

Appendix B



John Mossesso, Jr./NBI

White-tailed Deer

Findings of Appropriateness and Compatibility Determinations

Findings of Appropriateness and Compatibility Determinations

Findings of Appropriateness

- Bicycling
- Dog Walking
- Geocaching
- Horseback Riding
- Jogging
- Non-wildlife Dependent Group Gatherings
- Organized or Facility-supported Picnicking

Findings of Appropriateness/Compatibility Determinations

- Finns Point Rear Range Light Visitation
- Scientific Research
- Release of *Rhinoncomimus latipes* weevil for the Biological Control of Mile-a-minute Weed (*Polygonum perfoliatum*).

Compatibility Determinations

- Wildlife Observation, Photography, Environmental Education, and Interpretation
- Fishing and Crabbing
- Public Hunting of Waterfowl
- White-tailed Deer Archery Hunt

Finding of Appropriateness of a Refuge Use

Refuge Name: Supawna Meadows NWR

Use: BICYCLING

This exhibit is not required for wildlife-dependent recreational uses, forms of take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision criteria:	YES	NO
(a) Do we have jurisdiction over the use?	X	
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	X	
(c) Is the use consistent with applicable Executive orders and Department and Service policies?		X
(d) Is the use consistent with public safety?		X
(e) Is the use consistent with goals and objectives in an approved management plan or other document?		X
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?		X
(g) Is the use manageable within available budget and staff?		X
(h) Will this be manageable in the future within existing resources?		X
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?		X
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D. for description), compatible, wildlife-dependent recreation into the future?		X

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate.

If the answer is "no" to any of the other questions above, we would generally not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes X No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

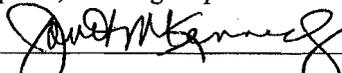
Not Appropriate X Appropriate

Refuge Manager:  Date: 12/9/2010

If found to be Not Appropriate, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found Not Appropriate outside the CCP process, the refuge supervisor must sign concurrence.

If found to be Appropriate, the refuge supervisor must sign concurrence:

Refuge Supervisor:  Date: 5/13/11

A compatibility determination is required before the use may be allowed.

Justification for a Finding of Appropriateness of a Refuge Use

Refuge Name: Supawna Meadows NWR

Use: **BICYCLING**

Narrative

Bicycling is not identified as a priority public use of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57). Bicycling on unimproved roads and trails on the refuge has been found to be not appropriate for Supawna Meadows NWR. Bicycling causes conflicts with existing uses and requires increased maintenance duties.

Biking is not allowed on the two existing refuge trails, the Forest Habitat Trail and the Grassland Trail, or any other portions of currently owned refuge lands or future lands acquired as part of the refuge. Biking on these trails and roads is not required to experience priority public uses.

Current trail and road maintenance is based on staff time availability. There is currently no assigned staff at Supawna Meadows NWR. All maintenance and law enforcement support is provided by staff located at Cape May National Wildlife Refuge (Cape May NWR). These areas are monitored by volunteers (when available) and deficiencies are noted and reported to refuge staff. Instances of downed trees and erosion due to inclement weather occur occasionally and staff response may take days and, in some cases, weeks before repairs can be initiated.

Bicycling was not an activity in which the public expressed interest during the public scoping meetings. This use is not a historical or traditional use of the refuge.

Finding of Appropriateness of a Refuge Use

Refuge Name: Supawna Meadows NWR

Use: DOG WALKING

This exhibit is not required for wildlife-dependent recreational uses, forms of take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision criteria:	YES	NO
(a) Do we have jurisdiction over the use?	X	
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	X	
(c) Is the use consistent with applicable Executive orders and Department and Service policies?		X
(d) Is the use consistent with public safety?		X
(e) Is the use consistent with goals and objectives in an approved management plan or other document?		X
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?		X
(g) Is the use manageable within available budget and staff?		X
(h) Will this be manageable in the future within existing resources?		X
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?		X
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D. for description), compatible, wildlife-dependent recreation into the future?		X

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we will generally not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes ___ No X

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

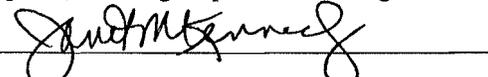
Not Appropriate X Appropriate

Refuge Manager:  Date: 12/9/2010

If found to be Not Appropriate, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found Not Appropriate outside the CCP process, the refuge supervisor must sign concurrence.

If found to be Appropriate, the refuge supervisor must sign concurrence:

Refuge Supervisor:  Date: 5/13/11

A compatibility determination is required before the use may be allowed.

Justification for a Finding of Appropriateness of a Refuge Use

Refuge Name: Supawna Meadows NWR

Use: **DOG WALKING**

Narrative

Dog walking is not identified as a priority public use of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57). Dog walking has been found to not be appropriate for Supawna Meadows NWR.

The two trails at Supawna Meadows NWR are unsuitable for dog walking. Walking dogs (on and off leashes) can increase disturbance to wildlife, often causing reduction in abundance and diversity of migratory birds. The refuge does not provide receptacles for animal waste, which if left along refuge trails may increase the potential of disease and decrease the quality of priority public uses permitted on the refuge.

Finding of Appropriateness of a Refuge Use

Refuge Name: Supawna Meadows NWR

Use: GEOCACHING

This exhibit is not required for wildlife-dependent recreational uses, forms of take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision criteria:	YES	NO
(a) Do we have jurisdiction over the use?	X	
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	X	
(c) Is the use consistent with applicable Executive orders and Department and Service policies?		X
(d) Is the use consistent with public safety?		X
(e) Is the use consistent with goals and objectives in an approved management plan or other document?		X
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?		X
(g) Is the use manageable within available budget and staff?		X
(h) Will this be manageable in the future within existing resources?		X
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?		X
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D. for description), compatible, wildlife-dependent recreation into the future?		X

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we would generally not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes X No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate X Appropriate

Refuge Manager: *Thomas J. [Signature]* Date: 12/9/2010

If found to be Not Appropriate, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found Not Appropriate outside the CCP process, the refuge supervisor must sign concurrence.

If found to be Appropriate, the refuge supervisor must sign concurrence:

Refuge Supervisor: *John M. [Signature]* Date: 5/13/11

A compatibility determination is required before the use may be allowed.

Justification for a Finding of Appropriateness of a Refuge Use

Refuge Name: Supawna Meadows NWR

Use: **GEOCACHING**

Narrative

Geocaching that involves burying or leaving a cache is not a priority public use of the National Wildlife Refuge System Improvement Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57). Geocaching (with the exception of virtual Geocaching) has been found to be not appropriate for Supawna Meadows NWR. This activity involves burying items in the ground or placing objects on the refuge, both of which are actions that can disturb or damage habitat and increase instances of refuge violations.

The placement of any object on a national wildlife refuge is a violation of several Federal regulations including, but not limited to, the following:

- 16USC668dd, 50 CFR 26.21a, Trespass
- 16USC668dd, 50 CFR 27.63, Search for and removal of other valued objects
- 16USC668dd, 50 CFR 27.93, Abandonment of Property
- 16USC668dd, 50 CFR 27.97, Private Operations

This use is not a historical or traditional use of the Refuge.

Finding of Appropriateness of a Refuge Use

Refuge Name: Supawna Meadows NWR

Use: HORSEBACK RIDING

This exhibit is not required for wildlife-dependent recreational uses, forms of take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision criteria:	YES	NO
(a) Do we have jurisdiction over the use?	X	
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	X	
(c) Is the use consistent with applicable Executive orders and Department and Service policies?		X
(d) Is the use consistent with public safety?		X
(e) Is the use consistent with goals and objectives in an approved management plan or other document?		X
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?		X
(g) Is the use manageable within available budget and staff?		X
(h) Will this be manageable in the future within existing resources?		X
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?		X
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D. for description), compatible, wildlife-dependent recreation into the future?		X

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we would generally not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes X No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate X Appropriate

Refuge Manager: *Howard J. ...* Date: 12/9/2010

If found to be Not Appropriate, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found Not Appropriate outside the CCP process, the refuge supervisor must sign concurrence.

If found to be Appropriate, the refuge supervisor must sign concurrence:

Refuge Supervisor: *Janet M. Kennedy* Date: 5/13/11

A compatibility determination is required before the use may be allowed.

Justification for a Finding of Appropriateness of a Refuge Use

Refuge Name: Supawna Meadows NWR

Use: **HORSEBACK RIDING**

Narrative

Horseback riding is not identified as a priority public use of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57). Horseback riding, used as a means to conduct priority public uses, has been found to be not appropriate for Supawna Meadows NWR.

The refuge does not have parking space to support trailers in our designated parking areas. Trails and roads are unable to safely accommodate horses in conjunction with other public use activities. The refuge does not have the staff resources to manage the use properly. Horseback riding would add significantly to the workload of law enforcement (LE), visitor services, and maintenance staff because of the need to highly manage and monitor activities; trails would need continual maintenance.

Potential impacts of horseback travel include: soil compaction and erosion, trampling and mortality of fragile plant communities, habitat loss/deterioration, a shift in plant communities along trails, and the introduction of invasive plant species.

Current trail and road maintenance is based on staff time availability. There is currently no assigned staff at Supawna Meadows NWR. All maintenance and law enforcement support are provided from staff located at Cape May NWR. These areas are monitored by volunteers (when available) and deficiencies are noted and reported to refuge staff. Instances of downed trees and erosion due to inclement weather occur occasionally and staff response may take days and, in some cases, weeks before repairs can be initiated. Trails used for public use at Supawna Meadows NWR were constructed with the intention of foot traffic only.

Horseback riding is not a wildlife-dependent public use, nor is it necessary to support a priority public use, and it may decrease the enjoyment of the refuge for other visitors. Horseback riding on the refuge was not an activity in which the public expressed interest during the public scoping meetings.

Finding of Appropriateness of a Refuge Use

Refuge Name: Supawna Meadows NWR

Use: JOGGING

This exhibit is not required for wildlife-dependent recreational uses, forms of take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision criteria:	YES	NO
(a) Do we have jurisdiction over the use?	X	
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	X	
(c) Is the use consistent with applicable Executive orders and Department and Service policies?		X
(d) Is the use consistent with public safety?		X
(e) Is the use consistent with goals and objectives in an approved management plan or other document?		X
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?		X
(g) Is the use manageable within available budget and staff?		X
(h) Will this be manageable in the future within existing resources?		X
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?		X
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D. for description), compatible, wildlife-dependent recreation into the future?		X

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we would generally not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes X No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate X Appropriate

Refuge Manager: [Signature] Date: 12/9/2010

If found to be Not Appropriate, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found Not Appropriate outside the CCP process, the refuge supervisor must sign concurrence.

If found to be Appropriate, the refuge supervisor must sign concurrence:

Refuge Supervisor: [Signature] Date: 5/13/11

A compatibility determination is required before the use may be allowed.

Justification for a Finding of Appropriateness of a Refuge Use

Refuge Name: Supawna Meadows NWR

Use: **JOGGING**

Narrative

Jogging is not identified as a priority public use of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57). Jogging has been found to be not appropriate for Supawna Meadows NWR.

Foot travel is allowed on established trails so that visitors may experience the priority public uses of wildlife observation, photography, interpretation, and environmental education. Jogging is not required to experience these uses. Furthermore, portions of the trails are uneven and contain loose gravel. Joggers attempting to run along these portions may endanger themselves and other visitors.

Current trail and road maintenance is based on staff time availability. There is currently no assigned staff at Supawna Meadows NWR. All maintenance and law enforcement support are provided from staff located at Cape May NWR. These areas are monitored by volunteers (when available) and deficiencies are noted and reported to refuge staff. Instances of downed trees and erosion due to inclement weather occur occasionally and staff response may take days and, in some cases, weeks before repairs can be initiated.

Jogging is not a wildlife-dependent public use, nor is it necessary to support a priority public use, and it may decrease the enjoyment of the refuge for other visitors. Jogging on the refuge was not an activity in which the public expressed interest during the public scoping meetings. This use is not a historical or traditional use of the refuge.

Finding of Appropriateness of a Refuge Use

Refuge Name: Supawna Meadows NWR

Use: NON-WILDLIFE DEPENDENT GROUP GATHERINGS

This exhibit is not required for wildlife-dependent recreational uses, forms of take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision criteria:	YES	NO
(a) Do we have jurisdiction over the use?	X	
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	X	
(c) Is the use consistent with applicable Executive orders and Department and Service policies?		X
(d) Is the use consistent with public safety?		X
(e) Is the use consistent with goals and objectives in an approved management plan or other document?		X
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?		X
(g) Is the use manageable within available budget and staff?		X
(h) Will this be manageable in the future within existing resources?		X
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?		X
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D. for description), compatible, wildlife-dependent recreation into the future?		X

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we would generally not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes X No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate X Appropriate

Refuge Manager: [Signature] Date: 12/9/2010

If found to be Not Appropriate, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found Not Appropriate outside the CCP process, the refuge supervisor must sign concurrence.

If found to be Appropriate, the refuge supervisor must sign concurrence:

Refuge Supervisor: [Signature] Date: 5/13/11

A compatibility determination is required before the use may be allowed.

Justification for a Finding of Appropriateness of a Refuge Use

Refuge Name: Supawna Meadows NWR

Use: **NON-WILDLIFE DEPENDENT GROUP GATHERINGS**

Narrative

Non-wildlife dependent group gatherings such as, but not limited to, ceremonies, weddings, memorial services, family reunions, etc., are not priority public uses of the National Wildlife Refuge System Improvement Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57).

These types of uses do not support a refuge purpose, objective or goal and would not benefit the natural or cultural resources present within the refuge. Non-wildlife dependent group gatherings have been found to be not appropriate for Supawna Meadows NWR.

Finding of Appropriateness of a Refuge Use

Refuge Name: Supawna Meadows NWR

Use: ORGANIZED OR FACILITY-SUPPORTED PICNICKING

This exhibit is not required for wildlife-dependent recreational uses, forms of take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision criteria:	YES	NO
(a) Do we have jurisdiction over the use?	X	
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	X	
(c) Is the use consistent with applicable Executive orders and Department and Service policies?		X
(d) Is the use consistent with public safety?		X
(e) Is the use consistent with goals and objectives in an approved management plan or other document?		X
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?		X
(g) Is the use manageable within available budget and staff?		X
(h) Will this be manageable in the future within existing resources?		X
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?		X
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D. for description), compatible, wildlife-dependent recreation into the future?		X

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we would generally not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes X No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate X Appropriate

Refuge Manager: [Signature] Date: 12/9/2010

If found to be Not Appropriate, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found Not Appropriate outside the CCP process, the refuge supervisor must sign concurrence.

If found to be Appropriate, the refuge supervisor must sign concurrence:

Refuge Supervisor: [Signature] Date: 5/13/11

A compatibility determination is required before the use may be allowed.

Justification for a Finding of Appropriateness of a Refuge Use

Refuge Name: Supawna Meadows NWR

Use: **ORGANIZED OR FACILITY-SUPPORTED PICNICKING**

Narrative

Picnicking is not identified as a priority public use of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57). Picnicking has been found to be not appropriate for Supawna Meadows NWR.

The refuge does not provide the amenities for picnicking activities, such as picnic tables, shelters, trash containers, grills, etc. In addition, we do not have the resources to manage a picnic area or program. The workload for the maintenance and other staff would increase. Law enforcement duties would also increase to ensure compliance.

Although organized picnicking is prohibited, this does not preclude visitors from bringing food with them for nutrition or safety while they participate in other appropriate and compatible activities on the refuge.

Prohibiting picnicking may positively impact wildlife and wildlife habitat by, for example, reducing soil compaction and vegetation trampling, minimizing the frequency and extent of wildlife disturbance, and reducing trash and food waste which could result in wildlife conflicts, feeding of wildlife, and potential death to wildlife that ingest trash and food waste.

Finding of Appropriateness of a Refuge Use

Refuge Name: Supawna Meadows NWR

Use: FINNS POINT REAR RANGE LIGHT PUBLIC VISITATIONS

This exhibit is not required for wildlife-dependent recreational uses, forms of take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision criteria:	YES	NO
(a) Do we have jurisdiction over the use?	X	
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	X	
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	X	
(d) Is the use consistent with public safety?	X	
(e) Is the use consistent with goals and objectives in an approved management plan or other document?	X	
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?	X	
(g) Is the use manageable within available budget and staff?	X	
(h) Will this be manageable in the future within existing resources?	X	
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?	X	
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D. for description), compatible, wildlife-dependent recreation into the future?	X	

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we would generally not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes X No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate Appropriate X

Refuge Manager: *Howard D. Kellogg* Date: 12/9/2010

If found to be Not Appropriate, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found Not Appropriate outside the CCP process, the refuge supervisor must sign concurrence.

If found to be Appropriate, the refuge supervisor must sign concurrence:

Refuge Supervisor: *Justin M. Kennedy* Date: 5/13/11

A compatibility determination is required before the use may be allowed.

Justification for a Finding of Appropriateness of a Refuge Use

Refuge Name: Supawna Meadows NWR

Use: **FINNS POINT REAR RANGE LIGHT PUBLIC VISITATIONS**

Narrative

Public visitation of the Finns Point Rear Range Light occurs almost on a daily basis by individuals stopping at the lighthouse to take photographs and read interpretative information regarding the historic importance the lighthouse served as a navigational aid to shipping in the Delaware River. The New Jersey Lighthouse Society has a strong interest in having the lighthouse open to the public during their annual Lighthouse Challenge weekend. Public visitation of the Finns Point Rear Range Lighthouse has been found to be an appropriate use for Supawna Meadows NWR.

It is anticipated visitation to the lighthouse could be used as a means to increase public awareness of Supawna Meadows NWR and the habitat values the refuge provides to migratory birds and other wildlife species. In this way, this use contributes to all of the habitat management and public use goals in the draft CCP/EA. Through interpretive signs located within the lighthouse and surrounding the lighthouse grounds, visitors to the lighthouse would gain a greater appreciation for the resource values of the refuge and create a greater interest to participate in the refuge's priority public use activities.

Compatibility Determination

Use: FINNS POINT REAR RANGE LIGHT PUBLIC VISITATIONS

Refuge Name: Supawna Meadows National Wildlife Refuge (NWR)

Establishing Authority: Supawna Meadows NWR was originally established by Executive Order 6582 on February 3, 1934, as the Goose Pond addition to the Killcohook National Wildlife Refuge (currently termed Killcohook Coordination Area). The refuge was renamed Supawna Meadows National Wildlife Refuge and officially separated from Killcohook on April 10, 1974, by the Service. On October 30, 1998, the Service's jurisdiction over Killcohook was revoked.

Refuge Purposes: Supawna Meadows NWR purposes:

- "... as a refuge and breeding ground for wild birds and animals," (Executive Order 6582, dated Feb. 3, 1934);
- "... particular value in carrying out the national migratory bird management program," (16 U.S.C. § 667b);
- "... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds," (16 U.S.C. § 715d); and
- "... suitable for (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species," (16 U.S.C. § 460k-1).

National Wildlife Refuge System Mission: ...to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (National Wildlife Refuge System Improvement Act of 1997, Public Law 105-57).

Description of Use:

(a) What is this use? Is it a priority public use?

People visit the exterior of the Finns Point Rear Range Light (FPRRL) almost on a daily basis to take photographs and read interpretative information regarding the historic importance of the lighthouse as a navigational aid to shipping in the Delaware River. The interior of the lighthouse is open to the public during the annual New Jersey Lighthouse Challenge and may be open to visitors at other times pending availability of additional staffing and funding. Visitors may also have access to the catwalk after necessary repairs have been made and it is deemed safe for the public.

(b) Where would the use be conducted?

During the Lighthouse Challenge the Friends of Supawna Meadows NWR and the New Jersey Lighthouse Society will set up informational tables immediately adjacent to the lighthouse to discuss the lighthouse, the refuge, and refuge habitats and their importance to wildlife. Daily access will occur to the exterior of the FPRRL. Additional access pending staffing and funding increases will occur in the interior of the lighthouse and to the repaired catwalk.

(c) When would the use be conducted?

The New Jersey Lighthouse Challenge occurs one weekend per year (Saturday and Sunday) in October. Visitation to the exterior of the FPRRL is almost daily. Access to the interior of the lighthouse and catwalk is seasonal or year-round pending staffing, funding, and completed repairs.

(d) How would the use be conducted?

Through cooperative efforts between the Friends of Supawna Meadows NWR and the New Jersey Lighthouse Society, the refuge will continue to support the Society's Lighthouse Challenge. Public access to the lighthouse is limited to no more than six individuals at any one time. Using professional judgment, as long as there is no significant negative impact to historic resources, violation of refuge regulations, or public safety issues, a special use permit will be issued to the New Jersey Lighthouse Society and the Friends of Supawna Meadows NWR outlining the framework in which this use can be conducted. Refuge staff will ensure compliance with the permit.

Access to the interior of the FPRRL at other times of year may be conducted with additional staffing and funding. No more than six individuals will be allowed inside FPRRL at any one time. Staff will monitor the impact to the historic resources and public safety issues to determine if any minor adjustments to those numbers will be needed.

(e) Why is this use being proposed?

From as early as 1984 through 2005, the lighthouse had been opened to the public on the third Sunday of each month, April through October, from noon to 4 p.m. In addition, approximately six times a year the lighthouse will be opened by special arrangement to school groups and other organized groups, as requested and approved. In 2006, with reduced funding and staffing at Supawna Meadows NWR and because of safety concerns, the lighthouse was closed to the public. In 2007, the lighthouse was again opened to the public after a safety inspection was conducted in cooperation with the Friends of Supawna Meadows NWR and the New Jersey Lighthouse Society. This non-wildlife dependent activity provides the public with an opportunity to view a large portion of the refuge's various habitats at the same time they are learning about historical resources in the area. There was an estimated 2,000 visitors at the FPRRL during the 2007 Lighthouse Challenge weekend.

Daily access to the exterior and interior of FPRRL provides important opportunities for the public to learn about this historic building. This will also provide opportunities to increase awareness of the refuge's resources and build understanding and support for the refuge and the Refuge System.

Availability of Resources:

As long as the Friends of Supawna Meadows NWR continues to actively support this activity, permitting this use does not significantly impact current refuge staffing levels and resources. The Cape May NWR law enforcement officer will provide limited support during the one-weekend annual Lighthouse Challenge. The time spent during this period will fall within the routine law enforcement patrols on the refuge. Less than 1 hour per year will be spent for administration costs for developing and managing the special use permit. The continuation of this program and/or proposed expansion of this activity and providing additional public access to FPRRL is dependent on the structural integrity of the lighthouse and the future development of the refuge's environmental education and outreach programs.

Anticipated Impacts of the Use:

In addition to the FPRRL, there are several improvements located on the grounds that are part of the refuge's infrastructure. In 2006, a two-story office facility was constructed between the lighthouse and a four-bay garage/storage building. The office was closed in 2007 due to the elimination of onsite staff. The gravel parking area associated with the office, garage and lighthouse is of a sufficient size to accommodate up to 13 cars. Immediately across from the office and lighthouse parking lot is a large grass recreational field which accommodates a significant number of vehicles. Past traffic counts along

Lighthouse Road indicated approximately 800 vehicles traveled the road in a 24-hour period. An additional 750 cars during the 2-day Lighthouse Challenge will add to the vehicle traffic, but it is anticipated the use will not significantly impact local traffic patterns and parking areas. There may be minor increases in vehicle traffic and subsequent impacts associated with additional public access, but these are expected to be minimal.

Public Review and Comment:

As part of the Supawna Meadows NWR CCP process, this compatibility determination has been through extensive public review, including a 30-day comment period following the release of the draft CCP/EA.

Determination:

Use is not compatible

Use is compatible, with the following stipulations

Stipulations Necessary to Ensure Compatibility:

The Friends of Supawna Meadows NWR will continue to provide direct cooperative support to the New Jersey Lighthouse Society. A special use permit will be provided to the New Jersey Lighthouse Society with the following stipulations:

- A booth and display for public enjoyment on refuge land adjacent to the FPRRL will be permitted.
- The permittee will set up the booth on the Saturday of the event weekend. The booth will be completely disassembled after the close of the event on Sunday.
- The permittee will remove any trash left on the site as a result of the event and its participants.
- Representatives of the New Jersey Lighthouse Society will coordinate with refuge personnel at least one week prior to the New Jersey Lighthouse Challenge to determine logistics of the event.
- The permittee is authorized to sell items related to its organization and the New Jersey Lighthouse Challenge.
- All donations made by event participants will be directed to the Friends of Supawna Meadows NWR, Inc.
- The permittee will report any unusual observations requiring environmental action or law enforcement directly to the onsite law enforcement officer, if available, and/or to the refuge manager at Cape May National Wildlife Refuge.

Justification:

Activities that are not considered priority public uses, such as the public visitation of a historic structure, are conducted by means of a compatible use. Although this use does not directly contribute to the achievement of the refuge purposes or the National Wildlife Refuge System mission, it does provide for an interpretive, wildlife observation, and/or environmental education opportunity, thereby contributing to the public's understanding and appreciation of the refuge's natural resources. Therefore, this activity can be compatible as long as it is appropriate, conducted safely, and does not conflict with priority uses on the refuge. This activity will not materially interfere with or detract from the mission of the National Wildlife Refuge System or purposes for which the refuge was established.

Signature: Refuge Manager Howard H. Kelly 12/2/2010
(Signature) (Date)

Concurrence: Regional Chief [Signature] 5/20/11
(Signature) (Date)

Mandatory 10-year re-evaluation date 5/20/2011

Finding of Appropriateness of a Refuge Use

Refuge Name: Supawna Meadows NWR

Use: SCIENTIFIC RESEARCH

This exhibit is not required for wildlife-dependent recreational uses, forms of take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision criteria:	YES	NO
(a) Do we have jurisdiction over the use?	X	
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	X	
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	X	
(d) Is the use consistent with public safety?	X	
(e) Is the use consistent with goals and objectives in an approved management plan or other document?	X	
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?	X	
(g) Is the use manageable within available budget and staff?	X	
(h) Will this be manageable in the future within existing resources?	X	
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?	X	
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D. for description), compatible, wildlife-dependent recreation into the future?	X	

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we would generally not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes X No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate Appropriate X

Refuge Manager: [Signature] Date: 12/2/2010

If found to be Not Appropriate, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found Not Appropriate outside the CCP process, the refuge supervisor must sign concurrence.

If found to be Appropriate, the refuge supervisor must sign concurrence:

Refuge Supervisor: [Signature] Date: 5/13/11

A compatibility determination is required before the use may be allowed.

Justification for a Finding of Appropriateness of a Refuge Use

Refuge Name: Supawna Meadows NWR

Use: **SCIENTIFIC RESEARCH**

Narrative

The use is research conducted by non-Service personnel on Supawna Meadows NWR. It is not a priority public use of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57). Research has been found to be appropriate for Supawna Meadows NWR.

Supawna Meadows NWR does not have the resources to conduct all the necessary surveys and studies to manage all resources. Therefore, we encourage research by outside entities to assist us in collecting and providing data for our wise use. All research proposals are evaluated for their benefits to the refuge mission and are issued a special use permit if found beneficial. All research projects require the principal investigator to provide summary reports of findings and acknowledge Supawna Meadows NWR for their participation.

Compatibility Determination

Use: SCIENTIFIC RESEARCH

Refuge Name: Supawna Meadows NWR

Establishing Authority: Supawna Meadows NWR was originally established by Executive Order 6582 on February 3, 1934, as the Goose Pond addition to the Killcohook National Wildlife Refuge (currently termed Killcohook Coordination Area). The refuge was renamed Supawna Meadows National Wildlife Refuge and officially separated from Killcohook on April 10, 1974, by the Service. On October 30, 1998, the Service's jurisdiction over Killcohook was revoked.

Refuge Purposes: Supawna Meadows NWR purposes:

- "... as a refuge and breeding ground for wild birds and animals," (Executive Order 6582, dated Feb. 3, 1934);
- "... particular value in carrying out the national migratory bird management program," (16 U.S.C. § 667b);
- "... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds," (16 U.S.C. § 715d); and
- "... suitable for (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species," (16 U.S.C. § 460k-1).

National Wildlife Refuge System Mission: ...to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (National Wildlife Refuge System Improvement Act of 1997, Public Law 105-57).

Description of Use:

(a) What is the use? Is the use a priority public use?

The use is research conducted by non-Service personnel. Research conducted by non-Service personnel is not a priority public use of the Refuge System.

(b) Where would the use be conducted?

The location of the research will vary depending on the individual research project that is being conducted. An individual research project is usually limited to a particular habitat type, plant or wildlife species. On occasion, research projects will encompass an assemblage of habitat types, plants or wildlife. The research location will be limited to areas of the refuge that are absolutely necessary to conduct the research project.

(c) When would the use be conducted?

The timing of the research will depend entirely on the individual research project that is being conducted. Scientific research will be allowed to occur on the refuge throughout the year. An individual research project could be short-term in design, requiring one or two visits over the course of a few days. Other research projects could be multiple year studies that require daily visits to the study site. The timing of each individual research project will be limited to the minimum required to complete the project. If a research project occurs during any refuge hunting season, special precautions will be required and enforced to ensure public health and safety.

(d) How would the use be conducted?

The mechanics of the research will depend entirely on the individual research project that is conducted. The methods of each research project will be scrutinized well before it will be allowed to occur on the refuge. No research project will be allowed to occur if it does not have an approved scientific method or if it compromises public health and safety.

(e) Why is this use being proposed?

Research by non-Service personnel is conducted by colleges, universities, Federal, state, and local agencies, non-governmental organizations, and qualified members of the general public to further the understanding of the natural environment and to improve the management of the refuge's natural resources. Much of the information generated by the research is applicable to management on and near the refuge.

The Service will encourage and support research and management studies on refuge lands that will improve and strengthen natural resource management decisions. The refuge manager will encourage and seek research relative to approved refuge objectives that clearly improves land management and promotes adaptive management. Priority research addresses information that will better manage the Nation's biological resources and are generally considered important to: Agencies of the Department of the Interior; the U.S. Fish and Wildlife Service; the National Wildlife Refuge System; and State Fish and Game Agencies; and that address important management issues or demonstrate techniques for management of species and/or habitats. The refuge will also consider research for other purposes which may not be directly related to refuge-specific objectives, but contribute to the broader enhancement, protection, use, preservation and management of native populations of fish, wildlife and plants, and their natural diversity within the region or flyway. These proposals must comply with the Service's compatibility policy.

Refuge support of research directly related to refuge objectives may take the form of funding, in-kind services such as vehicles, housing or use of other facilities, direct staff assistance with the project in the form of data collection, provision of historical records, conducting of management treatments, or other assistance as appropriate.

Availability of Resources:

The bulk of the cost for research is incurred in staff time to review research proposals, coordinate with researchers and write special use permits. In some cases, a research project may only require one day of staff time to write a special use permit. In other cases, a research project may take an accumulation of weeks, as the refuge biologist must coordinate with students and advisors and accompany researchers on site visits. The refuge biologist spends an average of one week a year working full time on research projects conducted by outside researchers.

Anticipated Impacts of the Use:

The Service encourages approved research to further the understanding of natural resources. Research by non-Service personnel adds greatly to the information base for refuge managers to make proper decisions.

Disturbance to wildlife and vegetation by researchers could occur when researchers are accessing project locations. Research activities may disturb fish and wildlife through observation, a variety of wildlife capture techniques, banding, and accessing the study area by foot or vehicle. For example, the presence of researchers may cause disruption of birds on nests or breeding territories, or increase predation on nests. Efforts to capture birds may cause disturbance, injury, or death to groups or to individual birds. The energy cost of disturbance may be appreciable in terms of disruption of feeding, displacement from preferred habitat, and the added energy expended to avoid disturbance. It is possible that direct or

indirect mortality could result as a by-product of research activities. Mist-netting or other wildlife capture techniques, for example, may cause mortality directly through the capture method or in-trap predation, and indirectly through capture injury or stress caused to the organism. Even if such mortalities to individual birds do occur, there would be no impact to the overall population. To minimize disturbance, all research must be approved through the refuge's special use permit process.

Allowing research to be conducted by non-Service personnel will have very little impact on Service interests. If the research project is conducted with professionalism and integrity, potential adverse impacts far outweigh the knowledge gained about an entire species.

Public Review and Comment:

As part of the Supawna Meadows NWR CCP process, this compatibility determination has been through extensive public review, including a 30-day comment period following the release of the draft CCP/EA.

Determination:

Use is not compatible

Use is compatible, with the following stipulations

The Following Stipulations are required to Ensure Compatibility:

- All researchers will be required to submit a detailed research proposal following Service policy (Fish and Wildlife Service Refuge Manual chapter 4 section 6).
- The proposal will be reviewed and, if necessary, conditions and/or restrictions will be placed in the special use permit, the Cooperative Agreement, or Memorandum of Understanding, which will ensure that any identified negative impacts towards the Service's interest will be addressed and minimized.
- Refuge staff must be given at least 45 days to review proposals before initiation of research. If collection of wildlife is involved, refuge staff must be given 60 days to review the proposal.
- Proposals will be prioritized and approved based on need, benefit, compatibility, and funding required. Regional biologists, other Service divisions, and/or state agencies may be asked to review and comment on proposals.
- All researchers will be required to obtain appropriate state and Federal permits.

Justification:

The Service encourages approved research to further explore the complex nature and understanding of refuge natural resources. Research by non-Service personnel adds greatly to the information base for refuge managers to make proper decisions. Research conducted by non-Service personnel will not materially interfere with or detract from the mission of the National Wildlife Refuge System or the purposes for which the refuge was established.

Signature: Refuge Manager Howard H. Kysel 12/2/2010
(Signature) (Date)

Concurrence: Regional Chief [Signature] 5/20/11
(Signature) (Date)

Mandatory 10-year re-evaluation date 5/20/2021

Literature Cited:

U.S. Fish and Wildlife Service. 1985 Refuge Manual. Washington, D.C.: U.S. Government Printing Office.

Finding of Appropriateness of a Refuge Use

Refuge Name: Supawna Meadows NWR

Use: Release of *Rhinocomimus latipes* weevil for the biological control of mile-a-minute weed (*Polygonum perfoliatum*) by the State of New Jersey Department of Agriculture

This exhibit is not required for wildlife-dependent recreational uses, forms of take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision criteria:	YES	NO
(a) Do we have jurisdiction over the use?	X	
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	X	
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	X	
(d) Is the use consistent with public safety?	X	
(e) Is the use consistent with goals and objectives in an approved management plan or other document?	X	
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?	X	
(g) Is the use manageable within available budget and staff?	X	
(h) Will this be manageable in the future within existing resources?	X	
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?	X	
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D. for description), compatible, wildlife-dependent recreation into the future?	X	

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we would generally not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes X No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate Appropriate X

Refuge Manager: *Howard F. ...* Date: 12/9/2010

If found to be Not Appropriate, the refuge supervisor does not need to sign concurrence if the use is a new use. If an existing use is found Not Appropriate outside the CCP process, the refuge supervisor must sign concurrence.

If found to be Appropriate, the refuge supervisor must sign concurrence:

Refuge Supervisor: *John M. Kennedy* Date: 5/13/11

A compatibility determination is required before the use may be allowed.

Justification for a Finding of Appropriateness of a Refuge Use

Refuge Name: Supawna Meadows NWR

Use: **RELEASE OF *RHINONCOMIMUS LATIPES* WEEVIL FOR THE BIOLOGICAL CONTROL OF MILE-A-MINUTE WEED (*POLYGONUM PERFOLIATUM*) BY THE STATE OF NEW JERSEY DEPARTMENT OF AGRICULTURE**

Narrative

Mile-a-minute weed is a non-native, invasive plant that has infested portions of Supawna Meadows National Wildlife Refuge. The *Rhinocomimus latipes* weevil has been studied for 6 years by the University of Delaware both in the laboratory and the field. The weevils have had a significant impact on reduction of the advancement of the mile-a-minute weed. Based on that research and an Environmental Assessment prepared by the United States Department of Agriculture, it has been determined that introduction of the *R. latipes* weevil will not have an adverse impact on Refuge lands and wildlife, and that the use is compatible with Refuge purposes. The State of New Jersey Department of Agriculture release of *R. latipes* weevil for the biological control of mile-a-minute weed will not materially interfere with or detract from the mission of the National Wildlife Refuge System or the purposes for which the Refuge was established.

Compatibility Determination

Use: RELEASE OF *RHINONCOMIMUS LATIPES* WEEVIL FOR THE BIOLOGICAL CONTROL OF MILE-A-MINUTE WEED (*POLYGONUM PERFOLIATUM*) BY THE STATE OF NEW JERSEY DEPARTMENT OF AGRICULTURE.

Refuge Name: Supawna Meadows NWR

Establishing and Acquisition Authority(ies): Supawna Meadows NWR was originally established by Executive Order 6582 on February 3, 1934, as the Goose Pond addition to the Killcohook National Wildlife Refuge (currently termed Killcohook Coordination Area). The refuge was renamed Supawna Meadows National Wildlife Refuge and officially separated from Killcohook on April 10, 1974, by the Service. On October 30, 1998, the Service's jurisdiction over Killcohook was revoked.

Refuge Purpose(s): Supawna Meadows NWR purposes:

- "... as a refuge and breeding ground for wild birds and animals," (Executive Order 6582, dated Feb. 3, 1934);
- "... particular value in carrying out the national migratory bird management program," (16 U.S.C. § 667b);
- "... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds," (16 U.S.C. § 715d); and
- "... suitable for (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species," (16 U.S.C. § 460k-1).

National Wildlife Refuge System Mission: ... to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.

Description of Use:

(a) What is the Use? Is the use a priority use?

The use is the release of *Rhinocomimus latipes* weevil for the biological control of mile-a-minute weed by the State of New Jersey Department of Agriculture. Release of *R. latipes* weevil for the biological control is not a priority public use of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57).

(b) Where would the use be conducted?

The release will occur on Supawna Meadows NWR. The initial release is being coordinated with the New Jersey Ecological Services Office and the State of New Jersey Department of Agriculture as part of a Partners for Fish and Wildlife restoration project on a newly acquired 130-acre tract of land on the refuge. Release sites will be close to LeHigh Road along the refuge boundary where mile-a-minute weed is most pervasive. If the release is successful, in that the weevils have a significant impact on growth and expansion of mile-a-minute stands, the weevil may be released in other areas of the refuge infested with the weed.

(c)When would the use be conducted?

The release of the weevil initially occurred in spring 2006. However, future releases of the weevil may occur if the initial release is deemed successful. Primary areas targeted for future releases will include refuge lands in the Xmas Tree Lane area (along the Forest Habitat Trail) and near the Tract 11 impoundment in the vicinity of the Public Service Electric and Gas Company right-of-way.

(d)How would the use be conducted?

The release will occur with the assistance of the Biological Pest Control Program in the Division of Plant Industry of the New Jersey Department of Agriculture. They will provide the weevils and conduct the releases. Approximately 3,000 to 5,000 weevils will be released. The release takes a matter of minutes.

(e)Why is the use being proposed?

New Jersey Department of Agriculture and the Service's Partners for Fish and Wildlife Program requested permission to release weevils as a biological control agent for mile-a-minute weed. Supawna Meadows NWR has a severe invasive species problem. Mile-a-minute weed is an herbaceous trailing vine that is native to India and Eastern Asia. It was introduced to the United States at York, Pennsylvania on nursery stock in the late 1930s and is now established throughout the northeastern part of the country. It is an aggressive plant that grows over and blocks sunlight to native vegetation. This reduced photosynthesis capability may kill native plants (Okay 2005).

The *R. latipes* weevil is from China and has been studied since 2000 at the University of Delaware for its specificity to mile-a-minute and for its value as a biological control agent. Based on results of host-range tests, a limited amount of native foliage was consumed by weevils (between 0.1 and 2.3 centimeter² over 30 days). However, none of the non-target plant species were consumed when the weevils were given a choice between them and mile-a-minute weed. Additionally, no eggs were laid on non-target plant species (Colpetzer 2003).

Subsequent field work done at release sites in the Northeast has resulted in additional information. Small-scale releases in New Jersey and Delaware in summer 2004 indicated the weevils could survive the winter. More than 10,000 weevils were released in 2 New Jersey sites in 2005. All plants were killed due to adult feeding at one of the sites. About 450 weevils released at a Chester County, Pennsylvania site in June 2005 were studied. Weevils reproduced and dispersed up to 200 meters from the release site, but most stayed within 25 meters. Weevils increased due to reproduction throughout the summer (Hough-Goldstein 2006).

The conclusions from field studies indicate the weevil establishes easily, produces multiple generations per year, and that adults can kill mile-a-minute plants through foraging. Work continues to determine the level of impact the weevils may have in the future to help control mile-a-minute weed. The intention of the release is that the weevils will consume mile-a-minute weed stems and leaves, which will result in reducing the spread of and, eventually, killing the plants.

Availability of Resources:

The release of the weevil is a Partners for Fish and Wildlife project. The restoration plan was prepared by U.S. Fish and Wildlife Service biologists at the New Jersey Field Office (about \$1,200 of staff time). The Biological Pest Control Program in the Division of Plant Industry of the New Jersey Department of Agriculture reproduced and will release the weevils (\$5,000). Preparation of a special use permit, a Finding of No Significant Impact, and the Compatibility Determination required about 10 hours of refuge staff time (\$350). Outreach to adjacent landowners required about 8 hours of refuge staff time (\$280).

The annual costs associated with the administration of release of *R. latipes* on Supawna Meadows NWR are estimated below:

Planning and supervising staff to monitor the use and its effects on environment and other visitors. Also, coordination, budgeting, issuance of special use permit [SUP], public relations.

GS-12 Deputy Refuge Manager for two work days/year = \$560

Monitoring impacts of release on environment, review proposals, coordinate with researchers, public outreach, monitoring.

GS-9 Wildlife Biologist for 5 work days/year = \$460

Total annual projected weevil release program cost = \$1,020

Anticipated Impacts of the Use:

Habitat: Based on results of both laboratory and field study to date, spread of the non-native, invasive mile-a-minute weed may be halted. At best, the existence of the plant on the refuge would be eliminated. Regardless, reduction of this plant will allow native habitat to rebound and provide wildlife habitat values to refuge wildlife. As stated above, in laboratory tests minor consumption of native plant species occurred when no mile-a-minute was present. It is anticipated that the weevil damage to native plants will be minimal.

Wildlife: The primary wildlife species of concern at the refuge are migratory birds and resident wildlife. Improvement of habitat through reduction of the mile-a-minute weed will benefit refuge wildlife. The weevil is not known to compete with native insect life. As noted in the July 2004 Environmental Assessment, there is not total assurance that the release of *R. latipes* will be reversible. However, there is no evidence that the weevil will cause any adverse environmental effects (Firko 2004). Additionally, no negative interaction with native fauna is anticipated.

A complete discussion of potential effects is available in the Environmental Assessment (EA) prepared by the United States Department of Agriculture (Firko 2004).

Public Review and Comment:

As part of the Supawna Meadows NWR CCP process, this compatibility determination has been through extensive public review, including a 30-day comment period following the release of the draft CCP/EA.

Determination:

Use is Not Compatible

Use is Compatible with the Following Stipulations

Stipulations Necessary to Ensure Compatibility:

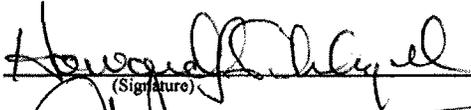
The release of *R. latipes* weevil for biocontrol will occur in areas of the refuge with uncontrollable mile-a-minute weed populations that threaten the survival of native wildlife habitat.

The following stipulations will help ensure the release is compatible with refuge purposes:

- Refuge staff will monitor progress of weevil release and impact on mile-a-minute population.
- Refuge staff will continually coordinate with the New Jersey State Beneficial Insect Laboratory

Justification:

Mile-a-minute weed is a non-native, invasive plant that has infested portions of Supawna Meadows NWR. It has been studied for 6 years by the University of Delaware both in the laboratory and the field. The weevils have had a significant impact on slowing the advancement of mile-a-minute weed. Based on that research and an EA prepared by the United States Department of Agriculture, it has been determined that introduction of the *R. latipes* weevil will not have an adverse impact on refuge lands and wildlife, and that the use is compatible with refuge purposes. The release of *R. latipes* weevil for the biological control of mile-a-minute weed will not materially interfere with or detract from the mission of the National Wildlife Refuge System or the purposes for which the refuge was established.

Signature: Refuge Manager  12/0/2010
(Signature) (Date)

Concurrence: Regional Chief  5/20/11
(Signature) (Date)

Mandatory 10-year re-evaluation date 5/20/2011

Literature Cited:

Colpetzer, K. 2003. An evaluation of the Asian weevil, *Homorosoma chinense* Wagner (Coleoptera: Curculionidae), a potential biological control agent of mile-a-minute weed, *Polygonum perfoliatum* L. (Polygonales: Polygonaceae). MS. Thesis, University of Delaware, Newark.

Firko, Michael. 2004. Field Release of *Rhinocomimus latipes* (Coleoptera: Curculionidea), a Weevil for Biological Control of Mile-a-minute Weed (*Polygonump erfoliatum*), in the Continental United States - Final Environmental Assessment. U.S. Department of Agriculture.

Hough-Goldstein, Judy. 2006. "Biological Control of Mile-a-minute." College of Agriculture and Natural Resources, University of Delaware. URL: <http://ag.udel.edu/enwc/research/biocontrol/mileaminute.htm>. Date: April 4, 2006.

Okay, J.A.Gerlach. 2006. "Mile-A-Minute Weed." Plant Conservation Alliance. URL: <http://www.nps.gov/plants/alien/fact/pope1.htm>. Date: April 5, 2006.

Compatibility Determination

Use: WILDLIFE OBSERVATION, PHOTOGRAPHY, ENVIRONMENTAL EDUCATION, AND INTERPRETATION

Refuge Name: Supawna Meadows NWR

Establishing Authority: Supawna Meadows NWR was originally established by Executive Order 6582 on February 3, 1934, as the Goose Pond addition to the Killcohook National Wildlife Refuge (currently termed Killcohook Coordination Area). The refuge was renamed Supawna Meadows National Wildlife Refuge and officially separated from Killcohook on April 10, 1974, by the Service. On October 30, 1998, the Service's jurisdiction over Killcohook was revoked.

Refuge Purposes: Supawna Meadows NWR purposes:

- "... as a refuge and breeding ground for wild birds and animals," (Executive Order 6582, dated Feb. 3, 1934);
- "... particular value in carrying out the national migratory bird management program," (16 U.S.C. § 667b);
- "... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds," (16 U.S.C. § 715d); and
- "... suitable for (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species," (16 U.S.C. § 460k-1).

National Wildlife Refuge System Mission: ...to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (National Wildlife Refuge System Improvement Act of 1997, Public Law 105-57).

Description of Use:

(a) What is this use? Is it a priority public use?

The uses are wildlife-oriented recreational activities including: wildlife observation, photography, environmental education and interpretation, including special self-led groups participating in these activities. These are priority public uses of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57).

(b) Where would the use be conducted?

Except for closed areas and where legal access is inadequate or absent, wildlife observation, photography, environmental education and interpretive activities will be permitted on all currently owned refuge tracts, as well as on newly acquired properties as they are acquired by the Service and made part of the refuge ownership. Currently there are two maintained walking trails on the refuge, one located along Lighthouse Road (Grassland Trail) and the other located off of Xmas Tree Lane (Forest Habitat Trail).

(c) When would the use be conducted?

The uses will be conducted year round during the hours when the refuge is open to the public, which is dawn to dusk.

(d) How would the use be conducted?

Currently the refuge is open to the public for wildlife observation, photography, environmental education and interpretation. Wildlife observation and photography occur on individual or group bases on refuge lands open to the public. Horseback riding, bicycling, jogging, and motorized vehicles are prohibited on the refuge. Interpretive signs are located along the two existing trails providing limited environmental education and interpretive information. The refuge has no facilities or staffing for conducting specific environmental education programs.

The final Comprehensive Conservation Plan for Supawna Meadows NWR proposes to expand or enhance these four public uses using a variety of strategies including, but not limited to:

A. Wildlife Observation, Photography, and Interpretation

- Extend trail system on newly acquired lands to include new observation platforms where deemed appropriate.
- Work with the Friends group to improve or install additional observation platforms on the refuge to include: installing an observation platform at the Tract 11 impoundment; and converting one or more old deer hunting platforms for use as an observation and photography blind.
- Expand refuge signage on newly acquired lands.
- Develop a brochure specific to trails.
- Develop a new Web site.
- Construct a wheelchair accessible photography blind or other amenities to improve facilities for wildlife photographers.
- Evaluate the use of the FPRRL as a locus of refuge interpretation with panels and brochures on ground-level and in the interior of FPRRL. Take advantage of landscape view from FPRRL to interpret refuge marshlands, invasive plants, and mosaic of other cover types as well as viewing birds in flight on the refuge.

B. Environmental Education

- Provide onsite nature walks arranged and sponsored by the Friends of Supawna Meadows NWR. Staff will fill occasional requests to lead tours on the refuge.
- The majority of off-site outreach activities will be conducted by the Friends of Supawna Meadows NWR. These include 2 or 3 events the Friends group use as an opportunity to educate the public about the refuge. When refuge staff is available, they will actively participate in off-site outreach activities as well.
- Implementation of the above strategies will depend on staffing and funding levels.

(e) Why is the use being proposed?

Wildlife observation and photography, and environmental education and interpretation are four of the six priority public uses of the National Wildlife Refuge System. If compatible, they are to receive enhanced consideration over other secondary public uses.

Availability of Resources:

In 2004, Supawna Meadows NWR was made part of the administrative operations of Cape May NWR. With substantial reductions in staffing and funding, Supawna Meadows NWR was identified in the 2006 Regional Strategy Plan as an unstaffed satellite refuge of Cape May NWR. Funding and staffing support for the current level of these non-consumptive public use activities is administered from Cape May NWR. Supplemental support for specific activities is provided by the Friends of Supawna Meadows NWR and volunteers. At current levels the annual operating cost is expected to be approximately \$12,000. A breakdown of estimated expenses follows:

Annual Costs

Document Preparation and Review	\$ 700
Road, Parking Lot, Equip., Maintenance	\$ 500
Supplies	\$ 700
Law Enforcement and Responding to Public	\$9,400
<u>Miscellaneous Expenses</u>	<u>\$ 500</u>
Total	\$11,800

Expanded public use activities, as outlined in the final Comprehensive Conservation Plan (refer to paragraph (d) above), will best be met by adding a full-time public use/outreach professional to the Cape May NWR staff.

Anticipated Impacts on Service Lands, Waters, or Interest:

Wildlife observation, photography, environmental education, and interpretation can affect wildlife resources positively or negatively. Public involvement in these priority public uses would positively result in a better appreciation and more complete understanding of refuge wildlife and habitats, which in turn, translates into more widespread, stronger support for Supawna Meadows NWR, the Refuge System, and the Service. Wildlife observation and photography have the potential of impacting waterfowl, marshbirds, and other migratory bird populations feeding and resting near the trails, utilized access roads, and on other refuge lands. Use of upland trails is more likely to impact songbirds than other migratory birds. The disturbance of migratory birds by humans is documented in many studies in different locations.

Onsite activities by teachers and students using trails and environmental education sites may impose low-level impacts, such as trampling of vegetation, removing vegetation, littering, and temporary disturbance to wildlife. In the event of persistent disturbance to habitat or wildlife, the activity will be restricted or discontinued.

Placement of kiosks may affect small areas of vegetation. Kiosks will be placed where minimal disturbance will occur.

Providing additional interpretive and educational brochures, as well as increasing involvement with local groups in the area, may result in increased knowledge of the refuge and its resources. This awareness and knowledge may improve the willingness of the public to support refuge programs, resources, and compliance with regulations.

We predict the impacts of wildlife observation and photography uses will be minimal. Possible impacts include disturbing wildlife, removing or trampling of plants, littering, vandalism and entrance into closed areas. There will be some removal of vegetation to place the observation platforms and photo blinds. In the event of persistent disturbance to habitat or wildlife, the activity will be restricted or discontinued.

Human disturbance to migratory birds has been documented in many studies in different locations. Conflicts arise when migratory birds and humans are present in the same areas (Boyle and Samson 1985). The responses of wildlife to human activities include departure from the site (Burger 1981), the use of sub-optimal habitat (Erwin 1980), altered behavior (Burger 1981), and an increase in energy expenditure (Belanger and Bedard 1990).

Disturbance can cause shifts in habitat use, abandonment of habitat, and increase energy demands on affected wildlife since wildlife expend energy leaving areas of disturbance (Knight and Cole, 1991). Flight in response to disturbance can lower nesting productivity and cause disease and death. Hammitt and Cole (1998) conclude that the frequent presence of humans in “wild land” areas can dramatically change the normal behavior of wildlife mostly through “unintentional harassment.”

Public Review and Comment:

As part of the Supawna Meadows NWR CCP process, this compatibility determination has been through extensive public review, including a 30-day comment period following the release of the draft CCP/EA.

Determination:

Use is not compatible

Use is compatible, with the following stipulations

Stipulations Necessary to Ensure Compatibility:

- All-terrain vehicles, bicycles, jogging and horseback riding will be prohibited on all refuge lands.
- Refuge brochures and the refuge’s internet site will provide information regarding the refuge and maintained trails.
- A law enforcement program will ensure public use activity compliance and will protect refuge resources.

Justification:

These four priority public uses will provide compatible educational and recreational opportunities for visitors to enjoy the refuge resources, and improve their understanding and appreciation of fish and wildlife, ecology, refuge management practices, and the relationship of plant and animal populations in the ecosystem. Visitors will better understand the Service role in conservation and opportunities, issues, and concerns faced in management of our natural resources. Further, they will understand the impact that human presence, disturbance, and/or consumption can cause to these resources. Likewise, these four priority uses will provide opportunities for visitors to observe wildlife habitats firsthand, and learn about wildlife and wild lands at their own pace in an unstructured environment. Authorization of these uses will result in a greater constituency for achieving individual refuge goals, and, ultimately, the Service mission. These activities will not materially interfere with or detract from the mission of the National Wildlife Refuge System or purposes for which Supawna Meadows NWR was established.

Signature: Refuge Manager Howard J. Kelly 12/0/2010
(Signature) (Date)

Concurrence: Regional Chief [Signature] 5/20/11
(Signature) (Date)

Mandatory 15-year re-evaluation date 5/20/2026

Literature Cited:

- Belanger, L., and J. Bedard. 1990. Energetic cost of man-induced disturbance to staging snow geese. *Journal of Wildlife Management*. 54:36.
- Boyle, S.A., F.B. Samson. 1985. Effects of nonconsumptive recreation on wildlife: A review. *Wildlife Society Bulletin* 13:110.
- Burger, J. 1981. The effect of human activity on birds at a coastal bay. *Biological Conservation*. 21:231-241.
- Erwin, R.M. 1980. Breeding habitat by colonially nesting water birds in 2 mid-Atlantic U.S. regions under different regimes of human disturbance. *Biological Conservation*. 18:39-51.
- Hammitt, W.E., D.N. Cole. 1998. *Wildland Recreation: Ecology and Management*. 2nd ed. New York: John Wiley and Sons. 361 pp.
- Knight, R.L., D.N. Cole, 1991. Effects of recreational activity on wildlife in wildlands. *Transactions, 56th North American Wildlife and Natural Resources Conference*, 1991, p. 238-247. Washington, D.C. : Wildlife Management Institute.

Compatibility Determination

Use: FISHING AND CRABBING

Refuge Name: Supawna Meadows NWR

Establishing Authority: Supawna Meadows NWR was originally established by Executive Order 6582 on February 3, 1934, as the Goose Pond addition to the Killcohook National Wildlife Refuge (currently termed Killcohook Coordination Area). The refuge was renamed Supawna Meadows National Wildlife Refuge and officially separated from Killcohook on April 10, 1974, by the Service. On October 30, 1998, the Service's jurisdiction over Killcohook was revoked.

Refuge Purposes: Supawna Meadows NWR purposes:

- "... as a refuge and breeding ground for wild birds and animals," (Executive Order 6582, dated Feb. 3, 1934);
- "... particular value in carrying out the national migratory bird management program," (16 U.S.C. § 667b);
- "... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds," (16 U.S.C. § 715d); and
- "... suitable for (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species," (16 U.S.C. § 460k-1).

National Wildlife Refuge System Mission: ...to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (National Wildlife Refuge System Improvement Act of 1997, Public Law 105-57).

Description of the Use:

(a) What is the use? Is the use a priority public use?

The use is fishing and crabbing within designated areas of the refuge. Fishing is a priority public use of the National Wildlife Refuge System (Refuge System) under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997 (Improvement Act).

(b) Where would the use be conducted?

Areas currently open for saltwater fishing and crabbing will continue to be open. The 1-day refuge youth fishing event at the Tract 18 impoundment will continue to be held. Boats will be prohibited on the freshwater ponds. All other freshwater ponds and impoundments will be closed to these activities. See map B-1 for an illustration of where fishing and crabbing will be conducted on the refuge.

(c) When would the use be conducted?

All fishing will follow applicable State fishing seasons, except where the refuge administers further restrictions to ensure compatibility. Fishing will be prohibited in the refuge portions of tidal creeks and marshes that are closed to the public during the State migratory waterfowl seasons (generally, September through the first week of January). Night fishing will be permitted in tidal areas, but prohibited on all other areas of the refuge.

The marshland area surrounding a known bald eagle nesting site, located at the southern portion of the refuge along the Salem River is closed to the public during the nesting season (December 15 – July 31). Anglers and boaters are prohibited from anchoring, landing, and/or accessing the marshlands during this period (map B-1).

(d) How would the use be conducted?

Tidal creeks and streams will be accessed by boat. There are no boat launching sites on the refuge. Boat access is available from various public and private boat ramps located in the Pennsville and Salem areas. Access to the pond along the Forest Habitat Trail is available by foot from a parking area off of Xmas Tree lane.

A step-down fishing plan describes the details of the fishing program. Each year the plan will be reviewed and any changes will be incorporated into an annual fishing program. All fishing will be planned and operated with the refuge's primary objectives, habitat management requirements and goals as the guiding principles. All fishing activities will follow applicable State laws, except where refuge-specific regulations are needed to ensure compatibility with the refuge's primary mission. Changes to the refuge-specific regulations will be published in the *Federal Register*. Fishing activities will only occur in designated areas. Fishing activities are intended to meet goals of the National Wildlife Refuge System Improvement Act and some of the refuge objectives and management goals without adversely affecting the primary objectives and mission of the refuge. Completing this activity under a fishing plan allows the refuge to accomplish its management goals and provide needed safety levels for citizens of the area without adversely affecting refuge habitats and wildlife populations. Refuge staff will coordinate with the New Jersey Division of Fish and Wildlife on matters of law enforcement and fishing regulations.

The U.S. Fish and Wildlife Service (Service) law enforcement officer(s) will conduct patrols during the fishing season. Assistance will also be provided by the State Conservation Officers.

(e) Why is the use being proposed?

This traditional support has been recognized in statutory authority for the Refuge System, including most recently the Improvement Act amendment to the Wildlife Refuge System Administration Act of 1966. This law, which also provides the Refuge System its mission, clearly states that six wildlife-dependent recreational uses, including both hunting and fishing as well as wildlife observation and photography and environmental education and interpretation, when compatible, are the priority general public uses of the Refuge System. Furthermore, these uses are to receive "enhanced consideration over other general public uses in planning and management within the Refuge System..." The Improvement Act also directs the Service to provide "increased opportunities for families to experience compatible wildlife-dependent recreation, particularly opportunities for parents and their children to safely engage in traditional outdoor activities, such as fishing..." From this statutory language, Congress' intent is clear that the Service provide opportunities for compatible fishing on the Refuge System.

Availability of Resources:

In 2004, Supawna Meadows NWR was made part of the administrative operations of Cape May NWR. With substantial reductions in staffing and funding, Supawna Meadows NWR was identified in the 2006 Regional Strategy Plan as an unstaffed satellite refuge of Cape May NWR. Funding and staffing support for the current level of this activity is administered from Cape May NWR. At current levels, the annual operating cost for accommodating all priority public uses combined is expected to be approximately \$6,000. A breakdown of estimated expenses follows:

Annual Costs

Document Preparation and Review	\$ 700
Road, Parking Lot, Equip., Maintenance	\$ 500
Supplies	\$ 700
Law Enforcement and Responding to Public	\$3,500
<u>Miscellaneous Expenses</u>	<u>\$ 500</u>
Total	\$5,900

There are sufficient funds within the regular Operations and Maintenance budget of Cape May NWR to support the public waterfowl hunt at Supawna Meadows NWR.

Anticipated Impacts of the Use:

Recreational fishing should not have any adverse impacts on the fisheries resources at the refuge. Adverse impacts to the federally listed, endangered shortnose sturgeon are not anticipated. Problems associated with site compaction and denuding of vegetation can be addressed by area closures as necessary to protect sensitive areas. Problems associated with littering can be countered through an effective law enforcement program and through public education.

The areas open to fishing and crabbing will be open to water-based wildlife observation as well. Fishermen and crabbers do not actively approach wildlife and generally anchor for short periods of time. Conflicts between fishermen or crabbers and individuals engaged in wildlife observation are expected to be minor and infrequent.

Some of the areas open to fishing and crabbing will be open to waterfowl hunting. Waterfowl hunting seasons extend from September through the first week in January. Fishing and crabbing activities occur year-round. While conflicts are expected to be infrequent, refuge maps and guidelines provided to the public will identify the areas open to hunting. No hunting is permitted on Sundays in New Jersey, which will reduce the potential for conflict.

Waterfowl, wading birds, shorebirds, and other wildlife may be disturbed by human activities. Klein (1993), in a study conducted at J. N. "Ding" Darling National Wildlife Refuge, observed that individuals fishing and crabbing showed the lowest disturbance of wildlife compared to other refuge visitors presumably because they did not attempt to approach wildlife.

Morton et al. (1989) suggested that human disturbance of wintering black ducks impairs their physiological conditions, thereby reducing winter survival and nutrient reserves carried to the breeding grounds. Because of the cold climate, little fishing activity occurs on the refuge from the middle of November through the middle of March. Additionally, about 60 percent of the refuge will be closed during waterfowl season during the majority of the time black ducks are wintering there.

Several species of frogs and turtles that use the refuge are experiencing population declines. Conserving these species achieves refuge purposes, addresses the general concern about these population declines, and also increases the likelihood that more wildlife will be available for viewing at Watchable Wildlife sites. By closing most of the freshwater ponds to fishing, amphibians and turtles will not be impacted by fishing activity. The upland areas of the refuge will be closed to all uses between dusk and dawn. Prohibiting night fishing in freshwater areas will decrease illegal and unauthorized activities on the refuge.

The federally listed, endangered shortnose sturgeon is found in larger rivers, estuaries, and nearshore sea environments (Dadswell et al. 1984). Individuals from the Delaware River population spawn in the freshwater section of the Delaware River from mid-winter to early spring and spend the summer near the

mouth of Delaware Bay (Hastings and O’Herron 1987, NMFS 1998). Because this species prefers larger rivers, sturgeons are not expected to occur in waters passing through the refuge. Individuals may be present in the Delaware River bordering the refuge. Fishing and crabbing within the Delaware River is controlled by the States of New Jersey and Pennsylvania, both of which prohibit sturgeon fishing (NJDFW 2009b, PFBC 2010), and is not under the Service’s jurisdiction. Adult sturgeon may forage in shallow water areas near the refuge (Dadswell et al. 1984). However, accidental hook and line catches of shortnose sturgeon in the proposed refuge fishing areas are unlikely because sturgeon are bottom feeders, feeding on small clams, amphipods, and juvenile crabs in the bottom sediment (Dadswell et al. 1984). Prey is not considered to be a limiting resource (NMFS 1998), therefore it is unlikely that the limited, localized crabbing in refuge waters will affect the sturgeon’s prey base. Lastly, fishing and crabbing on the refuge are conducted in accordance with applicable State regulations to help protect sensitive species, including the shortnose sturgeon.

Recreational fishermen on the refuge are a potential audience for refuge outreach and information efforts. The minor impacts to vegetation and wildlife which may occur are a worthwhile trade-off for informing visitors about refuge natural and cultural resources.

Fishermen may impact wildlife and the habitat by leaving their trash, old bait, and fishing line behind. This refuse may negatively impact wildlife if they ingest the trash or get tangled in the fishing line.

Public Review and Comment:

As part of the Supawna Meadows NWR CCP process, this compatibility determination has been through extensive public review, including a 30-day comment period following the release of the draft CCP/EA.

Determination (check one below):

Use is Not Compatible

Use is Compatible With the Following Stipulations

Stipulations Necessary to Ensure Compatibility:

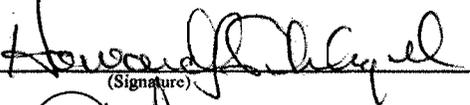
- All anglers must comply with State regulations regarding possession of fishing licenses. Seasons and creel limits will conform to State regulations.
- Night fishing will only be permitted on tidal marshes within the refuge boundary.
- Fishing will be prohibited in the tidal marshes closed to waterfowl hunting during the State migratory waterfowl seasons (September through the first week of January)
- The marshland area surrounding a known bald eagle nesting site, located at the southern portion of the refuge along the Salem River (map B-1) is closed to the public during the nesting season (December 15 – July 31). Users are prohibited from accessing the marshlands around the nesting site during this period.
- Access to the fishing pond along the Forest Habitat Trail at Xmas Tree Lane will be by foot only.
- Boats are prohibited in all the refuge ponds and impoundments.
- Fishermen will be required to clean up all garbage and bait prior to leaving an area.

Justification:

The National Wildlife Refuge System Improvement Act of 1997 (P.L. 105-57) identifies six priority public uses of wildlife refuges: hunting, environmental education, interpretation, fishing, wildlife observation, and wildlife photography. These priority public uses are dependent upon healthy wildlife populations. Where these uses are determined to be compatible, they are to receive enhanced consideration over other uses in planning and management.

Fishing is recognized by the Service as a traditional form of outdoor recreation and is not expected to adversely impact the target species. Fishing is a traditional form of outdoor recreation on the refuge and in the region. Permitting fishing on the refuge will provide substantial recreational opportunities to the public.

This activity will not materially interfere with or detract from the mission of the National Wildlife Refuge System or the purposes for which the refuge was established.

Signature: Refuge Manager  12/2/2010
(Signature) (Date)

Concurrence: Regional Chief  5/20/14
(Signature) (Date)

Mandatory 15-year re-evaluation date 5/20/2024

Literature Cited:

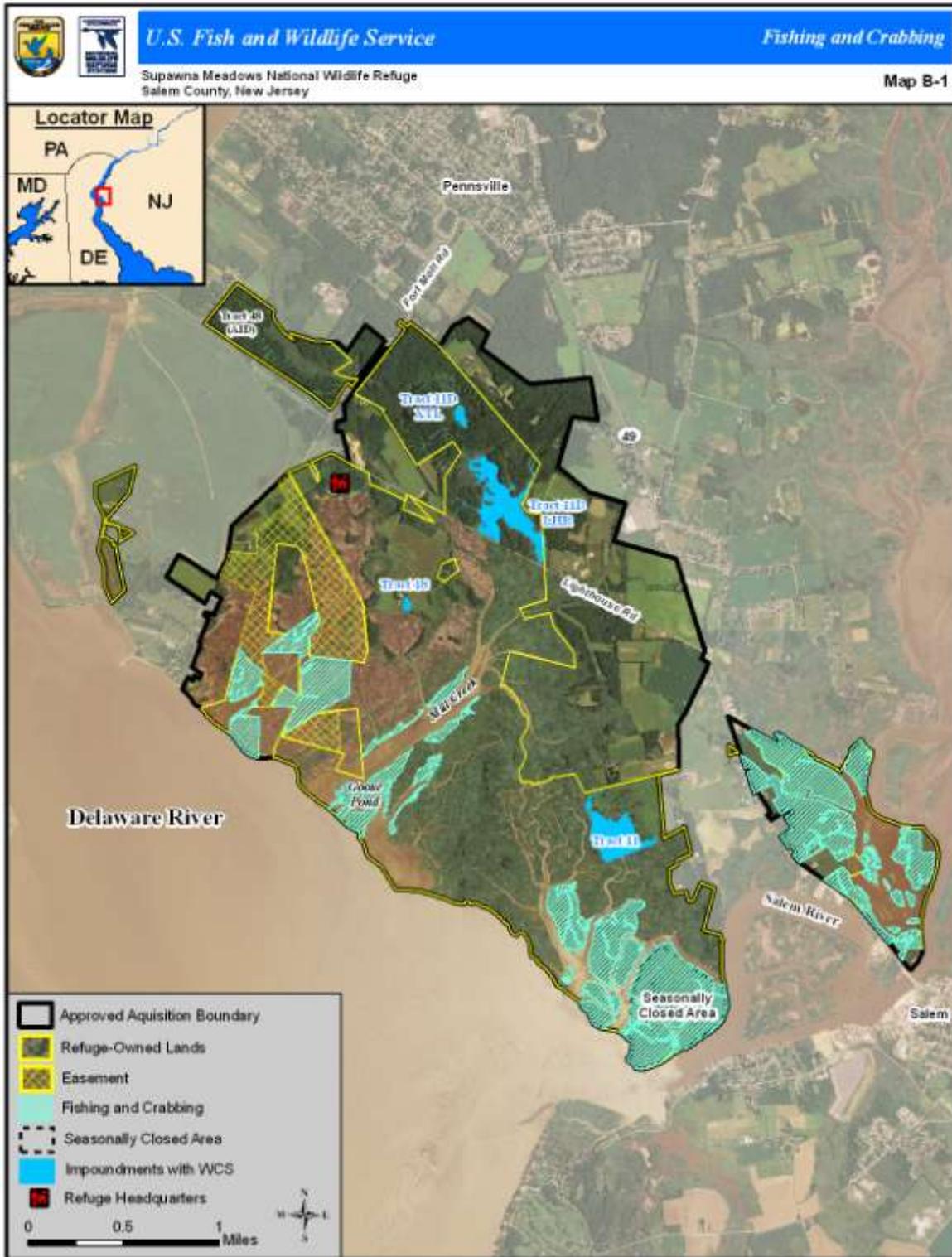
Dadswell, M.J., B.D. Taubert, T.S. Squiers, D. Marchette, and J. Buckley. 1984. Synopsis of Biological Data on Shortnose Sturgeon, *Acipenser brevirostrum* LeSueur 1818. National Oceanic and Atmospheric Administration Technical Report NMFS 14, Washington DC.

Executive Office of the President. 1996. Management and General Public Use of the National Wildlife Refuge System.. Executive Order 12996 (March 25, 1996).

Klein, M. L. 1993. Waterbird behavioral responses to human disturbances. Wildlife Society Bulletin 21:31-39.

Morton, J. M., A. C. Fowler, and R. L. Kirkpatrick. 1989. Time and energy budgets of American black ducks in winter. J. Wildlife Management 53:401-410.

Map B-1: Public fishing and crabbing areas within Supawna Meadows National Wildlife Refuge



Compatibility Determination

Use: PUBLIC HUNTING OF WATERFOWL

Refuge Name: Supawna Meadows National Wildlife Refuge (NWR)

Establishing Authority: Supawna Meadows NWR (refuge) was originally established by Executive Order 6582 on February 3, 1934, as the Goose Pond addition to the Killcohook National Wildlife Refuge (currently termed Killcohook Coordination Area). The refuge was renamed Supawna Meadows NWR and officially separated from Killcohook on April 10, 1974, by the Service. On October 30, 1998, the Service's jurisdiction over Killcohook was revoked.

Refuge Purposes: Supawna Meadows NWR purposes:

- "... as a refuge and breeding ground for wild birds and animals," (Executive Order 6582, dated Feb. 3, 1934);
- "... particular value in carrying out the national migratory bird management program," (16 U.S.C. § 667b);
- "... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds," (16 U.S.C. § 715d); and
- "... suitable for (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species," (16 U.S.C. § 460k-1).

National Wildlife Refuge System Mission: ...to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (National Wildlife Refuge System Improvement Act of 1997, Public Law 105-57).

Description of the Use:

(a) What is the use? Is the use a priority public use?

The use is public hunting of waterfowl (ducks, coots, geese and swans) at designated times on designated areas within the refuge boundary within the framework of State and Federal regulations. This use is a public priority use of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57).

(b) Where would the use be conducted?

As specified in the Refuge Purposes, Supawna Meadows NWR has been specified as set apart as an inviolate sanctuary and therefore is subject to permitting waterfowl hunting on up to 40 percent of the refuge in accordance with (16 U.S.C. 668dd(d)(1)(A), National Wildlife Refuge System Administration Act, (16 U.S.C. 703-712), Migratory Bird Treaty Act and (16 U.S.C. 715a-715r), Migratory Bird Conservation Act. (map B-2) below represents that portion of the refuge which public hunting of waterfowl will be allowed. All other areas of the refuge will be closed to waterfowl hunting. See map B-1 for an illustration of where waterfowl hunting will be conducted on the refuge.

(c) When would the use be conducted?

The proposed use is to provide public hunting of waterfowl (ducks, coots, geese and swans) by foot or by boat in designated areas within the refuge in accordance with State and Federal regulations. Hunting

will take place within the open waterfowl seasons established by the New Jersey Division of Fish and Wildlife.

(d) How would the use be conducted?

State game laws and regulations including season dates, bag limits, and weapon restrictions will follow the New Jersey Division of Fish and Wildlife (NJDFW) Guidelines to the greatest extent possible, and will be coordinated with them annually. In addition to State regulations, hunters must follow Federal regulations. More restrictive regulations may be implemented, as necessary, to conserve wildlife populations and to provide for safe, quality wildlife-dependent recreation.

Hunting seasons on the refuge will be the same as those set by the State. Refuge staff will coordinate with the New Jersey Division of Fish and Wildlife on matters of law enforcement and hunting seasons.

The refuge law enforcement officer will conduct patrols during the hunting season. Assistance will also be provided by the State Conservation Officers, and the area special agent currently located in Pleasantville, New Jersey.

(e) Why is the use being proposed?

Hunting is one of the six priority public uses of the National Wildlife Refuge System and, as such, is to receive enhanced consideration over other secondary public uses.

Availability of Resources:

In 2004, Supawna Meadows NWR was made part of the administrative operations of Cape May NWR. With substantial reductions in staffing and funding, Supawna Meadows NWR was identified in the 2006 Regional Strategy Plan as an unstaffed satellite refuge of Cape May NWR. Funding and staffing support for the current level of this activity is administered from Cape May NWR. The annual operating cost for accommodating all priority public uses combined is expected to be approximately \$6,000. A breakdown of estimated expenses follows:

Annual Costs

Document Preparation and Review	\$ 700
Road, Parking Lot, Equip., Maintenance	\$ 500
Supplies	\$ 700
Law Enforcement and Responding to Public	\$3,500
<u>Miscellaneous Expenses</u>	<u>\$ 500</u>
Total	\$5,900

There are sufficient funds within the regular Operations and Maintenance budget of Cape May NWR to support the public waterfowl hunt at Supawna Meadows NWR.

Anticipated Impacts of the Use:

The Supplemental Environmental Impact Statement (SEIS) for Waterfowl Hunting in the United States (1988) concluded that waterfowl hunting was an acceptable use of a renewable natural resource and established guidelines for establishment of seasons and bag limits. Waterfowl seasons and bag limits are revised each year based on winter and breeding ground surveys to ensure the maintenance of viable waterfowl populations. Waterfowl hunting is recognized by the Service as a traditional form of wildlife related outdoor recreation (a primary purpose for which the refuge was established).

The refuge is located within the Atlantic Flyway Black Duck Joint Venture area which has a goal of increasing the black duck population. The primary species harvested are mallard, American black duck, green-winged teal, and Canada goose.

Heusmann (1974) concluded that “During the past 100 years, the status of the mallard (*Anas platyrhynchos*) in the Northeast has changed from that of rare migrant to major game bird..... The close relationship between mallards and black ducks (*Anas rubripes*) is leading to increasing hybridization as the species come in contact, particularly in inland park situations. The black duck possesses few traits to prevent hybridization, and its continued existence as a distinct species is threatened.” Ankney, et al. (1987) suggest that increased mallards in an area cause a decline in black ducks through introgressive hybridization and, or competitive exclusion. Removal of drake mallards during hunting season in areas where black ducks and mallards interact may decrease hybridization.

Wood duck nesting and roosting areas on the non-tidal waters of the refuge are not open to waterfowl hunting. Many of the refuge’s breeding and juvenile wood ducks have dispersed or migrated by the opening of the waterfowl season in mid-October. The hunting of waterfowl in the designated areas within the federally and State prescribed seasons and bag limits should have little or no affect on the refuge’s wood duck breeding population or national populations.

New Jersey, northern Delaware, and southeastern Pennsylvania are currently experiencing a population explosion of non-migratory Canada geese. City parks, industrial parks, water supply reservoirs and private landowners are experiencing problems resulting from these birds. Rexstad (1992) found a high intrinsic survival rate of the Canada goose in Utah in the absence of hunting. Current regulations, focused on harvesting non-migratory Canada geese, allow hunting during the month of September. Hunting during late winter has the potential to disturb wintering ducks, particularly black ducks, and decrease the value of the refuge as wintering habitat. Hunting of Canada geese on designated areas of the refuge may be permitted after the close of the duck season for the southern zone of New Jersey when necessary to achieve population and damage control goals for non-migratory Canada geese.

The greater snow goose population in the Atlantic flyway has increased significantly over the past decade and continues to increase. Damage to winter grain and salt hay fields and marsh areas in New Jersey is increasing. The refuge marshes are currently used by greater snow geese. Refuge marshes and impoundments provide valuable late winter habitat for black ducks and pintails. Hunting during late winter has the potential to disturb wintering ducks, particularly black ducks, and decrease the value of the refuge as wintering habitat. As snow goose use of the refuge increases, hunting of greater snow geese on designated areas of the refuge may be permitted after the close of the duck season for the southern zone of New Jersey to achieve population goals for greater snow geese or reduce damage to refuge habitats and surrounding marsh and agricultural areas.

Other species which share refuge habitat with waterfowl include shorebirds, wading birds, osprey, and bald eagle. Most shorebirds and wading birds have commenced or completed migration by the opening of the waterfowl hunting season.

Bald eagles feed in the tidal and non-tidal areas of the refuge. Since 1998, an eagle nest has been located on the refuge in an area outside the designated waterfowl hunting areas. This area is closed to all public entry between December 15 and July 31.

Hunters benefit from the harvesting of game for personal consumption. Hunters who come from outside the local area also contribute to the local economy by staying at local hotels and eating in local restaurants.

Public Review and Comment:

As part of the Supawna Meadows NWR CCP process, this compatibility determination has been through extensive public review, including a 30-day comment period following the release of the draft CCP/EA.

Determination:

Use is Not Compatible

Use is Compatible With the Following Stipulations

Stipulations Necessary to Ensure Compatibility:

- All hunters must obtain all necessary State and Federal permits. Hunters must abide by all applicable refuge, State, and Federal regulations. Refuge brochures and publication of hunt information in the New Jersey Fish and Wildlife Digest will inform hunters of State and refuge regulations.
- The hunting program will be reviewed annually to ensure compatibility with Service and refuge purposes and compliance with Federal and State waterfowl hunting regulations.
- Disturbance of other wildlife, especially migratory birds, will be monitored and changes will be made in the hunt program as necessary to minimize disturbance.
- A law enforcement program will ensure hunt regulation compliance and will protect refuge resources.

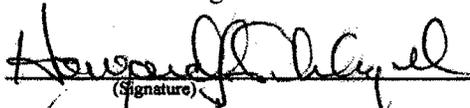
Justification:

The National Wildlife Refuge System Improvement Act of 1997 (P.L. 105-57) identifies six priority public uses of wildlife refuges: hunting, environmental education, interpretation, fishing, wildlife observation, and wildlife photography. These priority public uses are dependent upon healthy wildlife populations. Where these uses are determined to be compatible, they are to receive enhanced consideration over other uses in planning and management.

Hunting of waterfowl on Supawna Meadows NWR is justified within refuge objectives by providing wildlife-oriented recreation and promoting appreciation of wildlife and the outdoors. Recreational hunting is also a valid means of population control and can serve to keep wildlife populations in check.

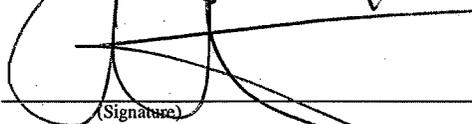
These activities will not materially interfere with or detract from the mission of the National Wildlife Refuge System or the purposes for which the refuge was established.

Signature: Refuge Manager


(Signature)

12/2/2010
(Date)

Concurrence: Regional Chief


(Signature)

5-27-11
(Date)

Mandatory 15-year re-evaluation date

5/21/2026

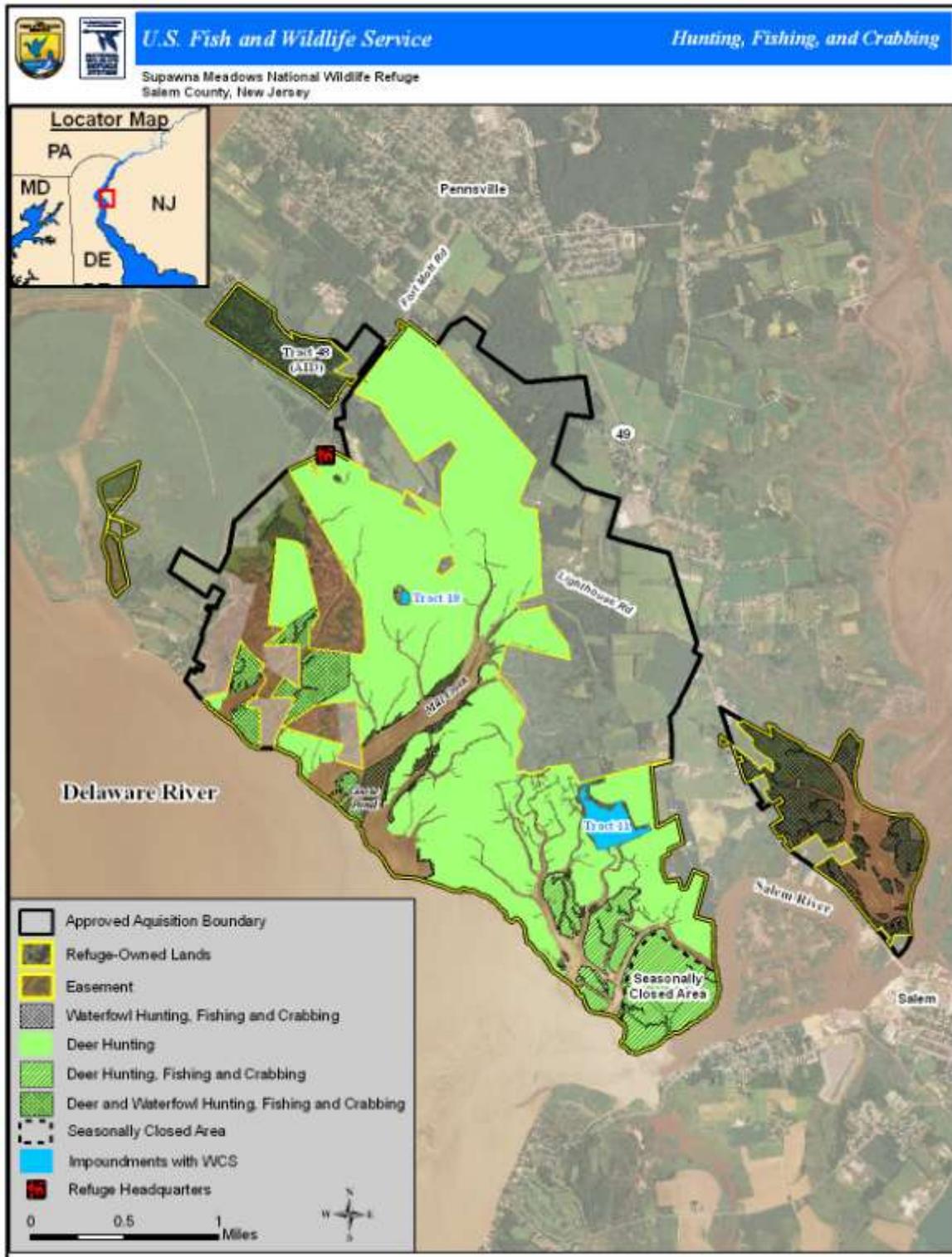
Literature Cited:

Ankney, C. D., D.G. Dennis, and R. C. Bailey. 1987. Increasing mallards, decreasing American black ducks: Coincidence or cause and effect? *Journal of Wildlife Management*. 51:523-529.

Heusmann, H. W. 1974. Mallard-Black Duck Relationships in the Northeast. *Wildlife Society Bulletin*. 2(4):171-177.

Rexstad, E. A. 1992. Effect of hunting on annual survival of Canada geese in Utah. *Journal of Wildlife Management*. 56:297-305.

Map B-2: Current public hunting areas within Supawna Meadows National Wildlife Refuge



Compatibility Determination

Use: WHITE-TAILED DEER ARCHERY HUNT

Refuge Name: Supawna Meadows National Wildlife Refuge

Establishing Authority: Supawna Meadows NWR (refuge) was originally established by Executive Order 6582 on February 3, 1934, as the Goose Pond addition to the Killcohook National Wildlife Refuge (currently termed Killcohook Coordination Area). The refuge was renamed Supawna Meadows NWR and officially separated from Killcohook on April 10, 1974, by the Service. On October 30, 1998, the Service's jurisdiction over Killcohook was revoked.

Refuge purposes: Supawna Meadows NWR purposes:

- "... as a refuge and breeding ground for wild birds and animals," (Executive Order 6582, dated Feb. 3, 1934);
- "... particular value in carrying out the national migratory bird management program," (16 U.S.C. § 667b);
- "... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds," (16 U.S.C. § 715d); and
- "... suitable for (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species," (16 U.S.C. § 460k-1).

National Wildlife Refuge System Mission: ...to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans. (National Wildlife Refuge System Improvement Act of 1997, Public Law 105-57)

Description of Use:

(a) What is the use? Is the use a priority public use? The use is an archery hunt for white-tailed deer. Hunting is a priority public use. Archery would be the only acceptable means of taking deer on Supawna Meadows NWR. Only portable stands are allowed and no tree spiking is allowed. Open seasons will adhere to New Jersey State deer hunting regulations for bow hunting only. Access to the refuge for this activity is achieved through walking.

(b) Where would the use be conducted? Deer hunting will be permitted on all refuge tracts except for New Jersey State safety zones, Tract 11c (location of the old refuge headquarters and residence), and where legal access is inadequate or absent. Optimum deer habitat is found on Tracts 11, 11b, and 11d, which contain the majority of refuge uplands. Marsh tracts are included in the hunting area because deer often seek shelter in phragmites-dominated marshes during hunting seasons. Upland islands in the marsh also support deer, primarily Tracts 11e, 11g, and 11r.

(c) When would the use be conducted? Refuge deer hunting will follow the bow seasons set by the State of New Jersey, Division of Fish and Wildlife (NJDFW) in Zone 63. Bow hunting will be maximized to include fall bow, permit bow, youth bow, and winter bow seasons.

(d) How would the use be conducted? State game laws and regulations including season dates, bag limits, safety zones, and weapon restrictions will follow the NJDFW guidelines to the greatest extent

possible, and will be coordinated with them annually. In addition to State regulations, hunters must follow Federal regulations including no baiting, no use of a spotlight, and no use of nails, wire, screws, or bolts to attach a tree stand. Refuge regulations also must be followed, including the prohibition of motorized vehicles. More restrictive regulations may be implemented, as necessary, to conserve wildlife populations and to provide for safe, quality wildlife-dependent recreation.

All hunters must be in possession of all required State permits while hunting on the refuge. The number of bow hunters is not limited and there is no lottery. Hunters will be allowed to select their own sites within the posted deer hunting areas, on a first-come, first-serve basis. There are four elevated stands located in Tract 18 where the vegetation is not sufficient to support portable tree stands. These stands will be available to hunters on a first-come, first-serve basis. The refuge will remain open to the public during the hunting season.

Optimum deer habitat is found on Tracts 11, 11b, and 11d, which contain the majority of refuge uplands. Marsh tracts are included in the hunting area because deer often seek shelter in phragmites-dominated marshes during hunting seasons. Upland islands in the marsh also support deer. Refuge lands open to hunting can be found on the refuge hunting map, map B-3.

Refuge staff will coordinate with the NJDFW on matters of law enforcement and hunting seasons. The refuge law enforcement officer will conduct patrols during the hunting season. Assistance will also be provided by the State Conservation Officers, and the area Special Agent currently located in Pleasantville, New Jersey. Harvested deer will be checked at the State check stations. These are identified in the New Jersey Fish and Wildlife Hunting Digest.

(e) Why is this use being proposed? Hunting is one of the priority uses outlined in the Refuge System Improvement Act of 1997. The Service supports and encourages priority public uses when they are appropriate and compatible on national wildlife refuge lands. Hunting is also used in some instances to manage wildlife populations, and it is a traditional form of wildlife-oriented recreation.

Availability of Resources:

The annual operating cost is expected to be approximately \$6,000. A breakdown of estimated expenses follows:

Annual Costs

Document Preparation and Review	\$ 700
Road, Parking Lot, Equip., Maintenance	\$500
Supplies	\$700
Law Enforcement and Responding to Public	\$3,500
<u>Miscellaneous Expenses</u>	<u>\$500</u>
Total	\$5,900

There are sufficient funds within the regular Operations and Maintenance budget of Cape May NWR to conduct an annual deer hunt at Supawna Meadows NWR.

Anticipated Impacts of the Use:

Deer hunting is currently the most effective tool we have to manage the health of the deer population and sustain the integrity, diversity, and health of forest habitats on the refuge. We implement a hunt program in coordination with NJDFW to sustain healthy deer populations and forest habitat conditions. Hunting would benefit vegetation by keeping resident deer populations in balance with the carrying capacity of the habitat.

If allowed to progress unchecked by natural predators or management, deer reproductive potential can be very high. For example, just one mating pair can grow to 1,000 in 10 years, including natural mortality (Yarrow and Yarrow 1999). Overabundance of deer can produce long-term negative effects such as potential disease epidemics (Demarais et al. 2000); increase in automobile accident rates; browsing pressure on landscapes, vegetation, and crops; and severe habitat degradation (Cypher and Cypher 1988).

All State bow hunting seasons will be permitted on the refuge. Based on previous NJDFW harvest data, this should allow sufficient numbers of deer to be harvested to control the refuge's deer population (see USFWS 2007 for additional information). We will monitor the refuge's deer population and its effects on refuge habitats and will work with the State to implement additional methods for taking deer if needed. This would require additional analysis under the National Environmental Policy Act, as amended (NEPA).

We will also remove the existing, refuge-specific hunt safety zones and will follow State regulations. This will decrease the ability of deer to avoid hunters on the refuge and will assist hunters by being consistent with State regulations and regulations at other national wildlife refuges in New Jersey.

By allowing deer hunting, the refuge provides a wildlife-dependent recreational opportunity that is in decline within the urbanizing setting of southern New Jersey. Providing this opportunity helps preserve the cultural heritage of the refuge area, where people have hunted for generations, and allows people to connect with nature in an outdoor natural setting in an area where it is becoming increasingly difficult to find access to undeveloped lands.

Negative impacts on refuge resources from allowing hunting may include disturbance of non-target species in the course of tracking deer, trampling of vegetation, possible creation of unauthorized trails by hunters and subsequent erosion, littering, and possible vandalism. Disturbance to non-target species and habitat is expected to be minimal. By having the refuge open to all State archery seasons, the number of hunters is spread out over the hunt season, minimizing the number of hunters on any given day. This reduces the daily disturbance to wildlife and habitat. In addition, archery hunting is generally a solitary sport and hunters will be scattered throughout the refuge hunting areas, also decreasing disturbance to habitat and non-target species. Lastly, bow hunting is much quieter than firearms and bow hunters must usually be quiet when hunting to get close enough to harvest deer. These also minimize potential disturbance to wildlife associated with this activity. Refuge law enforcement patrols, posted signs, and hunting brochures and information would help educate hunters about potential negative effects and avoidance measures as well as refuge regulations. We will periodically evaluate these activities to determine any effects they may have. If evidence of unacceptable adverse impacts appears, the location(s) of activities will be curtailed or discontinued as needed.

Despite efforts to control the deer population, there may continue to be complaints of crop damage and there would likely continue to be deer/vehicle collisions.

The proposed action would not likely affect any cultural resources that may be located on the refuge.

The refuge will remain open to all other approved public uses during the hunting season, thereby concurrently allowing other priority public uses. Non-hunting visitors may be in the hunt area at the same time as recreational hunters. Conflicts may arise if non-hunting visitors disturb deer or hunters or if a hunter disturbs deer or other wildlife that a non-hunting visitor was watching or photographing.

Hunt safety zones will be consistent with New Jersey State regulations restricting hunting around occupied properties. Removing the refuge-specific safety zones may result in additional user conflicts between refuge neighbors, non-hunters, and hunters. User conflicts are minimized because, according to State regulations, it is illegal for archery hunters to have a nocked arrow within the designated safety

zone around an occupied building. It is also illegal for bow hunters to shoot an arrow across highways or roads or to shoot into a safety zone. Hunting safety and regulations are a major component of the State's hunter education program, which includes the completion of a written exam and field session attendance prior to obtaining an initial license. Therefore, all hunters should be aware of these requirements. Non-hunting visitors may still be uncomfortable using areas of the refuge in which archery hunters are present. State law prohibiting hunting on Sunday provides an opportunity for non-consumptive users to visit the refuge on a non-hunting day during the hunting season.

All or part of the refuge may be closed to hunting at any time, if necessary, for public safety, to provide wildlife sanctuary, or for other urgent reasons. All seasons would be coordinated with and within the framework of the New Jersey Division of Fish and Wildlife. Some hunting regulations may be more restrictive than State regulations to meet refuge objectives. If necessary, modifications may be made to refuge-specific regulations and/or the hunt program based on harvest data and/or public use issues.

The hunt program, along with all other management programs, relates directly to the overall mission of the Service. Additionally, the National Wildlife Refuge System Improvement Act of 1997 identifies six priority public uses that are appropriate on national wildlife refuges, including hunting, fishing, wildlife observation, wildlife photography, and environmental interpretation and education. Development and enhancement of a quality and biologically sound hunt program that 1) leads to enjoyable recreation experiences and 2) maintains the deer population to promote a healthy environment is the overall goal for the hunt program at Supawna Meadows NWR.

Public Review and Comment:

A draft Environmental Assessment was prepared for the archery-only deer hunt and made available for public comment from December 5, 2006 to January 3, 2007. Comments were received from local residents and hunters and addressed in that format. A public notice was printed in the Today's Sunbeam newspaper on August 31, 2007 to announce the review period for the draft Compatibility Determination (CD) for the archery-only hunt. Additionally, a copy of the draft CD was posted at the refuge office and Grassland Trail kiosk. The public review and comment period ended on September 14, 2007. No public comments were received on the initial draft CD, so it was finalized on September 26, 2007. We have modified the September 26, 2007 CD by removing the refuge-specific hunting safety zones and using the State's hunting safety zones. This change was proposed during the Supawna Meadows NWR CCP process, and has been through extensive public review, including a 30-day comment period following the release of the draft CCP/EA. Comments on this change were received from local residents and hunters and addressed in the Supawna Meadows NWR Final CCP (see appendix H, Response to Public Comments).

Determination:

- Use is not compatible
- Use is compatible, with the following stipulations

Stipulations Necessary to Ensure Compatibility:

- All hunters must obtain all necessary State, Federal, and refuge permits.
- Hunters must abide by all applicable refuge, State, and Federal regulations.
- Deer hunting will be allowed on the upland and marshland areas of the refuge, except within posted closed areas. Concurrently, the public will have access to the refuge for non-consumptive public uses.

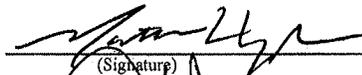
- All-terrain vehicles and other motorized vehicles will be prohibited on all refuge lands except for designated roads and parking areas.
- Refuge brochures and publication of hunt information in local newspapers and the New Jersey Fish and Wildlife Digest will inform hunters of refuge regulations.
- A law enforcement program will ensure hunt regulation compliance and will protect refuge resources.
- The current refuge-specific safety zones will remain in effect until the change to State safety zones is published in the Code of Federal Regulations (CFR).

Justification: The National Wildlife Refuge System Improvement Act of 1997 (P.L. 105-57) identifies six priority public uses of national wildlife refuges: hunting, environmental education, interpretation, fishing, wildlife observation, and wildlife photography. This act requires that, where the Service determines these uses are compatible, they are to receive enhanced consideration over other uses in planning and management.

Hunting of white-tailed deer on Supawna Meadows NWR is justified within refuge objectives by providing a priority public use and promoting appreciation of wildlife and the outdoors. Hunting is a traditional and well established activity on the refuge. Hunting on national wildlife refuges is also an important, proactive management action that can benefit wildlife and habitat by maintaining healthy deer populations and avoiding over browsing.

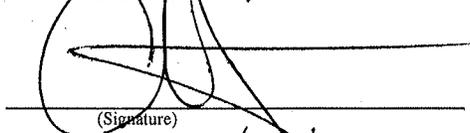
This use would not materially interfere with or detract from the mission of the National Wildlife Refuge System or the purposes for which the refuge was established. It will not cause an undue administrative burden. Annual adjustments can be made in the hunting program to ensure its continued compatibility.

Signature: Refuge Manager


(Signature)

5/6/11
(Date)

Concurrence: Regional Chief


(Signature)

5/20/11
(Date)

Mandatory 15-year re-evaluation date

5/20/2026

Literature Cited:

- Cypher, B. L., and E. A. Cypher. 1988. Ecology and management of white-tailed deer in northern coastal habitats: a synthesis of the literature pertinent to National Wildlife Refuges from Maine to Virginia. U.S. Fish and Wildlife Service, Biological Report 88-15. 52 pp.
- United States Fish and Wildlife Service (USFWS). 2007. Final Environmental Assessment, Supawna Meadows National Wildlife Refuge Deer Hunting Program. 27 p. Available from USFWS, 24 Kimbles Beach Road, Cape May Court House, New Jersey 08210.
- Yarrow, G. K. and D. T. Yarrow. 1999. Managing wildlife on private lands in Alabama and the Southeast. Alabama Wildlife Federation. Sweetwater Press. Birmingham, AL. 588 p.

Map B-3: Current public deer hunting areas within Supawna Meadows National Wildlife Refuge

