Nuclear Development
244 Chestnut Street, Salem, NJ 08079

PSEG
Power LLC

ND-2012-0053
September 28, 2012

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Subject: **PSEG Early Site Permit Application**
Docket No. 52-043
Response to Request for Additional Information No. Env-04, ESP EIS 2.4.1 – Terrestrial and Wetland Ecology

References: 1) PSEG Power, LLC Letter No. ND-2012-0031 to USNRC, Submittal of Revision 1 of the Early Site Permit Application for the PSEG Site, dated May 21, 2012

2) Env-04, Review Section: ESP EIS 2.4.1 – Terrestrial and Wetland Ecology, dated August 29, 2012 (eRAI 6732)

The purpose of this letter is to respond to the request for additional information (RAI) identified in Reference 2 above. This RAI addresses ESP EIS 2.4.1 – Terrestrial and Wetland Ecology for the Environmental Report (ER), as submitted in Part 3 of the PSEG Site Early Site Permit Application, Revision 1.

Enclosure 1 provides our response for RAI No. Env-04, Question Nos. ESP EIS 2.4.1-1 through ESP EIS 2.4.1-8 (rTE-01, rTE-02, rTE-03, rTE-09, rTE-11, rTE-13, rTE-15, and rTE-16). Enclosure 2 provides a CD-ROM containing the information requested in the RAI.

If any additional information is needed, please contact David Robillard, PSEG Nuclear Development Licensing Engineer, at (856) 339-7914.

D079
NRO

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 28th day of September, 2012.

Sincerely,

James Mallon
Early Site Permit Manager
Nuclear Development
PSEG Power, LLC

Enclosure 1: Response to NRC Request for Additional Information, RAI No. Env-04, Question Nos. ESP EIS 2.4.1-1 through ESP EIS 2.4.1-8 (rTE-01, rTE-02, rTE-03, rTE-09, rTE-11, rTE-13, rTE-15, and rTE-16), Review Section: ESP EIS 2.4.1 – Terrestrial and Wetland Ecology

Enclosure 2: CD-ROM Containing Requested Information

cc: USNRC Project Manager, Division of New Reactor Licensing, PSEG Site (w/enclosures)
USNRC, Environmental Project Manager, Division of New Reactor Licensing (w/enclosures)
USNRC Region I, Regional Administrator (w/enclosures)
Oak Ridge National Laboratory

PSEG Letter ND-2012-0053, dated September 28, 2012

ENCLOSURE 1

RESPONSE to RAI No. Env-04

QUESTION Nos.
ESP EIS 2.4.1-1 (rTE-01)
ESP EIS 2.4.1-2 (rTE-02)
ESP EIS 2.4.1-3 (rTE-03)
ESP EIS 2.4.1-4 (rTE-09)
ESP EIS 2.4.1-5 (rTE-11)
ESP EIS 2.4.1-6 (rTE-13)
ESP EIS 2.4.1-7 (rTE-15)
ESP EIS 2.4.1-8 (rTE-16)

Response to RAI No. ENV-04, Question ESP EIS 2.4.1-1:

The NRC staff asked PSEG for information regarding the recently updated list of threatened, endangered, and species of special concern. The specific request was:

> *rTE-01: Provide an update to the threatened and endangered (T&E) species list in the ER based on the latest New Jersey list update, and provide life histories on any additional species not included in the ER.*
>
> *Provide a separate list of New Jersey "special concern" species. Life histories on these "special concern" species are not needed.*
>
> *Provide narratives on T&E wading bird species based on the updated New Jersey T&E list, along with a table listing New Jersey "special concern" species.*
>
> *Supporting Information: The New Jersey Department of Environmental Protection adopted updates to threatened and endangered species list on February 23, 2012. As a result, the updated T&E species list is needed to depict currently listed species for the proposed site and the alternative sites.*
>
> *The request for life history information for any additional species is consistent with what is already provided in the ER for listed wildlife species. A list of "special concern" species is needed to accurately assess important species for the proposed site and the alternative sites.*
>
> *List and description of "important" species, including life histories (ESRP 2.4.1).*
>
> *Additional background information on terrestrial ecology in vicinity necessary for review of impacts of construction on terrestrial resources (ESRP 4.3.1).*

PSEG Response to NRC RAI:

Table ESP EIS 2.4.1-1-1 is a current compilation of New Jersey, Delaware, and federally listed endangered, threatened, and special concern species potentially occurring in the vicinity of the PSEG Site. This table includes the NJDEP updates issued in February of 2012 (Reference RAI EIS ESP 2.4.1-1-10). Species included in Table ESP EIS 2.4.1-1-1 are based on a review of the updated list of New Jersey endangered and threatened species, prior field survey occurrences, prior agency consultation letters (ER References 2.4-38 and 2.4-142), and a comparison of the preferred habitat of the listed species with those habitats found on-site, in near off-site areas, and in the vicinity of the PSEG Site.

Life History Information

The following endangered and threatened species have life history information included in the ER:

- Cooper's hawk (ER Subsection 2.4.1.3.1.1)
- Red-shouldered hawk (ER Subsection 2.4.1.3.1.2)
- Northern harrier (ER Subsection 2.4.1.3.1.3)
- Bald eagle (ER Subsection 2.4.1.3.1.4)
- Osprey (ER Subsection 2.4.1.3.1.5)
- Red-headed woodpecker (ER Subsection 2.4.1.3.1.6)
- Shortnose sturgeon (ER Subsection 2.4.2.2.1.1)
- Atlantic sturgeon (ER Subsection 2.4.2.2.1.2)
- Atlantic loggerhead turtle (ER Subsection 2.4.2.2.1.3)
- Atlantic green turtle (ER Subsection 2.4.2.2.1.4)
- Leatherback turtle (ER Subsection 2.4.2.2.1.5)
- Kemp's ridley turtle (ER Subsection 2.4.2.2.1.7)

Life history information for listed endangered and threatened species included in Table ESP EIS 2.4.1-1-1, but not included in the ER, is provided below.

Northern goshawk

Northern goshawks are found in coniferous and deciduous forests. While nesting, they prefer mature forests consisting of a combination of old, tall trees with intermediate canopy coverage and small open areas within the forest for foraging. Northern goshawks breed once per year between early April and mid-June, with peak activity occurring at the end of April through May. The typical clutch size is two to four eggs, which are laid in a two to three day interval. Northern goshawks are carnivorous, mainly consuming birds, mammals, invertebrates, and reptiles (Reference RAI EIS ESP 2.4.1-1-12).

The northern goshawk was not observed on the PSEG Site during any of the 2009-2010 field surveys, but was recorded in the PSEG Site vicinity by the Audubon Society (ER Table 2.4-6).

Grasshopper sparrow

Grasshopper sparrows prefer open grasslands with bare ground for foraging. Grasshopper sparrows seem to prefer areas with broad expanses of suitable habitat, rather than fragmented areas. They eat insects and seeds, with proportions varying with the season. They are seasonally monogamous with pairs forming on the breeding grounds. Males and females use contact calls throughout the breeding season to maintain the pair bond. Pairs can attempt up to 3 broods in a year, although 2 is more typical. Nests are built of grasses, with finer materials lining the interior. Breeding occurs from May to August. Females lay 3 to 6 eggs and incubate them for 11 to 13 days (Reference RAI EIS ESP 2.4.1-1-4).

The grasshopper sparrow was not observed on-site, but was recorded in the PSEG Site vicinity during the 2009-2010 field surveys and by the Breeding Bird Survey (ER Table 2.4-6).

Cattle egret

The cattle egret is the most terrestrial heron, being well-adapted to terrestrial and aquatic habitats. Though it does not depend on aquatic habitats to survive, it does make frequent use of them, even when they are not close to livestock-grazing areas. It is also well-adapted to urban areas. They feed on insects, typically near livestock. The cattle egret is seasonally monogamous and nests in large colonies with other wading birds. Pairs will reuse old nests or build new ones with live or dead vegetation. Clutch size is usually 3 to 4 eggs where incubation is carried out by both sexes, and lasts 24 days (Reference RAI EIS ESP 2.4.1-1-5).

The cattle egret was not observed on-site, but was recorded in the PSEG Site vicinity during the 2009-2010 field surveys and by the Breeding Bird Survey (ER Table 2.4-6).

Bobolink

The Bobolink is the only American bird that is black underneath and white on the back. It is found in open grasslands and hay fields. During migration and in winter, bobolinks use freshwater marshes, grasslands, rice, and sorghum fields. Bobolinks feed on seeds, grains, insects, and spiders. Nesting occurs on the ground and nests consist of an outer wall of dead grass and an interior lining of fine grass or sedges. Nests may also include a canopy of dead grass hanging over the top. Clutch size is 1 to 7 eggs with an incubation period of 11 to 13 days (Reference RAI EIS ESP 2.4.1-1-1).

One individual bobolink was observed on-site during the 2009-2010 field surveys as recorded in ER Table 2.4-6. There are no other known records of the bobolink in the PSEG Site vicinity.

Horned lark

Horned larks prefer large open land devoid of trees. It can generally be found in fields and prairies. Horned larks are also known to inhabit places with widespread lawns, such as airports. They are usually seen on the ground. Breeding can occur very early in the spring, but typically in June. Nests are constructed in shallow depressions in the ground where the female adds dry grass and other plant matter. The female builds her nests near stones or under small plants in open, sandy and/or barren areas. Clutch size is 3 to 4 eggs incubated 10 to 14 days. Horned larks feed on insects such as spiders, ants, grasshoppers, and wasps. They also eat snails, as well as fruits, berries and seeds (Reference RAI EIS ESP 2.4.1-1-7).

The horned lark was not observed on-site, but was recorded in the PSEG Site vicinity during the 2009-2010 field surveys and by the Breeding Bird Survey and Audubon Society (ER Table 2.4-6).

Peregrine falcon

Peregrine falcons prefer open habitats, such as grasslands. They nest on cliff faces and crevices and have recently begun to utilize urban areas because the tall buildings are suitable for nesting and because of the abundance of pigeons as prey items. Peregrine falcons form monogamous pair bonds that often last throughout many breeding seasons. Once the pair has formed, they begin to hunt cooperatively. Peregrine falcons breed between March and May. Females lay 2 to 6 eggs that hatch in 33 to 35 days. Peregrine falcons prey almost exclusively on birds including mourning doves, pigeons, shorebirds, waterfowl, and smaller songbirds. They will also eat small reptiles and mammals (Reference RAI EIS ESP 2.4.1-1-13).

The peregrine falcon was not observed on-site during the 2009-2010 field surveys, but was recorded in the PSEG Site vicinity by the Audubon Society (ER Table 2.4-6).

American kestrel

The American kestrel nests in tree cavities, woodpecker holes, crevices of buildings, holes in banks, and nest boxes. It is highly adaptable and lives just about everywhere, as long as there is some open ground for hunting and places on which to perch, commonly on telephone wires. Females are promiscuous before egg laying, mating with two or three males, then once the female settles with one mate, the pair mates frequently until egg laying. Clutch size ranges from 3 to 7 eggs and are laid between mid-April and early June with incubation lasting 29 to 30 days. American kestrels feed on large insects (mainly grasshoppers), small mammals, sparrow-sized birds, lizards, scorpions, and amphibians (Reference RAI EIS ESP 2.4.1-1-8).

The American kestrel was not observed on-site, but was recorded in the PSEG Site vicinity by the Breeding Bird Survey and Audubon Society (ER Table 2.4-6).

Black-crowned night-heron

The black-crowned night-heron is a colonial bird associated with large wetlands. They inhabit a variety of wetland habitats such as swamps, streams, rivers, marshes, mud flats, and edges of lakes that have become overgrown with rushes and cattails. Black-crowned night-herons are presumed to be monogamous and have one brood per season. They nest colonially and there can often be more than a dozen nests in one tree. Nests are built near the trunk or fork of a tree. Clutch size is 3 to 5 eggs with an incubation period of 24 to 26 days carried out by both adults. The black-crowned night-heron is an opportunistic feeder preferring to feed in shallow waters. Its diet consists primarily of fish and secondarily of other items such as leeches, earthworms, and aquatic and terrestrial insects. It also eats crayfish, mussels, squid, amphibians, lizards,

snakes, rodents, birds, eggs, carrion, plant materials, and garbage and refuse of landfills. It is usually a solitary forager that strongly defends its feeding territory (Reference RAI EIS ESP 2.4.1-1-6).

The black-crowned night-heron was not observed on-site, but was recorded in the PSEG Site vicinity during the 2009-2010 field surveys along Alloway and Hope Creeks and by the Breeding Bird Survey (ER Table 2.4-6).

Northern parula

The northern parula is primarily a forest-dwelling species. Breeding occurs in mature forests. This species constructs its pendulum nests in hanging vegetation. It is a monogamous species. The northern parula is a neotropical migrant that begins breeding shortly after arriving at the breeding grounds. Arrival dates vary with geographic location, but southern populations begin breeding in March while northern populations do not begin until mid-May. Due to the longer breeding season, southern populations frequently have two broods, as opposed to northern populations which have one. The female lays an average of 4 to 5 eggs incubated for 12 to 14 days. It is an insectivorous species, that forages mostly on terrestrial invertebrates including spiders, damselflies, locusts, true bugs, hoppers, aphids, beetles, caterpillars, flies, wasps, bees, and ants (Reference RAI EIS ESP 2.4.1-1-16).

The northern parula was not observed on-site, but was recorded in the PSEG Site vicinity by the Breeding Bird Survey (ER Table 2.4-6).

Savannah sparrow

Savannah sparrows live in grasslands with few trees, including meadows, pastures, grassy roadsides, sedge wetlands, and cultivated fields. Near oceans, they also inhabit tidal saltmarshes and estuaries. Nests are constructed on the ground or low to the ground in a thick thatch of the prior season's dead grasses in densely vegetated areas. Clutch size is 2 to 6 eggs that incubate for 12 to 13 days. Savannah sparrows feed on insects such as spiders, beetles, grasshoppers, millipedes, and pillbugs. In their winter range, savannah sparrows switch to a diet of seeds from grasses and forbs. Along coastal areas, they may eat tiny crustaceans (Reference RAI EIS ESP 2.4.1-1-2).

The savannah sparrow was observed on the PSEG Site during the 2009-2010 field surveys and was also recorded in the PSEG Site vicinity by the Audubon Society (ER Table 2.4-6).

Pied-billed grebe

Pied-billed grebes reside in freshwater ponds or lakes to moderately brackish waters. They usually live in areas with emergent or aquatic vegetation which provides good nest site locations. They are monogamous on a seasonal or multi-seasonal basis. Pied-billed grebes first breed at age 1 or 2. Their nests float and are anchored to marsh

vegetation in shallow waters. Clutch size is 2 to 10 with an incubation period of 23 to 27 days. The breeding season for pied-billed grebes begins in April and continues through October. They feed on small fish, crustaceans, and aquatic insects and their larvae (Reference RAI EIS ESP 2.4.1-1-15).

The pied-billed grebe was not observed on-site, but was recorded in the PSEG Site vicinity by the Audubon Society (ER Table 2.4-6).

Common tern

Common terns reside in colonies along ocean coasts and the shores of large lakes. They nest among rocks and cliffs. Upon arrival to their breeding grounds in the spring, they will find a mate and reproduce in early to mid-summer. It is rare for a pair to produce more than one clutch per summer. The nests are made up of shells, debris, or dead vegetation. Clutch size is usually 3 and the chicks hatch in 3 to 4 weeks. The diet of common terns is usually fish, but they may also eat insects, annelids, and echinoderms (Reference RAI EIS ESP 2.4.1-1-14).

The common tern was observed on the PSEG Site and vicinity during the 2009-2010 field surveys as recorded in ER Table 2.4-6.

Hooded warbler

Hooded warblers nest in gaps in heavily forested areas, but generally stay away from the edge of the forest (Reference RAI EIS ESP 2.4.1-1-17). They pick sites that have a well developed understory to build the nest. In winter months males prefer forested areas while females prefer brushy fields and shrubby areas. Nests are constructed of bark and plant material, with an outer layer of dead leaves in the underbrush of a low lying area. Three to five eggs are laid and incubated for about twelve days. Hooded warblers feed primarily on small insects, spiders, and other arthropods, either catching them while in flight or picking them off of forest vegetation (Reference RAI EIS ESP 2.4.1-1-17).

The hooded warbler was not observed on-site, but was recorded in the PSEG Site vicinity by the Breeding Bird Survey (ER Table 2.4-6).

Eastern tiger salamander

Terrestrial habitats occupied by the eastern tiger salamander include old fields and deciduous or mixed woods. They require both upland and wetland habitats that contain suitable breeding ponds, forests, and soil types appropriate for burrowing. These salamanders reside in underground tunnels and burrows or beneath logs for much of the year (Reference RAI EIS ESP 2.4.1-1-11). They migrate to breeding ponds in late winter or early spring, usually after a warm rain that thaws the ground's surface. Courtship happens during the night where the males nudge and bump other salamanders. The laying of eggs also occurs at night, usually 24 to 48 hours after the

courtship and insemination. They lay the eggs and attach them to twigs, grass stems, and leaves that have decayed on the bottom floor of the pond. Each mass can contain up to 100 eggs. On average, eggs hatch in 28 days (Reference RAI EIS ESP 2.4.1-1-18).

The eastern tiger salamander was not observed on-site, but was recorded in the PSEG Site vicinity by a prior study (ER Reference 2.4-87) conducted in 1972-1978 on Artificial Island and its vicinity (ER Table 2.4-5).

References

RAI EIS ESP 2.4.1-1-1 Cornell Lab of Ornithology (CLO). 2012a. Bobolink (*Dolichonyx oryzivorus)* Life History. Website, http://www.allaboutbirds.org/guide/bobolink/lifehistory, accessed September 13, 2012.

RAI EIS ESP 2.4.1-1-2 Cornell Lab of Ornithology (CLO). 2012b. Savannah Sparrow (Passerculus sandwichensis) Life History. Website, http://www.allaboutbirds.org/guide/savannah_sparrow/id, accessed September 13, 2012.

RAI EIS ESP 2.4.1-1-3 Not used.

RAI EIS ESP 2.4.1-1-4 Dewey, T. 2009. "Ammodramus savannarum," Animal Diversity Web. Website, http://animaldiversity.ummz.umich.edu/accounts/Ammodramus_savannarum/, accessed September 13, 2012.

RAI EIS ESP 2.4.1-1-5 Ivory, A. 2000. "Bubulcus ibis," Animal Diversity Web. Website, http://animaldiversity.ummz.umich.edu/accounts/Bubulcus_ibis/, accessed September 13, 2012.

RAI EIS ESP 2.4.1-1-6 Ivory, A. 2002. "Nycticorax nycticorax," Animal Diversity Web. Website, http://animaldiversity.ummz.umich.edu/accounts/Nycticorax_nycticorax/, accessed September 13, 2012.

RAI EIS ESP 2.4.1-1-7 Martinez, T. 2002. "Eremophila alpestris," Animal Diversity Web. Website, http://animaldiversity.ummz.umich.edu/accounts/Eremophila_alpestris/, accessed September 13, 2012.

RAI EIS ESP 2.4.1-1-8 McCollough, K. 2001. "Falco sparverius," Animal Diversity Web. Website, http://animaldiversity.ummz.umich.edu/accounts/Falco_sparverius/, accessed September 13, 2012.

RAI EIS ESP 2.4.1-1-9 Not used.

RAI EIS ESP 2.4.1-1-10 New Jersey Department of Environmental Protection (NJDEP), 2012a. New Jersey's Threatened and Endangered Wildlife. Website, http://www.nj.gov/dep/fgw/tandespp.htm, accessed September 13, 2012.

RAI EIS ESP 2.4.1-1-11 New Jersey Department of Environmental Protection (NJDEP), 2012b. Eastern Tiger Salamander, Ambystoma tigrinum tigrinum. Website, http://www.nj.gov/dep/fgw/ensp/pdf/end-thrtened/easttgrsal.pdf, accessed September 13, 2012.

RAI EIS ESP 2.4.1-1-12 Pajerski, L. 2005. "Accipiter gentilis," Animal Diversity Web. Website, http://animaldiversity.ummz.umich.edu/accounts/Accipiter_gentilis/, accessed September 13, 2012

RAI EIS ESP 2.4.1-1-13 Potter, M. 2002. "Falco peregrines," Animal Diversity Web. Website, http://animaldiversity.ummz.umich.edu/accounts/Falco_peregrinus/, accessed September 13, 2012.

RAI EIS ESP 2.4.1-1-14 Sepe, K. 2002. "Sterna hirundo," Animal Diversity Web. Website, http://animaldiversity.ummz.umich.edu/accounts/Sterna_hirundo/, accessed September 13, 2012.

RAI EIS ESP 2.4.1-1-15 Smith, A. 2003. "Podilymbus podiceps," Animal Diversity Web. Website, http://animaldiversity.ummz.umich.edu/accounts/Podilymbus_podiceps/, accessed September 13, 2012.

RAI EIS ESP 2.4.1-1-16 Sterling, R. 2011. "Parula Americana," Animal Diversity Web. Website, http://animaldiversity.ummz.umich.edu/accounts/Parula_americana/, accessed September 13, 2012.

RAI EIS ESP 2.4.1-1-17 Vance, C. 2003. "Wilsonia citrine," Animal Diversity Web. Website, http://animaldiversity.ummz.umich.edu/accounts/Wilsonia_citrina/, accessed September 13, 2012.

RAI EIS ESP 2.4.1-1-18 Wentz, A. 2001. "Ambystoma tigrinum," Animal Diversity Web. Website, http://animaldiversity.ummz.umich.edu/accounts/Ambystoma_tigrinum/, accessed September 13, 2012.

Associated PSEG Site ESP Application Revisions:

None.

Table ESP EIS 2.4.1-1-1
Recorded Endangered and Threatened Species
Potentially Occurring in the Vicinity of the PSEG Site[a]

Scientific Name	Common Name	Federal Status	NJ Status	DE Status
Birds				
Accipiter cooperii	Cooper's hawk		SC	E[b]
Accipiter gentilis	Northern goshawk		E[b]	
Accipiter striatus	Sharp-shinned hawk		SC	
Actitis macularius	Spotted sandpiper		SC[b]	
Ammodramus savannarum	Grasshopper sparrow		T[b]	
Ardea herodias	Great blue heron		SC[b]	SC
Bubulcus ibis	Cattle egret		T[b]	
Buteo lineatus	Red-shouldered hawk		E[b]	
Buteo platypterus	Broad-winged hawk		SC[b]	
Circus cyaneus	Northern harrier		E[b]	E[b]
Coccyzus erythropthalmus	Black-billed cuckoo		SC[b]	
Dolichonyx oryzivorus	Bobolink		T[b]	
Egretta caerulea	Little blue heron		SC	
Egretta thula	Snowy egret		SC[b]	
Eremophila alpestris	Horned lark		T[b]	
Falco peregrinus	Peregrine falcon		E[b]	
Falco sparverius	American kestrel		T	
Haliaeetus leucocephalus	Bald eagle[d]		E[b]	E
Helmitheros vermivorum	Worm-eating warbler		SC[b]	
Hylocichla mustelina	Wood thrush		SC[b]	
Icteria virens	Yellow-breasted chat		SC[b]	
Melanerpes erythrocephalus	Red-headed woodpecker		T	E
Ixobrychus exilis	Least bittern			SC
Nycticorax nycticorax	Black-crowned night-heron		T[b]	E
Oporornis formosus	Kentucky warbler		SC	

Table ESP EIS 2.4.1-1-1
Recorded Endangered and Threatened Species
Potentially Occurring in the Vicinity of the PSEG Site[a]

Scientific Name	Common Name	Federal Status	NJ Status	DE Status
Pandion haliaetus	Osprey		T[b]	SC
Parula americana	Northern parula		SC[b]	E[b]
Passerculus sandwichensis	Savannah sparrow		T[b]	
Petrochelidon pyrrhonota	Cliff swallow		SC[b]	
Podilymbus podiceps	Pied-billed grebe		E[b]	E[b]
Plegadis falcinellus	Glossy ibis		SC[b]	
Toxostoma rufum	Brown thrasher		SC[b]	
Troglodytes hiemalis	Winter wren		SC[b]	
Tyto alba	Barn owl		SC	
Sterna hirundo	Common tern		SC[b]	E[b]
Sturnella magna	Eastern meadowlark		SC	
Wilsonia citrina	Hooded warbler		SC[b]	E[b]
Fish				
Acipenser brevirostrum	Shortnose sturgeon	E	E	
Acipenser oxyrhynchus	Atlantic sturgeon	E	E	E
Apeltes quadracus	Fourspine stickleback			SC
Reptiles and Amphibians				
Ambystoma maculatum	Spotted salamander			SC
Ambystoma opacum	Marbled salamander		SC	
Ambystoma tigrinum	Easter tiger salamander		E	E
Anaxyrus fowleri	Fowlers toad		SC	
Chelonia mydas	Atlantic green turtle	T	T	E
Caretta caretta	Atlantic loggerhead turtle	T	E	E
Clemmys guttata	Spotted turtle		SC	
Dermochelys coriacea	Leatherback turtle	E	E	E
Lampropeltis getula getula	Eastern king snake		SC	SC
Lepidochelys kempii	Kemp's ridley turtle	E	E	E
Glyptemys muhlenbergii	Bog turtle[c]	T	E	E

Table ESP EIS 2.4.1-1-1
Recorded Endangered and Threatened Species
Potentially Occurring in the Vicinity of the PSEG Site[a]

Scientific Name	Common Name	Federal Status	NJ Status	DE Status
Terrapene carolina carolina	Eastern box turtle		SC	
Thamnophis sauritus	Eastern ribbon snake			SC
Plants				
Adiantum pedatum	Northern maidenhair-fern			SC
Agrimonia gryposepala	Tall hairy groovebur			SC
Eleocharis quadrangulata	Angled spike-rush		SC	
Carex prasina	Drooping sedge			SC
Carex squarrosa	Squarrose sedge			SC
Carex striatula	Lined sedge			SC
Cynoglossum virginianum	Wild comfrey			SC
Iris prismatica	Slender blueflag iris			SC
Limnobium spongia	American frog's-bit			SC
Malaxis unifolia	Green adder's-mouth			SC
Ophioglossum vulgatum	Southern adder's-tongue			SC
Polygonum ramosissimum	Brushy knotweed			SC
Pycnanthemum verticillatum	Whorledmountain-mint			SC
Sagittaria calycina	Long-lobed arrowhead			SC
Setaria magna	Giant fox-tail		SC	
Spartina pectinata	Fresh water cordgrass			SC
Vernonia glauca	Broadleaf ironweed			SC

E = Endangered; T = Threatened; SC = Species of Special Concern

a) Potential for occurrence based on agency consultations and habitat types found within the site and 6-mi. vicinity and along proposed causeway
b) Breeding/Non-breeding
c) Not recorded during the 2009 field studies or in any other historical records.
d) Also protected under the Bald and Golden Eagle protection Act.

Response to RAI No. ENV-04, Question ESP EIS 2.4.1-2:

The NRC staff asked PSEG for information regarding the Land Use/Land Cover-based cover type map for the proposed site. The specific request was:

> *rTE-02: Provide a USGS Land Use/Land Cover-based cover type map for the proposed site.*
>
> *Supporting Information: The color scheme used for the Land Use/Land Cover maps in ER Chapter 2 makes it difficult to distinguish different cover types. A more simplified version of these maps would help solve this problem.*
>
> *A description and map of area occupied by each natural and man-made habitat type (ESRP 2.4.1).*

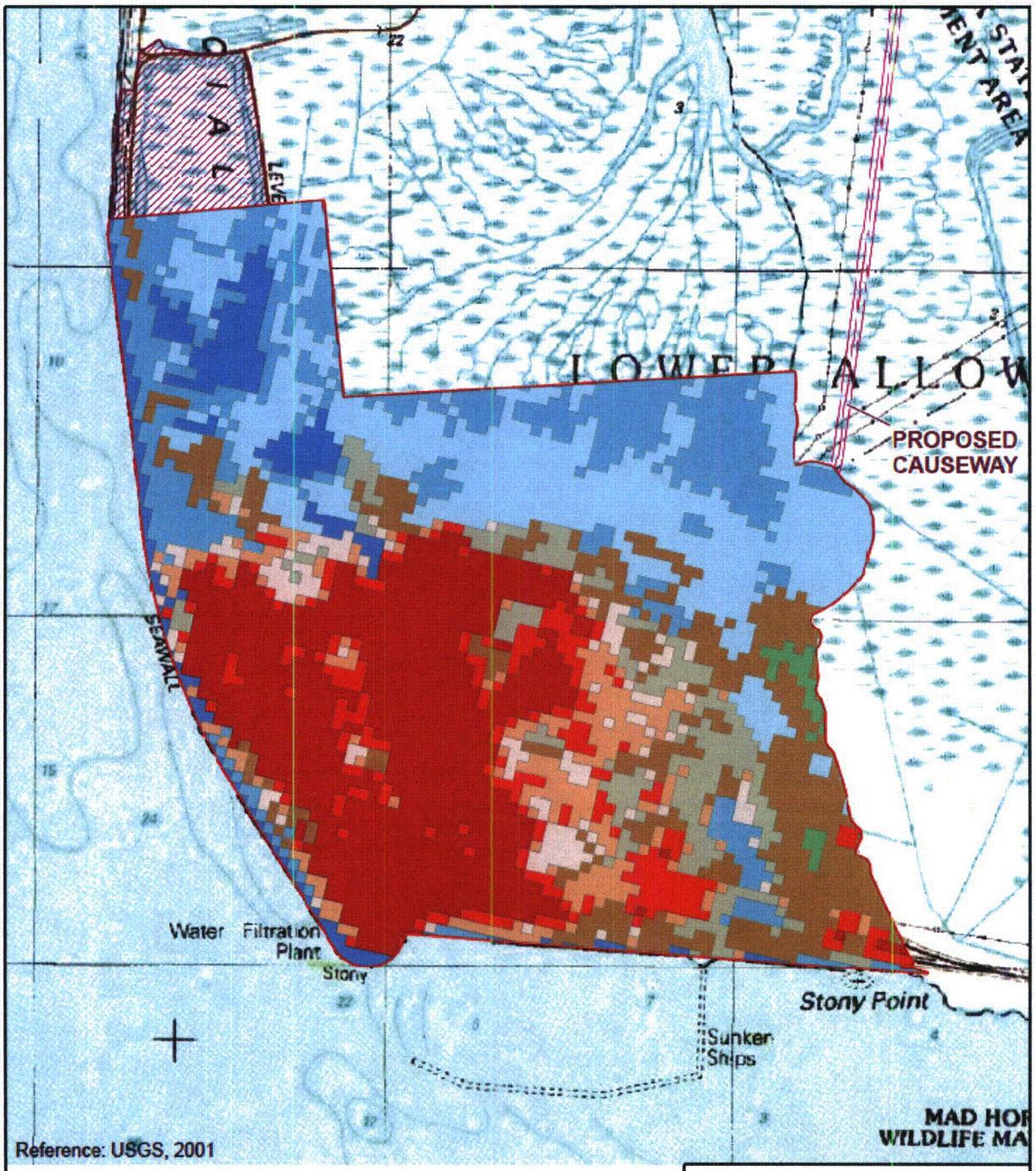
PSEG Response to NRC RAI:

The land use for the site and near off-site areas was previously analyzed using the New Jersey Land Use/Land Cover (LULC) database. In contrast, the U.S. Geological Survey (USGS) LULC database is used to analyze land use for the vicinity and region as this provides for a more unified database for the multiple jurisdictions within the larger region (DE, NJ, PA, and Maryland [MD]).

Because the New Jersey LULC data contains many more land use categories than the USGS data, it can make the colors difficult to discern. As requested, Figure ESP EIS 2.4.1-2-1 and Figure ESP EIS 2.4.1-2-2 depict the site and near off-site areas using USGS LULC data.

Associated PSEG Site ESP Application Revisions:

None.

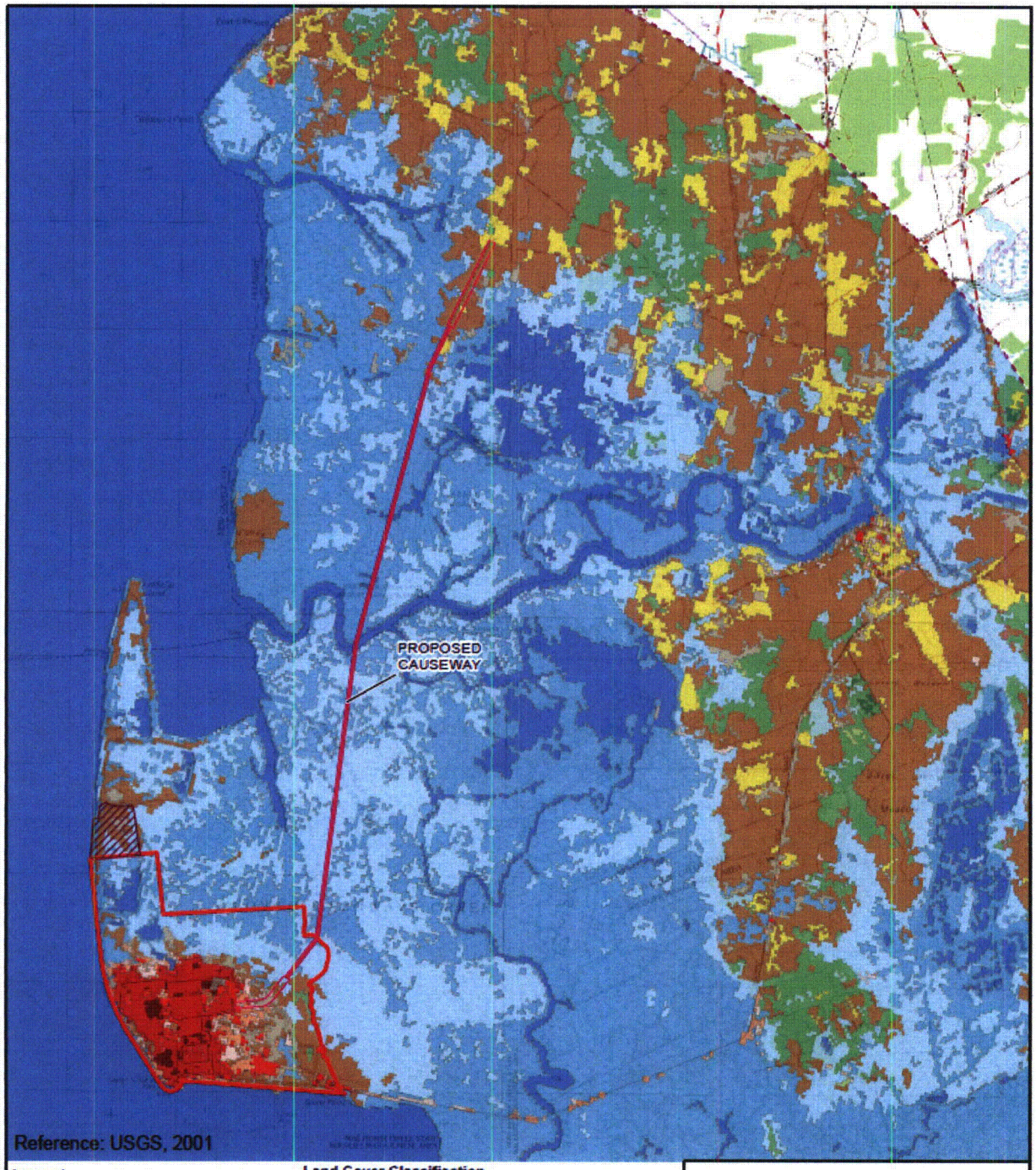


PSEG Power, LLC

PSEG Site ESPA

TE-02: Land Use/Land Cover Within the PSEG Site

Figure ESP EIS 2.4.1-2-1



Legend

- Site Boundary
- Adjacent Off-site Area
- Proposed Causeway
- 6-mile (9.7 km)Vicinity Boundary

Land Cover Classification

- Open Water
- Developed, Open Space
- Developed, Low Intensity
- Developed, Medium Intensity
- Developed High Intensity
- Barren Land (Rock/Sand/Clay)
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Shrub/Scrub
- Grassland/Herbaceous
- Pasture/Hay
- Cultivated Crops
- Woody Wetlands
- Emergent Herbaceous Wetlands

N W E S

0 0.5 Kilometers

0 0.5 Miles

PSEG Power, LLC

PSEG Site ESPA

TE-02: Land Use/Land Cover Within the PSEG Site and Near Off-Site Areas

Figure ESP EIS 2.4.1-2-2

Path: K:\1 GIS\3250086298 PSEG\RAI 2012\0 RAI 2012\Final\ESP EIS 2.4.1-2-2.mxd

Response to RAI No. ENV-04, Question ESP EIS 2.4.1-3:

The NRC staff asked PSEG for information regarding Terrestrial Ecology, as described in Subsection 2.4.1 of the Environmental Report. The specific request was:

> *rTE-03: Provide on the project docket copies of U.S. Fish and Wildlife Service response letters and other agency correspondence.*
> *Provide on the project docket copies of all letters pertaining to wetlands jurisdiction and interpretations to and from the New Jersey Department of Environmental Protection and the Corps. In particular, provide on the project docket the following letter:*
>
> *Letter to Mr. Brian Bellacima (Corps) from Mr. Jeffrey J. Pantazes (PSEG) dated May 5, 2011, Subject: Jurisdictional Determination Request, U.S., Army Corps of Engineers Confined Disposal Facility, Lower Alloways Creek Township, Salem County, N.J.*
>
> *Supporting Information: During the Environmental Site Audit, the staff discussed with the applicant the availability of agency letters relating to wildlife potentially present in the site vicinity and any agency interpretations on wetlands jurisdiction. These letters are needed to document correspondence with governmental agencies and to allow for an accurate assessment of potential impacts to wildlife and other sensitive terrestrial resources.*
>
> *Documentation that the applicant has consulted with appropriate Federal, State, regional and local agencies (ESRP 2.4.1 and 4.3.1).*

PSEG Response to NRC RAI:

The requested correspondence is provided in Enclosure 2, including:

- Application to NJ for Freshwater Wetlands Permit - ND-2009-0047
- Application to NJ for Line Verification Letter of Interpretation - ND-2009-0053
- ND-2011-0024 Jurisdictional Determination Request - USACE May 5, 2011
- NJDEP FW Wetlands Letter of Interpretation-Line Verification 04-21-2010

Associated PSEG Site ESP Application Revisions:

None.

Response to RAI No. ENV-04, Question ESP EIS 2.4.1-4:

The NRC staff asked PSEG for information regarding Terrestrial Ecology. The specific request was:

> *rTE-09: Provide information on avian protection measures that would be implemented for the proposed off-site transmission lines.*
>
> *Supporting Information: Although the exact routing and potential impacts from the building and operating off-site transmission lines are not known, a description of potential avian protective measures that may be employed would be useful in the assessment of potential impacts to avian populations from transmission lines.*
>
> *Potential for bird collisions with transmission towers and lines (ESRP 4.3.1).*

PSEG Response to NRC RAI:

PSEG completed a conceptual evaluation of transmission requirements associated with the addition of generation at the PSEG Site. This evaluation included the current PJM Regional Transmission Expansion Plan (RTEP) and other PJM transmission planning inputs. A potential off-site transmission line may be needed to accommodate the new plant relative to grid stability. Need for off-site transmission is dependent on a variety of factors, including the type of reactor technology selected, formal transmission impact studies, and regional planning efforts by PJM external to PSEG.

For any potential off-site transmission corridor, following alignment and approval of the new line by PJM, PSEG and/or Public Service Electric and Gas Company (PSE&G) will have a siting study performed to evaluate and locate the most favorable alignment for the new off-site transmission line. In the event that a new transmission line corridor is required, a full environmental review process is used that includes more detailed studies to identify sensitive resources during the siting process.

Avian species potentially sensitive to power line interactions will be identified during the siting process and particular management measures to reduce potential impacts will be established in an Avian Protection Plan (APP). Current design standards for phase-to-phase and phase-to-ground clearances for high transmission voltages are generally considerably greater than wing-to-wing or wing-to-foot spans for even large birds; therefore, electrocution is rarely a consideration for 500 kV transmission lines. However, if a line is needed to accommodate the new plant, PSE&G would likely develop an APP targeted at avian species potentially impacted by the line. The plan would likely be similar in nature to the APP that has been developed for the Susquehanna - Roseland 500kV project. This APP, which is still in draft form and is currently under review by interfacing agencies, is available for NRC review. Guidelines and management measures established by the Avian Power Line Interaction Committee (APLIC) are used as a basis for development of an APP and are available at http://www.aplic.org/mission.php.

As demonstrated by the Table of Contents of the APLIC guidelines (Reference RAI EIS ESP 2.4.1-4-1) and the APP drafted for the Susquehanna - Roseland line, the APP that would be developed for the proposed line would address such issues as training, permit compliance, construction design standards, nest management, reporting systems, and other issues.

References:

RAI EIS ESP 2.4.1-4-1 Avian Power Line Interaction Committee, 2006. Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006, Edison Electric Institute Final Report CEC-500-2006-022.

Associated PSEG Site ESP Application Revisions:

None.

Response to RAI No. ENV-04, Question ESP EIS 2.4.1-5:

In Reference 2, the NRC staff asked PSEG for information regarding Terrestrial Ecology. The specific request was:

> *rTE-11: Provide data from additional green frog surveys planned for the spring/summer 2012.*
>
> *Supporting Information: During the site audit, the applicant mentioned that additional green frog surveys are planned for the spring/summer 2012. The information for the green frog may help to better characterize the distribution of this species on the proposed site, and allow a better assessment of potential impacts to this species.*
>
> *List and description of "important" species and their spatial and temporal distributions, including life histories (ESRP 2.4.1).*
>
> *Factors considered at each level of alternative site selection process (ESRP 9.3).*
>
> *Criteria used to screen potential alternative sites (ESRP 9.3).*

PSEG Response to NRC RAI:

PSEG conducted field surveys on and in the vicinity of the PSEG Site during June and July, 2012 to assess the status of the green tree frog population in the vicinity. Methodology and results of these surveys are provided in Enclosure 2, and demonstrate that the green tree frog is well established and generally widely distributed in the immediate vicinity of the PSEG Site.

Associated PSEG Site ESP Application Revisions:

None.

Response to RAI No. ENV-04, Question ESP EIS 2.4.1-6:

The NRC staff asked PSEG for information regarding Terrestrial Ecology, as described in Subsection 2.4.1 of the Environmental Report. The specific request was:

rTE-13: Provide the following documents on the project docket:

Biological Inventory and Habitat Characterization Report for Alloway Creek Site (January 1996)

Alloway Creek Watershed Phragmites-Dominated Wetland Restoration Management Plan, Elsinboro and Lower Alloway Creek Townships, Salem County, NJ (February 18, 2004).

Provide the following document (which outlines maintenance conducted along transmission line corridors) in the electronic reading room:

PSEG Environmental Compliance Matrix (January 2011).

Supporting Information: Biological Inventory and Habitat Characterization Report for Alloway Creek Site provides important baseline ecological information of significant value for the environmental review.

Alloway Creek Watershed Phragmites-Dominated Wetland Restoration Management Plan, Elsinboro and Lower Alloway Creek Townships, Salem County, NJ provides valuable baseline information directly related to mitigation methods and measures that may be undertaken for the proposed action.

PSEG Environmental Compliance Matrix provides valuable information on current PSEG transmission line corridor maintenance procedures that take into consideration sensitive natural resources. This information provides a good indication of mitigation and maintenance measures that may be undertaken for the proposed off-site transmission lines.

A qualitative estimate of importance of habitat of threatened, endangered and other "important" species on and in the vicinity of the site relative to habitat of such species throughout entire range (ESRP 2.4.1).

A description and location of any ecological or biological studies of the site or its environs that are recently or currently in progress (ESRP 2.4.1).

Additional background information about the terrestrial ecology of the site and vicinity necessary for review of impacts on terrestrial resources (ESRP 4.3.1).

Maintenance practices along transmission system right-of-ways that are anticipated to affect terrestrial biota (ESRP 5.6.1). Special maintenance

practices used in important habitats along transmission system right-of-ways (ESRP 5.6.1).

PSEG Response to NRC RAI:

The requested correspondence is provided in Enclosure 2, including:

- Alloway Creek Watershed (ACW) Phragmites-dominated Wetland Restoration Management Plan
- PSEG Transmission Line Environmental Compliance Matrix - January 2011
- Biological Inventory and Habitat Characterization Report, Alloway Creek Site, January 1996

Associated PSEG Site ESP Application Revisions:

None.

Response to RAI No. ENV-04, Question ESP EIS 2.4.1-7:

The NRC staff asked PSEG for information regarding the terrestrial ecology at the 15G site. The specific request was:

> *rTE-15: Provide existing data about terrestrial ecology at the 15G Site, as well as any additional data about terrestrial ecology at the 15G Site to be collected in spring/summer 2012.*
>
> *Supporting Information: During the Environmental Site Audit, the applicant indicated that information was available for the 15G site. Also, the applicant indicated that additional surveys for the 15G site were planned for the spring/summer 2012. These data are needed for an assessment of the potential terrestrial ecology impacts of the proposed land exchange.*
>
> *Additional background data about terrestrial ecology of transmission corridors and offsite areas, necessary for review of impacts of construction on terrestrial resources (ESRP 4.3.1).*

PSEG Response to NRC RAI:

There are three reports that provide existing terrestrial and aquatic ecology data at the 15G site:

1. AMEC Memorandum, Supplemental Studies – 15G Surveys (ecology surveys (flora and fauna) conducted in the spring/summer 2012)
2. Due Diligence Assessment of State and Federally Listed Species, AKRF
3. Wetland Delineation Report, AKRF

These reports are provided in Enclosure 2.

Associated PSEG Site ESP Application Revisions:

None.

Response to RAI No. Env-04, Question ESP EIS 2.4.1-8:

The NRC Staff asked PSEG for information regarding additional information on the function of preserves and refuges in the vicinity of the alternative sites. The specific request was:

> *rTE-16: Provide additional information on the function of preserves and refuges in the vicinity of the alternative sites.*
>
> *Supporting information: Specific information on the functions of preserves and refuges is necessary to compare the proposed and alternative sites. The information needed is limited to the names of the facilities and a brief description of its function.*
>
> *Additional information for land specially designated for environmental, recreational, or other special purposes to compare the proposed and alternative sites (ESRP 9.3).*

PSEG Response to NRC RAI:

The following Figures ESP EIS 2.4.1-8-1 through ESP EIS 2.4.1-8-4 depict alternative sites with public open space, including State Wildlife Management Areas, County parks, and State parks within a 6-mile radius of the alternative sites:

- Alternate Site 4-1 -- Figure ESP EIS 2.4.1-8-1
- Alternate Site 7-1 -- Figure ESP EIS 2.4.1-8-2
- Alternate Site 7-2 -- Figure ESP EIS 2.4.1-8-3
- Alternate Site 7-3 -- Figure ESP EIS 2.4.1-8-4

The majority of open space areas in the vicinity of the alternative sites are Wildlife Management Areas (WMA) owned and maintained by the New Jersey Department of Environmental Protection (NJDEP) – Division of Fish and Wildlife. The function and size of WMA's are described below. For other open space areas, a brief description follows:

Wildlife Management Areas

The NJDEP, Division of Fish and Wildlife, Bureau of Land Management ("Bureau") is responsible for maintaining 121 WMAs comprising 330,000 acres throughout New Jersey (Reference ESP EIS 2.4.1-8-9). These areas are maintained and managed for a diversity of wildlife species through forest/field manipulation and habitat improvement, as well as for public access. The Bureau is also responsible for stocking fish and game birds, maintenance of buildings and grounds, development of visitor facilities, construction of parking areas and boat ramps, and projects appropriate to each WMA.

Most of the Bureau's activities focus on the WMA System and providing access to hunters, anglers and wildlife enthusiasts. The present 330,000-acre system represents more than 44% of New Jersey's state-owned public open space resource (Reference ESP EIS 2.4.1-8-9).

Through the years, particularly with the infusion of Green Acres funds since 1961, the stated mission of the WMA system gradually broadened from "Public Shooting and Fishing Grounds" to areas where fish and wildlife habitat is protected and enhanced, while providing a variety of compatible recreational and educational opportunities (including game and fish harvesting).

Alternative Site 4-1

Delaware and Raritan (D&R) Canal State Park

The NJDEP's Division of Parks and Forestry, State Park Service, owns and manages the D&R Canal as a state park. The 70-mile Delaware and Raritan Canal State Park is one of central New Jersey's most popular recreational corridors for canoeing, jogging, hiking, bicycling, fishing, and horseback riding. The canal and the park are part of the National Recreation Trail System. This linear park is also a valuable wildlife corridor connecting fields and forests. A recent bird survey conducted in the park revealed 160 species of birds, almost 90 of which nested in the park. The D&R Canal Commission, legislated in 1974, assists with the development of the park and regulates land use in the park's 400-square-mile watershed. The New Jersey Water Supply Authority operates and maintains the water transmission complex of the canal as a water supply resource, pumping out about 75 million gallons of water a day (Reference ESP EIS 2.4.1-8-1).

Lockatong WMA

The Lockatong WMA is a 583-acre park along the Lockatong Creek in Franklin and Kingwood Townships (Reference ESP EIS 2.4.1-8-10). The site is comprised of mostly deciduous upland forest, deciduous wetland forest, and open field. Based on NJDEP Landscape Mapping v. 3.1, the site provides habitat for the State threatened American Kestrel (Falco sparverius), Savannah Sparrow (Passerculus sandwichensis), Grasshopper Sparrow (Ammodramus savannarum), and Bobolink (Dolichonyx oryzivorus).

Hoffman Park

This 354-acre park comprises a mix of hardwood forest, grasslands, and 32 ponds of various sizes (Reference ESP EIS 2.4.1-8-3). The ponds were created in the 1940s by Albert and Joyce Hoffman for erosion control, crop irrigation, and cattle management when the park was a working farm. Hoffman Park's paved and gravel paths

accommodate bike riding and walking. The ponds offer fishing, as well as opportunity for nature study. In winter the paths provide cross-country skiing opportunities. Hunting is also permitted in season.

Plum Brook Greenway

Plum Brook Greenway was partially preserved in partnership with the New Jersey Water Supply Authority, Hunterdon County, Delaware Township and NJDEP's Green Acres program. Preservation of this property is approximately 260 acres. Nearly a half-mile long corridor is protected along the Plum Brook, which is a tributary to the Wickecheoke Creek, a waterway that has been identified by the NJ Department of Environmental Protection as being of the highest quality (Reference ESP EIS 2.4.1-8-2). The greenway is a combination of riparian woodlands and managed scrubland. Plum Brook flows into the D&R Canal, and the preservation of the Plum Brook Greenway is an opportunity to protect the quality of a drinking water source.

South Branch Reservation

The South Branch Reservation is located in Clinton, Franklin, Raritan and Readington Townships. The reservation totals over 1,000 acres and helps to preserve the watershed along the South Branch of the Raritan River (Reference ESP EIS 2.4.1-8-4). It is also a popular fishing location for the South Branch of the Raritan River. The river is stocked with Rainbow, Brook, and Brown Trout.

Uplands Reserve

The Uplands Preserve is located in Raritan Township and totals 101 acres (Reference ESP EIS 2.4.1-8-5). The reserve consists of steep slopes, open fields, and hardwood forests. The Walnut Brook flows through the property. The reserve, originally a farm and estate (called "Uplands Farm"), was purchased in 1931 by George Knowles Large, a prominent prosecutor and judge. Large was part of the prosecutor's staff for the Lindbergh Kidnapping Trial. After Judge Large's death in 1958, the property changed hands until the County acquired it in 1986.

Alternative Site 7-1

Salem River WMA

The Salem River WMA totals 3,225 acres and is located in Carney's Point, Mannington and Pilesgrove Townships in Salem County (Reference ESP EIS 2.4.1-8-6). The WMA provides access to a parking area and viewing platform overlooking an expansive marsh along Mannington Creek. Fishing and hunting are allowed in season.

Featherbed Lane WMA

The Featherbed Lane WMA totals 190 acres in Pilesgrove Township, Salem County (Reference ESP EIS 2.4.1-8-11). Public access is restricted from April 15 - September 1. Birdwatching is permitted from the roadside during this period. No deer hunting is allowed. The WMA provides habitat for the State endangered Vesper Sparrow (*Pooecetes gramineus*), and the State threatened Grasshopper Sparrow, Bobolink, and Upland Sandpiper (*Bartramia longicauda*).

Game Branch Preserve

The Game Branch Preserve is located in Carney's Point and Oldman's Townships, Salem County and totals 391 acres (Reference ESP EIS 2.4.1-8-16). One of the New Jersey Lands Trusts' model holdings, this preserve is critical for local and migratory wildlife. The wetland forests of the preserve are some of the most extensive in the region. Located less than one mile from the Delaware River, migrating songbirds depend on this forest for stop-over cover on their southward migrations. The unbroken forest habitats also provide desirable nesting sites for interior forest nesting birds including scarlet tanager and ovenbird. The forested wetlands are dotted with shallow, seasonal ponds. These vernal ponds possess the required conditions for frogs and salamanders to breed. Several old abandoned agricultural fields are managed strictly for the benefit of wildlife. Using funding from the Natural Resources Conservation Service's Wildlife Habitat Incentives Program (WHIP), the Trust has cleared overgrown brush and planted warm season grass to improve habitat for bobwhite quail.

Alternative Site 7-2

Thundergut Pond WMA

Thundergut Pond is on the Deep Run River in Alloway Township, Salem County, and totals 2,169 acres (Reference ESP EIS 2.4.1-8-12). On-site vegetation consists of mixed forest (coniferous and deciduous) with areas of deciduous wooded wetlands. Access to the on-site Sycamore Lake is prohibited January 1st through July 31st for protection of Bald Eagle (*Haliaeetus leucocephalus*) nesting. Construction was completed in 1955 and it is primarily used for recreational purposes (e.g. fishing and boating). The pond's normal surface area is 15 acres.

Maskells Mill Pond WMA

Maskell's Mill WMA, which totals 1,112 acres and is located in Lower Alloways Creek Township, Salem County, offers boat and canoe access to Maskell's Mill Pond (Reference ESP EIS 2.4.1-8-7). The southern arm of the pond is more secluded than other access points and has a wooden bridge that visitors can access. The Maskells Mill Pond WMA supports a diverse bird population including the bald eagle, prairie warbler (*Setophaga discolor*), scarlet tanager (*Piranga olivacea*), wood thrush (*Hylocichla mustelina*), and bobwhite quail (*Colinus virginianus*).

Alternative Site 7-3

Gumtree Corner WMA

The Gumtree Corner WMA totals 1,104 acres in Stow Creek Township, Cumberland County (Reference ESP EIS 2.4.1-8-13). This WMA is located just east of Stow Creek and is comprised of mostly tidal marsh and open field, with pockets of deciduous forest. The site contains foraging and nest habitat for Bald Eagle, Osprey (*Pandion haliaetus*), and Great Blue Heron (*Ardea herodias*).

Mad Horse Creek WMA

The Mad Horse Creek WMA totals 9,498 acres in Lower Alloway Creek Township, Salem County (Reference ESP EIS 2.4.1-8-14). This WMA is located along the Delaware Bay and is comprised of mostly tidal wetlands. The site contains foraging and nest habitat for Bald Eagle, Osprey, and Great Blue Heron. There is parking and a boat ramp located at the end of Stowneck Road.

Dix WMA

The Dix WMA totals 4,225 acres in Fairfield Township, Cumberland County (Reference ESP EIS 2.4.1-8-15). This WMA is located east of the Cohansey River and abuts the Delaware Bay to the south and is comprised mostly of tidal marsh, with small pockets of open field and deciduous forest. The site contains habitat for Black Rail (*Laterallus jamaicensis*), Northern Harrier (*Circus cyaneus*), and Bald Eagle.

Cohansey River WMA

The Cohansey River WMA totals 993 acres in Hopewell Township, Cumberland County (Reference ESP EIS 2.4.1-8-14). There are several non-contiguous parcels along the Cohansey River that comprise this WMA. The lands within the WMA are comprised of mostly tidal wetlands. The site contains habitat for Great Blue Heron and foraging and nest buffer for Bald Eagle.

Stow Creek State Park

The Stow Creek State Park totals approximately 767 acres and is approximately 5 miles from the Delaware Bay (Reference ESP EIS 2.4.1-8-8). The park contains a viewing platform overlooking the expansive salt marsh. The marshlands provide habitat for foraging Northern Harrier. Bald eagles also commonly nest in the vicinity.

References:

Reference ESP EIS 2.4.1-8-1	D&R Canal State Park, 2012, http://www.dandrcanal.com/gen_info.html, accessed August 21, 2012
Reference ESP EIS 2.4.1-8-2	D&R Greenway Land Trust, 2012, http://www.drgreenway.org/Preserves.htm, accessed August 21, 2012
Reference ESP EIS 2.4.1-8-3	Hunterdon County Division of Parks and Recreation, 2012a, http://www.co.hunterdon.nj.us/depts/parks/ParkAreas/Hoffman/info.htm, accessed August 21, 2012
Reference ESP EIS 2.4.1-8-4	Hunterdon County Division of Parks and Recreation, 2012b, http://www.co.hunterdon.nj.us/depts/parks/ParkAreas/SouthBranchReservation/info.htm, accessed September 25, 2012
Reference ESP EIS 2.4.1-8-5	Hunterdon County Division of Parks and Recreation, 2012c, http://www.co.hunterdon.nj.us/depts/parks/ParkAreas/Upldands/info.htm, accessed September 25, 2012
Reference ESP EIS 2.4.1-8-6	NJ Birding and Wildlife Trails, 2012a, http://www.njwildlifetrails.org/PineBarrensTrails/Sites/tabid/1698/Scope/site/Guide/DELBAYSH/Site/10/Default.aspx, accessed September 25, 2012
Reference ESP EIS 2.4.1-8-7	NJ Birding and Wildlife Trails, 2012b, http://www.njwildlifetrails.org/PineBarrensTrails/Sites/tabid/1698/Scope/site/Guide/DELBAYSH/Site/13/Default.aspx, accessed September 25, 2012
Reference ESP EIS 2.4.1-8-8	NJ Birding and Wildlife Trails, 2012c, http://www.njwildlifetrails.org/PineBarrensTrails/Sites/tabid/1698/Scope/site/Guide/DELBAYSH/Site/86/Default.aspx, accessed August 21, 2012
Reference ESP EIS 2.4.1-8-9	NJDEP, Division of Fish and Wildlife, 2012a, http://www.nj.gov/dep/fgw/wmas.htm, accessed August 21, 2012

Reference ESP EIS 2.4.1-8-10 NJDEP, Division of Fish and Wildlife, 2012b, http://www.nj.gov/dep/fgw/pdf/wmamaps/lockatong.pdf, accessed September 25, 2012

Reference ESP EIS 2.4.1-8-11 NJDEP, Division of Fish and Wildlife, 2012c, http://www.nj.gov/dep/fgw/pdf/wmamaps/featherbed_lane.pdf, accessed September 25, 2012

Reference ESP EIS 2.4.1-8-12 NJDEP, Division of Fish and Wildlife, 2012d, http://www.nj.gov/dep/fgw/pdf/wmamaps/thundergut_pond.pdf, accessed September 25, 2012

Reference ESP EIS 2.4.1-8-13 NJDEP, Division of Fish and Wildlife, 2012e, http://www.nj.gov/dep/fgw/pdf/wmamaps/gum_tree_corner.pdf, accessed September 25, 2012

Reference ESP EIS 2.4.1-8-14 NJDEP, Division of Fish and Wildlife, 2012f, http://www.nj.gov/dep/fgw/wmaland.htm, accessed September 25, 2012

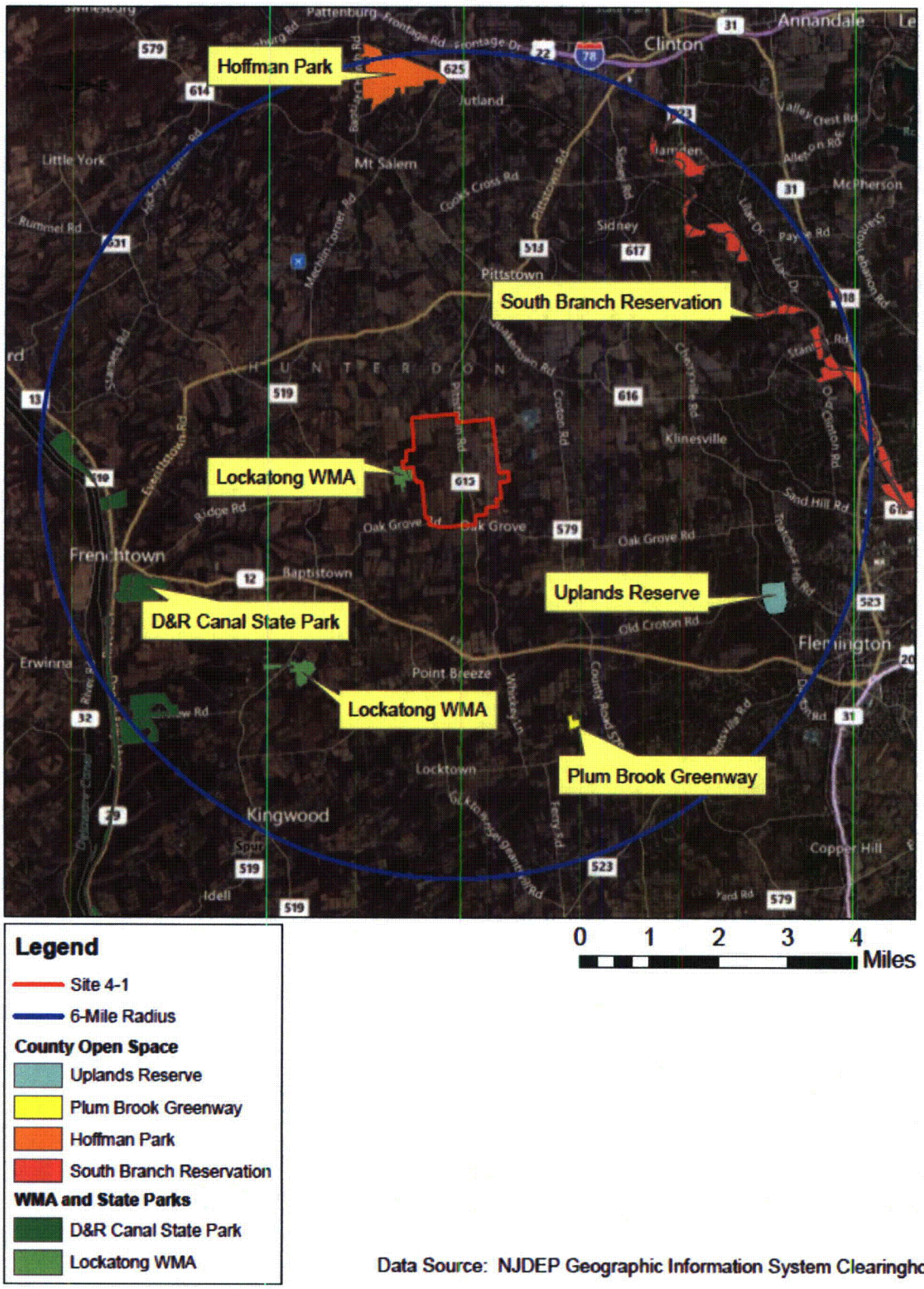
Reference ESP EIS 2.4.1-8-15 Reference ESP EIS 2.4.1-8-15 NJDEP, Division of Fish and Wildlife, 2012g, http://www.nj.gov/dep/fgw/pdf/wmamaps/dix.pdf, accessed September 25, 2012

Reference ESP EIS 2.4.1-8-16 NJ Natural Lands Trust, 2012, http://nj.gov/dep/njnlt/gamebranch.htm, accessed August 21, 2012

Associated PSEG Site ESP Application Revisions:

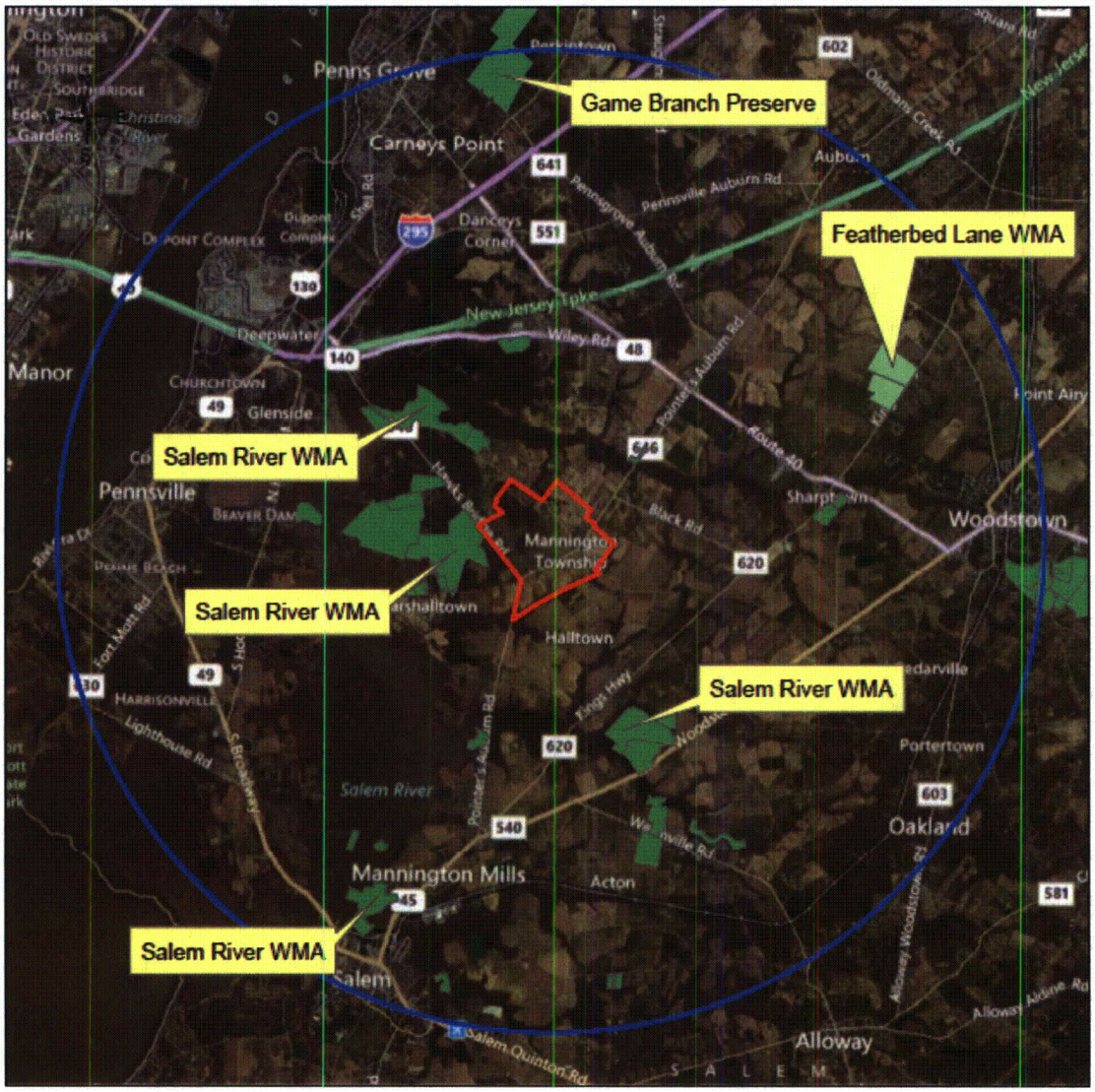
None.

Figure ESP EIS 2.4.1-8-1
Alternative Site 4-1 Open Space within 6-mile Radius



Data Source: NJDEP Geographic Information System Clearinghouse

Figure ESP EIS 2.4.1-8-2
Alternative Site 7-1 Open Space within 6-mile Radius



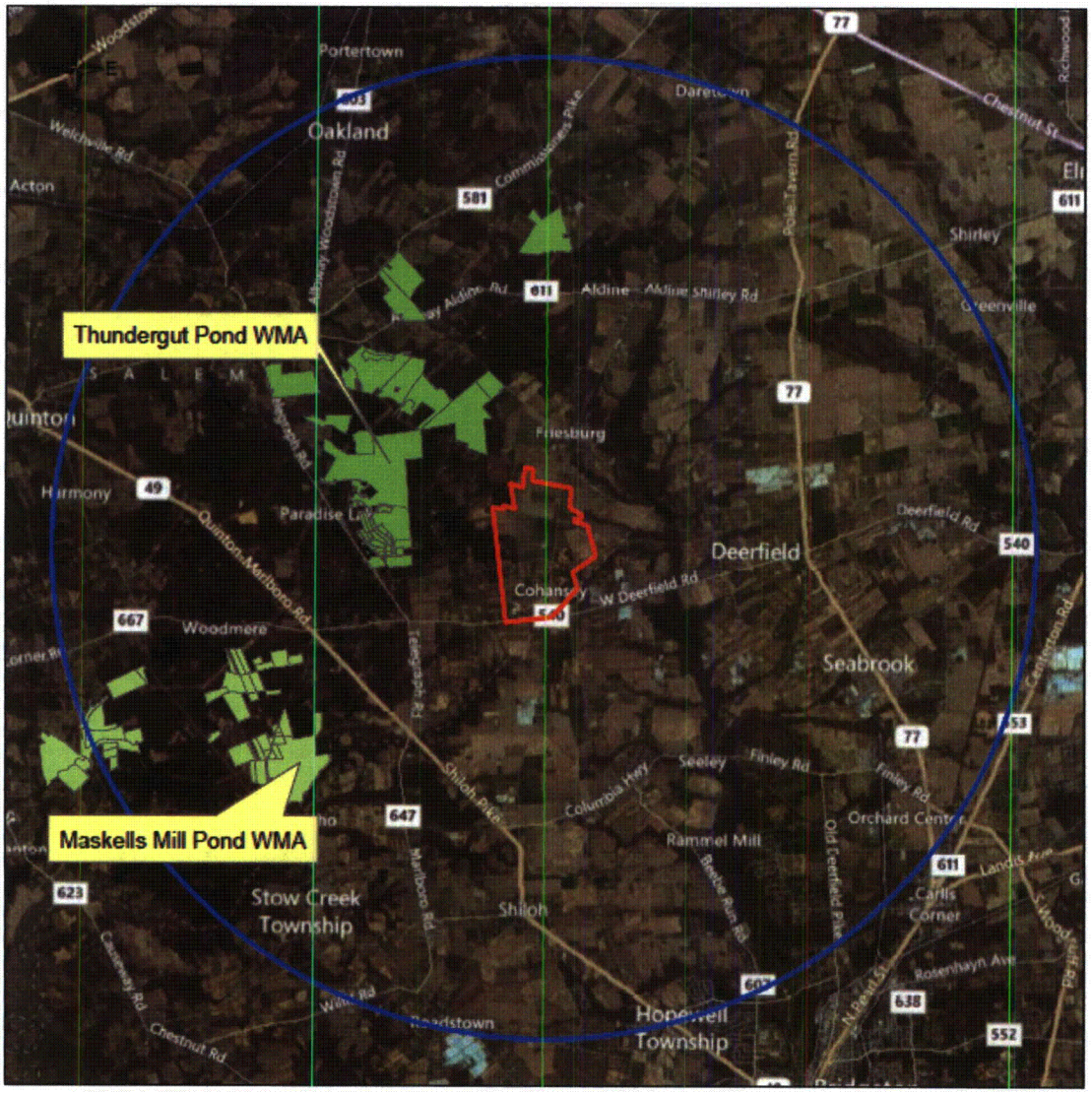
Legend

- Site 7-1
- 6-Mile Radius
- FEATHERBED LANE WMA
- GAME BRANCH Preserve
- SALEM RIVER WMA

0 1 2 3 4 Miles

Data Source: NJDEP Geographic Information System Clearinghouse

Figure ESP EIS 2.4.1-8-3
Alternative Site 7-2 Open Space within 6-mile Radius



Legend

- Site 7-2
- 6-Mile Radius

WMA areas

- MASKELLS MILL POND WMA
- THUNDERGUT POND WMA

0 1 2 3 4 Miles

Data Source: NJDEP Geographic Infomration System Clearinghouse

Figure ESP EIS 2.4.1-8-4
Alternative Site 7-3 Open Space within 6-mile Radius

Legend

- Site 7-3
- 6-Mile Radius

WMA and Parks

- COHANSEY RIVER WMA
- DIX WMA
- GUMTREE CORNER WMA
- MAD HORSE CREEK WMA
- STOW CREEK STATE PARK

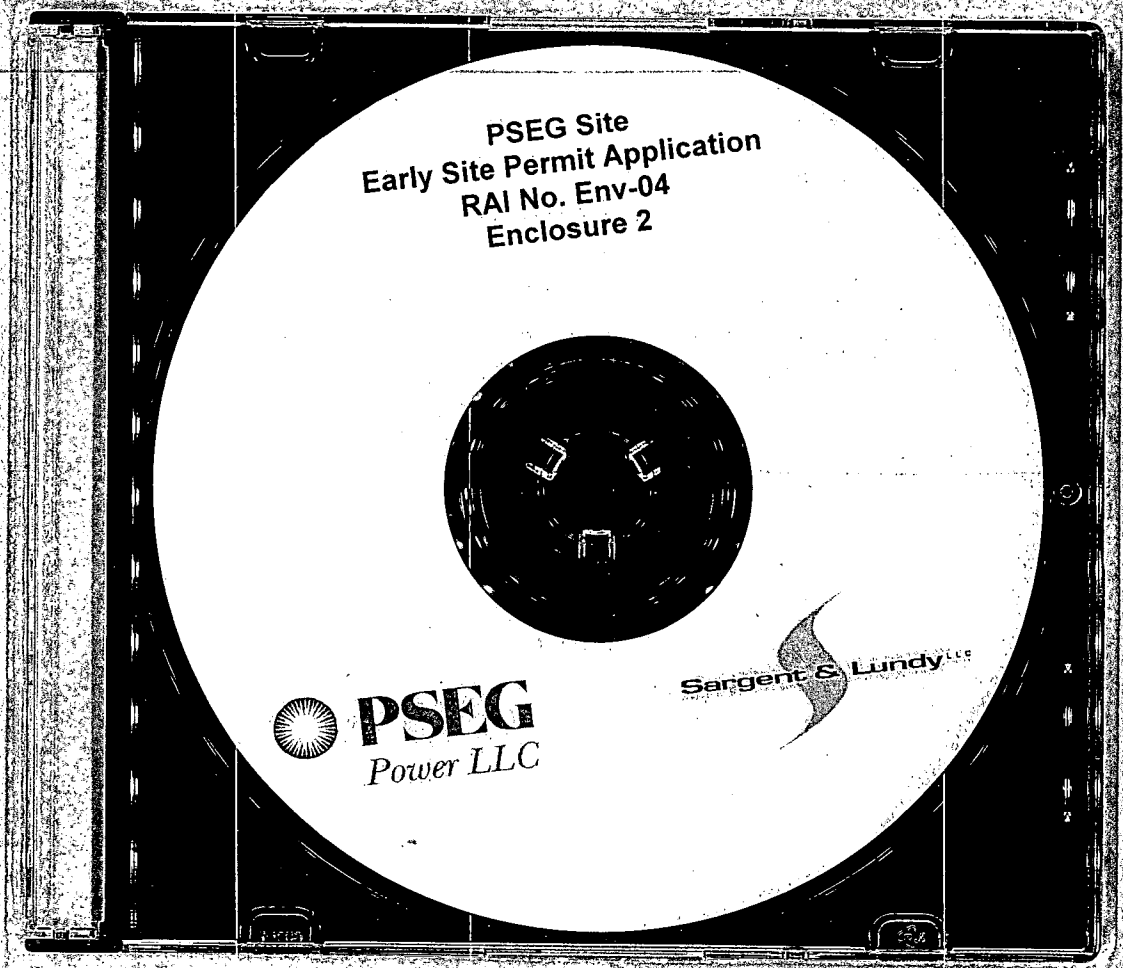
0 1 2 3 4 Miles

Data Source: NJDEP Geographic Information System Clearinghouse

PSEG Letter ND-2012-0053, dated September 28, 2012

ENCLOSURE 2

CD-ROM Containing Requested Information


PSEG Site
Early Site Permit Application
RAI No. Env-04
Enclosure 2
PSEG
Power LLC
Sargent & Lundy LLC