



DEPARTMENT OF THE NAVY

NORTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
BUILDING 77L, U.S. NAVAL BASE
PHILADELPHIA, PENNSYLVANIA 19112-5094

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NWS EARLE
5090.3a

IN REPLY REFER TO
11015
Code 2023CK
30 SEP 1991

From: Commanding Officer, Northern Division, Naval Facilities
Engineering Command
To: Commanding Officer, Naval Weapons Station Earle, Colts
Neck, NJ
Subj: **KNIESKERN'S BEAKED RUSH AT NWS EARLE**
Ref: (a) CO, NORTHNAVFACENCOM 11015 Code 2023CK ltr of 02 Aug
1991
Encl: (1) U.S. Fish and Wildlife Service ES-91/119 ltr of
23 Sept 1991

1. As follow up to reference (a) on subject, enclosure (1) is forwarded.
2. An onsite meeting with representatives from the U.S. Fish and Wildlife Service was held on 27 August 1991 to examine presence of the Federally threatened Knieskern's beaked rush (Rhynchospora knieskernii) at two select sites on NWS Earle.
3. Pursuant to the Endangered Species Act of 1973 (ESA), enclosure (1) offers recommendations of the Knieskern's beaked rush at IR Site #11 and at another NWS site to ensure appropriate protection. We feel these recommendations are explicit and reasonable. Implementation of these recommendations will continue to demonstrate the Navy's compliance to the ESA as well as facilitate IR planning in accordance with applicable legislation and policy.
4. The NORTHDIV point of contact is Mr. Carl Keller at AV 443-6207.


WILLIAM J. SUMMERS
By direction



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Fish and Wildlife Enhancement
927 North Main Street (Bldg. D)
Pleasantville, New Jersey 08232
(609) 646-9310

IN REPLY REFER TO:

ES-91/119

September 23, 1991

Mr. Carl Keller
Wildlife Biologist
Department of the Navy
Natural Resources Section
Building 77L, U.S. Naval Base
Philadelphia, Pennsylvania 19112-5094

Dear Mr. Keller:

This responds to your August 7, 1991, request to the Fish and Wildlife Service (Service) for recommendations to resolve any potential adverse impacts to the federally listed threatened plant, Knieskern's beaked-rush (*Rhynchospora knieskernii*) on the Naval Weapon Station Earle (Station) in Colts Neck, New Jersey. This species was identified at three locations on the Station in 1988, including one location at Hazardous Waste Site No. 11. Since final analysis of soil sampling and monitoring well data is not yet completed for this site, it is not known exactly what, if any, remedial action will occur at this hazardous waste site.

This response is provided pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) to ensure the protection of endangered and threatened species and is also intended to assist your assessments, investigations and planning being conducted pursuant to Section 104(a) of the Comprehensive Environmental Response, Compensation and Liability Act (P.L. 96-510 94 Stat. 2767) as amended by the Superfund Amendments and Reauthorization Act (42 U.S.C. 9601 et seq.). These comments do not represent any position the U.S. Department of the Interior may adopt concerning possible injury to natural resources under the Department's trusteeship.

A field inspection of two of the known *R. knieskernii* sites on the Station (as depicted on the enclosed map) was conducted by Dana Peters and Robert Burr of this office, Rick Radis (consulting botanist), and personnel from the Navy on August 27, 1991. At site No. 11, *R. knieskernii* was identified in 1988 during a Rare Species Survey by Rick Radis and Dave Snyder of the New Jersey Natural Heritage Program. The August 27, 1991, field team was unable to locate *R. knieskernii* at this site; however, this plant is an annual and can be absent from a site one year, only to reappear again another year when conditions are more suitable. Another possible explanation for why the plant was not observed is that it could have been present at this site earlier in the year, but may have been past its peak fruiting period (when the plant is most easily identified) during the August 27, 1991, field inspection. During the 1988 survey, the plant was found on the western edge of Site No. 11, which is a

large open area. The seasonally wet soil conditions on the western edge have favored wetland species such as *R. knieskernii*. Rick Radis assisted in flagging the area within Site No. 11, where the species can be expected to recur based on its known location in 1988. The recommended management measures (described at the end of this letter) should be carried out within this flagged area to perpetuate suitable habitat conditions for the species. Our flagging was temporary, and it may be necessary to reflag the area to last through the winter.

We also inspected a second known site for *R. knieskernii* that was identified during the 1988 survey. This site is a small (approximately 1/8 acre) opening currently being used as a vehicle turnaround. We observed *R. knieskernii* in a dense patch along the edge of this opening farthest from the access road. Associate species here included: clustered beaked-rush, cranberry, switchgrass, Carolina clubmoss, foxtail clubmoss, red root, huckleberry, narrow-leaved goldenrod, meadow beauty, little bluestem, sweet gum, and pitch pine. Recommended management measures should be carried out in this entire opening.

We did not inspect the third known occurrence of the species on the Station since only a few plants were found on this site in 1988, and it is located within the powerline right-of-way where management is not the responsibility of the Navy.

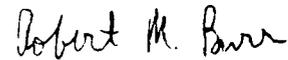
Because it is an early successional species, *R. knieskernii* requires some disturbance or management of its habitat to maintain suitable open conditions. However, extensive disturbance may eliminate populations. This plant is also an obligate wetland species and thus requires moist soil conditions. Our knowledge of the ideal management regime for this species is still developing. Based on current information, we believe prescribed burning of the sites may be the best method to maintain open habitat for this species. Many pine barren species, such as *R. knieskernii*, are adapted to frequent fires. We realize this management tool may not be compatible with other Station activities; therefore, we recommend the species' habitat on the Station be maintained by employing the following measures:

- o Annual mowing of the two *R. knieskernii* sites should be accomplished after seed dispersal. To avoid rutting of the sites by mower tires, we recommend this be done when the ground is frozen or firm, preferably between December 1 and March 1. At site No. 11, the entire area that was flagged during the August 27, 1991, site inspection should be mowed. At the second site, we recommend the entire open turnaround area be mowed.
- o There should be no other disturbance allowed on the sites. Barricades should be built to exclude vehicles and maintenance and construction equipment from the areas. If access to the existing monitoring wells on site No. 11 is necessary, precautions should be taken to minimize soil and vegetation disturbance. Herbicides and pesticides should not be used on the sites.

The populations should be surveyed biennially to determine if they are responding favorably to the prescribed mowing. As more information is gathered on the specific habitat and management requirements of the species, it may be necessary to reevaluate the above recommendations. If it is determined that remedial action for Hazardous Waste Site No. 11 will be necessary, potential impacts to *R. knieskernii* must be evaluated and coordination with this office should be reinitiated to fulfill Section 7 requirements under the Endangered Species Act.

We appreciate your prompt attention to the conservation of this recently listed threatened species. Please contact Dana Peters of my staff if you have any questions or require further assistance regarding federally listed threatened or endangered species.

Sincerely,



Robert M. Burr
Acting Supervisor

Enclosure

