Attachment G: Report on Skylands Regional Landscape Stakeholder Implementation Meeting (January 10, 2007)

Summary Report on the
Wildlife Action Plan
Skylands Implementation Meeting

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

January 2007

Executive Summary

In February 2006, the Conserve Wildlife Foundation of New Jersey, in partnership with the New Jersey Department of Environmental Protection's Division of Fish and Wildlife, convened over 40 stakeholders from organizations that focus on statewide issues. The first statewide stakeholders' meeting was held at Duke Farms in Hillsboro, New Jersey. Their role was to discuss and select priority state-level goals from those identified in the New Jersey Wildlife Action Plan. Stakeholders identified 13 priority state-level goals, which can be found in Attachment A.

The second statewide Wildlife Action Plan Stakeholder Meeting was held on Thursday, April 6, 2006, at Duke Farms. The primary goal of the meeting was to solicit stakeholder input into prioritizing state-level conservation strategies (actions) associated with the 13 priority state-level conservation goals identified at the first meeting. Participants from organizations that focus on statewide issues discussed and debated the state-level conservation strategies and provided their input on refining and prioritizing them. Seventy-two conservation strategies were selected as priorities. These can also be found in Attachment A.

On Wednesday, January 10, 2007, local stakeholders associated with the Skylands Regional Landscape convened for the Skylands Wildlife Action Plan Implementation Meeting held at the Pequest Trout Hatchery and Natural Resource Education Center in Oxford, New Jersey (Attachment B). This was the second of five regional landscape meetings to be held throughout the state. The goal of this meeting was to identify a set of priority conservation actions to drive implementation of the state's Wildlife Action Plan in the Skylands Regional Landscape.

Background

On January 10, 2007, the Conserve Wildlife Foundation of New Jersey (CWF) convened the Skylands Wildlife Action Plan Implementation Meeting in partnership with the New Jersey Department of Environmental Protection's (DEP) Division of Fish and Wildlife (DFW). The meeting was held at the Pequest Trout Hatchery and Natural Resource Education Center in Oxford, New Jersey.

The meeting was the second of five Wildlife Action Plan landscape-level prioritization meetings. The thirty-four (34) stakeholders who attended the meeting worked to identify a subset of fifty (50) priority conservation actions among the one hundred four (104) conservation actions* identified in Skylands portion of the New Jersey Wildlife Action Plan. These fifty (50) priority conservation actions will be used by the DFW and its conservation partners to guide conservation efforts and resources toward implementing the state's Wildlife Action Plan in the Skylands Regional Landscape.

The New Jersey Wildlife Action Plan (Plan) is a proactive plan to conserve wildlife species before they become more rare and more costly to protect. The multi-scale plan identifies threats, conservation goals, and conservation actions at the state, landscape (5 regions; ocean is currently part of the Atlantic Coastal Regional Landscape), and sub-regional levels (identified as conservation zones within New Jersey's Plan). New Jersey submitted its Plan to the U.S. Fish and Wildlife Service on October 1, 2005, submitted its revised plan on July 26, 2006, and received final approval from the Service in September 2006.

The New Jersey Wildlife Action Plan is a living document and will undergo periodic revisions per comments and recommendations received by the public, through the regional stakeholder meetings, and as part of the adaptive management strategy outlined within the Plan. Digital copies of the Plan are available at the Division of Fish and Wildlife's Web site: www.state.nj.us/dep/fgw/ensp/waphome.htm

Summary of Skylands Implementation Meeting

The objectives of the Skylands Implementation Meeting were to:

- Provide stakeholders with a review the Skylands Regional Landscape conservation goals and actions;
- Provide opportunity for stakeholders to discuss and seek clarification on priority conservation actions; and
- Seek stakeholder input on and identify fifty (50) specific and broad-based* priority conservation actions for the Skylands Regional Landscape.

**For the purpose of the prioritization exercise, conservation goals and conservation actions that were similar between conservation zones (sub-regional levels) were consolidated into one conservation goal or action. Such an action selected as a priority during the meeting would then affect all similar or related actions within the relevant conservation zones, making all of them priority actions.*

The Skylands Regional Landscape section of the New Jersey Wildlife Action Plan includes a number of goals, which focus on issues such as habitat conservation and protection, the conservation of populations of species of greatest conservation need, water quality, and public education and viewing opportunities. Each of the goals has a varying number of conservation actions associated with them that were developed to address the specific needs of each conservation zone (sub-regional level) within the Skylands Regional Landscape. The implementation meeting was designed to:

- Provide local leaders and stakeholders with background on the objectives of the Wildlife Action Plan and its implementation;
- Provide a foundation for potential partnerships to implement the Wildlife Action Plan; and
- Seek stakeholder input to determine priority conservation actions for the Skylands Regional Landscape.

In preparation for the working meeting, DFW's Endangered and Nongame Species Program (ENSP) staff reviewed the conservation actions associated with the Skylands Regional Landscape and indicated which actions the ENSP considered priorities. The invited stakeholders were asked to review *in advance* the goals and actions associated with the Skylands Region, as well as those actions pre-selected by the ENSP. The majority of the day was devoted to further discussion and clarification of conservation actions and final prioritization of the actions.

Introductory Sessions

Dave Jenkins, Chief of ENSP, welcomed stakeholders and provided attendees with background on the purpose of the New Jersey Wildlife Action Plan and its basis in the Landscape Project. Jenkins stated that the plan is designed to be a blueprint for wildlife conservation for the full array of traditional and non-traditional conservation partners in the state, and is not solely for the Division of Fish and Wildlife. His presentation focused on the conservation potential in New Jersey and he discussed the role and importance of partnerships in achieving conservation objectives in New Jersey.

The meeting began with a presentation by Christine Danis, Principal Planner for the New Jersey Highlands Council. Ms. Danis discussed the Highlands Regional Master Plan, for which the Council is accepting comments through March 2, 2007. The draft Regional Master Plan was released on November 30 for public comment. The Highlands Regional Master Plan is a comprehensive, science-based plan, designed to safeguard New Jersey's most significant source of drinking water.

Jessica Wilkinson, a senior policy analyst with the Environmental Law Institute, served as the facilitator, gave an overview of the meeting objectives and agenda, and asked

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each participant to introduce themselves.

Mick Valent, a principal zoologist with the ENSP responsible for the Skylands Regional Landscape, discussed the threats to the Skylands Landscape habitat and wildlife and DEP's role in conservation in the region.

Kris Schantz, a senior biologist with ENSP and coordinator of the New Jersey Wildlife Action Plan, gave a summary of the priority actions selected by the ENSP in advance of the meeting. She stated that for the Skylands Region, the plan includes 13 broad-based* conservation goals and 104 specific and broad-based* conservation actions associated with those goals.

Facilitated Discussion

The majority of the remainder of the day was devoted to a discussion of the conservation actions associated with each of the region's conservation goals. Wilkinson led the participants through a discussion of each of the goals in turn. She asked participants to offer their comments on which of the conservation actions they considered to be of particular importance and which they felt were of lesser importance. In addition, participants were able to seek clarification on any of the actions that were unclear and add back in for further consideration actions not identified by the ENSP as priorities.

After a thorough discussion of the actions associated with each goal, the participants were asked to select a predetermined number of conservation actions they considered the highest priority for implementation within that goal. The number of actions participants were asked to select for each goal are found in Chart 1 below. In addition, ENSP staff assured the stakeholders that the potential edits to the actions discussed at the meeting would be reviewed and incorporated where feasible, and the actions would be revised to include measurable outcomes. The results of the participants' selection and the original actions with notes of revisions incorporated into the Plan can be found in Attachment D.

**For the purpose of the prioritization exercise, conservation goals and conservation actions that were similar between conservation zones (sub-regional levels) were consolidated into one conservation goal or action. Such an action selected as a priority during the meeting would then affect all similar or related actions within the relevant conservation zones, making all of them priority actions.*

	Number of conservation actions per goal
Goal 1	9
Goal 2	2
Goal 3	3
Goal 4	5
Goal 5	11
Goal 6	n/a
Goal 7	2
Goal 8	4
Goal 9	2
Goal 10	2
Goal 11	2
Goal 12	1
Goal 13	6

Chart 1: Number of conservation actions participants were asked to select for each of the conservation goals.

Concluding Presentations

Kris Schantz gave a brief presentation on partnership ideas and ongoing projects. She requested that stakeholders submit a list of current and proposed projects for their organizations in an effort to develop future partnerships and work to integrate Plan objectives into projects throughout the region.

Dave Jenkins gave closing remarks and thanked the participants for their time and contributions. He informed participants that actions not selected as priority will remain in the Plan as an integral part of the Plan's success to achieve the desired objectives, but that the priority list helps provide guidance to our stakeholders when allocating limited resources for future conservation projects.

ATTACHMENTS:

A: Priority State-level Conservation Goals and Strategies (Actions)
B: List of Skylands Regional Landscape Invitees and Attendees
C: Skylands Wildlife Action Plan Stakeholder Meeting Final Agenda
D: Skylands Priority Conservation Actions & Action-related Comments per the Stakeholders' Meeting

Attachment A: Priority State-level Conservation Goals and Strategies (Actions)

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, Interstate, and Statewide Threats

Suburban sprawl and large-acre zoning

Goal: Identify and **protect** breeding, migration, and 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 collaborate with municipal and county planners 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 decrease the time necessary to review and input the data.
3. Use geographic information systems (GIS) to create map 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 when 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 existing Landscape Project species occurrence areas through research and, where lacking, develop new species occurrence areas as data on species requirements become available. Develop, review and improve species-habitat associations as new land use/land cover data become available.
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 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 internally 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.

7. Increase area and seral-stage range of successional habitats on managed lands where appropriate as indicated by GIS analysis.
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 trap, neuter, and release (TNR) programs 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.
    e. Mapping of colonies to evaluate impact on species of conservation concern.
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. Through surveys, increase the number of Category 1 streams justified by endangered and threatened species data.
5. Dedicate staff in DFW to provide technical assistance to develop site-based management plans with forestry or wildlife production goals using GIS and principles of landscape ecology as the 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, as well as 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 to determine 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 the 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 management.
5. Through GIS, track the acreage and management of land enrolled in habitat enhancement programs administered by NJ HIT; monitor each site and evaluate the effectiveness of the management technique.
6. Where appropriate, install and monitor fish ladders to assist passage of anadromous fish in areas with dams; 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.

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 based on land-management practices to achieve deer management goals, including harvest quotas, to qualify for farm tax assessment or 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) living 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 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 a 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) evaluate 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.

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, protection of 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 the 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 risks to avifauna from wind turbines, tall buildings, radio towers, and other "human-made" tall structures.
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 and utility companies) lands affecting species of conservation concern are **consistent** with the NJ Wildlife Action Plan (Plan).

1. The most current version of the Plan will be continually available for review on the Division of Fish and Wildlife's Web site 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 Plan beginning with Division and Department biologists in a process that includes DEP staff, the Endangered and Nongame Species Advisory Committee (ENSAC), 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 Plan 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 Plan, participants to include representatives of the ENSAC, the Fish and Game Council, and the Marine Fisheries Council.

Attachment B: List of Skylands Regional Landscape Invitees and Attendees

ATTACHMENT B

Skylands Regional Landscape Stakeholder Meeting: Wildlife Action Plan

List of Attendees

First name	Last name	Organization	Invited	Attended
Naomi	Avissar	NJDEP-Division of Fish and Wildlife, ENSP	X	X
Frank	Banisch	Banisch Associates	X	X
Sandy	Batty	ANJEC	X	
Barbara	Brummer	The Nature Conservancy	X	X
Janet	Bucknall	USDA APHIS Wildlife Services	X	X
Joanna	Burger	ENSP Advisory Committee	X	X
Kathleen	Caren	Passaic County Planning Dept.	X	X
Dave	Chanda	NJDEP-Division of Fish and Wildlife, Director	X	X
Tim	Cussen	NJDEP-Division of Fish and Wildlife, Law Enforcement	X	X
Christine	Danis	Highlands Council	X	X
Emile	DeVito	The NJ Conservation Foundation-Bamboo Brook	X	
Mandy	Dey	NJDEP-Division of Fish and Wildlife, ENSP	X	X
Donna	Drewes	Municipal Land Use Center	X	
Miriam	Dunne	NJDEP-Division of Fish and Wildlife, BLM	X	X
Susan	Elbin	Wildlife Trust	X	
Troy	Ettel	NJ Audubon Society	X	X
Ed	Henry	Wallkill River and Shawangunk Grasslands NWRs	X	X
Larry	Hilaire	National Park Service Delaware Water Gap National Recreation Area	X	X
George	Howard	NJ State Federation of Sportsmen's Clubs	X	
Dave	Jenkins	NJDEP-Division of Fish and Wildlife, ENSP, Acting Chief	X	X
Robert	Jennings	Morris County Park Commission	X	X
Elizabeth	Johnson	American Museum of Natural History	X	X
Patricia	Kallesser	Voorhees and Hacklebarney State Parks	X	X
Bill	Koch	Great Swamp NWR and Wallkill	X	X
Charles	Kontos		X	
Wayne	Martin	NJ Foresters	X	X
Bill	O'Hearn	NY-NJ Trails Conference	X	X
Eric	Olsen	The Nature Conservancy	X	X
Robert	Olsen	NJDEP-Division of Fish and Wildlife, BLM	X	X

First name	Last name	Organization	Invited	Attended
John	Parke	NJ Audubon Society	X	X
Sharon	Petzinger	NJDEP-Division of Fish and Wildlife, ENSP	X	X
Kris	Schantz	NJDEP-Division of Fish and Wildlife, ENSP	X	X
Jeff	Schreiner	National Park Service Delaware Water Gap National Recreation Area	X	X
Gregory	Sipple	Warren County Planning Department	X	
Dan	Stotts	USFWS	X	X
Donna	Traylor	Sussex Co. Planning Office	X	
Mick	Valent	NJDEP-Division of Fish and Wildlife, ENSP	X	X
Jessica	Wilkinson	Environmental Law Institute	X	X
Peter	Winkler	NJDEP-Division of Fish and Wildlife, ENSP	X	X
Patrick	Woerner	Conserve Wildlife Foundation of NJ	X	X
Brad	Yucius	NJDEP-Division of Fish and Wildlife, ENSP	X	X
Brian	Zarate	NJDEP-Division of Fish and Wildlife, ENSP	X	X

Attachment C: Skylands Wildlife Action Plan Stakeholder Meeting Final Agenda

ATTACHMENT C

CONSERVE WILDLIFE
FOUNDATION OF NEW JERSEY

Wildlife Action Plan
Skylands Landscape Implementation Meeting
Wednesday, January 10, 2007
9:00 a.m. to 4:30 p.m.

Meeting Objectives

- Review Skylands Landscape goals and conservation actions
- Provide opportunity for stakeholders to discuss and seek clarification on priority conservation actions
- Seek stakeholder input on selection of priority conservation actions

Meeting Agenda

8:30 - 9:00 a.m. Coffee

9:00 a.m. Welcome and Introduction to the New Jersey State Wildlife Action Plan
- Dave Jenkins, Chief, Endangered and Nongame Species Program Division of Fish and Wildlife, Department of Environmental Protection
- Questions and Answers (5 minutes)

9:35 a.m. Overview and Introductions
- Jessica Wilkinson, Environmental Law Institute

9:45 a.m. Threats to the Habitat and Wildlife of the Skylands Regional Landscape
- Mick Valent, Principal Zoologist, Endangered and Nongame Species Program

10:00 a.m Highlands Regional Master Plan
- Christine Danis, Principal Planner, NJ Highlands Council
- Questions and Answers (5 minutes)

10:20 a.m Summary of DFW-Selected High Priority Actions
- Kris Schantz, Senior Zoologist, Endangered and Nongame Species Program

10:30 a.m. Break

10:45 a.m. Facilitated Discussion of Priority Actions

12:00 – 1:00 pm Lunch

1:00 p.m. Facilitated Discussion of Priority Actions (continued)

2:50 p.m. Partnership Ideas and Ongoing Projects

- Kris Schantz, Senior Zoologist, Endangered and Nongame Species Program

3:00 p.m. Break

3:30 p.m Selection of Priority Actions

4:00 p.m. Wrap-Up & Next Steps

- Dave Jenkins, Chief, Endangered and Nongame Species Program Division of Fish and Wildlife, Department of Environmental Protection

Attachment D: Skylands Priority Conservation Actions
& Action-related Comments per the Stakeholders' Meeting

Goals (1-13)	Conservation Actions' Numbers		SKYLANDS Conservation Actions	Status per stakeholders' meeting	Edits made per comments and recommendations received at Stakeholders' meeting on January 10, 2007.
1	**Identify, restore, enhance and/or protect important habitats to maintain viable populations of endangered, threatened, and species of conservation concern.**				
	1a	**Forest**			
		1a-1	Use GIS measures, other remote-sensing tools, and surveys to identify critical core forests (forest area >90 meters from the forest edge) and maintain species information in the Biotics database. Preserve and protect core forests through: • Regulations, land acquisition, and incentive programs for forest-dependent breeding species: forest-interior passerines and bobcats (^{3} 10 hectares or 24.7 acres of core forest), forest raptors (^{3} 100 hectares or 247 acres of contiguous forest), timber rattlesnakes (if unknown foraging habitat, a minimum of 1 ½ mile radius surrounding known den locations or 4,521 acres), and Indiana bats (^{3} 6.8 hectares or 17 acres of contiguous forest) per the Forest Management Guidelines for Species of Conservation Concern in New Jersey. • Preservation efforts focused on area- and disturbance-sensitive breeding species in core forests located at least 2,500 meters from major highways. • Prevention of activities that cause permanent breaks in the forest canopy and lead to fragmentation (roads, development). • Identification of habitats adjacent to core forests that can be preserved and/or managed to increase the total size of forest habitat. • Collaboration with land managers, forest stewards, and private landowners to implement best management practices.	***PRIORITY***	Revision includes: 1) Added "develop and implement" best management practices to last bullet.
		1a-2	Use GIS measures and surveys to identify and assess core forested wetland and riparian/floodplain habitat for forest-dependent breeding species: forest raptors (red-shouldered hawk, northern goshawk, long-eared owl, barred owl), forest-interior songbirds (cerulean warbler, Louisiana waterthrush, Canada warbler, winter wren), bobcats, and Indiana bats. Take action to minimize habitat loss by restoring, enhancing and/or protecting habitat on public and private lands through programs such as fee purchases, conservation easements, landowner incentives, and/or forest management plans.	***PRIORITY***	Revision includes: 1) Revised "...forest management plans" to "…forest management and stewardship plans."
		1a-3	Increase the number of forests managed to contain a mix of seral (successional) stages to provide habitat for a wide range of forest-dwelling species (e.g. woodland raptors, timber rattlesnakes, cerulean warblers and ruffed grouse and woodcock) within large contiguous tracts while maintaining suitability for area-sensitive species per the Forest Management Guidelines for Nongame Species in New Jersey. • The primary goal being to maintain or manage for large areas of mature forests with large trees, 80% canopy cover, and dense stands of coniferous and mixed forest with high foliage density that is suitable for woodland nesting raptors (forest raptors). • Maintain and enhance floodplain and ridge-top forests for forest-interior passerines (old-growth forests with 65-85% canopy closure and structural diversity). • Selected areas of second-growth forested wetlands of moderate wildlife value should be allowed to mature into an old-growth condition to create future barred owl and shouldered hawk habitat. • Canopy of 10-50% should be maintain at known timber rattlesnake dens and basking areas; foraging areas >50% canopy.	***PRIORITY***	The greatest concern within this action pertained to the use of particular terms (e.g., old growth, mature forests) in relation to NJ's forest structure. Revisions to this action include: 1) First bulleted item, revised "..mature forest..." to "...mature and near mature forests..." and revised "...dense stands of coniferous and mixed forest with high foliage density..." to "...an uneven age structure..."; 2) Second bulleted item, revised "...(old-growth forests with 65-85% canopy...)" to "... managing for mature forests with 65-85% canopy...)"; 3) Third bulleted item, revised "...allowed to mature into an old-growth condition to create..." to "... allowed to mature to create ..."; 4) Fourth bulleted item, revisions addressed confusion regarding open areas within forests, added " (these limits are generally naturally-occurring due to rocky and talus substrates)" to the end of the statement; 5) Fifth bulleted item, revised "...old-growth forest stands..." to "...older forest stands..." An oversight in the February 16, 2007, version of the Wildlife Action Plan includes the fifth bulleted item showing the last phrase "…forest management plans," this will be revised to include "forest management and stewardship plans."
			• Take action to minimize loss of old-growth forest stands with large trees and large, contiguous tracts by protecting, maintaining, enhancing, and/or restoring habitat on public and private lands through programs such as fee purchases, conservation easements, landowner incentives, and/or forest management plans.		
		1a-4	Increase the effective size and connectivity of forests on permanently protected public lands and surrounding private lands through incentive programs and targeted land acquisition. Use GIS measures and surveys to identify important corridors that connect large, contiguous tracts of forest and target these areas for acquisition to maintain a system of large, connected tracts of forest within and between conservation zones. Where possible, enhance and restore forested habitat through afforestation and revegetation.	***PRIORITY***	

Goals (1-13)	Conservation Actions' Numbers		SKYLANDS Conservation Actions	Status per stakeholders' meeting	Edits made per comments and recommendations received at Stakeholders' meeting on January 10, 2007.
	1b	**Grassland and early-successional fields**			
		1b-1	Encourage landowners to delay mowing to allow grassland-dependent species to successfully breed through public education and incentive programs. Increase the number of acres converted from existing hay and/or row crops to warm season grass fields, where appropriate, using landowner incentive programs. Evaluate effectiveness of delayed mowing between warm season grass fields and cool season hay fields for grassland-dependent species including birds, invertebrates, reptiles, and amphibians. Research different management techniques to understand the appropriateness of prescribed burning, mowing, and other methods for maintaining suitable habitat for northeastern grassland birds and grassland dependent invertebrates.	***PRIORITY***	The greatest concern within this action pertained to the need for clarification of particular terms (e.g., early-successional grasslands, scrub-shrub) . To address this, the actions were not revised but rather descriptions were provided in the goal addressing such habitats. Revisions to this goal include adding the following descriptions: grassland (areas with >75 % herbaceous and <25% woody vegetation) and scrub-shrub habitats (areas with >25% woody vegetation <20 feet in height).
		1b-2	Use GIS measures and surveys to identify critical grassland and scrub/shrub habitats, assess their condition for nesting birds (grassland birds and woodcock), and maintain information. Identify protection (e.g., landowner incentives, farmland preservation, acquisition) and management (timing restrictions for mowing, cooperative agreements with utility companies for maintenance of rights-of-ways) strategies to maintain and enhance large existing core areas of grassland in perpetuity. Focus on habitat patches that can be managed to enhance the total size of suitable grassland habitat and create interspersed early-successional habitat.	***PRIORITY***	This action was divided into two separate actions, one focusing on core grasslands, the other on scrub-shrub habitats. An oversight in the February 16, 2007, version of the Wildlife Action Plan includes the continued exclusion of addressing other scrub-shrub species (e.g., butterflies, moths, odonates) other than birds. This will be corrected in the next version.
		1b-3	Increase the effective size and connectivity of grasslands on permanently protected public lands and surrounding private lands through incentive programs and targeted land acquisition. Use GIS measures and surveys to identify important corridors that connect large, contiguous tracts of grasslands and target these areas for acquisition to maintain a system of large, connected tracts of grasslands within and between conservation zones. Where possible, enhance and restore grassland habitat through revegetation and management practices such as prescribed burns and appropriate mowing strategies. Consolidate adjacent grassland fields, through the elimination of hedgerows, fences, or tree lines, in areas where open land occupies a considerable amount of the surrounding landscape and grassland management can be identified as a reasonable management alternative. Work with the NJ DEP, Green Acres Program and the Dept. of Agriculture to identify parcels for acquisition or purchase of development rights. Target 2,000 hectare (7.7 sq. mi.) regions.	***PRIORITY***	
		1b-4	Develop, implement and evaluate best management practices (BMPs), through wildlife and habitat surveys, for utility rights-of-way (ROWs) to reduce impacts of vegetation management practices on wildlife and enhance scrub-shrub habitat. Maintain existing grassland and scrub-shrub habitats and work to establish new grasslands or scrub/shrub habitats along utility-line rights-of-way.		
		1b-5	Use GIS measures and surveys to identify areas within or adjacent to large forest parcels that have the potential to provide habitat for early succession species such as the golden-winged warbler, woodcock and ruffed grouse while protecting the integrity of the forest for area-sensitive species. Manage areas within large forest parcels to provide and maintain early succession habitats.		The greatest concern within this action pertained to the need for clarification of early-successional habitats adjacent to forests . Revisions to address this include revising the action, changing "early-successional" to "scrub-shrub" and revising the goal to describe scrub-shrub habitat as "areas with >25% woody vegetation <20 feet in height)."
		1b-6	Work with Bureau of Land Management to identify appropriate sites on public lands to maintain and enhance grasslands. Establish mowing schedules, control exotic, invasive vegetation, and establish stands of native warm season grasses on 30 - 50 acres per year within the Landscape region.		
		1b-7	Develop best management practices to guide public and private land managers in maintaining and enhancing grassland and other early succession habitats.		The greatest concern within this action pertained to the need for clarification of particular terms (e.g., early-successional grasslands, scrub-shrub) . To address this, the action was revised changing "early-successional" to "early-successional (scrublands and shrublands)" and t goal was revised to include adding the following descriptions: grassland (areas with >75 % herbaceous and <25% woody vegetation) and scrub-shrub habitats (areas with >25% woody vegetation <20 feet in height).

Goals (1-13)	Conservation Actions' Numbers		SKYLANDS Conservation Actions	Status per stakeholders' meeting	Edits made per comments and recommendations received at Stakeholders' meeting on January 10, 2007.
	1c	**Aquatic, Wetland, riparian, and floodplain**			
		1c-1	Use GIS measures, other remote-sensing tools, and surveys to identify and best management practices to maintain wetlands with snags of dead trees for red-headed woodpeckers and other cavity-nesters.		
		1c-2	Perform QA/QC of the NJDEP - DFW, Bureau of Freshwater Fisheries' FishTrack Database and query the database to determine distributions of fishes identified as special concern by the Delphi process.		
		1c-3	Protect habitat for fish by plotting distributions of special concern fish species, and integrate those data into the Biotics database.		
		1c-4	Locate potential vernal pools through aerial imagery and surveys and integrate certified vernal pools into the DEP regulations database and Landscape Project.	***PRIORITY***	It was suggested that actions 1c-4 and 1c-5 are combined, however the two actions remain separate as one focuses on locating pools the other on identifying the threats to the pools.
		1c-5	Identify threats to vernal pools through systematic monitoring and devise strategies to protect vernal pool dependent species.		It was suggested that actions 1c-4 and 1c-5 are combined, however the two actions remain separate as one focuses on locating pools the other on identifying the threats to the pools.
		1c-6	Increase the effective size and connectivity of wetlands on permanently protected public lands and surrounding private lands through incentive programs and targeted land acquisition. Use GIS measures and surveys to identify important corridors that connect wetland habitats and target these areas for acquisition or work with public and private landowners to enhance and restore the corridors.	***PRIORITY***	Revision includes changing the statement, "…surrounding private lands through incentive programs and targeted land acquisition. " to "...surrounding private lands through incentive programs and targeted land acquisition through local land use policy and planning."
		1c-7	Reduce the impacts of mute swan herbivory to native vegetation in wetlands and managed impoundments. Mute swan populations should be reduced to the population objectives identified for New Jersey in the Atlantic Flyway Mute Swan Management Plan.		
		1c-8	Identify and implement actions to restore, maintain and/or protect riverine habitat, as appropriate, for target species. Actions can include acquisition, landowner incentives for protection and management, livestock fencing, no-mow riparian buffers, planting native vegetation in riparian zones to shade streams and control water temperatures.		Request to include incentive programs such as CREP and others, however this action is inclusive of all incentive programs and therefore, was not revised.
		1c-9	Increase populations of pied-billed grebes and American bitterns through freshwater wetland management such as creating impoundments, maintaining appropriate water levels, restricting recreational activities and monitoring contaminant levels.		
	1d		Refine existing Landscape Project species occurrence areas through research and, where lacking, develop new species occurrence areas as data on species requirements become available. Develop, review and improve species-habitat associations as new land use/land cover data become available.		The term "Species Occurrence Area" has been defined within the Wildlife Action Plan Appendix IV.
	1e		Use GIS measures, other remote-sensing tools, and surveys to identify critical habitats and assess their condition for bald eagle nesting and wintering populations. Develop specific protection strategies to address the threats (e.g., working with the National Park Service to limit recreational opportunities in areas near eagle nests, closing sections of river shoreline to foot traffic and seasonal trail closures).		
	1f		Protect wildlife species of special concern, especially slow moving terrestrial-bound species (e.g. reptiles, amphibians) and sensitive forest nesters (e.g. red-shouldered hawks, barred owls) by prohibiting off-road vehicles from all critical wildlife habitats, public and private conservation lan		Action addressed under "5o" below.
	1g		Enhance targeted habitats for cavity-nesters, forest passerines, freshwater wetland birds, grassland birds, scrub/shrub birds and woodland raptors through the use of best management practices.		
	1h		Use GIS measures, other remote-sensing tools, and surveys to identify important winter foraging sites for short-eared owls and northern harriers. Work with public and private landowners and managers to protect and maintain suitable wintering habitat through incentive programs, best management practices, and acquisition.		
	1i		Reclaim degraded habitats by working with land management agencies to determine the appropriate control methods for eliminating harmful, invasive, non-native vegetation. Restore native vegetation, especially in large wetland complexes throughout this region.		Revised to: "Reclaim degraded<u>rare species</u> habitats by working with land management agencies to determine the<u>appropriate actions needed to restore habitat values for the documented species. Appropriate actions might include the control of harmful, invasive, vegetation, restoring natural stream flows, re-vegetation with native plants or restoring habitat structure</u>."
	1J		Support programs, provide guidance and work with public and private landowners and managers to eliminate or control harmful, invasive, exotic vegetation in areas where it is presenting a threat to species of conservation concern.		

Goals (1-13)	Conservation Actions' Numbers	SKYLANDS Conservation Actions	Status per stakeholders' meeting	Edits made per comments and recommendations received at Stakeholders' meeting on January 10, 2007.
2	**Protect water quality and the availability of wetland habitats.**			
	2a	Maintain optimal biological buffers (300 meters) around wetlands, riparian and floodplain areas and minimize destruction per the Wetland Buffer Guidelines for Species of Conservation Concern in New Jersey. Encourage native plantings through public education, volunteer programs, and land managers to stabilize wetland buffers and stream banks and prevent erosion.	***PRIORITY***	The greatest concern within this action pertained to the lack of distinction between an optimal biological buffer of 300 meters versus regulatory buffers as it may conflict with Highlands recommendations and/or overlap areas where farmland lies within the 300 meters. However, the main point of this action is to stress the inefficiency of the current regulatory buffers to protect wetlands for wetland-dependent species. Therefore, the action has been revised from, "Maintain optimal biological buffers (300 meters) around wetlands,..." to "Maintain optimal biological buffers beyond regulatory requirements around wetlands,..."
	2b	Prevent runoff and sedimentation by maintaining riparian areas through stream bank restoration efforts.		
	2c	Protect water quality and aquatic-dependent species by appropriately designating Category 1 waters.	***PRIORITY***	
3	**Maintain ecological integrity of natural communities and regional biodiversity by controlling invasive species and overabundant wildlife.**			
	3a	Identify areas where invasive, non-indigenous plants and animals are either already established or are becoming established through GIS, surveys, public participation, and creating a system for reporting and qualifying new locations of invasive species. Prioritize areas for control measures according to the level of impact on the ecosystem.	***PRIORITY***	
	3b	Work with land management agencies to survey for and monitor the spread of invasive insect species that jeopardize forest health. The species of primary concern include the hemlock woolly adelgid, gypsy moth, and emerald ash borer. Research control options for these pests and use appropriate control methods to reduce tree damage and limit the spread of infestations.		
	3c	Work with public and private landowners and managers to employ appropriate physical, chemical or biological control measures, or a combination of these, to reduce invasive non-indigenous plants in areas that are identified as providing critical habitat for endangered, threatened, or priority wildlife species and are being threatened by invasive non-indigenous plants.	***PRIORITY***	
	3d	Monitor forest regeneration via a system of exclosures and vegetative sample plots throughout critical habitats on state lands to evaluate habitat health in response to changing deer densities. The NJ Division of Fish and Wildlife, Bureau of Wildlife Management will apply these data in making deer management decisions regarding appropriate seasonal harvest limits. Develop area-specific deer density or percent-reduction targets to reduce herd size to a sustainable level where regeneration of native vegetative communities is possible.	***PRIORITY***	
	3e	Work with the Bureau of Wildlife Management to identify areas (primarily refuge areas where hunting is prohibited) where deer densities exist at unhealthy levels and develop a strategy to reduce deer numbers and maintain them at acceptable levels that encourage natural forest regeneration.		
	3f	Where appropriate, continue to develop and expand incentives for harvesting antlerless deer (e.g. “earn-a-buck”).		
4	**Inventory, determine distribution, and monitor all endangered, threatened, special concern wildlife and fish species.**			
	4a	Use the Biotics database and Landscape Project to identify where species data and monitoring gaps exist. Design and implement coordinated surveys to acquire data in those areas.	***PRIORITY***	An oversight in the February 16, 2007, version of the Wildlife Action Plan, this action was not revised. The next version will be revised to, "Use the Biotics database and Landscape Project to identify where species location data and monitoring gaps exist. Design and implement coordinated presence/absence surveys and monitoring to acquire data in those areas. "
	4b	Conduct concentrated field sampling for listed or special concern fish species in areas indicated by Fish Track database queries and incorporate data into the Biotics database.	***PRIORITY***	
	4c	Identify and research water quality parameters for spotted turtles, Fowler’s toads, Jefferson salamanders, marbled salamanders, northern spring salamanders, dwarf wedgemussels, brook floaters, creepers, eastern lampmussels, triangle floaters, and nongame fish. Assess impacts and incorporate into BMPs.		Action 4c and 4e listed different species. These actions have been revised to include a consolidated, inclusive list of species.
	4d	Systematically survey the Skylands Regional Landscape for all endangered and threatened species and selected species of special concern to determine and track population and habitat trend data (e.g. woodland raptors to be surveyed every four years) in comparison to land use changes and alteration of habitat through long-term sampling and surveys.	***PRIORITY***	
	4e	Research and evaluate effectiveness of water quality management practices on freshwater wetland birds, bog turtles, wild coldwater fisheries and aquatic invertebrates, particularly those practices associated with permitting or mitigation actions, and revise management actions where appropriate.	***PRIORITY***	Action 4c and 4e listed different species. These actions have been revised to include a consolidated list of species.
	4f	Conduct mid-winter and breeding waterfowl surveys annually to monitor population trends.		

Goals (1-13)	Conservation Actions' Numbers	SKYLANDS Conservation Actions	Status per stakeholders' meeting	Edits made per comments and recommendations received at Stakeholders' meeting on January 10, 2007.
	4g	Conduct surveys in suitable, previously un-surveyed areas to determine if listed or special concern freshwater mussel species are present. Repeat surveys every four years to monitor populations. Incorporate freshwater mussel survey results into the Biotics database and determine critical areas for listed species.	***PRIORITY***	
	4h	Conduct surveys to find more information about species and management requirements for secretive marsh nesting birds.		
	4i	Use GIS measures, other remote-sensing tools, and surveys to determine home range territories and habitat use for bobcats and wood turtles, and to identify important travel corridors and to identify critical habitats for dwarf wedgemussels and other special concern mollusks, wood turtles, special concern reptiles and amphibians, nongame fishes, silver-bordered fritillaries and special concern damselflies and dragonflies and assess their condition for maintaining populations. Work with the Bureau of Freshwater fisheries to identify critical nongame fish and native trout habitat. Use the new data to refine species occurrence areas and integrate into the Biotics database.	***PRIORITY***	
	4j	Develop and conduct nighttime surveys to inventory nightjars (whip-poor-wills, chuck-will's-widows, common nighthawks), northern saw-whet owls and eastern screech-owls.		
5	**Prevent, stabilize and/or reverse declines of endangered, threatened, and special concern species.**			
	5a	Research effects of parasites and diseases on on special concern fish species' populations.		
	5b	Collaborate with DOTs, NGOs, and volunteers to identify areas with known wildlife mortality issues including road crossings for breeding amphibians and roads with high incidences of road mortality (snakes, turtles, large mammals).	***PRIORITY***	Request to combine 5b and 5h was denied as 5b focuses on research to identify sites where crossings occur and 5h focuses on management and protective strategies for identified sites.
	5c	Locate Identify critical hibernating, gestating, and basking habitats for timber rattlesnakes along the Kittatinny Ridge through GIS measures, other remote-sensing tools, and surveys. Develop protection strategies to minimize human disturbance and illegal collecting at these sites. Work with public land managers to minimize recreational activities in critical areas. Enlist assistance from state and federal law enforcement personnel to monitor vulnerable areas**ALSO, a similar action:** Maintain and enhance reptile and amphibian populations, particularly those that are endangered because of illegal collection for the pet trade (wood and bog turtles) and those populations most susceptible to road mortality (known box turtle breeding locations near roads and amphibian breeding migration corridors).	***PRIORITY***	
	5d	Compile better life history information on urban species, such as kinds of nest predators and levels of nest depredation, breeding longevity and reproductive effort over time, characteristics of preferred nesting requirements, fidelity to breeding and wintering sites, and better assessment of migration routes and destinations.		
	5e	Develop and implement management actions to enhance populations of special concern and rare fish.	***PRIORITY***	
	5f	Prevent fish declines by utilizing the Delphi process initiated by the Division of Fish and Wildlife in 2003 to determine fish species that may warrant "special concern status."		
	5g	Actively protect, monitor, and manage bald eagle nests and foraging areas, including posting signs in waterways to prevent disturbance by recreational activity and cooperation with private landowners. Continue to monitor reproductive success of eagles.		
	5h	Work with DOTs and other appropriate federal, state, and local agencies to increase the number of sites where road crossing are improved to maintain and avoid disturbance to the natural streambeds and riparian habitat, to permit high volumes of water to flow freely, and to provide adequate travel corridors for terrestrial wildlife, while maintain stream flow for fish passage. Bridges that span rivers and streambeds and include floodplain habitat on either side of the span to provide travel corridors for terrestrial wildlife are preferred over culverts.	***PRIORITY***	Request to combine 5b and 5h was denied as 5b focuses on research to identify sites where crossings occur and 5h focuses on management and protective strategies for identified sites.
	5i	Investigate causes of decline and develop models based on habitat requirements of American kestrel and barn owl; identify most effective methods to restore and enhance habitat and provide nest cavities (standing dead biomass and nest boxes).		
	5j	DEP to work with partners in conservation to establish a policy to control damage to native wildlife populations resulting from feral and free-ranging domestic cats on public lands.	***PRIORITY***	
	5k	Research the intensity and characteristics of threats to wildlife species of conservation concern and their habitats, including the causes and effects of habitat loss and degradation, edge, disturbance, predation, disease, food availability, contaminants, water quality, invasive plants, and hybridization. Identify groundwater recharge areas for blue-spotted salamander breeding sites and incorporate the sites into the Biotics database.	***PRIORITY***	

Goals (1-13)	Conservation Actions' Numbers	SKYLANDS Conservation Actions	Status per stakeholders' meeting	Edits made per comments and recommendations received at Stakeholders' meeting on January 10, 2007.
	5L	Protect species of greatest conservation need from exotic pathogen introduction or incident through rapid response; DFW to give priority attention to these species in planning or implementing a response.	***PRIORITY***	
	5m	Research the habitat requirements for forest passerines and woodland raptors, timber rattlesnakes, bobcats, and Indiana bats, when appropriate. Research and experimentally implement planned silviculture practices to develop guidance for enhancing forests for these species and species suites.	***PRIORITY***	
	5n	Develop research proposal to investigate the impact of land use patterns on woodland raptors and rare reptiles and amphibians.		
	5o	Protect wildlife species of special concern, especially slow moving terrestrial-bound species (e.g. reptiles, amphibians) and sensitive forest nesters (e.g. red-shouldered hawks, barred owls) by prohibiting off-road vehicles from all critical wildlife habitats, public and private conservation lands.		Revision includes changing statement, "...public and private conservation lands." to "...public and private conservation lands by working with law enforcement agencies and implementing other means as they are developed."
	5p	Work with public and private landowners and managers with significant bog turtle, timber rattlesnake, northern copperheads, wood turtle, cavity-nester, freshwater wetland bird, grassland bird, woodland raptor, interior-forest bird and scrub-shrub/open field bird populations to enhance targeted wildlife habitat through the implementation of best management practices and incentive programs.	***PRIORITY***	
	5q	Use GIS measures, other remote-sensing tools, and surveys to identify critical habitat for Mitchell's satyr and silver-bordered fritillaries and manage for the proliferation of host vegetation and to retard succession where appropriate.		
	5r	Use GIS measures, other remote-sensing tools, and surveys to identify, and best management practices to maintain, enhance, and/or protect critical habitats for dwarf wedgemussels, brook floaters, and creepers, wood turtles, northern harriers, and barred owlsand assess their condition for maintaining populations. Develop protection strategies to maintain and enhance populations and habitat (e.g., innovative public and private partnerships, provide private landowner incentives and develop cooperative agreements to protect and manage habitat).	***PRIORITY***	
	5s	Assess specific threats to dwarf wedgemussel, brook floater and creeper, wood turtle, special concern reptiles and amphibians, nongame fishes, silver-bordered fritillaries and special concern damselflies and dragonflies. Work with public and private landowners and managers to protect, maintain, enhance, and restore habitat, as appropriate, through acquisition of, restoration of, and incentive programs focused on riparian habitats to maintain water quality and reduce siltation.	***PRIORITY***	
	5t	Research the intensity and characteristics of threats to wildlife species of conservation concern and their habitats, including the causes and effects of habitat loss and degradation, edge, disturbance, predation, disease, food availability, contaminants, water quality, invasive plants, and hybridization.		This action was repeated In this worksheet…deleted from here, see 5k.
	5u	Develop habitat conservation goals that will meet the recovery needs of endangered and threatened wildlife populations that depend on forest habitats. These include guidelines for forest silviculture on public and private lands to enhance forest maturity and canopy, and replanting to reduce fragmentation.	***PRIORITY***	
	5v	Trap and relocate beaver when their dams threaten bog turtle and/or rare plant populations.		
	5w	Use GIS measures, other remote-sensing tools, and surveys to identify critical wetland habitats and assess their suitability for bog turtles and/or other wetland dependent species. Maintain, enhance, and restore populations through habitat protection, management and maintaining appropriate water levels and buffers, as appropriate, such as innovative public and private partnerships, incentive programs, and cooperative agreements to protect and manage habitat. Additional actions can include fencing and grazing, maintaining protective buffers, eliminating invasive, non-native vegetation and controlling water levels in impoundments.	***PRIORITY***	
	5x	Use GIS measures, other remote-sensing tools, and surveys to identify critical habitats and assess their condition for breeding, migratory, and wintering waterfowl populations. Maintain, protect, enhance, and restore these sites, as appropriate, through acquisition, incentive programs, and best management practices.		
6	**Assess large-scale habitat change (every five to 10 years).**			
	6a	Collaborate with NJ DEP's Bureau of Geographic Information and Analysis and Rutgers Center for Remote Sensing and Spatial Analysis to develop methods to update DEP's land use/land cover data every five years and perform critical habitat change analysis to assess trend in habitat loss and conversion.	***PRIORITY***	

Goals (1-13)	Conservation Actions' Numbers	SKYLANDS Conservation Actions	Status per stakeholders' meeting	Edits made per comments and recommendations received at Stakeholders' meeting on January 10, 2007.
7	**Protect and enhance important and unique natural communities.**			
	7a	Federal, state, and local agencies to cooperatively map significant natural communities.	***PRIORITY***	Revised from "...to cooperatively map…" to "...will work with the NJ DEP, Natural Heritage Program to cooperatively map…"
	7b	Federal and state agencies, non-government organizations, and private landowners to maintain and protect habitat through best management practices, incentive programs, and land acquisition (where appropriate) for the following: suitable habitat for area-sensitive species within the Delaware Water Gap National Recreation Area, Stokes State Forest, High Point State Park, Worthington State Forest, and adjacent wildlife management areas, critical bog turtle sites on public and private lands within the Wallkill National Wildlife Refuge and Wallkill River Watershed, to protect and enhance the unique natural communities that support endangered species and species of conservation concern at White Lake and the Johnsonburg Preserve, and private lands adjacent to the Alpha grasslands to be managed for grassland species effectively increasing the size of suitable habitat.	***PRIORITY***	
	7c	Identify (through Landscape Project, radar studies, IBAs, and surveys), protect (through incentive programs and land acquisition), and enhance (through incentive programs and best management practices) critical migratory stopover habitats such as Bull's Island State Park and the Delaware River Floodplain Forests, Delaware Water Gap National Recreation Ar Stokes State Forest, High Point State Park, Worthington State Forest, and adjacent wildlife management areas, Wallkill National Wildlife Refuge and Wallkill River Watershed, Black River WMA and Round Valley Reservoir, Great Piece Meadows, Bog & Vly Meadows, and Troy Meadows, and other "oases" in urban and suburban areas.		
	7d	Work with local governments and NJ DEP's Natural Heritage Program (NHP) to protect and enhance endangered plant communities and the following through incentive programs, land acquisition, best management practices, and increased law enforcement to minimize disturbance in sensitive areas (where appropriate): the high quality floodplain forest natural community at the Bull's Island State Park and the Delaware River Floodplain Forests, Great Piece Meadows, Bog & Vly Meadows, and Troy Meadows, the large wetland complex of the Wallkill National Wildlife Refuge, Wallkill River Watershed, White Lake, Johnsonburg Preserve, and Black River Wildlife Management Area (and Great Piece Meadows, Bog & Vly Meadows), the forests and unique talus habitats in Ringwood State Park and surrounding areas and the Picatinny Arsenal.		
8	**Identify and protect summer habitat for Indiana bats and other forest-dwelling bat species.**			
	8a	Conduct statewide sampling to determine distribution, range, and habitat use of summer bats.		
	8b	Continue volunteer-based summer bat concentration surveys to locate important maternity sites and determine roost characteristics. Trap bats at summer concentration sites to identify bat species; apply colored, plastic bands to Indiana bats to aid in recognition during hibernation surveys.		
	8c	Conduct telemetries study during summer months to determine roost characteristics and habitat requirements for Indiana bat maternity colonies; and during spring emergence from hibernacula to determine dispersal distances, roost characteristics, and travel corridors of Indiana bats.		
	8d	Evaluate and assess impacts of wind turbines to populations of bats.		
	8e	Develop a GIS model of Indiana bat habitat to incorporate into the Biotics database. Identify appropriate protection strategies to maintain and enhance habitat (landowner incentives for protecting summer habitat, public education regarding importance of bat conservation, development of best management practices).		
	8f	Develop Indiana bat recovery plan in accordance with federal guidelines and strategies set forth in the USFWS Indiana Bat Recovery Plan (U.S. Fish and Wildlife Service, 1999).		
	8g	Trap Indiana bats during spring emergence from hibernacula and apply colored, plastic bands to aid in recovery efforts during summer concentration surveys.		
9	**Identify and protect hibernation sites for Indiana bat and other winter resident bat species within New Jersey**			
	9a	Survey abandoned mines, caves, and railroad tunnels and determine their suitability as winter roost sites; sites where bats are observed will be incorporated into the Biotics database. Recruit private and public land managers to protect active hibernacula from human disturbance.	***PRIORITY***	
	9b	Decrease or eliminate human disturbance and vandalism at hibernacula through increased patrols by the Bureau of Law Enforcement.		

Goals (1-13)	Conservation Actions' Numbers	SKYLANDS Conservation Actions	Status per stakeholders' meeting	Edits made per comments and recommendations received at Stakeholders' meeting on January 10, 2007.
	9c	Identify and implement appropriate protection strategies to maintain and enhance habitat (e.g., working with recreational groups to limit cave and mine access to summer months, landowner incentives for protecting winter habitat) including the installation of bat-friendly gates on important bat winter roost sites to prevent human disturbance. Assess the nee stabilization and gating of important bat hibernacula to ensure structural soundness and prevent human disturbance. Install data loggers in important hibernacula to monitor internal conditions and to evaluate the impacts of the gating structures on those conditions.	***PRIORITY***	
	9d	Identify and protect critical staging habitat surrounding known hibernacula.		
10	**Protect, enhance, and restore coldwater fish habitat and ecosystems. ---HABITAT FOCUS**			
	10a	Use GIS measures and surveys to identify critical habitats for freshwater nongame fish and native, wild trout and assess their condition for maintaining populations.	***PRIORITY***	
	10b	Monitor changes in water quality and assess the impacts to the native trout populations on specific waterways where native, wild, summer trout habitat may be in jeopardy due to declining water quality.		An oversight in the February 16, 2007, version of the Wildlife Action Plan, this action was not revised. The next version will be revise to, "Monitor changes in water quality and assess the impacts to the native trout populations on specific waterways where native wild trout habitat may be in jeopardy due to declining water quality attributable to human impacts."
	10c	Develop and implement habitat improvement and restoration programs for coldwater fish species' habitats and ecosystems.	***PRIORITY***	
11	**Conserve and enhance native, wild trout populations at optimal levels. ---POPULATION FOCUS**			
	11a	Systematically monitor native, wild trout populations to revise management strategies when appropriate, aid in the identification of resource problems and issues, and demonstrate agency commitment to the management of aquatic resources.	***PRIORITY***	
	11b	Work with fisheries biologists and managers to evaluate current management practices that may negatively impact native, wild trout populations and revise management practices where appropriate to reverse declines or increase populations.		
	11c	Develop population management strategies to assure the protection of NJ's wild coldwater fisheries.	***PRIORITY***	Request to combine 11c and 11d denied as 11c focuses on management strategies and 11d focuses on protection through law enforcement.
	11d	Protect native, wild trout populations by increasing the enforcement of established fishing regulations.		Request to combine 11c and 11d denied as 11c focuses on management strategies and 11d focuses on protection through law enforcement.
12	**Prevent illegal collection of rare reptiles and amphibian.**			
	12a	ENSP biologists will be responsible for notifying the NJ Division of Fish and Wildlife's Bureau of Law Enforcement of critical sites (nesting, basking, gestation, dens) to implement stringent enforcement of endangered species laws, including protection of wildlife from illegal collection (including bog and wood turtles), persecution (timber rattlesnake), and human disturbance (off-road-vehicles).		
	12b	Recruit and educate local law enforcement on endangered species laws by developing and hosting a training seminar. Develop a partnership between local law enforcement, USFWS Special Agents, and the NJ Division of Fish and Wildlife's Bureau of Law Enforcement to enforce protection of native wildlife from illegal collection (including bog and wood turtles), persecution (timber rattlesnakes), and human disturbance.	***PRIORITY***	
13	**Promote public education, awareness, wildlife conservation, and participation in habitat restoration efforts on private land.**			
	13a	Educate homeowners, through newsletters, press releases, brochures, presentations, etc., on the proper eviction of house-dwelling bat populations and the importance of providing alternative roosting structures for maternity colonies.	***PRIORITY***	
	13b	Develop brochures and posters regarding the most aggressive, invasive non-indigenous plants to educate and involve the public in detecting problem areas early while they are still manageable. Early recognition of the establishment of new populations is the key to successful control.		
	13c	Preventing establishment of non-indigenous species is the simplest and most cost-effective means of stopping invasions. Encourage native plant use in landscaping through public awareness and discouraging sales of non-native ornamental plants which are often landscaping companies as introduced ornamental plants are a major source of non-indigenous spe that invade natural plant communities.	***PRIORITY***	Request to include action to support new regulations that prohibit the sale of non-native, invasive plants. This request is considered a st level issue and therefore, will be considered for integration into the state-level portion of the Wildlife Action Plan. Currently, an action within the state-level section addresses legislation to regulate the sale of invasive plants for ornamental or restoration use, but does not target non-native species in particular.

Goals (1-13)	Conservation Actions' Numbers	SKYLANDS Conservation Actions	Status per stakeholders' meeting	Edits made per comments and recommendations received at Stakeholders' meeting on January 10, 2007.
	13d	Develop and maintain educational brochures and posters and viewing opportunities for the public consistent with species recovery goals to enhance public awareness of wildlife conservation and environmental issues by cooperating with federal, state and non-governmental organization partners.		Revised from "…with federal, state and non-governmental organization…" to "...with federal, state, local, and non-governmental organization…"
	13e	Educate public about the importance of keeping cats indoors through newsletters, press releases, brochures, presentations, etc; work to develop a statewide policy for local communi to discourage managed cat colonies and trap, neuter and release programs; encourage academic research to evaluate impacts and success (i.e., reduction of cats over time) of existing managed cat colonies.	***PRIORITY***	
	13f	Develop brochures and posters to educate the public and increase awareness of New Jersey's indigenous nongame and coldwater fish species.		
	13g	Engage landowners and NJ citizens in protection and survey efforts for endangered species by increasing enrollment in landowner incentives, forest stewardship, backyard habitat management, and Citizen Science Program.	***PRIORITY***	
	13h	Educate homeowners about habitat requirements of chimney swifts and discourage use of chimney caps where possible.		Revised to: "Educate homeowners about habitat requirements of chimney swifts and discourage use of chimney caps where possible (e.g. abandoned and unused chimneys) and prudent (for human and animal safety)".
	13i	Develop a field guide to NJ's freshwater mussel species to assist in promoting public education and increase awareness of New Jersey's native freshwater mussel fauna.	***PRIORITY***	
	13j	Develop brochures and posters about management practices for the public and for private landowners with significant bog turtle, wood turtle, cavity-nester, grassland bird, forest passerine, woodland raptor, scrub-shrub/open field bird populations.		
	13k	Develop educational programs, brochures and posters for the public regarding tolerance and protection of timber rattlesnakes and their habitat.	***PRIORITY***	