

**Attachment C: Executive Summary of Second Stakeholder
Implementation Meeting (April 6, 2006)**

**Summary Report on the
Second Wildlife Action Plan Stakeholder Meeting**

**Environmental Law Institute
to
New Jersey Department of Environmental Protection
Division of Fish and Wildlife
Endangered and Nongame Species Program**

May 2006

Executive Summary

In February 2006, the New the Conserve Wildlife Foundation of New Jersey and Environmental Law Institute, in partnership with the New Jersey Department of Environmental Protection's Division of Fish and Wildlife (DFW), convened over 40 stakeholders to discuss and rank the top state-level goals identified in the New Jersey Wildlife Action Plan. Stakeholders identified 13 priority state-level goals, which can be found in Appendix C.

The Second Wildlife Action Plan Stakeholder Meeting was held on Thursday, April 6, 2006, at Duke Farms in Hillsboro, New Jersey. The primary goal of the meeting was to solicit stakeholder input into prioritizing state-level conservation strategies associated with the 13 priority state-level conservation goals identified at the First Stakeholder Meeting. Participants discussed and debated the state-level conservation strategies and provided their input on prioritizing the strategies. The outcome of that exercise can be found in Appendix E.

Background

On Thursday, April 6, 2006, the Conserve Wildlife Foundation of New Jersey (CWF) and Environmental Law Institute (ELI) convened the second of a series of wildlife action plan stakeholder meetings in partnership with the New Jersey Department of Environmental Protection's (DEP) Division of Fish and Wildlife (DFW).

The New Jersey Wildlife Action Plan, a proactive plan to conserve wildlife before they become more rare and more costly to protect, was submitted to the U.S. Fish and Wildlife Service October 1, 2005. (Copies of the plan are available at: <<http://www.state.nj.us/dep/fgw/ensp/waphome.htm>>.) The multi-scale plan identifies threats, conservation goals, and conservation actions at the state-level,

landscape-level (5 regions, including the ocean), and sub-regional level (identified as conservation zones within NJ's plan).

The stakeholder meetings are designed to solicit input from a diverse array of stakeholders and achieve the following objectives:

1. Identify the state's high-, medium-, and low priority state-level conservation goals;
2. Identify the high priority conservation strategies necessary for meeting the high priority state-level goals; and
3. Develop a process for soliciting feedback from partner organizations on implementation successes and obstacles.

Summary of First Stakeholder Meeting

The First Wildlife Action Plan Stakeholder Meeting was held from 9:00 am – 3:00 pm on Thursday, February 23, 2006, at the Coach Barn at Duke Farms.

The objectives of the First Stakeholder Meeting were to:

- Review the pre-selected high priority goals;
- Discuss and organize the high priority goals; and
- Rank the high priority goals

Over 40 stakeholders attended the meeting. The primary goal of this first meeting was to identify and prioritize the high priority state-level conservation goals. The outcome of the ranking exercise can be found in Appendix C.

Summary of Second Stakeholder Meeting

Meeting Goals and Advance Preparation

The Second Wildlife Action Plan Stakeholder Meeting was held from 9:00 am – 4:00 pm on Thursday, April 6, 2006, at the Coach Barn at Duke Farms. The Doris Duke Charitable Foundation generously provided the facility. Refreshments were provided by the Conserve Wildlife Foundation of New Jersey. (See Appendix A for Agenda.)

The objectives of the Second Stakeholder Meeting were to:

- Present stakeholders with prioritized state-level goals as decided at First Stakeholder Meeting;
- Discuss the conservation strategies associated with the prioritized state-level goals; and
- Seek stakeholder input to select priority conservation strategies.

Over 60 stakeholders were invited to attend the meeting. CWF received positive RSVPs from 55 individuals and 44 stakeholders attended the meeting (see Appendix B for list of attendees).

The primary goal of this first meeting was to prioritize the top state-level conservation strategies necessary to meet the goals identified in the First Stakeholder Meeting. In preparation for the working meeting, the invited stakeholders were asked to review *in advance* an initial list of conservation strategies that showed those selected as priorities by the staff of DFW's Endangered and Nongame Species Program (ENSP) and the remaining strategies identified within NJ's Wildlife Action Plan (see appendix D). Participants were asked to review the list of strategies in advance. The list was the basis of the discussion at the Second Stakeholder Meeting.

Introductory Sessions

John S. Watson, Jr., Deputy Commissioner for Natural Resources at DEP gave welcoming remarks and thanked all of the stakeholders for their participation and support. Jessica Wilkinson, Director of ELI's State Biodiversity Program, served as the facilitator and gave the participants an overview of the meeting objectives.

Larry Niles, Chief of ENSP, provided the attendees with background on the purpose of the New Jersey Wildlife Action Plan, its basis in the Landscape Project, and stated that the plan is designed to be a blueprint for wildlife conservation for the full array of conservation partners in the state, not solely the Division of Fish and Wildlife. Dave Jenkins, Principal Biologist with ENSP, provided an overview of the results from the First Stakeholder Meeting. These presentations were followed by a brief question and answer session.

Discussion of State-Level Conservation Strategies

The majority of the remainder of the day was devoted to a discussion of the conservation strategies associated with the high priority goals selected by the stakeholders. The participants were presented with a list of conservation strategies pre-selected by ENSP (Appendix D). Each goal and its associated strategies were presented and participants were asked to offer comments on which strategies they felt should be of particular priority. Participants also sought clarification on some of the priorities. During this lengthy discussion, participants were given leeway to debate many issues related to the goals and strategies, as well as add back to the list any of the priorities that ENSP did not identify among the priority strategies.

Final Exercise

The ENSP staff incorporated the participants' comments and refined the newly created list of priority strategies to include measurable outcomes, many of which were addressed during the meeting.

Preamble Issues

Two issues were identified by the participants as those that were of particular importance as to warrant inclusion in any preamble to the final list of prioritized state-level goals and strategies. Although many of these issues may be implicitly

included in the priority goals, participants felt that they were important enough to warrant an explicit mention.

1. Public education and outreach should be an integral tool for meeting all of the priority goals; and
2. Adaptive management techniques should be used to meet the priority goals. Monitoring will be critical to determining the appropriate adaptive management strategies.

Securing Long-Term Funding for Land Protection and Coalition Building

Michael Catania, President of Conservation Resources, Inc., provided participants with an overview of plans to secure long-term funding for land protection in New Jersey. He summarized the current status of the Green Acres program and Garden State Preservation Trust (GSPT), which together have fueled a surge of state land acquisition and farmland preservation, as well as matching grants and low cost loans to local governments, and matching grants to non-profit conservation organizations. In turn, these state funds have been leveraged by dedicated open space taxes that have been approved by local voters in all 21 counties and in almost 250 of the state's 566 municipalities. Private funding generated by non-profit land trusts have further leveraged these public funds, as have below-market sales by private landowners who can claim a charitable contribution deduction against the New Jersey state income tax.

GSPT, however, is expected to begin running out by the end of 2006. Although the Corzine administration has expressed support for renewing the Trust, the state is expecting an estimated budget deficit of up to \$6 billion for FY 2007, and needs to address other pressing issues, such as the near bankruptcy of the Transportation Trust Fund and school construction fund. Catania recommended that in 2006, conservation agencies and organizations lay the groundwork for continued funding for open space preservation with the hopes of having a bond initiative on the ballot in 2007. Catania recommended that Corzine reappoint the Governor's Council on New Jersey Outdoors, or a similar group, an approach that has been used successfully by two previous governors, to study the remaining need for open space and farmland preservation funding.

Sean Robertson, the Teaming With Wildlife Coalition and Communications Assistant at the Association of Fish & Wildlife Agencies (AFWA, formerly known as the International Association of Fish and Wildlife Agencies), gave a presentation on building the Teaming With Wildlife Coalition in New Jersey and nationally. AFWA has developed significant materials for partner agencies and organizations to both communicate to the public about the importance of the state wildlife action plans and to work with partners to build state coalitions to support future funding for implementation of the plans. These materials are all available through the AFWA web site at: www.iafwa.org and www.teaming.com.

Both presentations were followed by a brief question and answer period.

Wrap-Up

Larry Niles, Chief of DEP's Endangered and Nongame Species Program, provided closing statements. He stated that a report (provided here) would be made available to the attendees summarizing the day's discussion and the outcome of the prioritization exercise. He added that this stakeholder meeting was the second in a series of meetings envisioned to solicit input into and support for implementation of the New Jersey Wildlife Action Plan. He concluded by thanking the attendees for their input and participation.

APPENDICIES:

A: Second Stakeholder Meeting Final Agenda

B: Second Stakeholder Meeting List of Participants

C: First Stakeholder Meeting Summary – Final Prioritized State-Level Goals

**D: Second Stakeholder Meeting – Priority State-Level Goals and Strategies
(provided in advance)**

**E: Second Stakeholder Meeting Summary – Final State-Level Conservation
Goals and Strategies**

APPENDIX A

Second Wildlife Action Plan Stakeholder Meeting

**April 6, 2006
9:00 am – 4:00 pm**

**Duke Farms
Coach Barn**

DRAFT AGENDA

- 8:30 – 9:00 **Coffee and Registration**
- 9:00 – 9:15 **Welcoming Remarks**
John S. Watson, Jr., Deputy Commissioner for Natural Resources
New Jersey Department of Environmental Protection
- 9:15 – 9:30 **Introductions, Objectives, Review of Agenda**
Jessica Wilkinson (Facilitator)
Environmental Law Institute
- 9:30 – 9:45 **Review Background and Purpose of the New Jersey Wildlife Action Plan**
Larry Niles, Chief
Endangered and Nongame Species Program
DEP, Division of Fish & Wildlife
- 9:45 – 10:15 **Summary of Priority State-Level Conservation Goals**
Dave Jenkins, Principal Biologist
Endangered and Nongame Species Program
DEP, Division of Fish & Wildlife
- 10:15 – 10:30 **Questions & Answers**
- 10:30 – 10:45 **BREAK**
- 10:45 – 12:00 **Presentation and Discussion of Conservation Strategies**
- 12:00 – 1:00 **LUNCH**
- 1:00 – 2:30 **Presentation and Discussion of Conservation Strategies (continued)**

APPENDIX A (continued)

- 2:30 – 2:45 **BREAK**
- 2:45 – 3:05 **Securing Long-Term Funding for Land Protection In New Jersey**
Michael Catania, President, Conservation Resources, Inc.
- 3:05 – 3:15 Questions & Answers
- 3:15 – 3:35 **Building the Teaming with Wildlife Coalition**
Sean Robertson
Teaming With Wildlife Coalition and Communications Assistant
International Association of Fish & Wildlife Agencies
- 3:35 – 3:50 Questions & Answers
- 3:50– 4:00 **Wrap-Up and Summary of Next Steps**
Larry Niles, Chief
Endangered and Nongame Species Program
DEP, Division of Fish & Wildlife

APPENDIX B**Second Wildlife Action Plan Stakeholder Meeting****List of Attendees**

First	Last	Organization	Invited	Attended
Doug	Adamo	National Park Service	X	
Steve	Atzert	Edwin B Forsythe National Wildlife Refuge	X	X
Jennifer	Bryson	Sourland Planning Council	X	X
Barbara	Brummer	The Nature Conservancy – NJ Chapter	X	X
Janet	Bucknall	USDA APHIS Wildlife Services	X	X
John	Bunnell	Pinelands Commission	X	X
Joanna	Burger	Rutgers University	X	X
Michael	Catania	Conservation Resources, Inc.	X	
Dave	Chanda	NJ Div. Fish & Wildlife	X	X
Sharon	DeFalco	ENSP		
Emile	DeVito	NJ Conservation Foundation	X	X
Mandy	Dey	ENSP	X	X
Dante	Dipirro	NJ Highlands Council	X	
Bill	Dressel	NJ League of Municipalities	X	
Mim	Dunne	DFW	X	
Naomi	Edelson	Association of Fish and Wildlife Agencies	X	
Troy	Ettel	New Jersey Audubon	X	X
Jose	Fernandez	Div. of Parks & Forestry	X	
John	Flynn	DEP, Green Acres	X	
Leann	Foster-Sitar	American Littoral Society	X	
Pola	Galie	Conserve Wildlife Foundation	X	X
Dave	Golden	ENSP		
Tom	Gravel	Trust for Public Land	X	X
Gabor	Grunstein	NJ Farm Bureau	X	X
Larry	Herrightly	DFW	X	

APPENDIX B (continued)

First	Last	Organization	Invited	Attended
George	Howard	NJ State Federation of Sportsmen's Clubs	X	
Dave	Jenkins	ENSP	X	X
Robert	Jennings	Morris County Park Commission	X	X
Andrew	Johnson	The William Penn Foundation	X	
Russel	Juelg	Pinelands Preservation Alliance	X	X
Marjorie	Kaplan	Office of Policy, Planning & Science	X	
Michelle	Knapick	The Geraldine R. Dodge Foundation	X	
William	Koch	Great Swamp National Wildlife Refuge	X	X
Tony	Kramer	USDA - Natural Resources Conservation Service	X	
Cheryl	Maccaroni	NJDHSS Office of Animal Welfare	X	
Debbie	Mans	Office of the Governor	X	
Kerry	Miller	ANJEC	X	X
Mark	Murphy	Fund for New Jersey	X	
Vincent	Nichnadowicz	NJ DOT	X	X
Tom	Niederer	NJ Forestry Association	X	
Larry	Niles	ENSP	X	X
Margaret	O'Gorman	Conserve Wildlife Foundation	X	X
William	O'Hearn	Highlands Coalition - NJ Chapter	X	
Laurie	Pettigrew	DFW	X	X
Todd	Pover	ENSP	X	
Monica	Purcell	Department of Agriculture	X	
Sebastian	Reist	NJ Department of Agriculture	X	X
Jaclyn	Rhoads	Pinelands Preservation Alliance	X	
Sean	Robertson	Association of Fish and Wildlife Agencies	X	X
Paul	Scelsi	NJ DOT	X	X
Kris	Schantz	ENSP	X	X
Annette	Scherer	USFWS-Field Office	X	X
Howard	Schlegel	Cape May Refuge	X	X

APPENDIX B (continued)

First	Last	Organization	Invited	Attended
Tina	Schveda	Meadowlands Trust	X	X
Liz	Semple	NJDEP Office of planning and policy	X	
Bill	Sheehan	Hackensack Riverkeeper, Inc.	X	X
David	Smart	Natural Resources Conservation Service	X	X
Eileen	Swan	Office of Smart Growth	X	
Bob	Tudor	Delaware River Basin Commission	X	
Mick	Valent	ENSP	X	X
Maya	VanRossum	Delaware Riverkeepers	X	
Jim	Waltman	NJ Council of Watershed	X	
Jay	Watson	DEP, Deputy Commissioner	X	X
Kellie	Westervelt	Partnership for the Delaware Estuary	X	X
Jessica	Wilkinson	ELI	X	X
Nancy	Wittenberg	NJ Builders Assoc. Rep (Giordano Halleran & Ciesla)	X	
Joanna	Wolaver	New Jersey Audubon	X	X

APPENDIX C

State-Level Conservation Objectives Prioritization Results

The following state-level conservation goals have been selected as implementation priorities from the New Jersey Wildlife Action Plan. On Thursday, February 23, 2006 the First Wildlife Action Plan Stakeholder Meeting was held at Duke Farms in Hillsboro, New Jersey. The primary goal of the meeting was to solicit stakeholder input into prioritizing the top ten priority statewide conservation goals among the 63 listed in the New Jersey Wildlife Action Plan. The goals listed below reflect the input of stakeholders prior to and at the meeting. This final list of priority state-level goals has been edited slightly by ENSP staff to more accurately reflect the issues raised by stakeholders at the meeting. They are listed in order of the priority assigned by stakeholders.

Stakeholders stressed that the following four issues should be a critical component to meeting the top priority goals.

1. Public education and outreach should be an integral tool for meeting all of the priority goals;
2. Conservation efforts designed to meet these priority goals should include conservation strategies specific to urban and suburban areas;
3. Adaptive management techniques should be used to meet the priority goals. Monitoring will be critical to determining the appropriate adaptive management strategies; and
4. The priority goals are explicitly designed to address threats to all species of greatest conservation concern.

Ranking (1-10; 1=highest priority)	Main Topic/Issue (may include combinations of issues)	Goal (may include combinations of goals)
1	Addressing National, Inter-state, and Statewide Threats <u>AND</u> The Landscape Project	Identify and protect breeding, migration, wintering habitats and landscapes essential for long-term viability of wildlife and fish populations of species of conservation concern.
2	Endangered, Threatened, and Rare Wildlife	Restore populations of endangered and threatened wildlife to stable levels that allow their delisting by population management, protecting critical habitat, and habitat restoration and enhancement.

APPENDIX C (continued)

3	Addressing National, Inter-state, and Statewide Threats	Identify, restore, and protect unique ecosystem processes including the control and/or removal of invasive and exotic species, fire management, and delayed and alternate patch mowing.
4	Migratory Stopover and Important Bird Areas Planning	Identify, monitor and conserve, key migratory corridors and stopover locations for migratory birds.
5	Addressing National, Inter-state, and Statewide Threats	Improve communication between farmers foresters and land stewards of private, local, state and federal lands to develop habitat management plans that enhance habitats for species of conservation concern and maintain or improve the ecological integrity of the natural community.
6	Addressing National, Inter-state, and Statewide Threats	Reduce the adverse impacts of non-native invasive species, subsidized predators, and over-abundant native species on critical wildlife, natural communities, and habitat quality.
7	Addressing National, Inter-state, and Statewide Threats	Identify, protect and minimize human disturbance at sensitive locations (nests, hibernacula, breeding pools, critical concentration or feeding areas, etc.).
8	Addressing National, Inter-state, and Statewide Threats	Maintain connectivity of habitats at the landscape scale.
9	Addressing National, Inter-state, and Statewide Threats <u>AND</u> Long-Term Monitoring	Conduct long-term monitoring to evaluate population viability through statewide surveys, atlases, and effectiveness of protection and restoration efforts of both wildlife and their habitats.
10	Addressing National, Inter-state, and Statewide Threats	Identify, maintain, and restore natural vegetative communities through sustainable, area-specific deer densities.
11	Addressing National, Inter-state, and Statewide Threats	Restore and maintain wildlife populations by eliminating or reducing exposure to point and nonpoint source contamination.

APPENDIX C (continued)

12	Addressing National, Inter-state, and Statewide Threats	Identify and actively protect public natural lands and water with rare wildlife from ORV and personal watercraft use.
13	Review of Wildlife Action Plan	Ensure that conservation activities of federal, state, county, municipal, and private (NGOs) lands affecting species of conservation concern are consistent with the NJ WAP.

APPENDIX D

**Wildlife Action Plan
2nd Stakeholders' Meeting
INSTRUCTIONS for PRIORITIZING CONSERVATION STRATEGIES**

Please review the attached excel file. The following text provides background and context to aid your review.

For use at the second implementation meeting on April 6, 2006 to determine the priority state-level conservation strategies.

The excel file called State Level Strategies Review contains the thirteen (13) priority state-level conservation goals (A-M) selected during the Wildlife Action Plan's first implementation meeting on February 23, 2006. In addition, we have included the state-level conservation strategies associated with each of the goals.

In **BLUE text**, you will find the Endangered and Nongame Species Program's (ENSP) priority selections. *(For those of you without color printers, we have also commented that the strategy is an "ENSP Priority.")* These strategies have been revised from their original text to include measurable outcomes and where goals have been revised or combined (per the first implementation meeting), strategies have been refined to better suit the revised goal(s).

In **BLACK text** are strategies the ENSP did not select as priority, however, we ask that you review them as well to determine if you think a strategy SHOULD be considered a priority.

Please keep in mind that: 1) Strategies in black text have NOT been revised and therefore, may seem inappropriate for the revised or combined goal(s). In such cases, we ask that you use the given strategies (and where goals have been combined, use the "sub-topic" such as "Landscape Project" or "Development") as guides to develop more appropriate strategies for those you wish to include as priorities. 2) ALL strategies selected as priorities MUST be revised/ refined to include measurable outcomes.

APPENDIX D

Wildlife Action Plan: Implementation Prioritization - Conservation Strategies			
See accompanying Microsoft Word file "Instructions - Wildlife Action Plan - Imp Mtg 2" for instructions regarding this document.			
Goals (A-M)	Strategy Number	Conservation Strategy	Comments
A.	Identify and protect breeding, migration, wintering habitats and landscapes essential for long-term viability of wildlife and fish populations of species of conservation concern.		
	A-1	DFW will lead in the training of municipal and county planners to use the Landscape Map to identify critical wildlife habitats for sensitive species and natural systems within their borders.	<i>ENSP PRIORITY; Addresses Goals A and H</i>
	A-2	Increase the number of data sources to populate the Biotics database and work to improve data quality and to decrease the time necessary to review and input the data.	<i>ENSP PRIORITY</i>
	A-3	Use Landscape Project Mapping to create products that guide land management, habitat conservation, restoration, land acquisition and land planning at all levels of government and non-government organizations.	<i>ENSP PRIORITY</i>
	A-4	Mitigate impacts of existing development, particularly adjacent to open space, through non-regulatory measures, (e.g., create and restore habitat on private lands through landowner incentive programs, backyard habitat initiatives, keeping cats indoors).	<i>ENSP PRIORITY; Addresses Goals A and H</i>
	A-5	Increase the effective size and connectivity of public lands through the Landowner Incentive Program and targeted land acquisition.	<i>ENSP PRIORITY</i>
	A-6	Refine Landscape Project Mapping by improving existing models and creating new models that define habitats for those species lacking models.	<i>ENSP PRIORITY</i>
	A-7	DEP will encourage New Jersey counties and/or municipalities to develop Regional Habitat Conservation Plans within the next 10 years in order to benefit wildlife, habitat and the quality of life for New Jersey citizens.	<i>Drawn from the "Suburban Sprawl and Large-acre zoning" section</i>

APPENDIX D (continued)

	Strategy Number	Conservation Strategy	Comments
	A-8	County and municipal planners should collaborate in developing master planning documents and ordinances that consider the larger region as a precursor to Habitat Conservation Plans.	<i>Drawn from the "Suburban Sprawl and Large-acre zoning" section</i>
	A-9	Develop smart-growth plans at the municipal and county level whereby development is clustered and in-fill development maximizes infrastructure efficiency and cost savings while minimizing loss of habitat.	<i>Drawn from the "Suburban Sprawl and Large-acre zoning" section</i>
	A-10	Establish growth areas within a locality and provide incentives for development within those designated areas while discouraging development outside of those areas.	<i>Drawn from the "Suburban Sprawl and Large-acre zoning" section</i>
	A-11	Encourage towns to work together to achieve sustainable development. Avoid large-acre zoning as the only mechanism for limiting development due to its unintended consequences: remains of irreparably fragmented habitats.	<i>Drawn from the "Suburban Sprawl and Large-acre zoning" section</i>
	A-12	Decrease isolation of public natural lands by development.	<i>Drawn from the "Development" section</i>
	A-13	Use the Landscape Map to identify areas of important habitat to focus backyard habitat programs such as the stopover project (NJ Division of Fish and Wildlife), certified backyard habitat (National Wildlife Federation), and backyard habitat with native plants (NJ Audubon Society).	<i>Drawn from the "Development" section</i>
	A-14	Assist landowners interested in habitat enhancement programs by providing technical assistance through the NJ Habitat Incentive Team (NJ HIT) for landowners interested in habitat enhancement programs. Landowners will receive guidance on the program best suited for their individual needs and their habitat within the context of the regional landscape.	<i>Drawn from the "Development" section</i>
	A-15	Secure state funding for the Division of Fish and Wildlife's Environmental Review Office to allow continued review of stream cleaning and stream encroachment permit applications.	<i>Drawn from the "Development" section</i>
	A-16	Enforce existing regulations to prevent illegal stream cleaning or snag removal activities.	<i>Drawn from the "Development" section</i>
	A-17	Where appropriate, install fish ladders to assist passage of anadromous fish in areas with dams; monitor passage as necessary.	<i>Drawn from the "Development" section</i>

APPENDIX D (continued)

	Strategy Number	Conservation Strategy	Comments
	A-18	Build models that define habitats for those species lacking models. Refine existing models based on new information.	<i>Drawn from the "Landscape Project" section</i>
	A-19	Develop site-based management plans using the Landscape Project and principles of landscape ecology as foundation.	<i>Drawn from the "Landscape Project" section</i>
	A-20	Cross-walk existing site-based plans for National Wildlife Refuges, military bases, and other public lands against the Wildlife Action Plan and make appropriate changes.	<i>Drawn from the "Landscape Project" section</i>
	A-21	Use designation of special resource areas under the New Jersey State Development and Redevelopment plan and other protective planning such as marine protected areas to recognize and afford protection to landscapes of critical importance to conserving regional biodiversity.	<i>Drawn from the "Landscape Project" section</i>
B.	Restore populations of endangered and threatened wildlife to stable levels that allow their delisting by population management, protecting critical habitat, and habitat restoration and enhancement.		
	B-1	Develop recovery plans for species of greatest priority that are based on reliable assessment and monitoring of population levels and identification of limiting factors. Species recovery plans should establish clear and specific strategies for reducing threats and improving habitat conditions and lead to recovery and maintenance of populations at viable levels that complement complete, viable functioning ecosystems.	<i>ENSP PRIORITY</i>
	B-2	22. Reevaluate the status of listed and non-listed nongame wildlife every five years using the Delphi review process.	<i>ENSP PRIORITY</i>
	B-3	29. Conduct surveys to identify migratory corridors for bats, marine mammals and anadromous fish.	<i>ENSP PRIORITY</i>
	B-4	28. Continue to develop and improve habitat creation and restoration technologies.	

APPENDIX D (continued)

Goal	Strategy Number	Conservation Strategy	Comments
C.		Identify, restore, and protect unique ecosystem processes including the control and/or removal of invasive and exotic species, fire management, and delayed and alternate patch mowing.	
	C-1	Reduce regulatory impediments to restoration and enhancement activities.	<i>ENSP PRIORITY</i>
	C-2	Develop management techniques that can safely be used to mimic the historic role of fire in shaping ecosystems.	<i>ENSP PRIORITY</i>
	C-3	Increase the area of habitat enhanced by controlled burning techniques that mimic natural wildfires and support legislation to facilitate increased prescribed burning where appropriate.	<i>ENSP PRIORITY</i>
	C-4	Using a regional approach, identify and prioritize areas where ecosystem processes are threatened by invasive plants, organisms, and diseases; prioritize the threats relative to the vulnerability of affected wildlife and plant communities.	<i>ENSP PRIORITY</i>
	C-5	Reduce the area of phragmites in coastal wetlands by restoring natural tidal flow.	<i>ENSP PRIORITY</i>
	C-6	Develop techniques to mimic or replace natural coastal sediment transport processes and integrate into implementation of beach replenishment and other shore protection projects.	<i>ENSP PRIORITY</i>
	C-7	Increase area and seral-stage range of successional habitats on managed lands where appropriate as indicated by the Landscape Project map.	<i>ENSP PRIORITY</i>
	C-8	Develop species- and habitat- specific "Best Management Practices" (BMPs) for management of various communities dependent upon disturbance.	<i>ENSP PRIORITY</i>
D.		Identify, monitor and conserve, key migratory corridors and stopover locations for migratory birds.	
	D-1	Conduct surveys of migrating passerines and raptors at major stopover areas along the Cape May Peninsula every five years.	<i>ENSP PRIORITY</i>
	D-2	Annually monitor shorebird populations along the Delaware Bayshore stopover.	<i>ENSP PRIORITY</i>

APPENDIX D (continued)

	Strategy Number	Conservation Strategy	Comments
	D-3	Prioritize land acquisition and develop management strategies to conserve stopover habitat.	<i>ENSP PRIORITY</i>
	D-4	Identify a network of locations that will help sustain migratory bird populations by producing a set of recommendations for the conservation of Important Bird Areas (IBA) statewide.	<i>ENSP PRIORITY</i>
	D-5	Conduct studies and create models to identify migratory bird routes and assess the potential avian risks of wind turbines, tall buildings, radio towers and other "human-made" tall structures.	<i>ENSP PRIORITY</i>
	D-6	Conduct baseline surveys of other stopover areas such as Sandy Hook, Island Beach, and inland habitats important to migrating birds.	
	D-7	Develop plans to improve and preserve existing habitat.	
	D-8	Raise public awareness about the value of habitat for birds and other wildlife.	
	D-9	Conduct the annual Mid-Winter Waterfowl Survey and the Atlantic Flyway Breeding Waterfowl Survey.	
E.		Encourage farmers, foresters and land stewards of private, local, state and federal lands to develop habitat management plans that enhance habitats for species of conservation concern and maintain or improve the ecological integrity of the natural community.	
	E-1	Increase staff in the NJ Habitat Incentive Team (NJ HIT) to educate and provide technical assistance for land owners enrolling in Landowner Incentive Programs.	<i>ENSP PRIORITY</i>
	E-2	Increase number of landowners through NJ HIT that conduct delayed mowing of hayfields and fallow fields until after most ground nesting birds have fledged at least one brood (July 15th); leave a minimum of 20% of grass fields standing during winter for cover; and/or plant and maintain native warm season grasses.	<i>ENSP PRIORITY</i>
	E-3	Develop BMPs or management prescriptions for species of conservation concern to reduce negative impacts of various land management practices such as forestry, agriculture, dune stabilization, stream stabilization, aquaculture, etc.	<i>ENSP PRIORITY</i>

APPENDIX D (continued)

	Strategy Number	Conservation Strategy	Comments
	E-4	Increase the number of Category 1 streams justified by E&T species data.	<i>ENSP PRIORITY</i>
	E-5	Provide technical assistance and incentives through NJ HIT to minimize impacts of fertilizers, pesticides, livestock, etc., on waterways by maintaining adequate buffers and, when feasible, enhancing riparian areas through stream bank restoration efforts.	
F.		Reduce the adverse impacts of non-native invasive species, subsidized predators, and over-abundant native species on critical wildlife, natural communities, and habitat quality.	
	F-1	Create aggressive outreach programs for targeted groups (e.g. landscape designers, waterwatch groups, etc) that reduce or eliminate the introduction and spread of invasive plants and animals.	<i>ENSP PRIORITY</i>
	F-2	Develop species- and habitat- specific “Best Management Practices” (BMPs) for controlling the most common and detrimental invasive species and incorporate that guidance into BMPs developed for other activities such as forestry, wildlife management, stream stabilization, dune stabilization, etc.	<i>ENSP PRIORITY</i>
	F-3	Educate the public about the negative impacts of free-roaming cats (“owned” and feral) on New Jersey’s native wildlife and encourage responsible cat ownership and care through public service announcements, brochures, public presentations, etc.	<i>ENSP PRIORITY</i>
	F-4	Develop BMP guidelines and a model municipal TNR ordinance that together ensure that managers can effectively manage feral cats, including cat colonies, that pose a risk to vulnerable native wildlife (e.g., beach-nesting bird colonies, areas supporting ground-nesting birds).	<i>ENSP PRIORITY</i>
	F-5	Identify areas where predation is significantly diminishing reproductive success of wildlife species of conservation concern and apply appropriate integrated predation management techniques.	<i>ENSP PRIORITY</i>
	F-6	Create and implement a system for reporting and qualifying new locations of priority invasive species.	<i>ENSP PRIORITY</i>
	F-7	Conduct research to develop better information on the impacts of feral and free-roaming cats on native wildlife populations.	<i>ENSP PRIORITY</i>

APPENDIX D (continued)

	Strategy Number	Conservation Strategy	Comments
	F-8	Create implementation plan for Invasive Species Task Force recommendations when completed.	<i>ENSP PRIORITY</i>
	F-9	Concurrently, efforts focusing specifically on identifying and mapping infestations should be conducted as funding permits.	<i>Drawn from the "Invasive Terrestrial and Aquatic Species and Exotic Pathogens" section</i>
	F-10	Establish coordinated and consistent priorities based upon an evaluation of the aggressiveness of the infestations, ecological importance of the community or habitat affected, and likelihood of success. Utilize expert guidance on control methods and develop efficient approaches through expert consensus.	<i>Drawn from the "Invasive Terrestrial and Aquatic Species and Exotic Pathogens" section</i>
	F-11	Prevent new infestations of invasive species by maintaining communication with agencies and conservation organizations in New Jersey and surrounding states to ensure that interstate sightings of exotic freshwater fish species, mollusks, aggressive pathogens, and insects are known and documented.	
	F-12	Provide educational materials at all public and non-government organization natural land areas.	<i>Drawn from the "Subsidized Predators" section</i>
	F-13	Develop and implement management practices to reduce predation on native wildlife such as predator exclosures and electric fences.	<i>Drawn from the "Subsidized Predators" section</i>
	F-14	Work with local municipalities to develop policies and/or establish regulations that minimize the impacts of predators on native wildlife species, including bans on "managed" cat colonies and feeding of wildlife near critical wildlife areas.	<i>Drawn from the "Subsidized Predators" section</i>
	G.	Identify, protect and minimize human disturbance at sensitive locations (nests, hibernacula, breeding pools, critical concentration or feeding areas, etc.).	
	G-1	Create funding that will allow a minimum of one conservation officer for each landscape region dedicated to increase protection of sensitive habitats at risk from frequent human disturbance, collection/poaching, and at protective barriers such as gates restricting entry to bat hibernacula.	<i>ENSP PRIORITY</i>

APPENDIX D (continued)

	Strategy Number	Conservation Strategy	Comments
	G-2	Design and implement protective measures to minimize deleterious impacts of direct human disturbance at osprey and colonial waterbird nest sites, shorebirds along Delaware Bay, Pine snake nesting areas, timber rattlesnake dens and gestation sites, and bat hibernacula.	<i>ENSP PRIORITY</i>
	G-3	Review all stream encroachment and other permit applications within the Division of Fish and Wildlife and apply restrictions on acoustic intrusions and other activities with deleterious effects on aquatic wildlife.	<i>ENSP PRIORITY</i>
	G-4	Investigate impacts of controlled water releases on aquatic organisms (e.g. freshwater mussels) through current and future research.	
	G-5	Investigate reports of illegal draw-downs and enforce existing regulations.	
	G-6	Continue to review such data as biological assessments from existing power plants and provide recommendations to minimize impingement/entrainment impacts.	
	G-7	Develop statewide outreach programs to educate citizens about New Jersey's ecosystems, natural communities, and state laws and restrictions.	
	G-8	Develop responsible ecotourism opportunities to foster appreciation for New Jersey's biological diversity and greater understanding of the economic benefits of wildlife.	
H.	Maintain connectivity of habitats at the landscape scale.		
	H-1	Develop smart-growth plans at the municipal and county level whereby development is clustered and in-fill development maximizes infrastructure efficiency and cost savings while minimizing loss of habitat with priority on counties not already included in other regional planning areas such as the Pinelands or Highlands.	<i>ENSP PRIORITY</i>
	H-2	DEP will create a staff within DEP to provide technical support to New Jersey counties and/or municipalities to develop Regional Habitat Conservation Plans within the next 10 years in order to benefit wildlife, habitat and the quality of life for New Jersey citizens.	<i>ENSP PRIORITY</i>

APPENDIX D (continued)

	Strategy Number	Conservation Strategy	Comments
	H-3	Counties and municipalities should collaborate in developing master planning documents and ordinances that implement Habitat Conservation Plans.	<i>ENSP PRIORITY</i>
	H-4	Encourage towns to work together to achieve sustainable development. Avoid large-acre zoning as the only mechanism for limiting development due to its unintended consequences: remains of irreparably fragmented habitats.	
I.	Conduct long-term monitoring to evaluate population viability through statewide surveys, atlases, and effectiveness of protection and restoration efforts of both wildlife and their habitats.		
	I-1	<p>Maintain monitoring programs that collect data on species, suites of species and habitats statewide, including but not limited to the following:</p> <ul style="list-style-type: none"> o Breeding Bird Atlas o Breeding Bird Survey o Delaware Bay Migratory Shorebird Survey o Bald Eagle Midwinter Survey o Herptile Atlas o Calling Amphibian Monitoring Program o Fish Monitoring-Streams and Ponds o Freshwater Mussel Atlas o Mid-Winter Waterfowl Survey o Atlantic Flyway Breeding Waterfowl Survey o DFW Bobwhite Call-Count Survey o Woodcock Call-Count Survey o DFW Beaver-Otter Survey o Migratory Game Bird Banding Programs 	<i>ENSP PRIORITY</i>
	I-2	Complete the Coordinated Bird Monitoring Plan to increase efficiency and effectiveness of bird surveys.	<i>ENSP PRIORITY</i>
	I-3	Develop GIS measures to evaluate the effectiveness of habitat conservation programs including acquisition, restoration, and connectivity.	<i>ENSP PRIORITY</i>

APPENDIX D (continued)

	Strategy Number	Conservation Strategy	Comments
	I-4	Measure the enrollment acreage and effectiveness of backyard habitat mgmt.	<i>ENSP PRIORITY</i>
	I-5	Track the acreage and management of land enrolled in habitat enhancement programs administered by NJ HIT; monitoring each site and evaluate effectiveness of management technique.	<i>ENSP PRIORITY</i>
	I-6	Decrease isolation of public natural lands by development.	<i>Drawn from the "Development" section</i>
	I-7	Secure state funding for the Division of Fish and Wildlife's Environmental Review Office to allow continued review of stream cleaning and stream encroachment permit applications.	<i>Drawn from the "Development" section</i>
	I-8	Enforce existing regulations to prevent illegal stream cleaning or snag removal activities.	<i>Drawn from the "Development" section</i>
	I-9	Where appropriate, install fish ladders to assist passage of anadromous fish in areas with dams; monitor passage as necessary.	<i>Drawn from the "Development" section</i>
J.		Identify, maintain, and restore natural vegetative communities through sustainable, area-specific deer densities.	
	J-1	Conduct forest health surveys and use forest health indices as a main factor in developing deer management goals with priority areas being contiguous forest blocks in Skylands, Delaware Bay, and Pinelands Landscape Regions.	<i>ENSP PRIORITY</i>
	J-2	Amend regulation or legislation to implement programs that support increased hunter access and hunting opportunities like reduction of safety zone for bow hunting and Sunday bow hunting.	<i>ENSP PRIORITY</i>
	J-3	Institute measures to require addressing deer management in plans developed by the US Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) for any farm property that receives state or federal funding. The plans must include harvest quotas and mechanisms to insure implementation.	<i>ENSP PRIORITY</i>

APPENDIX D (continued)

	Strategy Number	Conservation Strategy	Comments
	J-4	Fully fund the Hunters Helping the Hungry venison donation program, which allows hunters to donate venison to food kitchens. Many hunters are reluctant to harvest deer that would be wasted because they have no need of or an outlet for the venison. Full funding of this program will expand the program and help provide an incentive for hunters to continue harvesting deer and therefore help meet harvest quotas.	<i>ENSP PRIORITY</i>
	J-5	Work with private landowners and municipalities to control deer via volunteer hunters working in cooperation with the DFW on specialized controlled hunts that meet the needs of various property owners.	
	J-6	Develop and implement, through regulation or legislation, programs that require farmers to achieve deer management goals, including harvest quotas, in order to obtain farm tax assessment or to qualify for farmland preservation programs.	
	J-7	Continue research into contraceptive approaches to reducing deer populations.	
K.	Restore and maintain wildlife populations by eliminating or reducing exposure to point and nonpoint source contamination.		
	K-1	Reduce contaminants of concern (eg., PCBs, DDT, mercury) to "No Adverse Effects" levels in areas where they are currently significantly affecting wildlife populations, such as the lower Delaware River, NY-NJ Harbor, and portions of the Atlantic coast.	<i>ENSP PRIORITY</i>
	K-2	Analyze tissues of raptors and waterbirds on a regular basis using 1) failed eggs, 2) nestling blood, 3) adults found dead, and 4) adults, where appropriate, to assess contaminant levels and determine causes of mortality and nest failures.	<i>ENSP PRIORITY</i>
	K-3	Expand efforts with DEP's Division of Water Quality to analyze and attempt to minimize contaminants in the water.	

APPENDIX D (continued)

	Strategy Number	Conservation Strategy	Comments
	K-4	Analyze tissues of actual or typical prey items and the environment of nest areas for contaminants to assess the level of contaminants and determine the threat within the food web.	
	K-5	Work with state and federal hazardous site cleanup programs to reduce exposures to contaminants.	
L.		Identify and actively protect public natural lands and water with rare wildlife from ORV and personal watercraft use.	
	L-1	Identify areas where off-road vehicle (ORV) or personal watercraft (PWC) use occurs in critical wildlife habitats and direct law enforcement to concentrate on those areas to enforce seasonal restrictions and posted/restricted areas.	<i>ENSP PRIORITY</i>
	L-2	Investigate the impacts that personal watercraft and off-road vehicles have on those species whose breeding, roosting, haul-out, and migratory stopover areas' requirements make them vulnerable to injury, mortality or disturbance.	<i>ENSP PRIORITY</i>
	L-3	Identify appropriate areas for establishing off-road vehicle use in accordance with local and/or regional Habitat Conservation Plans to minimize impact to important wildlife habitat. Concurrently, increase the legal and financial penalties for illegal off-road vehicle use.	<i>ENSP PRIORITY</i>
	L-4	Enact legislation to require registration of all all-terrain vehicles (ATVs) at time of purchase and annually thereafter.	<i>ENSP PRIORITY</i>
	L-5	Collaborate with off-road organizations and state and non-government agencies to address the problem of unlawful use of public and private natural lands by off-road vehicles.	
	L-6	Develop new methods to minimize the impact of personal watercraft on breeding, roosting and migratory avian species.	

APPENDIX D (continued)

Goal	Strategy Number	Conservation Strategy	Comments
M.		Ensure that conservation activities of federal, state, county, municipal, and private (NGOs) lands affecting species of conservation concern are consistent with the NJ WAP.	
	M-1	The most current version of the WAP will be continually available for review on the DFW Website with an open invitation to submit comments.	<i>ENSP PRIORITY</i>
	M-2	Every five years, the Division of Fish and Wildlife's Endangered and Nongame Species Program will initiate review of the WAP beginning with Division and Department biologists in a process that includes DEP staff, the Advisory Committee, and a wildlife summit in which adaptive management will be built into the revision.	<i>ENSP PRIORITY</i>
	M-3	DFW will work with state and federal land managers to incorporate the goals and strategies of the NJ WAP into current management plans by the first formal review in 2011.	<i>ENSP PRIORITY</i>
	M-4	Dedicate one meeting of the Endangered and Nongame Species Advisory Committee (ENSAC) per year to reviewing the progress and soliciting input on the WAP.	<i>ENSP PRIORITY</i>
	M-5	Each revised WAP will be linked to the most current Landscape Project mapping and made available for interactive use.	
	M-6	Each revised WAP will include a revised listing of species of conservation concern, referencing the state lists of endangered, threatened and special concern wildlife, and those species recognized as high priority by regional conservation plans.	

New Jersey Wildlife Action Plan
Priority State-level Goals and Strategies

Below you will find thirteen priority state-level goals identified at the First Wildlife Action Plan Stakeholder Meeting held on February 23, 2006, and the associated priority conservation strategies identified at the Second Wildlife Action Plan Stakeholder Meeting held on April 6, 2006. The goals have been categorized by the main topic and, where appropriate, the sub-topic as identified within the New Jersey Wildlife Action Plan. The goals and associated priorities have been arranged in categories and key words and concepts appear in bold to provide focus for the array of New Jersey partners in conservation, land managers and stewards, outreach initiatives, and residents interested in managing their lands to support native wildlife.

All of the goals and strategies have integrated public education and outreach and are to be implemented with an active adapted management strategy. The New Jersey Division of Fish and Wildlife hopes to receive continual feedback on implementation successes and failures that our state can integrate into the Wildlife Action Plan and implementation process.

Addressing National, Inter-state, and Statewide Threats

Suburban sprawl and large-acre zoning

Goal: Identify and **protect** breeding, migration, wintering **habitats** and landscapes essential for long-term viability of wildlife and fish populations of species of conservation concern.

1. NJ Division of Fish and Wildlife (DFW) will lead in the training of municipal and county planners to use the Landscape Map to identify critical wildlife habitats for sensitive species and natural systems within their borders.
2. Increase the number of data sources to populate the Biotics database and work to improve data quality and to decrease the time necessary to review and input the data.
3. Use Landscape Project Mapping to create products that guide land management, habitat conservation, restoration, land acquisition and land planning at all levels of government and non-government organizations.
4. Mitigate impacts of existing development, particularly adjacent to open space, through non-regulatory measures, (e.g., create and restore habitat on private lands through landowner incentive programs, backyard habitat initiatives, keeping cats indoors).
5. Increase the effective size and connectivity of public lands through the Landowner Incentive Program and targeted land acquisition.
6. Refine Landscape Project Mapping by improving existing models as new information (on habitat typing and species requirements) becomes available, and creating new models that more accurately define habitats for those species lacking models.
7. DEP will encourage New Jersey counties and/or municipalities to develop Regional Habitat Conservation Plans within the next 5 years as part of their smart growth plan by collaborating in the development of planning documents and zoning ordinances

APPENDIX E (continued)

- that consider the larger landscape region. Various methods to achieve this include clustering development and in-fill development to maximize infrastructure, avoiding large-acre zoning, and minimizing fragmentation of habitat.
8. Work with Division of Land Use Regulation to strengthen and enforce existing regulations to prevent illegal stream cleaning or snag removal activities.
 9. Require that all lands purchased with Green Acres funds develop management plans consistent with the NJ Wildlife Action Plan.

Goal: Maintain **connectivity of habitats** at the landscape scale.

1. Develop smart-growth plans at the municipal and county level whereby development is clustered and in-fill development maximizes infrastructure efficiency and cost savings while minimizing loss of habitat with priority on counties not already included in other regional planning areas such as the Pinelands or Highlands. Create incentives to encourage inter-municipal planning.
2. DEP will create a staff within DEP to provide technical support to New Jersey counties and/or municipalities to develop wildlife conservation planning integrated with watershed planning and land use regulations, within the next 10 years, to benefit wildlife, habitat and the quality of life for New Jersey citizens. Prioritize in areas outside of regional planning areas of the Highlands and Pinelands.
3. Counties and municipalities should collaborate in developing master planning documents and ordinances that implement Habitat Conservation Plans.
4. Identify and prioritize, for Green Acres, the habitat corridors for acquisition or other preservation to decrease isolation of public natural lands.

Invasive Terrestrial and Aquatic Species and Exotic Pathogens

Goal: Identify, restore, and protect **unique ecosystem processes** including the control and/or removal of non-native invasive species, fire management, and delayed and alternate patch mowing.

1. Reduce regulatory impediments to restoration and enhancement activities.
2. Develop management techniques that can safely be used to mimic the historic role of fire in shaping ecosystems.
3. Increase the area of habitat enhanced by controlled burning techniques that mimic natural wildfires and support legislation to facilitate increased prescribed burning where appropriate.
4. Using a regional approach, identify and prioritize areas where ecosystem processes are threatened by invasive plants, organisms, and diseases; prioritize the threats relative to the vulnerability of affected wildlife and plant communities.
5. Reduce the area of phragmites and maintain native vegetation by restoring natural tidal flow in coastal wetlands.
6. Develop techniques to mimic or replace natural coastal sediment transport processes and integrate into implementation of beach replenishment and other shore protection projects.

APPENDIX E (continued)

7. Increase area and seral-stage range of successional habitats on managed lands where appropriate as indicated by the Landscape Project map.
8. Develop species- and habitat- specific “Best Management Practices” (BMPs) for management of various communities dependent upon disturbance.
9. Develop and recommend BMPs for use of biological control agents to reduce non-native or overabundant pests.

Goal: Reduce the adverse impacts of **non-native invasive species, subsidized predators, and over-abundant native species** on critical wildlife, natural communities, and habitat quality.

1. Create aggressive outreach programs for targeted groups (e.g. landscape designers, waterwatch groups, nurseries, etc) that reduce or eliminate the introduction and spread of invasive plants and animals.
2. Develop species- and habitat- specific “Best Management Practices” (BMPs) for controlling the most common and detrimental invasive species and incorporate that guidance into BMPs developed for other activities such as forestry, wildlife management, stream stabilization, dune stabilization, etc.
3. Educate the public about the negative impacts of free-roaming cats (“owned” and feral) on New Jersey’s native wildlife and encourage responsible cat ownership and care through public service announcements, brochures, public presentations, etc.
4. Collaborate with animal rights/welfare groups, local municipalities and conservation organizations to develop and implement model ordinances, policies and guidance documents to address the impacts of predators, including feral and free roaming cats, on native wildlife species, including:
 - a. A model ordinance for municipalities that elect to implement or allow TNR to attempt to reduce feral cat populations.
 - b. A guidance document/protocol for minimizing the impacts TNR on native wildlife.
 - c. A model ordinance for regulating feeding of wildlife.
 - d. A model pet licensing ordinance.
5. Identify areas where predation is significantly diminishing reproductive success of wildlife species of conservation concern and apply appropriate integrated predation management techniques.
6. Create and implement a system for reporting and qualifying new locations of priority invasive species.
7. Develop and support research to provide better information on the impacts of feral and free-roaming cats on native wildlife populations.
8. Create implementation plan for Invasive Species Task Force recommendations when completed.

Unsustainable Land Management Practices on both Private and Conserved Lands and Water

Goal: Encourage farmers, foresters and land stewards of private, local, state and federal lands to develop **habitat management plans** that enhance habitats for species of conservation concern and maintain or improve the ecological integrity of the natural community.

1. Increase staff in the NJ Habitat Incentive Team (NJ HIT) to educate and provide technical assistance for landowners enrolling in Landowner Incentive Programs.
2. Increase number of landowners through NJ HIT that conduct delayed mowing of hayfields and fallow fields until after most ground nesting birds have fledged at least one brood; leave a minimum of 20% of grass fields standing during winter for cover; and/or plant and maintain native warm season grasses.
3. Develop best-management practices (BMPs) or management prescriptions for species of conservation concern to reduce negative impacts of various land management practices such as forestry, agriculture, dune stabilization, stream stabilization, aquaculture, DOT mowing, etc.
4. Increase the number of Category 1 streams justified by E&T species data.
5. Dedicate staff in DFW to provide technical assistance to develop site-based management plans with forestry or wildlife production goals using the Landscape Project and principles of landscape ecology as foundation.

Direct Human Impacts on Native Wildlife and Ecosystem Health

Goal: Identify, protect and **minimize human disturbance** at sensitive locations (nests, hibernacula, breeding pools, critical concentration or feeding areas, etc.).

1. Create funding that will allow a minimum of one conservation officer for each landscape region dedicated to increase protection of sensitive habitats at risk from frequent human disturbance, collection/poaching, and at protective barriers such as gates restricting entry to bat hibernacula.
2. Design and implement protective measures to minimize deleterious impacts of direct human disturbance at osprey and colonial waterbird nest sites, shorebirds along Delaware Bay, rare reptile and amphibian denning, nesting/breeding, and gestation sites, and bat hibernacula.
3. Review all stream encroachment and other permit applications within the Division of Fish and Wildlife and apply restrictions on acoustic intrusions and other activities with deleterious effects on aquatic wildlife.
4. Investigate impacts of controlled water releases on aquatic organisms (e.g. freshwater mussels) through current and future research.

Development and Long-term Monitoring

Goal: Conduct **long-term monitoring** to evaluate **population viability** through statewide surveys and atlases; and the **effectiveness of protection and restoration** efforts of both wildlife and their habitats.

1. Maintain monitoring programs that collect data on species, suites of species and habitats statewide, including but not limited to the following:
 - o Breeding Bird Atlas
 - o Breeding Bird Survey
 - o Delaware Bay Migratory Shorebird Survey
 - o Bald Eagle Midwinter Survey
 - o Herptile Atlas
 - o Calling Amphibian Monitoring Program
 - o Fish Monitoring-Streams and Ponds
 - o Freshwater Mussel Atlas
 - o Mid-Winter Waterfowl Survey
 - o Atlantic Flyway Breeding Waterfowl Survey
 - o DFW Bobwhite Call-Count Survey
 - o Woodcock Call-Count Survey
 - o DFW Beaver-Otter Survey
 - o Migratory Game Bird Banding Programs
 - o Colonial Waterbird Survey
 - o Beach Nesting Bird Survey
 - o Site-specific Fish Monitoring Programs
2. Complete the Coordinated Bird Monitoring Plan to increase efficiency and effectiveness of regional and national bird surveys.
3. Develop GIS measures to evaluate the effectiveness of habitat conservation programs including acquisition, restoration, and connectivity.
4. Measure the enrollment acreage and effectiveness of backyard habitat mgmt.
5. Track the acreage and management of land enrolled in habitat enhancement programs administered by NJ HIT; monitoring each site and evaluate effectiveness of management technique.
6. Where appropriate, install and monitor fish ladders to assist passage of anadromous fish in areas with dams; colon prioritize by waterways with fish species of conservation concern.

High Deer Densities

Goal: Identify, maintain, and restore natural vegetative communities through sustainable, **area-specific deer densities**.

1. Conduct forest health surveys and use forest health indices as a main factor in developing deer management goals with priority areas being contiguous forest blocks on public and private lands within Skylands, Delaware Bay, Piedmont Plains, and Pinelands Landscape Regions.
2. Amend regulation or legislation to implement programs that support increased hunter access and hunting opportunities like reduction of safety zone for bow hunting, Sunday bow hunting, and providing economic incentives for hunters to spend more time in the field.

APPENDIX E (continued)

3. Institute measures to require addressing deer management for any property that receives state or federal funding. The land or agricultural management plans must include harvest quotas and mechanisms to insure implementation.
4. Fully fund the Hunters Helping the Hungry venison donation program, which allows hunters to donate venison to food kitchens. Many hunters are reluctant to harvest deer that would be wasted because they have no need of or an outlet for the venison. Full funding of this program will expand the program and help provide an incentive for hunters to continue harvesting deer and therefore help meet harvest quotas.
5. Expand the DFW community-based deer management program to work with private landowners and public land stewards to achieve deer densities compatible with the NJ Wildlife Action Plan's habitat management goals.
6. Develop and implement, through regulation or legislation, programs that require anyone receiving preferential tax treatment should be required to achieve deer management goals, including harvest quotas, in order to obtain farm tax assessment or to qualify for farmland preservation programs.

Contaminants

Goal: Restore and maintain wildlife and fish populations and critical habitats by eliminating or reducing **exposure to point and nonpoint source contamination**.

1. Reduce contaminants of concern (e.g., PCBs, DDT, mercury, petroleum products) to "No Adverse Effects" levels in areas where they are currently significantly affecting wildlife populations, such as the lower Delaware River, NY-NJ Harbor, and portions of the Atlantic coast.
2. Analyze tissues of raptors and waterbirds on a regular basis using 1) failed eggs, 2) nestling blood, 3) adults found dead, and 4) adults, where appropriate, to assess contaminant levels and determine causes of mortality and nest failures. Analyze tissues of actual or typical prey items in nest areas for contaminants to assess the level of contaminants and determine the threat within the food web; repeated measures may be used to indicate trend of contaminants in local prey.
3. Following the Meadowlands model, where contaminants are impacting wildlife populations and/or restoration efforts, develop working group of experts to, 1) identify data gaps, 2) design study methodologies to measure existing ecosystem effects on wildlife (food chain studies) and 3) post restoration/clean-up effects on wildlife populations.

Motorized Recreation Vehicles

Goal: Identify and actively **protect public natural lands and water** with wildlife species of conservation concern **from off-road vehicle and personal watercraft use**.

1. Identify areas where off-road vehicle (ORV) or personal watercraft (PWC) use occurs in critical wildlife habitats and direct law enforcement to concentrate on those areas to enforce seasonal restrictions and posted/restricted areas. Obtain additional funding for additional officers to assist with enforcement.

APPENDIX E (continued)

2. Investigate the impacts that personal watercraft and off-road vehicles have on those species whose breeding, roosting, haul-out, and migratory stopover areas' requirements make them vulnerable to injury, mortality or disturbance. Use Natural Resource Damage Assessment (NRDA) and economic methods to quantify benefits and losses relative to these resources and ORV/PWC damages.
3. Identify appropriate areas for establishing off-road vehicle use in accordance with local and/or regional Habitat Conservation Plans to minimize impact to important wildlife habitat. Concurrently, increase the legal and financial penalties for illegal off-road vehicle use.
4. Enact legislation to require registration of all all-terrain vehicles (ATVs) at time of purchase and annually thereafter.
5. Collaborate with off-road organizations and state and non-government agencies to address the problem of unlawful use of public and private natural lands by off-road vehicles. Develop and disseminate educational materials to all riders via registration, public areas and public service announcements, and investigate mentoring programs by off-road organizations.

Endangered, Threatened and Rare Wildlife

Goal: Restore populations of **endangered and threatened wildlife** to stable levels that allow their **delisting** through population management, protecting critical habitat, and habitat restoration and enhancement.

1. Develop recovery plans for species of greatest priority that are based on reliable assessment and monitoring of population levels and identification of limiting factors. Species recovery plans should establish clear and specific strategies for reducing threats and improving habitat conditions and lead to recovery and maintenance of populations at viable levels that complement complete, viable functioning ecosystems.
2. Reevaluate the status of listed and non-listed nongame wildlife every five years using the Delphi review process.
3. Conduct surveys to identify migratory corridors for bats, marine mammals, anadromous fish, lepidoptera, and odonata.

Migratory Stopover and Important Bird Areas Planning

Goal: Identify, monitor and **conserve, key migratory corridors and stopover locations** for migratory birds.

1. Conduct surveys of migrating passerines and raptors at major stopover areas, primarily the Cape May Peninsula, every five years.
2. Annually monitor shorebird populations along the Delaware Bayshore stopover.
3. Prioritize land acquisition, conservation easements, private landowner incentive programs, and mitigation funding, and develop management plans to conserve stopover habitat.
4. Identify a network of locations that will help sustain migratory bird populations by producing a set of recommendations for the conservation of Important Bird Areas (IBA) statewide.
5. Conduct studies and create models to identify migratory bird routes and assess the potential avian risks of wind turbines, tall buildings, radio towers and other "human-made" tall structures.

APPENDIX E (continued)

6. Conduct baseline surveys of other stopover areas such as Sandy Hook, Island Beach, and inland habitats important to migrating birds.

Review of Wildlife Action Plan

Goal: Ensure that conservation activities of federal, state, county, municipal, and private (non-government organizations') lands affecting species of conservation concern are **consistent** with the NJ Wildlife Action Plan.

1. The most current version of the WAP will be continually available for review on the DFW Website with an open invitation to submit comments.
2. Every five years, the Division of Fish and Wildlife's Endangered and Nongame Species Program will initiate review of the WAP beginning with Division and Department biologists in a process that includes DEP staff, the Advisory Committee, and a wildlife summit in which adaptive management will be built into the revision.
3. DFW will work with federal, state, county, municipal, and private (NGOs) land managers to incorporate the goals and strategies of the NJ WAP into current management plans by the first formal review in 2011.
4. Dedicate one meeting per year to reviewing the progress and soliciting input on the WAP, participants to include representatives of the Endangered and Nongame Species Advisory Committee (ENSAC), the Fish and Game Council and the Marine Fisheries Council.