
9600 South Cass Avenue
Argonne, IL 60439

Dear Mr. Flannigan:

This is in response to your letter dated December 11, 1997 requesting information on endangered or threatened species and Informal Consultation in accordance with Section 7 of the Endangered Species Act of 1973, as amended. The request was pertaining to the proposed siting, construction, and operation of a spallation neutron source at Argonne National Laboratory (ANL). Three other alternative sites in other parts of the country are also being investigated.

We have reviewed the information included with your letter. It is not clear if all of the resources described therein are within the "800 Area" or if they are throughout the ANL site. Of the habitats described, the wetlands and mature oak woodlands would have the most ecological value and thus potential impacts to these communities would be of the greatest concern to this Office. The only federally listed species that may be affected by the project is the Hine's emerald dragonfly (*Somatochlora hineana*). As you noted, this species does not occur within the project site but is in the vicinity. Further specifics of the project would be needed before a determination could be made as to the likelihood of adverse impacts to this species from the project. As with other recent consultations regarding projects at Argonne, the primary concern would relate to potential groundwater impacts. As more information becomes available through the development of an Environmental Impact Statement we would be happy to review it to make a definitive determination.

Thank you for the opportunity for input and consultation early in your evaluation and planning process. If you have any questions, please contact Mr. Jeff Mengler at 847/381-2253, ext. 226.

Sincerely,

for John D. Rogner
Acting Field Supervisor

This page intentionally left blank.

Department of Energy
Chicago Operations Office
9800 South Cass Avenue
Argonne, Illinois 60439

DEC 12 1997

Ms. Anne E. Haaker
Deputy State Historic Preservation Officer
Illinois Historic Preservation Agency
Old State Capitol
Springfield, Illinois 62701

Dear Ms. Haaker:

SUBJECT: CONSULTATION UNDER SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT FOR THE PROPOSED SITING, CONSTRUCTION, AND OPERATION OF THE SPALLATION NEUTRON SOURCE

The U.S. Department of Energy (DOE) proposes to site, construct, and operate Spallation Neutron Source (SNS) and is currently preparing an Environmental Impact Statement (EIS), pursuant to the National Environmental Policy Act on this Federal action. The proposed SNS Facility would consist of a proton accelerator system, a spallation target and appropriate experimental areas, laboratories, offices, and support facilities for neutron research. The EIS will include discussion of potential impacts at four alternative locations for the SNS, all DOE-owned laboratories: Oak Ridge National Laboratory, Oak Ridge, Tennessee; Argonne National Laboratory (ANL), Argonne, Illinois; Los Alamos National Laboratory, Los Alamos, New Mexico; and Brookhaven National Laboratory, Upton, New York. This letter pertains to the potential site located at ANL.

The proposed SNS would produce short pulses of neutrons for use in materials and biomedical research. This would be accomplished through the "spallation" process wherein (1) subatomic particles, called protons, are accelerated to very high energies; (2) the high energy protons are "bunched" into a compact group; (3) the bunched, high energy protons are directed onto a target made of a high atomic number material, in this case mercury; and (4) the collision of the protons with the target produces a pulse of neutrons from the target material. The neutrons would be slowed to useful energy levels, and guided to samples of the materials being studied. The interactions of the neutrons and the specimens would be measured and analyzed, revealing information on the structure, properties, and behavior of the test material.

DEC 12 1997

Ms. Anne Haaker - 2 -

The proposed location of the SNS at ANL is in the 800 Area in the northwest corner of the Laboratory (see enclosed material). Within the general vicinity of this site, nine archaeological sites have been recorded. One site (11-Du-203) is eligible for listing on the *National Register of Historic Places*, four sites (11-Du-208, 11-Du-295, 11-Du-296, and 11-Du-297) have been determined not eligible, and four sites (11-Du-201, 11-Du-207, 11-299, and 11-Du-300) remain to be evaluated for their eligibility status. None of the nine sites are directly within the footprint of the proposed facility but will be considered in the EIS due to their proximity to the preferred site. It is likely that, at a minimum, the site nearest the footprint (11-Du-207) would require an eligibility determination.

This letter serves as consultation under Section 106 of the National Historic Preservation Act. Your input will be used in the preparation of the EIS. Please reply at your earliest convenience.

If you need further information on this request, please do not hesitate to call W. S. White, of my staff, at (630) 252-2101.

Sincerely,

Michael J. Flannigan, Director
Safety and Technical Services

Enclosure:
As Stated

cc: D. Wilfert, OR, w/o encl.

BNL CONSULTATION LETTERS

This page intentionally left blank.

Department of Energy
Brookhaven Group
Building 464
P.O. Box 5000
Upton, New York 11973

JUN - 1 1998

Ms. Nancy Davis Ricci
Information Services
New York Natural Heritage Program
New York State Department of Environmental Conservation
700 Troy-Schenectady Road
Latham, NY 12110-2400

Dear Ms. Ricci:

SUBJECT: REQUEST FOR CONSULTATION UNDER SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT FOR THE PROPOSED SITING, CONSTRUCTION, AND OPERATION OF THE SPALLATION NEUTRON SOURCE

This letter is intended to serve as our request for informal consultation under Section 7 of the Endangered Species Act.

The U.S. Department of Energy (DOE) proposes to site, construct, and operate the Spallation Neutron Source (SNS) and is currently preparing an Environmental Impact Statement (EIS), pursuant to the National Environmental Policy Act (NEPA) on this federal action. The proposed SNS facility would consist of a proton accelerator system, a spallation target and appropriate experimental areas, laboratories, offices, and support facilities for neutron research. The EIS will include discussion of potential impacts at four alternative locations for the SNS, all DOE-owned laboratories: Oak Ridge National Laboratory (ORNL), Oak Ridge, Tennessee; Argonne National Laboratory (ANL), Argonne, Illinois; Los Alamos National Laboratory (LANL), Los Alamos, New Mexico; and Brookhaven National Laboratory (BNL), Upton, New York.

The proposed SNS would produce short pulses of neutrons for use in materials and biomedical research. This would be accomplished through the "spallation" process wherein (1) subatomic particles, called protons, are accelerated to very high energies; (2) the high energy protons are "bunched" into a compact group; (3) the bunched, high energy protons are directed onto a target made of a high atomic number material, in this case mercury; and (4) the collision of the protons with the target produces a pulse of neutrons from the target material. The neutrons would then be slowed to useful energy levels, and guided to samples of the materials being studied. The interactions of the neutrons and the specimens would be measured and analyzed, revealing information on the structure, properties, and behavior of the test material.

Printed on Recycled Paper

Ms. N. Ricci - 2 - JUN - 1 1998

With regards to Brookhaven National Laboratory, the proposed location of the SNS at BNL is the central portion of the site, adjacent to the Relativistic Heavy Ion Collider (RHIC), (Site #1 on the enclosed site selection report). DOE requests an updated list of protected species and habitat on and in the vicinity of the proposed SNS site at BNL and solicits your recommendation and comments about the potential effects of this proposed action. Your input will be used in the preparation of the final environmental impact statement.

If you need further information on this request, please do not hesitate to call Jerry Granzen of my staff at (516) 344-4089.

Sincerely,

K. Dean Helms
Executive Manager

Enclosure:
As stated

cc: D. Bean, EAS, w/encl.
D. Wilfert, OR, w/encl.
M. Butler, BHG, w/encl.
K. Brog, BNL, w/encl.
M. Bebon, BNL, w/encl.
M. Schaffer, BNL, w/encl.
T. Sperry, BNL, w/encl.

New York State Department of Environmental Conservation
Division of Fish, Wildlife & Marine Resources
Wildlife Resources Center – New York Natural Heritage Program
700 Troy-Schenectady Road, Latham, New York 12110-2400
Phone: (518) 783-3932 FAX: (518) 783-3916

John P. Cahill
Commissioner

June 12, 1998

K. Dean Helms
U.S. Dept. Of Energy
Brookhaven Group
Bldg, 464, PO Box 5000
Upton, NY 11973

Dear Mr. Helms:

We have reviewed the New York Natural Heritage Program files with respect to your recent request for biological information concerning the Environmental Impact Statement for the proposed construction of the Spallation Neutron Source facility, four areas as indicated on your enclosed maps, located in the Town of Brookhaven, Suffolk County.

Enclosed is a computer printout covering the area you requested to be reviewed by our staff. The information contained in this report is considered sensitive and may not be released to the public without permission from the New York Natural Heritage Program.

Our files are continually growing as new habitats and occurrences of rare species and communities are discovered. In most cases, site-specific or comprehensive surveys for plant and animal occurrences have not been conducted. For these reasons, we can only provide data which have been assembled from our files. We cannot provide a definitive statement on the presence or absence of species, habitats or natural communities. This information should not be substituted for on-site surveys that may be required for environmental assessment.

This response applies only to known occurrences of rare animals and/or significant wildlife habitats. Please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, at the address enclosed for information regarding any regulated areas or permits that may be required (e.g., regulated wetlands) under State Law.

If this proposed project is still active one year from now we recommend that you contact us again so that we may update this response. Kindly address your requests to the above address,

Sincerely,

Carole Flood

Carole L. Flood Information Services
NY Natural Heritage Program

Encs
cc: Reg. 1,Wildlife Mgr.
Reg. 1, Fisheries Mgr.
Peter Nye, ESU, Delmar

NATURAL HERITAGE REPORT on RARE SPECIES and ECOLOGICAL COMMUNITIES

Prepared 10 JUN 1998 by NY Natural Heritage Program, NYS DEC, Latham, New York.

Records with a PRECISION value of "S" are known to be in a location which may be impacted by the proposed action.
Records with a PRECISION value of "M" may possibly occur within the project area in appropriate habitat.
This report contains SENSITIVE information which should be treated in a sensitive manner -- Please see cover letter.

REFER TO THE USERS GUIDE FOR EXPLANTIONS OF CODES, RANKS, AND FIELDS.

page 1

SCIENTIFIC NAME & Common Name	NY LEGAL STATUS & HERITAGE RANK	FEDERAL STATUS	PRECISION & ACRES	EORANK & LAST SEEN	GENERAL HABITAT AND QUALITY	TOWN(S) & DETAILED LOCATION	USGS TOPO QUAD LAT & LONG	OFFICE USE
* KENTS POND								
RHYNCHOSPORA INUNDATA Drowned horned rush VASCULAR PLANT	ENDANGERED G4 S1		M	F 1922	GROWING IN WATER AWAY FROM SHORE.	RIVERHEAD. KENT POND BARRENS.	WADING RIVER 40 53 10 N 72 50 28 W	4007287 272
* RIDGE								
IRIS PRISMATICA Slender blue flag VASCULAR PLANT	UNPROTECTED G4G5 S2		M	H 1871	RICH MEADOWS.	BROOKHAVEN. RIDGE, RICH MEADOWS.	MIDDLE ISLAND 40 53 08 N 72 53 30 W	4007288 19
* UPTON								
ERYNNIS MARTIALIS Mottled dusky wing BUTTERFLY or SKIPPER	UNPROTECTED G4 S1S3		M	H 1965	MEADOW.	BROOKHAVEN. BROOKHAVEN NATIONAL LABORATORY. MEADOW.	MORICHES 40 51 50 N 72 52 04 W	4007277 40
ERYNNIS PERSIUS PERSIUS Persius dusky wing BUTTERFLY or SKIPPER	UNPROTECTED G4T2 SH		M	H 1966	PINE OAK FOREST.	BROOKHAVEN. BROOKHAVEN NATIONAL LABORATORY. TAKEN IN PINE OAK FOREST.	MORICHES 40 51 50 N 72 52 04 W	4007277 40

NATURAL HERITAGE REPORT on RARE SPECIES and ECOLOGICAL COMMUNITIES

Prepared 10 JUN 1998 by NY Natural Heritage Program, NYS DEC, Latham, New York.

Records with a PRECISION value of "S" are known to be in a location which may be impacted by the proposed action.
Records with a PRECISION value of "M" may possibly occur within the project area in appropriate habitat.
This report contains SENSITIVE information which should be treated in a sensitive manner -- Please see cover letter.

REFER TO THE USERS GUIDE FOR EXPLANTIONS OF CODES, RANKS, AND FIELDS.

* LOCATION

SCIENTIFIC NAME & Common Name	NY LEGAL STATUS & HERITAGE RANK	FEDERAL STATUS	PRECISION & ACRES	EORANK & LAST SEEN	GENERAL HABITAT AND QUALITY	TOWN(S) & DETAILED LOCATION	USGS TOPO QUAD LAT & LONG	OFFICE USE
PHYSALIS VIRGINIANA Virginia ground-cherry VASCULAR PLANT	UNPROTECTED G5 SH		M	H 1929	DRY FIELD.	BROOKHAVEN. DRY FIELD, CAMP UPTON, LONG ISLAND [UPTON].	MORICHES 40 51 50 N 72 52 04 W	4007277 40

5 Records Processed

NATURAL HERITAGE REPORT on RARE SPECIES and ECOLOGICAL COMMUNITIES

Prepared 10 JUN 1998 by NY Natural Heritage Program, NYS DEC, Latham, New York.

Records with a PRECISION value of "S" are known to be in a location which may be impacted by the proposed action.
Records with a PRECISION value of "M" may possibly occur within the project area in appropriate habitat.
This report contains SENSITIVE information which should be treated in a sensitive manner -- Please see cover letter.

REFER TO THE USERS GUIDE FOR EXPLANTIONS OF CODES, RANKS, AND FIELDS.

* LOCATION SCIENTIFIC NAME & Common Name	NY LEGAL STATUS & HERITAGE RANK	FEDERAL STATUS	PRECISION & ACRES	EORANK & LAST SEEN	GENERAL HABITAT AND QUALITY	TOWN(S) & DETAILED LOCATION	USGS TOPO QUAD LAT & LONG	OFFICE USE
* BROOKHAVEN NATIONAL LABORATORY								
PLATANTHERA CRISTATA Crested fringed orchis VASCULAR PLANT	THREATENED G5 S1		S 1	E? 1984	WET PINE BARRENS.	BROOKHAVEN. FROM NW CORNER OF FILTRATION PLANT AT BROOKHAVEN NATIONAL LAB, GO 0.55 MI NNW.	WADING RIVER 40 53 07 N 72 51 32 W	4007287 280
* CRESCENT BOW DRIVE POND								
AMBYSTOMA TIGRINUM Tiger salamander AMPHIBIAN	ENDANGERED G5 S3		S 1	C 1994	A SMALL, NATURAL POND WITH WATER DEPTH OF 3 FEET, BOTTOM SEDIMENT OF SILTY MUD ON TOP OF SAND, AND PH 4.3-4.8. ASSOCIATED SPECIES: PSEUDACRIS CRUCIFER. BASED ON GLOBAL SPECS OF JANUARY 1993.	BROOKHAVEN. ON BROOKHAVEN NATIONAL LABORATORY PROPERTY AT THE SOUTH END OF CRESCENT BOW DRIVE AND LOCATED BETWEEN CRESCENT BOW DRIVE AND PLEASANT VIEW DRIVE.	WADING RIVER 40 53 27 N 72 51 51 W	4007287 47 ESU
* KENTS POND								
RHYNCHOSPORA INUNDATA Drowned horned rush VASCULAR PLANT	ENDANGERED G4 S1		M	F 1922	GROWING IN WATER AWAY FROM SHORE.	RIVERHEAD. KENT POND BARRENS.	WADING RIVER 40 53 10 N 72 50 28 W	4007287 272

NATURAL HERITAGE REPORT on RARE SPECIES and ECOLOGICAL COMMUNITIES

Prepared 10 JUN 1998 by NY Natural Heritage Program, NYS DEC, Latham, New York.

Records with a PRECISION value of "S" are known to be in a location which may be impacted by the proposed action.
Records with a PRECISION value of "M" may possibly occur within the project area in appropriate habitat.
This report contains SENSITIVE information which should be treated in a sensitive manner -- Please see cover letter.

REFER TO THE USERS GUIDE FOR EXPLANTIONS OF CODES, RANKS, AND FIELDS.

* LOCATION SCIENTIFIC NAME & Common Name	NY LEGAL STATUS & HERITAGE RANK	FEDERAL STATUS	PRECISION & ACRES	EORANK & LAST SEEN	GENERAL HABITAT AND QUALITY	TOWN(S) & DETAILED LOCATION	USGS TOPO QUAD LAT & LONG	OFFICE USE
* PECONIC RIVER PONDS BROOKHAVEN								
AMBYSTOMA TIGRINUM Tiger salamander AMPHIBIAN	ENDANGERED G5 S3		S	CD 1994	A SMALL, NATURAL POND ALONG THE PECONIC RIVER WITH WATER DEPTH OF 1-1.5 FEET, HARD MUD BOTTOM SUBSTRATE WITH EMERGENT SEDGE VEGETATION AND PH 4.5. ASSOCIATED SPECIES: RANA SYLVATICA, PSEUDACRIS CRUCIFER, BUFO WOODHOUSII FOWLERI. BASED ON GLOBAL SPECS OF JANUARY 1993.	BROOKHAVEN. ON BROOKHAVEN NATIONAL LABORATORY PROPERTY, SMALL POND ALONG THE PECONIC RIVER ON THE W SIDE OF A SERVICE ROAD S OF CRESCENT BOW DRIVE.	WADING RIVER 40 53 09 N 72 51 46 W	4007281 50 ESU
* PLEASANT VIEW DRIVE POND								
AMBYSTOMA TIGRINUM Tiger salamander AMPHIBIAN	ENDANGERED G5 S3		S	CD 1994	A SMALL, NATURAL POND WITH WATER DEPTH OF 3+ FEET, BOTTOM SEDIMENT OF SILT/MUCK AND PH 4.4. SMALL MATS OF FLOATING ALGAE. ASSOCIATED SPECIES: RANA SYLVATICA, CLEMMYS GUTTATA. BASED ON GLOBAL SPECS OF JANUARY 1993.	BROOKHAVEN. ON BROOKHAVEN NATIONAL LABORATORY PROPERTY JUST S OF THE SOUTH END OF PLEASANT VIEW DRIVE.	WADING RIVER 40 53 21 N 72 52 02 W	4007287 49 ESU
* UPTON								

NATURAL HERITAGE REPORT on RARE SPECIES and ECOLOGICAL COMMUNITIES

Prepared 10 JUN 1998 by NY Natural Heritage Program, NYS DEC, Latham, New York.

Records with a PRECISION value of "S" are known to be in a location which may be impacted by the proposed action.
Records with a PRECISION value of "M" may possibly occur within the project area in appropriate habitat.
This report contains SENSITIVE information which should be treated in a sensitive manner -- Please see cover letter.

page 3

REFER TO THE USERS GUIDE FOR EXPLANTIONS OF CODES, RANKS, AND FIELDS.

* LOCATION

SCIENTIFIC NAME & Common Name	NY LEGAL STATUS & HERITAGE RANK	FEDERAL STATUS	PRECISION & ACRES	EORANK & LAST SEEN	GENERAL HABITAT AND QUALITY	TOWN(S) & DETAILED LOCATION	USGS TOPO QUAD LAT & LONG	OFFICE USE
ERYNNIS MARTIALIS Mottled dusky wing BUTTERFLY or SKIPPER	UNPROTECTED G4 S1S3		M	H 1965	MEADOW.	BROOKHAVEN. BROOKHAVEN NATIONAL LABORATORY. MEADOW.	MORICHES 40 51 50 N 72 52 04 W	4007277 40
ERYNNIS PERSIUS PERSIUS Persius dusky wing BUTTERFLY or SKIPPER	UNPROTECTED G4T2 SH		M	H 1966	PINE OAK FOREST.	BROOKHAVEN. BROOKHAVEN NATIONAL LABORATORY. TAKEN IN PINE OAK FOREST.	MORICHES 40 51 50 N 72 52 04 W	4007277 40
PHYSALIS VIRGINIANA Virginia ground-cherry VASCULAR PLANT	UNPROTECTED G5 SH		M	H 1929	DRY FIELD.	BROOKHAVEN. DRY FIELD, CAMP UPTON, LONG ISLAND [UPTON].	MORICHES 40 51 50 N 72 52 04 W	4007277 40

8 Records Processed

NATURAL HERITAGE REPORT on RARE SPECIES and ECOLOGICAL COMMUNITIES

Prepared 10 JUN 1998 by NY Natural Heritage Program, NYS DEC, Latham, New York.

Records with a PRECISION value of "S" are known to be in a location which may be impacted by the proposed action.
Records with a PRECISION value of "M" may possibly occur within the project area in appropriate habitat.
This report contains SENSITIVE information which should be treated in a sensitive manner -- Please see cover letter.

REFER TO THE USERS GUIDE FOR EXPLANTIONS OF CODES, RANKS, AND FIELDS.

* LOCATION SCIENTIFIC NAME & Common Name	NY LEGAL STATUS & HERITAGE RANK	FEDERAL STATUS	PRECISION & ACRES	EORANK & LAST SEEN	GENERAL HABITAT AND QUALITY	TOWN(S) & DETAILED LOCATION	USGS TOPO QUAD LAT & LONG	OFFICE USE
* BROOKHAVEN NATIONAL LABORATORY								
PLATANTHERA CRISTATA Crested fringed orchis VASCULAR PLANT	THREATENED G5 S1		S 1	E? 1984	WET PINE BARRENS.	BROOKHAVEN. FROM NW CORNER OF FILTRATION PLANT AT BROOKHAVEN NATIONAL LAB, GO 0.55 MI NNW.	WADING RIVER 40 53 07 N 72 51 32 W	4007287 280
* CRESCENT BOW DRIVE POND								
AMBYSTOMA TIGRINUM Tiger salamander AMPHIBIAN	ENDANGERED G5 S3		S 1	C 1994	A SMALL, NATURAL POND WITH WATER DEPTH OF 3 FEET, BOTTOM SEDIMENT OF SILTY MUD ON TOP OF SAND, AND PH 4.3-4.8. ASSOCIATED SPECIES: PSEUDACRIS CRUCIFER. BASED ON GLOBAL SPECS OF JANUARY 1993.	BROOKHAVEN. ON BROOKHAVEN NATIONAL LABORATORY PROPERTY AT THE SOUTH END OF CRESCENT BOW DRIVE AND LOCATED BETWEEN CRESCENT BOW DRIVE AND PLEASANT VIEW DRIVE.	WADING RIVER 40 53 27 N 72 51 51 W	4007287 47 ESU
* KENTS POND								
RHYNCHOSPORA INUNDATA Drowned horned rush VASCULAR PLANT	ENDANGERED G4 S1		M	F 1922	GROWING IN WATER AWAY FROM SHORE.	RIVERHEAD. KENT POND BARRENS.	WADING RIVER 40 53 10 N 72 50 28 W	4007287 272

NATURAL HERITAGE REPORT on RARE SPECIES and ECOLOGICAL COMMUNITIES

Prepared 10 JUN 1998 by NY Natural Heritage Program, NYS DEC, Latham, New York.

Records with a PRECISION value of "S" are known to be in a location which may be impacted by the proposed action.
Records with a PRECISION value of "M" may possibly occur within the project area in appropriate habitat.
This report contains SENSITIVE information which should be treated in a sensitive manner -- Please see cover letter.

REFER TO THE USERS GUIDE FOR EXPLANTIONS OF CODES, RANKS, AND FIELDS.

* LOCATION SCIENTIFIC NAME & Common Name	NY LEGAL STATUS & HERITAGE RANK	FEDERAL STATUS	PRECISION & ACRES	EORANK & LAST SEEN	GENERAL HABITAT AND QUALITY	TOWN(S) & DETAILED LOCATION	USGS TOPO QUAD LAT & LONG	OFFICE USE
* PECONIC RIVER PONDS BROOKHAVEN								
AMBYSTOMA TIGRINUM Tiger salamander AMPHIBIAN	ENDANGERED G5 S3		S	CD 1994	A SMALL, NATURAL POND ALONG THE PECONIC RIVER WITH WATER DEPTH OF 1-1.5 FEET, HARD MUD BOTTOM SUBSTRATE WITH EMERGENT SEDGE VEGETATION AND PH 4.5. ASSOCIATED SPECIES: RANA SYLVATICA, PSEUDACRIS CRUCIFER, BUFO WOODHOUSII FOWLERI. BASED ON GLOBAL SPECS OF JANUARY 1993.	BROOKHAVEN. ON BROOKHAVEN NATIONAL LABORATORY PROPERTY, SMALL POND ALONG THE PECONIC RIVER ON THE W SIDE OF A SERVICE ROAD S OF CRESCENT BOW DRIVE.	WADING RIVER 40 53 09 N 72 51 46 W	4007287 50 ESU
* PLEASANT VIEW DRIVE POND								
AMBYSTOMA TIGRINUM Tiger salamander AMPHIBIAN	ENDANGERED G5 S3		S	CD 1994	A SMALL, NATURAL POND WITH WATER DEPTH OF 3+ FEET, BOTTOM SEDIMENT OF SILT/MUCK AND PH 4.4. SMALL MATS OF FLOATING ALGAE. ASSOCIATED SPECIES: RANA SYLVATICA, CLEMMYS GUTTATA. BASED ON GLOBAL SPECS OF JANUARY 1993.	BROOKHAVEN. ON BROOKHAVEN NATIONAL LABORATORY PROPERTY JUST S OF THE SOUTH END OF PLEASANT VIEW DRIVE.	WADING RIVER 40 53 21 N 72 52 02 W	4007287 49 ESU
* UPTON								

NATURAL HERITAGE REPORT on RARE SPECIES and ECOLOGICAL COMMUNITIES

Prepared 10 JUN 1998 by NY Natural Heritage Program, NYS DEC, Latham, New York.

Records with a PRECISION value of "S" are known to be in a location which may be impacted by the proposed action.
Records with a PRECISION value of "M" may possibly occur within the project area in appropriate habitat.
This report contains SENSITIVE information which should be treated in a sensitive manner -- Please see cover letter.

page 3

REFER TO THE USERS GUIDE FOR EXPLANTIONS OF CODES, RANKS, AND FIELDS.

* LOCATION

SCIENTIFIC NAME & Common Name	NY LEGAL STATUS & HERITAGE RANK	FEDERAL STATUS	PRECISION & ACRES	EORANK & LAST SEEN	GENERAL HABITAT AND QUALITY	TOWN(S) & DETAILED LOCATION	USGS TOPO QUAD LAT & LONG	OFFICE USE
ERYNNIS MARTIALIS Mottled dusky wing BUTTERFLY or SKIPPER	UNPROTECTED G4 S1S3		M	H 1965	MEADOW.	BROOKHAVEN. BROOKHAVEN NATIONAL LABORATORY. MEADOW.	MORICHES 40 51 50 N 72 52 04 W	4007277 40
ERYNNIS PERSIUS PERSIUS Persius dusky wing BUTTERFLY or SKIPPER	UNPROTECTED G4T2 SH		M	H 1966	PINE OAK FOREST.	BROOKHAVEN. BROOKHAVEN NATIONAL LABORATORY. TAKEN IN PINE OAK FOREST.	MORICHES 40 51 50 N 72 52 04 W	4007277 40
PHYSALIS VIRGINIANA Virginia ground-cherry VASCULAR PLANT	UNPROTECTED G5 SH		M	H 1929	DRY FIELD.	BROOKHAVEN. DRY FIELD, CAMP UPTON, LONG ISLAND [UPTON].	MORICHES 40 51 50 N 72 52 04 W	4007277 40

8 Records Processed

Site #4

NATURAL HERITAGE REPORT on RARE SPECIES and ECOLOGICAL COMMUNITIES

Prepared 10 JUN 1998 by NY Natural Heritage Program, NYS DEC, Latham, New York.

Records with a PRECISION value of "S" are known to be in a location which may be impacted by the proposed action.
Records with a PRECISION value of "M" may possibly occur within the project area in appropriate habitat.
This report contains SENSITIVE information which should be treated in a sensitive manner -- Please see cover letter.

REFER TO THE USERS GUIDE FOR EXPLANTIONS OF CODES, RANKS, AND FIELDS.

* LOCATION SCIENTIFIC NAME & Common Name	NY LEGAL STATUS & HERITAGE RANK	FEDERAL STATUS	PRECISION & ACRES	EORANK & LAST SEEN	GENERAL HABITAT AND QUALITY	TOWN(S) & DETAILED LOCATION	USGS TOPO QUAD LAT & LONG	OFFICE USE
* BROOKHAVEN BARRENS ROADSIDE								
DESMODIUM CILIARE Little-leaf tick-trefoil VASCULAR PLANT	THREATENED G5 S2S3		M	E 1985	DRY PINE BARRENS ROADSIDE. ASSOC. SPECIES: AGALINIS SETACEA, EUPATORIUM ALHUM AND LESPEDEZA REPENS. NEED MORE INFORMATION TO ASSIGN A-D RANK.	BROOKHAVEN. FROM THE JUNCTION OF MIDDLE ISLAND MORICHES, MORICHES-YAPHANK, AND MANORVILLE ROADS, THE SITE EXTENDS E AND N AND IS DEFINED BY MANORVILLE ROAD. PLANTS OCCUR ALONG ROADSIDE AT EDGE OF PINE BARRENS.	MORICHES 40 50 25 N 72 51 50 W	4007277 51
LESPEDEZA STUEVEI Velvety lespedeza VASCULAR PLANT	RARE G4? S2		M	E 1985	DRY PINE BARRENS ROADSIDE. ASSOC. SPECIES: AGALINIS SETACEA, EUPATORIUM ALHUM AND LESPEDEZA REPENS. NEED MORE INFORMATION TO ASSIGN A-D RANK.	BROOKHAVEN. FROM THE JUNCTION OF MIDDLE ISLAND MORICHES, MORICHES-YAPHANK, AND MANORVILLE ROADS, THE SITE EXTENDS E AND N AND IS DEFINED BY MANORVILLE ROAD. PLANTS OCCUR ALONG ROADSIDE AT EDGE OF PINE BARRENS.	MORICHES 40 50 25 N 72 51 50 W	4007277 51
* UPTON								
ERYNNIS MARTIALIS Mottled dusky wing BUTTERFLY or SKIPPER	UNPROTECTED G4 S1S3		M	H 1965	MEADOW.	BROOKHAVEN. BROOKHAVEN NATIONAL LABORATORY. MEADOW.	MORICHES 40 51 50 N 72 52 04 W	4007277 40

NATURAL HERITAGE REPORT on RARE SPECIES and ECOLOGICAL COMMUNITIES

Prepared 10 JUN 1998 by NY Natural Heritage Program, NYS DEC, Latham, New York.

Records with a PRECISION value of "S" are known to be in a location which may be impacted by the proposed action.
Records with a PRECISION value of "M" may possibly occur within the project area in appropriate habitat.
This report contains SENSITIVE information which should be treated in a sensitive manner -- Please see cover letter.

page 2

REFER TO THE USERS GUIDE FOR EXPLANTIONS OF CODES, RANKS, AND FIELDS.

* LOCATION

SCIENTIFIC NAME & Common Name	NY LEGAL STATUS & HERITAGE RANK	FEDERAL STATUS	PRECISION & ACRES	EORANK & LAST SEEN	GENERAL HABITAT AND QUALITY	TOWN(S) & DETAILED LOCATION	USGS TOPO QUAD LAT & LONG	OFFICE USE
ERYNNIS PERSIUS PERSIUS Persius dusky wing BUTTERFLY or SKIPPER	UNPROTECTED G4T2 SH		M	H 1966	PINE OAK FOREST.	BROOKHAVEN. BROOKHAVEN NATIONAL LABORATORY. TAKEN IN PINE OAK FOREST.	MORICHES 40 51 50 N 72 52 04 W	4007277 40
PHYSALIS VIRGINIANA Virginia ground-cherry VASCULAR PLANT	UNPROTECTED G5 SH		M	H 1929	DRY FIELD.	BROOKHAVEN. DRY FIELD, CAMP UPTON, LONG ISLAND [UPTON].	MORICHES 40 51 50 N 72 52 04 W	4007277 40

5 Records Processed

SIGNIFICANT HABITATS

DATE : 06/10/98

REPORT ID#	NAME OF AREA	TYPE OF AREA	COUNTY	TOWN OR CITY	QUADRANGLE	LATITUDE (DEG MIN SEC)	LONGITUDE (DEG MIN SEC)
SW 52-562	Peconic River and Drainage	Freshwater River	Suffolk	Brookhaven	Moriches	40 54 08	72 48 13
SW 52-576	Smith Estate Ponds	Tiger Salamander Ponds	Suffolk	Brookhaven	Bellport	40 51 42	72 54 25
SW 52-578	Water Tank Pond	Tiger Salamander Pond	Suffolk	Brookhaven	Moriches	40 51 07	72 51 44

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL PERMITS REGIONAL OFFICES

REGION	COUNTIES	NAME	ADDRESS AND PHONE NO.
Region 1	Nassau Suffolk	Robert Greene Permit Administrator	Loop Road, Bldg. 40 SUNY Stony Brook, NY 11790-2356 (516) 444-0365
Region 2	New York City	George Danskin Permit Administrator	Hunters Point Plaza 4740 21st Street Long Island City, NY 11101-5407 (718) 482-4997
Region 3	Dutchess Orange Putnam Rockland, Sullivan Ulster, Westchester	Margaret Duke Permit Administrator	21 South Putt Corners Road New Paltz, NY 12561-1696 (914) 256-3059
Region 4	Albany Columbia Delaware Greene, Montgomery, Otsego Rensselaer, Schenectady, Schoharie	William J. Clarke Permit Administrator	1150 N. Westcott Road Schenectady, NY 12306-2014 (518) 357-2234
Region 5	Clinton Essex Franklin Fulton, Hamilton Saratoga, Warren, Washington	Richard Wild Permit Administrator	Route 86 Ray Brook, NY 12977 (518) 897-1234
Region 6	Herkimer Jefferson Lewis Oneida, St. Lawrence	Randy Vaas Permit Administrator	State Office Building 317 Washington Street Watertown, NY 13601 (315) 785-2246
Region 7	Broome Cayuga Chenango Cortland, Madison, Onondaga Oswego, Tioga, Tompkins	Ralph Manna, Jr. Permit Administrator	615 Erie Blvd. West Syracuse, NY 13204-2400 (315) 426-7439
Region 8	Chemung Genesee Livingston Monroe, Ontario, Orleans Schuyler, Seneca, Steuben Wayne, Yates	Albert Butkas Permit Administrator	6274 East Avon-Lima Road Avon, NY 14414 (716) 226-2466
Region 9	Allegany Cattaraugus Chautauqua Erie, Niagara, Wyoming	Steven Doleski Permit Administrator	270 Michigan Avenue Buffalo, NY 14203-2999 (716) 851-7165

USERS GUIDE TO NY NATURAL HERITAGE DATA

New York Natural Heritage Program, 700 Troy-Schenectady Road, Latham NY 12110-2400 phone: (518) 783-3932

NATURAL HERITAGE PROGRAM: The Natural Heritage Program is an ongoing, systematic, scientific inventory whose goal is to compile and maintain on the rare plants and animals native to New York State, and significant ecological communities. The data provided in the report facilitate sound plann conservation, and natural resource management and help to conserve the plants, animals and ecological communities that represent New York's natural herit.

DATA SENSITIVITY: The data provided in the report are ecologically sensitive and should be treated in a sensitive manner. The report is for your in-hc use and should not be released, distributed or incorporated in a public document without prior permission from the Natural Heritage Program.

NATURAL HERITAGE REPORTS (may contain any of the following types of data):

COUNTY NAME: County where the occurrence of a rare species or significant ecological community is located.
TOWN NAME: Town where the occurrence of a rare species or significant ecological community is located.
USGS 7 ½' TOPOGRAPHIC MAP: Name of 7.5 minute US Geological Survey (USGS) quadrangle map (scale 1:24,000).
LAT: Centrum latitude coordinate of the location of the occurrence. Caution: latitude & longitude must be used with PRECISION (e.g. the location of occurrence with M (minute) precision is not precisely known & is thought to occur within a 1.5 mile radius of the latitude/longitude coordinates).
LONG: Centrum longitude coordinate of the location of the occurrence. See also LAT above.
PRECISION: S - seconds: location known precisely. (within a 300' or 1-second radius of the latitude and longitude given.
M - minutes: location known only to within a 1.5 mile (1 minute) radius of the latitude and longitude given.
G - general: location known to within a 5 mile radius of the latitude and longitude given.
SIZE (acres): Approximate acres occupied by the rare species or significant ecological community at this location.
SCIENTIFIC NAME: Scientific name of the occurrence of a rare species or significant ecological community..
COMMON NAME: Common name of the occurrence of a rare species or significant ecological community.
ELEMENT TYPE: Type of element (i.e. plant, animal, significant ecological community, other, etc.)
LAST SEEN: Year rare species or significant ecological community last observed extant at this location.
EO RANK: Comparative evaluation summarizing the quality, condition, viability and defensibility of this occurrence. Use with LAST SEEN and PRECISION
A-E = Extant: A=excellent, B=good, C=marginal, D=poor, E=extant but with insufficient data to assign a rank of A - D.
F = Failed to find. Did not locate species, but habitat is still there and further field work is justified.
H = Historical. Historical occurrence without any recent field information.
X = Extirpated. Field/other data indicates element/habitat is destroyed and the element no longer exists at this location.
? = Unknown.
Blank = Not assigned.

NEW YORK STATE STATUS (animals): Categories of Endangered and Threatened species are defined in New York State Environmental Conservation Law section 11-0535. Endangered, Threatened, and Special Concern species are listed in regulation 6NYCRR 182.5.

E = Endangered Species: any species which meet one of the following criteria:
1) Any native species in imminent danger of extirpation or extinction in New York.
2) Any species listed as endangered by the United States Department of the Interior, as enumerated in the Code of Federal Regulations 50 CFR 17.11.

T = Threatened Species: any species which meet one of the following criteria:
1) Any native species likely to become an endangered species within the foreseeable future in NY.
2) Any species listed as threatened by the U.S. Department of the Interior, as enumerated in the Code of the Federal Regulations 50 CFR 17.11.

SC = Special Concern Species: those species which are not yet recognized as endangered or threatened, but for which documented concern exists for their continued welfare in New York. Unlike the first two categories, species of special concern receive no additional legal protection under Environmental Conservation Law section 11-0535 (Endangered and Threatened Species).

P = Protected Wildlife (defined in Environmental Conservation Law section 11-0103): wild game, protected wild birds, and endangered species of wildlife.

U = Unprotected (defined in Environmental Conservation Law section 11-0103): the species may be taken at any time without limit; however a license to take may be required.

G = Game (defined in Environmental Conservation Law section 11-0103): any of a variety of big game or small game species as stated in the Environmental Conservation Law; many normally have an open season for at least part of the year, and are protected at other times.

NEW YORK STATE STATUS (plants): The following categories are defined in regulation 6NYCRR part 193.3 and apply to NYS Environmental Conservation Law section 9-1503.

(blank) = no state status

E = Endangered Species: listed species are those with:
1) 5 or fewer extant sites, or
2) fewer than 1,000 individuals, or
3) restricted to fewer than 4 U.S.G.S. 7 ½ minute topographical maps, or
4) species listed as endangered by U.S. Department of Interior, as enumerated in Code of Federal Regulations 50 CFR 17.11.

T = Threatened: listed species are those with:
1) 6 to fewer than 20 extant sites, or
2) 1,000 to fewer than 3,000 individuals, or
3) restricted to not less than 4 or more than 7 U.S.G.S. 7 and ½ minute topographical maps, or
4) listed as threatened by U.S. Department of Interior, as enumerated in Code of Federal Regulations 50 CFR 17.11.

R = Rare: listed species have:
1) 20 to 35 extant sites, or
2) 3,000 to 5,000 individuals statewide.

U = Unprotected

V = Exploitably vulnerable: listed species are likely to become threatened in the near future throughout all or a significant portion of their range within the state if causal factors continue unchecked.

NEW YORK STATE STATUS (communities): At this time there are no categories defined for communities.

continued on next page

Department of Energy
Brookhaven Group
Building 464
P.O. Box 5000
Upton, New York 11973

JUN - 1 1998

Ms. Sherry Morgan, Field Supervisor
U.S. Fish and Wildlife Service
3817 Luker Highway
Cortland, NY 13045

Dear Ms. Morgan:

SUBJECT: REQUEST FOR CONSULTATION UNDER SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT FOR THE PROPOSED SITING, CONSTRUCTION, AND OPERATION OF THE SPALLATION NEUTRON SOURCE

This letter is intended to serve as our request for informal consultation under Section 7 of the Endangered Species Act.

The U.S. Department of Energy (DOE) proposes to site, construct, and operate the Spallation Neutron Source (SNS) and is currently preparing an Environmental Impact Statement (EIS), pursuant to the National Environmental Policy Act (NEPA) on this federal action. The proposed SNS facility would consist of a proton accelerator system, a spallation target and appropriate experimental areas, laboratories, offices, and support facilities for neutron research. The EIS will include discussion of potential impacts at four alternative locations for the SNS, all DOE-owned laboratories: Oak Ridge National Laboratory (ORNL), Oak Ridge, Tennessee; Argonne National Laboratory (ANL), Argonne, Illinois; Los Alamos National Laboratory (LANL), Los Alamos, New Mexico; and Brookhaven National Laboratory (BNL), Upton, New York.

The proposed SNS would produce short pulses of neutrons for use in materials and biomedical research. This would be accomplished through the "spallation" process wherein (1) subatomic particles, called protons, are accelerated to very high energies; (2) the high energy protons are "bunched" into a compact group; (3) the bunched, high energy protons are directed onto a target made of a high atomic number material, in this case mercury; and (4) the collision of the protons with the target produces a pulse of neutrons from the target material. The neutrons would then be slowed to useful energy levels, and guided to samples of the materials being studied. The interactions of the neutrons and the specimens would be measured and analyzed, revealing information on the structure, properties, and behavior of the test material.

Printed on Recycled Paper

Ms. S. Morgan - 2 - JUN - 1 1999

With regards to Brookhaven National Laboratory, the proposed location of the SNS at BNL is the central portion of the site, adjacent to the Relativistic Heavy Ion Collider (RHIC), (Site #1 on the enclosed site selection report). DOE requests an updated list of protected species and habitat on and in the vicinity of the proposed SNS site at BNL and solicits your recommendation and comments about the potential effects of this proposed action. Your input will be used in the preparation of the final environmental impact statement.

If you need further information on this request, please do not hesitate to call Jerry Granzen of my staff at (516) 344-4089.

Sincerely,

for

K. Dean Helms
Executive Manager

Enclosure:
As stated

cc: D. Bean, EAS, w/encl.
D. Wilfert, OR, w/encl.
M. Butler, BHG, w/encl.
K. Brog, BNL, w/encl.
M. Bebon, BNL, w/encl.
M. Schaffer, BNL, w/encl.
T. Sperry, BNL, w/encl.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
3817 LUKER ROAD
CORTLAND, NY 13045

June 15, 1998

Mr. K. Dean Helms
Executive Manager
Department of Energy
Brookhaven Group
Building 464, P.O. Box 5000
Upton, NY 11973

Attention: Mr. Jerry Granzen

Dear Mr. Helms:

This responds to your letter of June 1, 1998, requesting information on the presence of endangered or threatened species in the vicinity of the proposed Spallation Neutron Source at the Brookhaven National Laboratory in the Town of Brookhaven, Suffolk County, New York. The information will be used in the preparation of an environmental impact statement.

Except for occasional transient individuals, no Federally listed or proposed endangered or threatened species under our jurisdiction are known to exist in the project impact area. Therefore, no Biological Assessment or further Section 7 consultation under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) is required with the U.S. Fish and Wildlife Service (Service). Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered. A compilation of Federally listed and proposed endangered and threatened species in New York is enclosed for your information.

The above comments pertaining to endangered species under our jurisdiction are provided pursuant to the Endangered Species Act. This response does not preclude additional Service comments under the Fish and Wildlife Coordination Act or other legislation.

For additional information on fish and wildlife resources or State-listed species, we suggest you contact:

New York State Department
of Environmental Conservation
Region 1
Building 40, SUNY
Stony Brook, NY 11794
(516) 444-0200

New York State Department
of Environmental Conservation
Wildlife Resources Center - Information Serv.
New York Natural Heritage Program
700 Troy-Schenectady Road
Latham, NY 12110-2400
(518) 783-3932

National Wetlands Inventory (NWI) maps may or may not be available for the project area. However, while the NWI maps are reasonably accurate, they should not be used in lieu of field surveys for determining the presence of wetlands or delineating wetland boundaries for Federal regulatory purposes. Copies of specific NWI maps can be obtained from:

Cornell Institute for Resource Information Systems
302 Rice Hall
Cornell University
Ithaca, NY 14853
Telephone: (607) 255-4864

Work in certain waters and wetlands of the United States may require a permit from the U.S. Army Corps of Engineers (Corps). If a permit is required, in reviewing the application pursuant to the Fish and Wildlife Coordination Act, the Service may concur, with or without stipulations, or recommend denial of the permit depending upon the potential adverse impacts on fish and wildlife resources associated with project implementation. The need for a Corps permit may be determined by contacting Mr. Joseph Seebode, Chief, Regulatory Branch, U.S. Army Corps of Engineers, 26 Federal Plaza, New York, NY 10278 (telephone: [212] 264-3996).

If you require additional information please contact Michael Stoll at (607) 753-9334.

Sincerely,
Mark W. Clough
ACTING FOR
Sherry W. Morgan
Field Supervisor

Enclosure

cc: NYSDEC, Stony Brook, NY (Environmental Permits)
NYSDEC, Latham, NY
COE, New York, NY

2

FEDERALLY LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIES IN NEW YORK

Common Name	Scientific Name	Status	Distribution
FISHES			
Sturgeon, shortnose*	*Acipenser brevirostrum*	E	Hudson River & other Atlantic coastal rivers
REPTILES			
Turtle, bog	*Clemmys muhlenbergii*	T	Albany, Columbia, Dutchess, Genesee, Orange, Oswego, Putnam, Seneca, Ulster, Wayne, and Westchester Counties
Turtle, green*	*Chelonia mydas*	T	Oceanic summer visitor coastal waters
Turtle, hawksbill*	*Eretmochelys imbricata*	E	Oceanic summer visitor coastal waters
Turtle, leatherback*	*Dermochelys coriacea*	E	Oceanic summer resident coastal waters
Turtle, loggerhead*	*Caretta caretta*	T	Oceanic summer resident coastal waters
Turtle, Atlantic ridley*	*Lepidochelys kempii*	E	Oceanic summer resident coastal waters
BIRDS			
Eagle, bald	*Haliaeetus leucocephalus*	T	Entire state
Falcon, peregrine	*Falco peregrinus*	E	Entire state - re-establishment to former breeding range in progress
Plover, piping	*Charadrius melodus*	E T	Great Lakes Watershed Remainder of coastal New York
Tern, roseate	*Sterna dougallii dougallii*	E	Southeastern coastal portions of state
MAMMALS			
Bat, Indiana	*Myotis sodalis*	E	Entire state
Cougar, eastern	*Felis concolor couguar*	E	Entire state - probably extinct
Whale, blue*	*Balaenoptera musculus*	E	Oceanic
Whale, finback*	*Balaenoptera physalus*	E	Oceanic
Whale, humpback*	*Megaptera novaeangliae*	E	Oceanic
Whale, right*	*Eubalaena glacialis*	E	Oceanic
Whale, sei*	*Balaenoptera borealis*	E	Oceanic
Whale, sperm*	*Physeter catodon*	E	Oceanic
MOLLUSKS			
Snail, Chittenango ovate amber	*Succinea chittenangoensis*	T	Madison County
Mussel, dwarf wedge	*Alasmidonta heterodon*	E	Orange County - lower Neversink River

* Except for sea turtle nesting habitat, principal responsibility for these species is vested with the National Marine Fisheries Service.

1

Region 5 - 11/04/97 - 2 pp.

FEDERALLY LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIES IN NEW YORK (Cont'd)

Common Name	Scientific Name	Status	Distribution
BUTTERFLIES			
Butterfly, Karner blue	*Lycaeides melissa samuelis*	E	Albany, Saratoga, Warren, and Schenectady Counties
PLANTS			
Monkshood, northern wild	*Aconitum noveboracense*	T	Ulster, Sullivan, and Delaware Counties
Pogonia, small whorled	*Isotria medeoloides*	T	Entire state
Swamp pink	*Helonias bullata*	T	Staten Island - presumed extirpated
Gerardia, sandplain	*Agalinis acuta*	E	Nassau and Suffolk Counties
Fern, American hart's-tongue	*Asplenium scolopendrium* var. *americana*	T	Onondaga and Madison Counties
Orchid, eastern prairie fringed	*Platanthera leucophea*	T	Not relocated in New York
Bulrush, northeastern	*Scirpus ancistrochaetus*	E	Not relocated in New York
Roseroot, Leedy's	*Sedum integrifolium* ssp. *Leedyi*	T	West shore of Seneca Lake
Amaranth, seabeach	*Amaranthus pumilus*	T	Atlantic coastal plain beaches
Goldenrod, Houghton's	*Solidago houghtonii*	T	Genesee County

E=endangered T=threatened P=proposed

2

Region 5 - 11/04/97 - 2 pp.

Department of Energy
Brookhaven Group
Building 464
P.O. Box 5000
Upton, New York 11973

JUN 1 1998

Mr. Julian Adams, Program Analyst
New York State Office of Parks, Recreation, and
Historic Preservation
Field Service Bureau
Peebles Island, P.O. Box 189
Waterford, New York 12188-0189

Dear Mr. Adams:

SUBJECT: REQUEST FOR CONSULTATION UNDER SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT FOR THE PROPOSED SITING, CONSTRUCTION, AND OPERATION OF THE SPALLATION NEUTRON SOURCE

This letter is intended to serve as our request for consultation under Section 106 of the National Historic Preservation Act (NHPA).

The U.S. Department of Energy (DOE) proposes to site, construct, and operate the Spallation Neutron Source (SNS) and is currently preparing an Environmental Impact Statement (EIS), pursuant to the National Environmental Policy Act (NEPA) on this federal action. The proposed SNS facility would consist of a proton accelerator system, a spallation target and appropriate experimental areas, laboratories, offices, and support facilities for neutron research. The EIS will include discussion of potential impacts at four alternative locations for the SNS, all DOE-owned laboratories: Oak Ridge National Laboratory (ORNL), Oak Ridge, Tennessee; Argonne National Laboratory (ANL), Argonne, Illinois; Los Alamos National Laboratory (LANL), Los Alamos, New Mexico; and Brookhaven National Laboratory (BNL), Upton, New York.

The proposed SNS would produce short pulses of neutrons for use in materials and biomedical research. This would be accomplished through the "spallation" process wherein (1) subatomic particles, called protons, are accelerated to very high energies; (2) the high energy protons are "bunched" into a compact group; (3) the bunched, high energy protons are directed onto a target made of a high atomic number material, in this case mercury; and (4) the collision of the protons with the target produces a pulse of neutrons from the target material. The neutrons would then be slowed to useful energy levels, and guided to samples of the materials being studied. The interactions of the neutrons and the specimens would be measured and analyzed, revealing

Printed on Recycled Paper

Mr. J. Adams - 2 - JUN 1 1998

information on the structure, properties, and behavior of the test material.

With regards to Brookhaven National Laboratory, the proposed location of the SNS at BNL is the central portion of the site, adjacent to the Relativistic Heavy Ion Collider (RHIC), (Site #1 on the enclosed site selection report).

We request that your office provide a determination of potential impacts to historic resources for the potential siting of SNS at Brookhaven National Laboratory. If you need further information on this request, please do not hesitate to call Jerry Granzen of my staff at (516) 344-4089.

Sincerely,

Robert L Davies for

K. Dean Helms
Executive Manager

Enclosure:
As stated

cc: D. Bean, EAS, w/encl.
D. Wilfert, OR, w/encl.
M. Butler, BHG, w/encl.
K. Brog, BNL, w/encl.
M. Bebon, BNL, w/encl.
M. Schaffer, BNL, w/encl.
T. Sperry, BNL, w/encl.