

United States Department of the Interior

FISH AND WILDLIFE SERVICE Ecological Services 6669 Short Lane Gloucester, VA 23061



Date: October 25. 2004

Project name: NRC's North Anna and Surry Power Stations

Project number: <u>9064</u> City/County, VA <u>Surry, Louisa, Hanover, Caroline, Orange</u>, + Spotsylvania

The U.S. Fish and Wildlife Service (Service) has reviewed your request for information on federally listed or proposed endangered or threatened species and designated critical habitat for the above referenced project. The following comments are provided under provisions of the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*).

We believe that the proposed action will not adversely affect federally listed species or federally designated critical habitat because no federally listed species are known to occur in the project area. Should project plans change or if additional information on listed and proposed species becomes available, this determination may be reconsidered.

We recommend that you contact **both** of the following State agencies for site specific information on listed species in Virginia. Each agency maintains a different database and has differing expertise and/or regulatory responsibility:

Virginia Dept. of Game & Inland Fisheries Environmental Services Section P.O. Box 11104 Richmond, VA 23230 (804) 367-1000 Virginia Dept. of Conservation and Recreation Division of Natural Heritage 217 Governor Street, 2nd Floor Richmond, VA 23219 (804) 786-7951

If either agency indicates a federally listed species is present, please resubmit your project description with letters from both agencies attached.

If appropriate habitat may be present, we recommend surveys within appropriate habitat by a qualified surveyor. Enclosed are county lists with fact sheets that contain information the species' habitat requirements and lists of qualified surveyors. If this project involves a Federal agency (Federal permit, funding, or land), we encourage the Federal agency to contact this office if appropriate habitat is present and if they determine their proposed action is likely to affect federally listed species or critical habitat. Enclosed is information about communication towers and measures to minimize and avoid impacts to migratory birds, including a list of types of work that do not require further coordination with the Service.

Determinations of the presence of waters of the United States, including wetlands, and the need for permits are made by the U.S. Army Corps of Engineers. They may be contacted at: Regulatory Branch, U.S. Army Corps of Engineers, Norfolk District, 803 Front Street, Norfolk, Virginia 23510, telephone (757) 441-7652.

Our website <u>http://virginiafieldoffice.fws.gov</u> contains many resources that may assist with project reviews. Point of contact is <u>Eric</u> Davis at (804) 693-6694, ext. <u>104</u>.

Sincerely,

Karen L. Mayne Supervisor Virginia Field Office

cc: CBFO (David Sutherland)

KEY

LE - federally listed endangered.

LT - federally listed threatened.

PE - federally proposed endangered.

PT - federally proposed threatened.

EX - believed to be extirpated in Virginia.

LE(S/A) - federally listed endangered due to similarity of appearance to a federally listed species.

LT(S/A) - federally listed threatened due to similarity of appearance to a federally listed species.

C - candidate species; the U.S. Fish and Wildlife Service has enough information to list the species as threatened or endangered, but this action is precluded by other listing activities.

SOC - species of concern; those species that have been identified as potentially imperiled or vulnerable throughout their range or a portion of their range. These species are not protected under the Endangered Species Act.

G - global rank; the species rarity throughout its total range.

G1 - extremely rare and critically imperiled with 5 or fewer occurrences or very few remaining individuals; or because of some factor(s) making it especially vulnerable to extinction.

G2 - very rare and imperiled with 6 to 20 occurrences or few remaining individuals; or because of some factor(s) making it vulnerable to extinction.

G3 - either very rare and local throughout its range or found locally (abundantly at some of its locations) in a restricted range; or vulnerable to extinction because of other factors. Usually fewer than 100 occurrences are documented.

G_T_- signifies the rank of a subspecies or variety. For example, a G3T1 would apply to a subspecies of a species that is very rare and local throughout its range or found locally in a restricted range (G3) but the subspecies warrants a rank of T1, critically imperiled.

G_Q - The taxon has a questionable taxonomic assignment.

SURRY COUNTY, VIRGINIA Federally Listed, Proposed, and Candidate Species

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SCIENTIFIC NAME	COMMON NAME	<u>STATUS</u>
<u>BIRDS</u> Haliaeetus leucocephalus ¹	Bald eagle	LT
<u>PLANTS</u> Aeschynomene virginica	Sensitive joint-vetch	LT

Species of Concern (No official Federal status)

	INVERTEBRATES		
	Speyeria diana	Diana fritillary G3	
	Stygobromus araeus	Tidewater interstitial amphipo62	
	VASCULAR PLANTS		
	Carex decomposita	Epiphytic sdege	G3
1	Chamaecrista fasciculata var. macrosp	perma Marsh senna	G5T2
·	Desmodium ochroleucum	Creamflower tick-trefoil	G2G3
, .	Rudbeckia heliopsidis ²	Sun-facing coneflower G2	
	Trillium pusillum var. virginianum	Virginia least trillium	G3T2

¹Nesting occurs in this county; concentrated shoreline use has been documented on the James

River.

²Surveys needed within 5-miles of Prince George County species location.

March 22, 1999 Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

LOUISA COUNTY, VIRGINIA Federally Listed, Proposed, and Candidate Species

SCIENTIFIC NAME	<u>COMMON NAME</u>	<u>STATUS</u>	
INVERTEBRATES Alasmidonta heterodon	Dwarf wedgemussel	LE	
Species of Concern (No official Federal status)			

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INVERTEBRATES		
Elliptio lanceolata	Yellow lance	G3
Lasmigona subviridis	Green floater	G3

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February 8, 2001 Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

HANOVER COUNTY, VIRGINIA Federally Listed, Proposed, and Candidate Species

SCIENTIFIC NAME	COMMON NAME	<u>STATUS</u>
<u>BIRDS</u> Haliaeetus leucocephalus	Bald eagle	LT
INVERTEBRATES Alasmidonta heterodon	Dwarf wedgemussel	LE
<u>VASCULAR PLANTS</u> Aeschynomene virginica ¹ Helonias bullata ² Isotria medeoloides ²	Sensitive joint-vetch Swamp pink Small whorled pogonia	LT LT LT

Species of Concern (No official Federal status)

<u>INVERTEBRATES</u>	X	
Elliptio lanceolata	Yellow lance	G3
Lasmigona subviridis	Green floater	G3
Sigara depressa	Virginia Piedmont water boatmen	G1G3
VASCULAR PLANTS		
Chamaecrista fasciculata var. macrosperma ¹	Marsh senna	G5T2

¹This species has been documented in an adjacent county and may occur in this county. ²This species has been documented in an adjacent county & may occur in this county east of I-95.

November 12, 2002 Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

CÁROLINE COUNTY, VIRGINIA Federally Listed, Proposed, and Candidate Species

SCIENTIFIC NAME	COMMON NAME	<u>STATUS</u>
<u>BIRDS</u> Haliaeetus leucocephalus ¹	Bald eagle	LT
VASCULAR PLANTS Aeschynomene virginica ² Helonias bullata Isotria medeoloides	Sensitive joint-vetch Swamp pink Small whorled pogonia LT	LT LT

Species of Concern (No official Federal status)

<u>BIRDS</u> Aimophila aestivalis	Bachman's sparrow	G3
<u>INVERTEBRATES</u> Sigara depressa Stygobromus indentatus	Virginia piedmont water boatman Tidewater amphipod	G1G3 G2G3
<u>VASCULAR PLANTS</u> Chamaecrista fasciculata var. macrosperma Desmodium ochroleucum Eriocaulan parkeri Juncus caesariensis Sabatia kennedyana	² Marsh senna Creamflower tick-trefoil Parker's pipewort New Jersey rush Plymouth gentian	G5T2 G2G3 G3 G2 G3

¹Nesting occurs in this county; concentrated shoreline use has been documented on the Rappahannock River.

²This species has been documented in an adjacent county and may occur in this county.

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May 29, 2001 Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

ORANGE COUNTY, VIRGINIA Federally Listed, Proposed, and Candidate Species

SCIENTIFIC NAME	COMMON NAME	<u>STATUS</u>
INVERTEBRATES Alasmidonta heterodon ¹	Dwarf wedgemussel	LE

Species of Concern (No official Federal status)

INVERTEBRATES			
Elliptio lanceolata	Yellow lance		G3
Lasmigona subviridis	Green Floater		G3
Speyeria idalia	Regal fritillary	G3	

¹This species has been documented in an adjacent county and may occur in this county.

September 19, 2002 Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

SPOTSYLVANIA COUNTY, VIRGINIA Federally Listed, Proposed, and Candidate Species

SCIENTIFIC NAME	COMMON NAME	<u>STATUS</u>
INVERTEBRATES Alasmidonta heterodon	Dwarf wedge mussel	LE
<u>VASCULAR PLANTS</u> Helonias bullata ¹ Isotria medeoloides	Swamp pink Small whorled pogonia	LT LT

Species of Concern (No official Federal status)

<u>INVERTEBRATES</u>			
Elliptio lanceolata	Yellow lance		G3
Lasmigona subviridis	Green floater		G3
Sigara depressa	Virginia Piedm	ont water boatmen	G1G3
Speyeria idalia	Regal fritillary	G3	
NON-VASCULAR PLANTS			
Sphagnum carolinianum	Carolina peatm	IOSS	G3

¹This species has been documented in an adjacent county & may occur in this county east of I-95.

November 12, 2002 Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

U.S. Fish & Wildlife Service

Bald Eagle Haliaeetus leucocephalus

Description - The bald eagle occurs throughout the United States. It is a large bird-of-prey with dark brown plumage, a white head and tail, and a yellow bill, feet, and eyes. Juvenile eagles generally have a dark brown body, sometimes with white patches on the tail, belly, and underwings. The head and tail become completely white when full adult plumage is reached at four to five years of age.

Life History - The majority of Virginia's eagle population is found on the coastal plain. The bald eagle breeding season begins in mid-November when large nests are built (or the previous year's nest is repaired) usually in loblolly pine trees that are in close proximity to water. Eagles lay one to three eggs between mid-January and late March. In March, most eggs hatch and by June or July most young have fledged. However, the young will continue to use the nest for several weeks. In Virginia, during the summer and winter months, juvenile and nonbreeding adult eagles congregate along large rivers in areas with abundant food and little human



U.S. Fish and Wildlife Service Virginia Field Office 6669 Short Lane Gloucester, Virginia 23061 (804) 693-6694 <u>http://www.fws.gov</u> August 1999 disturbance. During the day, these eagles feed and perch along the river shoreline. In late afternoon, they move inland to roost either singly or communally. Roosts are typically located away from human disturbance and near water and a food source. Bald eagles feed primarily on fish, but will also eat carrion, waterfowl, small mammals, snakes, and turtles.

Conservation - The bald eagle was federally listed as an endangered species in the Chesapeake Bay Region on March 11, 1967. On July 12, 1995, the bald eagle was reclassified to threatened throughout the 48 lower states because the population had increased due to the banning persistent pesticides, habitat protection, and other recovery activities. On July 6, 1999, the bald eagle was proposed for removal from the list of endangered and threatened wildlife in the lower 48 states. This action was proposed because the available data indicated that this species has recovered. The recovery is due in part to habitat protection and management actions initiated under the Endangered Species Act. It is also due to reduction in levels of persistent pesticides occurring in the environment. If and when the eagle is no longer protected by the Endangered Species Act, it will still be protected by the Bald and Golden Eagle Protection Act, Migratory Bird Treaty Act, and state laws. Until the eagle is officially delisted, it will continue to receive protection pursuant to the Endangered Species Act. Bald eagles in the Chesapeake Bay are increasing. However, habitat destruction through urban and



residential development and human disturbance in nesting, roosting, and

foraging habitats continue to be a threat.

What You Can Do To Help - If you know of a bald eagle nest on or near property proposed for clearing, development, or logging please contact one of the following agencies for assistance:

Virginia Department of Game and Inland Fisheries P.O. Box 11104 Richmond, Virginia 23230 (804) 367-1000

U. S. Fish and Wildlife Service 6669 Short Lane Gloucester, Virginia 23061 (804) 693-6694

References

U.S. Fish and Wildlife Service. 1990. Chesapeake Bay Region bald eagle recovery plan: first revision. Newton Corner, Massachusetts.

U.S. Fish and Wildlife Service. 1999. Proposed rule to remove the bald eagle in the lower 48 states from the list of endangered and threatened wildlife. Federal Register 64(128): 36453-36464.

Watts, B.D., K.W. Cline, and M.A. Byrd. 1994. The bald eagle in Virginia: An information booklet for land planners. The Center for Conservation Biology, College of William and Mary, Williamsburg, Virginia.

Sensitive Joint-Vetch

Aeschynomene virginica

Description - The sensitive jointvetch is an annual legume native to the eastern United States. Populations currently exist in Maryland, New Jersey, North Carolina, and Virginia. The historical range for the species extended to Delaware and Pennsylvania. In Virginia, populations are found along the Potomac, Mattaponi, Pamunkey, Rappahannock, Chickahominy, and James Rivers and their tributaries. This plant usually attains a height of three to six feet in a single growing season, but may grow as tall as eight feet. The flowers are yellow, streaked with red and the fruit is a pod, turning dark brown when ripe.

Life History - The joint-vetch occurs in fresh to slightly brackish tidal river systems, within the intertidal zone where populations are flooded twice daily. It typically occurs at the outer fringe of marshes or shores; its presence in marsh interiors may be a result of nutrient deficiencies, ice scouring, or muskrat



U.S. Fish and Wildlife Service Virginia Field Office 6669 Short Lane Gloucester, Virginia 23061 (804) 693-6694 <u>http://www.fws.gov</u> August 1999 herbivory. The sensitive joint-vetch is found in localities where plant diversity is high and annual species are prevalent. Bare to sparsely vegetated substrates appear to be a habitat feature of critical importance for establishment and growth of this species. Plants flower from July through September and into October in some years. Fruits are produced from July through late October, concurrent with flowering.

Conservation - The sensitive jointvetch was federally listed as a threatened species on June 19, 1992. Threats to the species include sedimentation, competition from nonnative plant species, dams, dredging, filling, recreational activities, shoreline stabilization, shoreline structures, road and bridge construction, commercial and residential development, water withdrawal projects, water quality degradation, agricultural practices, introduced pest species, mining, timber harvest, over-visitation, declines in muskrat populations, rise in sea level (this may also be a result of natural cycles), and collection. Natural threats are often identified with disturbances, such as wave and ice action associated with severe storm events, competition, herbivory, channel migration, sea level rise and natural sedimentation processes. Adequate habitat conservation for this species will only be achieved through on-site protection of marshes supporting plant populations when coupled with protection of the natural ecological processes responsible for creating and maintaining habitat for



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the sensitive joint-vetch.

What You Can Do To Help - Avoid the use of herbicides in or near waterways. If you are planning construction or stabilization activities along the shoreline in one of the counties indicated on the attached map, please contact the U.S. Fish and Wildlife Service.

References

Davison, S.E. and L.P. Bruderle. 1984. Element stewardship abstract for *Aeschynomene virginica* sensitive joint vetch. The Nature Conservancy. Arlington, Virginia.

Hershner, C. and J.E. Perry. 1987. Population status of potentially threatened vascular plants from coastal plain tidal rivers in Virginia. College of William and Mary, Virginia Institute of Marine Science, Gloucester Point, Virginia.

Rouse, G.D. 1994. Sensitive jointvetch life history and habitat study, 1993 Field Season, Mattaponi and Rappahannock River systems, Virginia. Schnabel Environmental Services. Richmond, Virginia.

U.S. Fish and Wildlife Service. 1995. Sensitive joint-vetch (*Aeschynomene virginica*) recovery plan. Hadley, Massachusetts.

U.S. Fish & Wildlife Service

Dwarf Wedge Mussel

Alasmidonta heterodon



Description - The dwarf wedge mussel has a spotty distribution in Atlantic coast drainage rivers and their tributaries from Canada to North Carolina. It is a small mussel whose shell rarely exceeds 1.5 inches in length. The shell outline is ovate or trapezoidal. The female shell is shorter, trapezoidal, and inflated in the back whereas the male shell is elongate, compressed, and ovate. The outer shell layer is brown to yellowish-brown, with greenish rays in young or pale-colored specimens. This mussel is unique in that it has two lateral teeth on its right valve and only one tooth on its left valve (opposite of all other North American mussel species).

Life History - The dwarf wedge mussel lives in shallow to deep rivers and creeks of various sizes where the current is slow to moderate. This mussel lives on muddy sand, sandy, and gravel stream bottoms that are nearly silt free. Like other freshwater mussels,

this species is a filter feeder. It feeds on plankton collected from water



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that is passed over its gills. Reproduction occurs sexually. Females carry eggs in their gills. During spawning, the male releases sperm into the water column and the sperm is taken into the female through the gills. The resulting larvae (known as glochidia) are released from the female into the water column and must attach to a fish host to survive. While attached to the fish host, development of the glochidia continues. Once metamorphosis is complete, the juvenile mussel drops off the fish host and continues to develop on the stream bottom. Fish hosts for this species include the mottled sculpin (Cottus bairdi), slimy sculpin (Cottus cognatus), tessellated darter (Etheostoma olmstedi), and johnny darter (Etheostoma nigrum).

Conservation - The dwarf wedge mussel was federally listed as an endangered species on March 14, 1990. The decline of this species is due to human degradation of habitat and water quality which have resulted in the continuing decline and subsequent loss of this species from previously occupied habitat. Threats to the species include agricultural, domestic, organic, and industrial pollution; impoundments that destroy habitat and cause silt deposits, low oxygen levels, and fluctuations in water levels and temperatures of the flooded area; and erosion and siltation from land clearing and construction of bridges or roads.

What You Can Do To Help - If you

reside on property that borders a stream or other waterway, avoid using chemicals or fertilizers. To help control erosion and reduce runoff, maintain a buffer of natural

B. Windson

vegetation along streambanks. Install fencing to prevent livestock from entering streams to reduce trampling of mussels, siltation, and input of waste products. Protecting water quality is the most effective way to conserve mussels.

To find out more about the dwarf wedge mussel contact:

Virginia Department of Game and Inland Fisheries P.O. Box 11104 Richmond, Virginia 23230 (804) 367-1000

References

Michaelson, D.L. and R.J. Neves. 1995. Life history and habitat of the endangered dwarf wedgemussel *Alasmidonta heterodon* (Bivalvia:Unionidae). Journal of the North American Benthological Society 14(2):324-340.

U.S. Fish and Wildlife Service. 1993. Dwarf wedge mussel (*Alasmidonta heterodon*) recovery plan. Hadley, Massachusetts.

Swamp Pink Helonias bullata

Description - The swamp pink is a perennial evergreen herb found in scattered populations from New Jersey south to Georgia. Historically, this plant was found from Staten Island, New York to the southern Appalachians. In Virginia, this lily has been documented in four counties. Its bright green, lanceshaped leaves form a basal rosette. A hollow flower stalk rises one to two feet from the center of the rosette and produces a pink or lavender flower head that consists of 30 to 50 small fragrant flowers. Few of the plants in a population produce flowers.

Life History - Swamp pink occurs in a variety of wetland habitats that include bogs, spring seeps, stream edges, wet meadows, and headwater wetlands. Sites are saturated yearround, but are rarely flooded and soils are generally neutral to acidic. Wetland habitat is easily altered through both direct and secondary disturbance. It is difficult for



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seedlings to get established and they are particularly vulnerable to human foot traffic. Flowering occurs from March to May. The basal leaves turn reddish-brown in the winter and lie flat on the ground or are slightly raised. These winter leaves are often hidden by fallen leaf litter. Reproduction is primarily asexual and seed dispersal is limited.

Conservation - The swamp pink was federally listed as a threatened species on September 9, 1988 due to population decline and threats to its wetland habitats. Historically, wetland drainage and/or filling associated with urban and agricultural development have been the primary threat to this species. However, with the enactment of the federal Clean Water Act and state wetland legislation, direct habitat loss has been slowed. Secondary effects from activities such as timber clearing, land development, siltation from run-off associated with adjacent development, and agriculture have become the major threat. These activities affect the hydrologic regime and increase the release of sediments and pollution. Plant collection and soil compaction from trampling are also threats to this species.

What You Can Do To Help - If you find a plant that appears to be the swamp pink, take note of the location and photograph the plant, if possible. Please do not remove the plant! Contact one of the following agencies for assistance:

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Virginia Department of Agriculture and Consumer Services Office of Plant Protection P.O. Box 1163 Richmond, Virginia 23209 (804) 786-3515

Virginia Department of Conservation and Recreation Division of Natural Heritage 217 Governor Street, 3rd Floor Richmond, Virginia 23219 (804) 786-7951

U.S. Fish and Wildlife Service Virginia Field Office 6669 Short Lane Gloucester, Virginia 23061 (804) 693-6694

References

Stevens, E.C. 1991. Swamp pink. Pages 88-89 <u>in</u> K. Terwilliger, ed. Virginia's Endangered Species, Proceedings of a Symposium. McDonald and Woodward Publishing Company, Blacksburg, Virginia.

U.S. Fish and Wildlife Service. 1991. Swamp pink *(Helonias bullata)* recovery plan. Newton Corner, Massachusetts.

U.S. Fish & Wildlife Service

Small Whorled Pogonia *Isotria medeoloides*

Description - The small whorled pogonia is a herbaceous perennial orchid. It has a widely scattered distribution in the eastern United States along the Atlantic coast from Maine to Georgia with outlying occurrences in the midwest and Canada. This species has pale green, elliptical leaves, usually five or six, that grow in a single whorl at the top of a hairless, grayish-green stem. The one or two flowers per plant are yellowish-green, unscented, and form in the center of the whorl.

Life History - In Virginia, the small whorled pogonia is found in ordinary looking third-growth upland forests with an open understory and a closed canopy where the topography is typically moderately sloping or almost level. The plants are usually associated with decaying vegetative matter such as fallen trunks and limbs, leaf litter, bark, and tree roots. The pogonia is found in soils that are acidic sandy loams with low nutrient



U.S. Fish and Wildlife Service Virginia Field Office 6669 Short Lane Gloucester, Virginia 23061 (804) 693-6694 <u>http://www.fws.gov</u> August 1999 content. The flowers appear in late April to mid-May. The small whorled pogonia reproduces primarily through self-pollination and occasionally vegetatively. It is often confused with the Indian cucumberroot (*Medeola virginiana*) and the large whorled pogonia (*Isotria verticillata*). The Indian cucumberroot has deep green leaves with a stem that is thin, hairy, and wiry. The large whorled pogonia has a reddishpurple stem and dark green leaves; its flower is reddish-purple.

Conservation - The small whorled pogonia was federally listed as an endangered species on September 10, 1982. It was reclassified as threatened on November 7, 1994. This was possible because at the time of reclassification 61% of the viable populations had been protected. The small whorled pogonia and its habitat continue to be threatened, directly and indirectly, by residential and commercial development. The upland habitat where it is found is seldom protected by federal or state laws unless it occurs on federallyowned property. Without voluntary landowner protection many pogonia populations have been and will be destroyed. Other threats to this species are collection by plant enthusiasts and browsing by whitetailed deer and invertebrates.

What You Can Do To Help - If you find a plant that appears to be the small whorled pogonia, take note of the location and photograph the plant, if possible. Please do not



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remove the plant!

Contact one of the following agencies for assistance:

Virginia Department of Agriculture and Consumer Services Office of Plant Protection P.O. Box 1163 Richmond, Virginia 23209 (804) 786-3515

Virginia Department of Conservation and Recreation Division of Natural Heritage 217 Governor Street, 3rd Floor Richmond, Virginia 23219 (804) 786-7951

U.S. Fish and Wildlife Service Virginia Field Office 6669 Short Lane Gloucester, Virginia 23061 (804) 693-6694

References

U.S. Fish and Wildlife Service. 1992. Small whorled pogonia (*Isotria medeoloides*) recovery plan, first revision. Newton Corner, Massachusetts.

Ware, D.M.E. 1991. Small whorled pogonia. Pages 95-97 <u>in</u> K. Terwilliger, ed. Virginia's Endangered Species, Proceedings of a Symposium. McDonald and Woodward Publishing Company, Blacksburg, Virginia.

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SENSITIVE JOINT-VETCH (Aeschynomene virginica) SURVEY CONTACTS IN VIRGINIA

This list contains individuals who we have already determined are qualified to conduct surveys for the species listed above. This list does not include all individuals qualified or authorized to survey for this species. If you select someone not on this pre-approved surveyor list, please provide the proposed surveyor's qualifications to this office 30 days prior to the start of the survey. Please send copies of all survey results to this office. If the survey determines that any rare species are present, please contact this office to allow us the opportunity to work with you to ensure that a project avoids or minimizes adverse effects to rare species and their habitats. Inclusion of names on this list does not constitute endorsement by the U.S. Fish and Wildlife Service or any other U.S. Government agency. Listed alphabetically. September 8, 2004

John Brooks, III Resource International, Ltd. 9560 Kings Charter Drive Ashland, Virginia 23005-6160 (804) 550-9200 jbrooks@resourceintl.com

Douglas DeBerry Williamsburg Environmental Group 3000 Easter Circle Williamsburg, VA 23188 (757):220-6869 ddeberry@wegnet.com

Chris Ludwig Virginia Division of Natural Heritage 217 Governor Street, 3rd Floor Richmond, VA 23219 (804) 371-6206 jcludwig@dcr.state.va.us

Garrie Rouse Rouse Environmental Services, Inc. P.O. Box 146 Aylett, VA 23009 (804) 769-0846 res.gdr@att.net Lenwood Smith 7325 Goodwill Church Road Greensboro, NC 27284 (336) 644-6864 Ismith botanist@hotmail.com

Matt Smith Environmental Services, Inc. 524 S. New Hope Road Raleigh, NC 27610 (919) 212-1760 <u>msmith@esinc.cc</u>

Mark Strong Dept. of Botany, P.O. Box 37012 Natl Museum of Natural History, MRC-166 Smithsonian Institution Washington, DC 20013-7012 (202) 633-2563 strong.mark@nmnh@si.edu

ATLANTIC SLOPE FRESHWATER MUSSELS SURVEY CONTACTS IN VIRGINIA

This list contains individuals who we have already determined are qualified to conduct surveys for the species listed above. This list does not include all individuals qualified or authorized to survey for this species. If you select someone not on this pre-approved surveyor list, please provide the proposed surveyor's qualifications to this office 30 days prior to the start of the survey. Please send copies of all survey results to this office. If the survey determines that any rare species are present, please contact this office to allow us the opportunity to work with you to ensure that a project avoids or minimizes adverse effects to rare species and their habitats. Inclusion of names on this list does not constitute endorsement by the U.S. Fish and Wildlife Service or any other U.S. Government agency. Listed alphabetically. September 9, 2004

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Tim Savidge The Catena Group 410-B Millstone Drive Hillsborough, NC 27278 (919) 732-1300 tsavidge@thecatenagroup.com

Philip Stevenson Creek Laboratory, LLC P.O. Box 953 Fredericksburg, VA 22404 (877) 433-8962 phil@creeklab.com

Brian Watson Va. Dept. of Game and Inland Fisheries 1132 Thomas Jefferson Road Forest, VA 24551-9223 (434) 525-7522 <u>bwatson@dgif.state.va.us</u>

SWAMP PINK (Helonias bullata) SURVEY CONTACTS

This list contains individuals who we have already determined are qualified to conduct surveys for the species listed above. This list does not include all individuals qualified or authorized to survey for this species. If you select someone not on this pre-approved surveyor list, please provide the proposed surveyor's qualifications to this office 30 days prior to the start of the survey. Please send copies of all survey results to this office. If the survey determines that any rare species are present, please contact this office to allow us the opportunity to work with you to ensure that a project avoids or minimizes adverse effects to rare species and their habitats. Inclusion of names on this list does not constitute endorsement by the U.S. Fish and Wildlife Service or any other U.S. Government agency. Listed alphabetically. September 8, 2004

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SMALL WHORLED POGONIA (Isotria medeoloides) SURVEY CONTACTS IN VIRGINIA

This list contains individuals who we have already determined are qualified to conduct surveys for the species listed above. This list does not include all individuals qualified or authorized to survey for this species. If you select someone not on this pre-approved surveyor list, please provide the proposed surveyor's qualifications to this office 30 days prior to the start of the survey. Please send copies of all survey results to this office. If the survey determines that any rare species are present, please contact this office to allow us the opportunity to work with you to ensure that a project avoids or minimizes adverse effects to rare species and their habitats. Inclusion of names on this list does not constitute endorsement by the U.S. Fish and Wildlife Service or any other U.S. Government agency. Listed alphabetically. September 8, 2004

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