APPENDIX 4: COMPILATION AND PRIORITIZATION OF CONSERVATION ACTIONS AND THREATS FROM EXISTING STATE, REGIONAL, NATIONAL AND INTERNATIONAL CONSERVATION PLANS

This appendix lists conservation actions identified in existing, local, state, national, and international conservation plans compiled from extensive research. It also lists the major threats identified in these plans and sources of information pertaining to those threats. This list represents the original compilation that was used as a starting point and foundation from which the DEEP BNR and its partners began their prioritization process. The "Source" column indicates the origin of the recommended action. Actions were linked to threats identified in these plans. The WAP uses the IUCN categories of threats (Salafsky et al. 2008) as recommended by the Northeast Lexicon and Synthesis (Crisfield and NEFWDTC 2013; TCI and NEFWDTC 2013). This compilation documents the prioritization process for all conservation actions. The Actions considered of highest priority also have associated Measures for monitoring success. Regardless of final ranking, all are retained in this compilation and will serve as a clearinghouse for reference, updates, and revisions. This appendix addresses Elements 4 and 5.

Key to Type of Threats Addressed

1 = Residential and Commercial Development

2 = Agriculture and Aquaculture

3 = Energy Production and Mining

4 = Transportation and Service Corridors

5 = Biological Resource Use

6 = Human Intrusions and Disturbance

7 = Natural Systems Modifications

8 = Invasive and Other Problematic Species, Genes and Diseases

9 = Pollution

10 = Geological Events

11 = Climate Change and Severe Weather

12 = Resource Management Needs

13 = Recreation Needs

14 = Education / Outreach Needs

15 = Administrative Needs

Category	Conservation Action	Source	Threats Addressed
	Increase capacity to create, maintain, and enhance key habitats on state lands. Measure: Number of successful capacity building efforts developed; number of habitat acres created, conserved or enhanced.	Staff	5,7,12,15

Category	Conservation Action	Source	Threats Addressed
Administration	Expand tax incentives under the open space section of P. A. 490 (taxation and preservation of farms, forest, and open space) to foster conservation of key habitats that do not meet current forest standards. Measure: Number of tax incentives created or regulations promulgated for key habitats; number of stakeholders and key partners using created tax incentives conserve key habitats.	Staff	1,4,15
Administration	Participate in regional conservation efforts, especially Regional Conservation Need priorities, for Regional Species of Greatest Conservation Need and Connecticut GCN species. Measure: Number of regional conservation efforts participated in.	Revised 2005 WAP Action	12
Administration	Coordinate efforts regionally and with key partners to address emerging issues that may adversely affect wildlife and habitats especially regional conservation need priorities and regional species of greatest conservation concern. Measure: Number of regional conservation efforts participated in to address emerging issues.	Staff	15
Administration	Coordinate efforts among DEEP Divisions, local governments and other stakeholders to protect key aquatic habitats from over-allocation of surface and ground water. Measure: Number of key aquatic habitats protected from over-allocation of surface and groundwater resources.	2005 WAP Action.	14,15
Administration	Develop incentives for towns to conserve key habitats. Measure: Number of incentives developed for towns to facilitate conservation of key habitats.	Public, Stakeholders, and NGOs	1,3,4
Administration	Protect water quality and the seabed from impacts of dredging and sediment removal and replacement through coordination with DEEP Branch of Environmental Quality, Department of Agriculture, Bureau of Aquaculture and municipalities. Measure: Number of impacts from dredging and sediment removal and replacement that are minimized.	2005 WAP Action	7,14,15

Category	Conservation Action	Source	Threats Addressed
Administration	Develop a stable, sustainable funding source to implement conservation efforts that benefit the full array of fish and wildlife. Measure: A sustainable funding source(s) developed to address conservation needs for all wildlife species and their habitats; number of conservation needs addressed using a sustainable funding source.	Staff	15
Administration	Develop a funding source to implement measures to mitigate the effects of climate change on GCN species and their habitats.	Staff	11,15
Administration	Develop reliable, long-term funding for an Invasive Plant Coordinator.	Staff	8,15
Administration	Develop dedicated funding for a resource biologist position.	Staff	15
Administration	Develop dedicated funding for a stewardship position to assist with technical assistance.	Staff	15
Administration	Establish funding to hire a DEEP wildlife climate change coordinator to address the issues and implement strategies relating to climate change.	Staff	15
Administration	Develop partnerships (e.g., DEEP divisions, NGOs, local governments) and encourage cooperation among agencies to protect head-of-tide locations that are relatively non-degraded through acquisition and appropriate management.	2005 WAP Action	12
Administration	Staffing structure appropriate to position	Staff	15
Administration	Coordinate fishing regulations between NY - MA - CT- RI.	Public, Stakeholders, and NGOs	5
Administration	Combine early-successional and grassland/shrubland bird actions	Staff	12
Data Collection and Analysis	Conduct surveys of declining GCN species. Measure: Number of surveys conducted of declining GCN species; number of surveyors conducting surveys of declining GCN species.	Staff	12
Data Collection and Analysis	Locate, map and protect surface springs, seeps, coldwater streams and thermal refuges for GCN species. Measure: Number of surface springs, seeps, coldwater streams and thermal refuges identified, mapped and protected.	2005 WAP Action	12

Category	Conservation Action	Source	Threats Addressed
Data Collection and Analysis	Investigate the effects and impacts of climate change on GCN species. Measure: Number of studies initiated to investigate how climate change will affect and impact GCN species.	Public, Stakeholders, and NGOs	11,12
Data Collection and Analysis	Evaluate the impact of invasive species on GCN species and their habitats and implement management strategies. Measure: Number of studies conducted evaluating the impact of invasive species on GCN species and their key habitats, and the number of management strategies developed and implemented to minimize the impact.	2005 WAP Action	8,12
Data Collection and Analysis	Assess the status and distribution of bees and other native pollinators and assess threats such as the use of pesticides, especially neonicotinoids. Measure: Number of status and distribution assessments done for bees and native pollinators and the effects of pesticides on them.	Revised 2005 WAP Action	12
Data Collection and Analysis	Work closely with regional and state partners to accomplish-research oriented actions that address emerging issues that may adversely affect wildlife and habitats. Measure: Number of research-oriented actions accomplished to address emerging issues.	Staff	12
Data Collection and Analysis	Work closely with academic institutions to accomplish research-oriented actions for GCN species and key habitats. Measure: Number of research-oriented actions accomplished in conjunction with academic institutions for GCN species and key habitats; number of academic institutions participating in research oriented actions.	Public, Stakeholders, and NGOs	12
Data Collection and Analysis	Research the impacts of chemical contaminants on GCN species and their habitats such as brook and brown trout, snapping turtles, aquatic insects, and other vulnerable species. Measure: Number of research projects conducted that study the impacts of chemical contaminants on GCN species and their key habitats.	Public, Stakeholders, and NGOs	2,4,9,12
Data Collection and Analysis	Monitor wetland birds in coordination with Partners in Flight and Colonial Bird Monitoring and other avian conservation initiatives. Measure: Number of monitoring surveys of wetland bird species conducted in coordination with Partners In Flight, Colonial Bird Monitoring or other avian conservation groups.	2005 WAP Action	12

Category	Conservation Action	Source	Threats Addressed
Data Collection and Analysis	Monitor population trends of grassland birds within Connecticut and as part of regional efforts. Measure: Number of monitoring surveys of grassland bird species conducted in Connecticut and as part of regional efforts.	2005 WAP Action	12
Data Collection and Analysis	Investigate the causes of reduced fish stocks and determine if specific life stages are limited by the distribution and abundance of key habitats. Measure: Number of monitoring surveys conducted to investigate the causes of reduced fish stocks including whether specific life stages are limited by distribution and abundance of key habitats.	Revised 2005 WAP Action	12
Data Collection and Analysis	Investigate, through monitoring surveys, population fluctuations of marine fish and invertebrates caused by a variety of factors such as climate change, fishing, pollution, and invasive species. Measure: Number of monitoring surveys conducted to investigate fluctuations of marine fish and invertebrate populations (e.g., winter flounder) from a variety of factors (e.g., climate change, fishing, pollution, invasive species).	Revised 2005 WAP Action	5,8,9,11
Data Collection and Analysis	Investigate fluctuations and declines in bait fish populations, such as herring and menhaden, in Long Island Sound. Measure: Number of monitoring surveys conducted to investigate fluctuations and declines in bait fish populations in Long Island Sound.	Staff	12
Data Collection and Analysis	Monitor fish stock structure, species movements, and abundance and distribution by life stage. Measure: Number of monitoring surveys conducted to examine stock structure, species movements, abundance and distribution, by life stage.	2005 WAP Action	7,11,12
Data Collection and Analysis	Research population dynamics of GCN marine invertebrates including the effects of density dependent and density independent factors. Measure: Number of monitoring surveys conducted to examine population dynamics of GCN marine invertebrates.	2005 WAP Action	12

Category	Conservation Action	Source	Threats Addressed
Data Collection and Analysis	Research egg and larval mortality of GCN fish species within key areas in Long Island Sound, determine fecundity and egg extrusion/deposition rates for key species such as tautog and winter flounder. Measure: Number of monitoring surveys conducted to examine egg and larval mortality of GCN fish species within key areas in Long Island Sound, number of fecundity and local egg extrusion/deposition rates determined for key species such as tautog and winter flounder.	Revised 2005 WAP Action	9,12
Data Collection and Analysis	Determine contaminant effects on spawning success of GCN fish such as Atlantic sturgeon, shortnose sturgeon, tautog, and winter flounder. Measure: Number of monitoring surveys conducted to determine whether contaminants are affecting spawning success of GCN species.	Revised 2005 WAP Action	2,9,12
Data Collection and Analysis	Determine the population status and distribution of breeding saltmarsh sparrow. Measure: Number of monitoring surveys conducted to determine the population status and distribution of breeding saltmarsh sparrows.	2005 WAP Action	12
Data Collection and Analysis	Determine the site fidelity to habitats such as spawning areas, overwintering areas, or summer habitats of all GCN fish. Measure: Number of monitoring surveys conducted to determine fidelity of GCN fish to individual sites.	2005 WAP Action	12
Data Collection and Analysis	Determine and map the distribution of blue-spotted salamander (diploid) populations. Measure: Number of monitoring surveys conducted to determine and map the distribution of blue-spotted salamander (diploid) populations.	2005 WAP Action	12
Data Collection and Analysis	Assess the effects of wetland restorations on the distribution and abundance of black ducks. Measure: Number of monitoring surveys conducted to assess the effects of restoration activities on the distribution and abundance of black ducks.	Revised 2005 WAP Action	12
Data Collection and Analysis	Monitor key GCN species' migratory routes, especially along the coastline, through the enhanced use of remote technology such as nanotransmitter receiver towers. Measure: Number of migratory routes of key GCN species monitored through the enhanced use of remote technology.	Staff	12

Category	Conservation Action	Source	Threats Addressed
Data Collection and Analysis	Map the location of key habitats of GCN species to evaluate potential impacts to those sites from activities such as drainage and development. Measure: Number of mapped areas surrounding GCN species locations for which potential impacts were evaluated.	Staff	1,4,7,12
Data Collection and Analysis	Develop long-term monitoring protocols for Connecticut fish species. Measure: Number of long-term monitoring protocols developed for Connecticut fish species.	2005 WAP Action	12
Data Collection and Analysis	Develop long-term monitoring protocols, consistent with regional protocols where possible, and implement research and management activities to conserve GCN species. Measure: Number of long-term monitoring protocols developed and implemented; number of research and management activities implemented.	2005 WAP Action	12
Data Collection and Analysis	Map key habitats at the landscape level. Use periodic reviews of maps to monitor their status and condition. Measure: Number of key habitats mapped at the landscape level; number of maps reviewed.	2005 WAP Action	12
Data Collection and Analysis	Determine level of existing degradation, threat of future degradation, and opportunities for conservation of key habitats. Measure: Number of key habitat areas assessed for level of existing degradation, threats for future degradation, and opportunities for conservation.	2005 WAP Action	1,2,4,7,11,12
Data Collection and Analysis	Identify and map estuarine habitats, especially spawning and nursery habitats, and characterize their relative importance to estuarine species. Measure: Number of key estuarine habitats, important to estuarine species like rainbow smelt and tomcod, identified and mapped.	2005 WAP Action	7,11
Data Collection and Analysis	Develop and implement inventory, survey, and monitoring protocols to determine and track the status and condition of key habitats and GCN plant species. Measure: Number of inventory, survey, and monitoring protocols developed to determine and track the status and condition of key habitats and GCN plant species number of inventory, survey, and monitoring protocols implemented to determine and track the status and condition of key habitats and GCN plant species.	2005 WAP Action	12

Category	Conservation Action	Source	Threats Addressed
Data Collection and Analysis	Use genetic testing to determine stock composition of key GCN fish species such as Atlantic sturgeon, shortnose sturgeon, tautog, winter flounder, burbot, and American brook lamprey. Measure: Number of genetic tests conducted to examine stock composition of fish populations.	2005 WAP Action	12
Data Collection and Analysis	Compile baseline information for all GCN species for which information is lacking, such as ecology, biology, behavior, population dynamics, distribution, abundance, condition, and limiting factors, using regionally consistent protocols where possible. Measure: Number of GCN species for which baseline information is compiled; number of regionally consistent protocols used to compile baseline information.	Staff	12
Data Collection and Analysis	Determine and monitor the distribution, abundance, habitat use, and condition of GCN aquatic species. Measure: Number of GCN aquatic species for which the distribution, abundance, habitat use, and condition are determined; number of participants in the monitoring projects.	Revised 2005 WAP Action	12
Data Collection and Analysis	Research the food habits of GCN estuarine fish to determine limiting factors or increased competition. Measure: Number of food habitat studies conducted on GCN estuarine fish species.	2005 WAP Action	12
Data Collection and Analysis	Conduct studies to assess the feasibility of facilitating marsh migration. Measure: Number of experiments/studies conducted investigating the feasibility of inland marsh migration.	Staff	11,12
Data Collection and Analysis	Quantify and map bottom vegetation and substrates in lakes. Measure: Number of delineated areas of lake bottoms mapped and quantified.	2005 WAP Action	7,12
Data Collection and Analysis	Monitor and conserve breeding populations of GCN forest interior birds. Measure: Number of breeding population of GCN forest interior birds that are monitored and conserved.	Revised 2005 WAP Action	12

Category	Conservation Action	Source	Threats Addressed
Data Collection and Analysis	Manage and restore habitats for native pollinators. Specifically, identify and map areas where migration stopover habitats for native pollinator species can be established or restored. Measure: Number of areas mapped and designated to establish or restore migratory stopover habitat for native pollinators.	Staff	1,12
Data Collection and Analysis	Develop an improved data collection, management, and retrieval system to track the status of GCN species and key habitats. Measure: An improved data collection, management, and retrieval system developed to track the status of GCN species and key habitats.	2005 WAP Action	12
Data Collection and Analysis	Facilitate submission of data on seasonal activity, distribution, and abundance of GCN invertebrate species from the scientific community. Develop an online database that provides this information to the public, especially land planners. Measure: A public, on-line distribution and abundance database created for GCN invertebrate species with data submitted by the scientific community, and locational information supplied from this database to the public, especially land planners.	Revised 2005 WAP Action	14
Data Collection and Analysis	Collaborate with partners to investigate the germination requirements and autecology of GCN plant species and facilitate the increased collection of seed from local GCN plant populations for the purpose of supporting instate restoration efforts. Measure: Number of studies conducted on the germination and habitat requirements of GCN plant species and the number of seed collections from local GCN plant populations.	Staff	12
Data Collection and Analysis	Collaborate with partners to predict and investigate the current distributions of GCN plant species. Measure: Number of predictive distribution models developed and botanical site surveys conducted for GCN plant species.	Staff	12
Data Collection and Analysis	Determine demographics and habitat use for GCN herpetofauna species.	2005 WAP Action	12

Category	Conservation Action	Source	Threats Addressed
Data Collection and Analysis	Determine Eastern box turtle and wood turtle distribution, habitat use and demographics as well as identify core populations and evaluate their long-term viability.	2005 WAP Action	12
Data Collection and Analysis	Identify head-of-tide habitat within Connecticut.	2005 WAP Action	1,12
Data Collection and Analysis	Research the basic ecology, biology, behavior, and population dynamics of GCN species.	2005 WAP Action	12
Data Collection and Analysis	Investigate changes in abundance of GCN invertebrate species; determine pesticide use effects.	Staff	2,9,12
Data Collection and Analysis	Assess invertebrate populations occurring in coastal strand, traprock ridges, and high elevation bald habitats.	2005 WAP Action	12
Data Collection and Analysis	Determine the status and distribution of GCN ground beetle populations; map areas of impact to capture potential conflicts at environmental review stage.	Revised 2005 WAP Action	12
Data Collection and Analysis	Map habitat essential for threatened and endangered GCN species.	Staff	12
Data Collection and Analysis	Map vernal pools.	Staff	12
Data Collection and Analysis	Determine the population status and distribution of ruffed grouse.	2005 WAP Action	12
Data Collection and Analysis	Collect data on trout populations in rapidly developing watersheds where data are currently unavailable.	2005 WAP Action	12
Data Collection and Analysis	Evaluate performance of stocked Atlantic salmon in Connecticut habitat.	2005 WAP Action	12
Data Collection and Analysis	Identify, monitor, and develop management plans to protect Puritan tiger beetle populations (for which Connecticut has a global responsibility) and their habitat.	2005 WAP Action	1,11,12

Category	Conservation Action	Source	Threats Addressed
Data Collection and Analysis	Inventory and determine the status of headwater stream habitats statewide.	2005 WAP Action	12
Data Collection and Analysis	Determine and map the current and historic distribution of bog turtles.	2005 WAP Action	12
Data Collection and Analysis	Use genetic markers and molecular techniques to better understand populations of GCN species and their use of key habitats.	Staff	12
Data Collection and Analysis	Periodically monitor fish and invertebrate communities and key physical and chemical indices in lakes and ponds.	2005 WAP Action	9,12
Data Collection and Analysis	Determine the life history, abundance, distribution, and habitat requirements for GCN bat species.	Revised 2005 WAP Action	5,12
Data Collection and Analysis	Map potential restoration sites to benefit GCN species and their habitats.	Staff	12
Data Collection and Analysis	Conduct research on ecosystem-level conservation that will benefit habitat and suites of GCN species.	Staff	12
Data Collection and Analysis	Determine the population status and distribution of breeding populations of common nighthawks.	2005 WAP Action	12
Data Collection and Analysis	Determine the population status and distribution of yellow-billed and black-billed cuckoos.	2005 WAP Action	12
Data Collection and Analysis	Determine distribution and abundance, habitat requirements and demography of northern water shrews.	2005 WAP Action	12
Data Collection and Analysis	Map wetlands bisected by roads.	Staff	4,12
Data Collection and Analysis	Enhance and improve data exchange among division resource managers and biologists.	Staff	15
Data Collection and Analysis	Create an inventory of all BMPs benefiting GCN species and their habitats. Combine redundant BMPs, create new BMPs, and create a mechanism to efficiently search and find BMPs.	Staff	12

Category	Conservation Action	Source	Threats Addressed
Data Collection and Analysis	Research diseases affecting GCN species and their habitats.	Staff	8,12
Data Collection and Analysis	Research effect of riparian buffer width on quality and stability of habitat in aquatic systems.	2005 WAP Action	7,12
Data Collection and Analysis	Enhance inventory and conservation efforts for butterfly species, especially monarch and northern metalmark.	2005 WAP Action	12
Data Collection and Analysis	Conduct research that specifically addresses and informs management of GCN species and their habitats.	Staff	12
Data Collection and Analysis	Monitor invasive and non-native species that negatively impact habitats for GCN species.	Staff	8,12
Data Collection and Analysis	Conserve breeding populations of GCN forest interior birds.	Revised 2005 WAP Action	12
Data Collection and Analysis	Develop a statewide database for tabanid and syrphid flies that includes occurrence and seasonal activity information to enhance inventory and conservation efforts.	2005 WAP Action	12
Data Collection and Analysis	Determine the population status, distribution, and breeding success of the American woodcock.	2005 WAP Action	12
Data Collection and Analysis	Determine the distribution, abundance and breeding success of American black ducks and assess winter habitat use.	2005 WAP Action	12
Data Collection and Analysis	Identify and quantify threats to the survival of GCN species.	2005 WAP Action	12
Data Collection and Analysis	Assess the effectiveness of existing facilities to pass fish.	2005 WAP Action	7
Data Collection and Analysis	Conduct an inventory of Northern flickers.	Staff	12
Data Collection and Analysis	Inventory and determine limiting factors of yellow-billed cuckoo and black-billed cuckoo through regional and full-life-cycle investigations.	Revised 2005 WAP Action	12

Category	Conservation Action	Source	Threats Addressed
Data Collection and Analysis	Determine the distribution, abundance, condition, and limiting factors (threats) for all GCN species and key habitats.	2005 WAP Action	12
Data Collection and Analysis	Conduct a cost-benefit analysis of optimal mowing regimes.	Staff	12
Data Collection and Analysis	Compile and maintain data necessary for NatureServe S ranks for GCN species.	Staff	12,15
Data Collection and Analysis	Monitor location and nearby streams where fish populations that may been extirpated have been previously found.	2005 WAP Action	12
Data Collection and Analysis	Investigate and delineate current distributions of fishes that spawn or congregate at the head-of-tide (e.g., rainbow smelt, sea lamprey, and American eel).	2005 WAP Action	12
Data Collection and Analysis	Determine the status and distribution of GCN ground beetle populations.	2005 WAP Action	12
Data Collection and Analysis	Determine distribution and abundance, habitat requirements and demography of Southern bog lemmings.	2005 WAP Action	12
Data Collection and Analysis	Research effects of drawdowns, dredging, and other vegetation control activities.	2005 WAP Action	7
Data Collection and Analysis	Conduct research on the contaminants in accumulated silt prior to breaching dams or dredging.	Public, Stakeholders, and NGOs	7,9,12
Data Collection and Analysis	Enhance conservation of GCN invertebrate species by developing an on-line database that provides information to the public and facilitates the submission of data by the scientific community.	2005 WAP Action	12
Data Collection and Analysis	Develop a statewide database for GCN moth species that includes occurrence and seasonal activity information to enhance inventory and conservation efforts.	2005 WAP Action	12
Data Collection and Analysis	Perform genetic analysis of selected trout populations to identify successful wild and hatchery strains and to determine if native strains still exist.	2005 WAP Action	5,7,12

Category	Conservation Action	Source	Threats Addressed
Data Collection and Analysis	Assess the status and distribution of bees in Connecticut.	2005 WAP Action	12
Data Collection and Analysis	Determine value of estuarine and marine habitats to resident fish and invertebrate populations.	2005 WAP Action	12
Data Collection and Analysis	Determine the extent and importance of seasonal use of the estuary and Long Island Sound by sturgeon populations.	2005 WAP Action	12
Data Collection and Analysis	Inventory and delineate spawning areas of rainbow smelt and Atlantic tomcod.	2005 WAP Action	12
Data Collection and Analysis	Research the effect of global warming on species.	Public, Stakeholders, and NGOs	11
Data Collection and Analysis	Need research on canals and silt accumulation effects.	Public, Stakeholders, and NGOs	7
Direct Management of Natural Resources	Protect and monitor regionally important habitats for tidal marsh birds, such as saltmarsh sparrow. Measure: Number of regionally important tidal marsh bird habitats that are protected and monitored.	Staff	1,7,11,12
Direct Management of Natural Resources	Increase the use of prescribed burns to benefit GCN species and their habitats. Measure: Number of projects conducted using specialized management techniques such as prescribed fire to benefit GCN species and their key habitats.	Staff	7,15
Direct Management of Natural Resources	Prioritize management for GCN species and habitats on state lands with a focus on rare and declining habitats. Measure: Number of prioritized rare and declining key habitats for GCN species managed on state land.	Staff	12
Direct Management of Natural Resources	Conserve breeding populations of grassland birds. Measure: Number of populations of grassland birds conserved.	Revised 2005 WAP Action	1,12

Category	Conservation Action	Source	Threats Addressed
of Natural Resources	Conserve populations of avian species for which Connecticut has a global responsibility for conservation such as blue-winged warbler, saltmarsh sparrow, greater scaup, and worm-eating warbler. Measure: Number of populations of avian species conserved for which Connecticut has a 'global responsibility' for conservation such as blue-winged warbler, saltmarsh sparrow, greater scaup, and worm-eating warbler.	Revised 2005 WAP Action	12
Direct Management of Natural Resources	Evaluate and implement options to minimize impacts from over-browsing by deer to the habitat of GCN species. Measure: Number of options implemented and evaluated to minimize key habitat impacts to GCN species from over-browsing by deer.	2005 WAP Action	8,12
Direct Management of Natural Resources	Work with the National Oceanic and Atmospheric Administration and the Connecticut Institute for Resilience and Climate Adaptation to enhance coastal resiliency of marsh habitats. Measure: Number of marsh habitats identified and conserved with programs aimed at coastal resiliency.	Staff	1,11
Direct Management of Natural Resources	Enhance inventory and conservation efforts for Odonate species. Measure: Number of inventory and conservation efforts enhanced for Odonate species.	2005 WAP Action	12
Direct Management of Natural Resources	Enhance inventory and conservation efforts for freshwater mussels. Measure: Number of inventory and conservation efforts enhanced for freshwater mussels.	2005 WAP Action	7,9,12
Direct Management of Natural Resources	Increase invasive plant and animal control on public lands, especially state wildlife management areas, and on private lands. Measure: Number of invasive plant and animal species controlled on public and private lands.	Staff	8,13
Direct Management of Natural Resources	Remove dams and barriers to fish passage where appropriate. Measure: Number of dams and barriers removed where appropriate.	2005 WAP Action	7

Category	Conservation Action	Source	Threats Addressed
Direct Management of Natural Resources	Conserve breeding populations of GCN colonial and beach nesting birds. Measure: Number of conservation efforts focused on these species.	Revised 2005 WAP Action	1,12
Direct Management of Natural Resources	Develop and implement conservation actions that are most effectively addressed at a regional/multi-state scale, with the input and involvement of partners engaged in the creation and implementation of the State Wildlife Action Plans. Measure: Number of conservation action/research projects selected and completed with partners.	Staff	12
Direct Management of Natural Resources	Promote agricultural plans that include buffer plantings to protect water quality, GCN species, and their habitats. Measure: Number of agricultural plans promoted that include buffer plantings to protect water quality, GCN species, and their key habitats.	Staff	2,9,14
of Natural Resources	Continue to incorporate new guidance and information from the Northeast Climate Science Center at the national, regional, and local levels to implement actions to enhance stability, connectivity, and habitat health so GCN species can adapt to climate change. Measure: Number of actions implemented that enhance stability, connectivity, and habitat health so GCN species can adapt to climate change.	Public, Stakeholders, and NGOs	1,11,15
of Natural Resources	Minimize disturbance of spawning habitat for key aquatic GCN species such as horseshoe crabs, winter flounder, Atlantic sturgeon, and shortnose sturgeon. Measure: Number of acres of spawning habitat of GCN species undisturbed.	2005 WAP Action	6,7,9,14
of Natural Resources	Implement wetland restoration and enhancement projects that benefit GCN species. Measure: Number of acres of key wetland habitat restored or enhanced that benefit GCN species.	2005 WAP Action	1,2,7,12

Category	Conservation Action	Source	Threats Addressed
of Natural Resources	Minimize habitat degradation from sediment pollution, water contamination, nutrient concentrations, and pesticides through coordinated efforts with DEEP Branch of Environmental Quality. Measure: Number of acres of GCN species key habitat where degradation from the effects of sediment pollution, water contamination, nutrient concentrations, and pesticides was minimized.	Revised 2005 WAP Action	1,2,7,9
of Natural Resources	Maintain or increase the use of management techniques to create, restore, and manage a variety of early successional habitats to benefit GCN species. Measure: Number of acres and range of early successional habitat maintained, restored, or increased using all management techniques.	Staff	1,7,12
of Natural	Conduct habitat management to maintain or restore site conditions appropriate for GCN plant species. Measure: Number of habitat management practices completed for GCN plant species.	Staff	12
Direct Management of Natural Resources	Mitigate impacts of drawdowns and chemical vegetation control.	2005 WAP Action	7,8,9,12
Direct Management of Natural Resources	Map wetlands bisected by roads; use info to benefit GCN species (e.g., minimize road mortality, contamination by road salt).	Staff	4,9,12
_	Encourage selective vegetation control (minimal and appropriately timed) as opposed to whole lake treatments.	2005 WAP Action	7,9
Direct Management of Natural Resources	Conserve breeding populations of GCN early successional birds.	Revised 2005 WAP Action	1,7,12
Direct Management of Natural Resources	Participate in flyway-scale projects for shorebird conservation (Atlantic Flyway Shorebird Initiative, East Coast Marshes Business Plan).	Staff	12,15

Category	Conservation Action	Source	Threats Addressed
Direct Management of Natural Resources	Enhance median strips and roadsides with plantings to support native pollinators and invertebrates.	Public, Stakeholders, and NGOs	12
Direct Management of Natural Resources	Develop, promote, and enforce effective drawdowns and chemical vegetation control to minimize impacts on GCN species and their habitats.	Revised 2005 WAP Action	7,12
Direct Management of Natural Resources	Increase the number of areas managed for GCN species.	Staff	15
Direct Management of Natural Resources	Conserve and increase New England cottontails and their habitats.	2005 WAP Action	1,12
Direct Management of Natural Resources	Conserve and enhance bog turtle populations and their habitats.	2005 WAP Action	1,9,12
Direct Management of Natural Resources	Enhance, restore, and improve habitats for GCN species by seeding and planting areas with appropriate native plants.	Staff	8,12,14
Direct Management of Natural Resources	Treat or remove silt before breaching dams or dredging, to minimize the impacts of GCN species and their habitats due to poor water quality.	Public, Stakeholders, and NGOs	7,9,12
Direct Management of Natural Resources	Develop BMPs to improve agricultural land for GCN wildlife (e.g., reduce runoff, grazing management).	Staff	2,12
Direct Management of Natural Resources	Develop fish passage projects at barriers.	2005 WAP Action	5,7,12

Category	Conservation Action	Source	Threats Addressed
Direct Management of Natural Resources	Increase spawning habitat for fish near dams and along river edges (versus riprap and hard edges).	Staff	5,7
Direct Management of Natural Resources	Conserve and increase breeding populations of GCN colonial or beachnesting birds.	2005 WAP Action	12
Direct Management of Natural Resources	Reduce impacts of human disturbance to GCN species.	2005 WAP Action	6
Direct Management of Natural Resources	Create and monitor an inventory of management plans for GCN species and their habitats. Implement existing management plans.	Revised 2005 WAP Action	12,15
Direct Management of Natural Resources	Conserve and increase breeding populations of GCN freshwater and coastal wetland birds.	2005 WAP Action	12
Direct Management of Natural Resources	Identify, protect, and manage diamond-backed terrapin populations.	2005 WAP Action	1,12
Direct Management of Natural Resources	Increase the hunting of white-tailed deer to reduce over-browsing and damage to important GCN habitats	Public, Stakeholders, and NGOs	5,12
Direct Management of Natural Resources	Restore caves and mines not currently used by GCN bat species to provide suitable habitat conditions.	2005 WAP Action	12
Direct Management of Natural Resources	Improve habitat on small and large acreages (e.g., existing shrubland forest).	Staff	12

Category	Conservation Action	Source	Threats Addressed
Direct Management of Natural Resources	Conserve and increase population of ruffed grouse.	Revised 2005 WAP Action	12
Direct Management of Natural Resources	Conserve breeding populations of GCN freshwater and coastal wetland birds.	Revised 2005 WAP Action	12
Direct Management of Natural Resources	Establish a grassland working group and create grassland reserves to conserve meadows, fields and other early successional habitats.	Public, Stakeholders, and NGOs	1,15
Direct Management of Natural Resources	Conserve breeding populations of American woodcock.	Revised 2005 WAP Action	12
Direct Management of Natural Resources	Restore caves and mines not currently used by GCN bats species, or create artificial bat hibernacula.	Revised 2005 WAP Action	1,6,12
Direct Management of Natural Resources	Conserve all GCN species for which Connecticut has global responsibility.	Staff	12
Direct Management of Natural Resources	Implement programs promoting conservation of GCN species and their habitats.	2005 WAP Action	15
Direct Management of Natural Resources	Conserve and increase populations of avian species for which Connecticut has a global responsibility for conservation such as blue-winged warbler, saltmarsh sharp-tailed sparrow, greater scaup, and worm-eating warbler.	2005 WAP Action	12
Direct Management of Natural Resources	Implement specialized management techniques (e.g. burning) to benefit certain GCN species.	2005 WAP Action	12

Category	Conservation Action	Source	Threats Addressed
Direct Management of Natural Resources	Conserve and increase breeding populations of GCN grassland birds, especially upland sandpiper.	2005 WAP Action	12
Direct Management of Natural Resources	Conserve and increase breeding populations of GCN early successional birds, especially golden-winged warbler.	2005 WAP Action	12
Direct Management of Natural Resources	Acquire, protect, enhance, and restore inland wetland habitat.	Staff	1,2,4,12,15
Direct Management of Natural Resources	Plant more native plants species at state parks to benefit GCN species and their habitats.	Public, Stakeholders, and NGOs	8,13,14
Direct Management of Natural Resources	Build fishways or refine methods for providing upstream passage where appropriate.	2005 WAP Action	7
Direct Management of Natural Resources	Plan and implement management of GCN species in urban and suburban habitats.	Public, Stakeholders, and NGOs	1,4,6,12,14
Direct Management of Natural Resources	Protect, enhance, and restore pitch-pine habitat to benefit GCN species.	Staff	1,7
Direct Management of Natural Resources	Implement a plan to prioritize and address problems caused by invasive aquatic plants.	2005 WAP Action	8
Direct Management of Natural Resources	Implement all existing recovery plans and management plans for GCN species in Connecticut.	2005 WAP Action	12

Category	Conservation Action	Source	Threats Addressed
Direct Management of Natural Resources	Identify and protect areas productive for sand lance.	Staff	12
Direct Management of Natural Resources	Maintain and increase the use of all management techniques to create restore and manage a range of early successional habitats across the landscape.	Staff	7,12,15
_	Develop a user friendly BMP template and easily-accessible location for finding BMPs.	Staff	12,14
Direct Management of Natural Resources	Implement BMPs developed for GCN species and their habitats on state lands, serving as a model for implementation on private or municipal properties.	Staff	15
Direct Management of Natural Resources	Conserve stopover habitat for all migratory species	Staff	1,12
Direct Management of Natural Resources	Enhance, restore, and improve natural stream channels, enhancing spawning habitat for GCN species.	Staff	7,12
Direct Management of Natural Resources	Enhance, restore, and improve shorelines through erosion control and restoration.	Staff	1,10,11
Direct Management of Natural Resources	Conserve existing populations of least shrews and determine statewide distribution and abundance.	2005 WAP Action	1,12
Direct Management of Natural Resources	Work with state land managers to educate and balance use of state lands (wildlife and other uses)	Staff	13

Category	Conservation Action	Source	Threats Addressed
Direct Management of Natural Resources	Conserve and increase breeding populations of GCN early successional birds especially yellow-breasted chat.	2005 WAP Action	12
Direct Management of Natural Resources	Install Kestrel boxes on the backs of highway signs.	Staff	12
Direct Management of Natural Resources	Manage nuisance geese population to benefit GCN species and their habitats.	Public, Stakeholders, and NGOs	5,8
Direct Management of Natural Resources	Create and conserve habitat for moose.	Staff	12
Direct Management of Natural Resources	Develop BMPs not just for herpetofauna, but for more GCN species.	Staff	12
Direct Management of Natural Resources	Implement fire management (such as prescribed burning)	Staff	12
Direct Management of Natural Resources	Work with DEEP's Environmental Quality Branch to mitigate the effects of residual levels of sediment pollution, water contamination, nutrients, and pesticides	2005 WAP Action	9
Direct Management of Natural Resources	Develop long-term monitoring protocol and participate in coast-wide research and management actives for marine fish and invertebrates.	Staff	12
Direct Management of Natural Resources	Map wetlands bisected by roads; use this information to minimize mortality of GCN reptiles and amphibians and contamination by road salt	Staff	1

Category	Conservation Action	Source	Threats Addressed
Education and Outreach	Develop statewide citizen-science action networks by taxonomic group to locate, identify, observe, describe, and map GCN species and their key habitats. Measure: Number of statewide citizen science action networks by taxonomic group created; number of GCN species and their key habitats mapped.	Public, Stakeholders, and NGOs	12,14
Education and Outreach	Promote a public connection to wildlife by conveying conservation stories through enhanced visual elements of the DEEP website such as slide shows and video clips. Measure: Number of visits by the public to the DEEP Wildlife website to view conservation stories that promote a public connection developed through the enhancement of visual elements such as slideshows, video clips; number of enhanced visual elements of the DEEP Wildlife website that promote a public connection to wildlife.	Staff	14
Education and Outreach	Provide information to local governments, watershed associations, and the public to increase awareness of environmental issues affecting GCN species and key habitats. Measure: Number of public awareness informational compilations regarding GCN species and key habitats distributed to the public.	Revised 2005 WAP Action	1,14
Education and Outreach	Encourage property owners to protect natural shorelines to maintain good habitat (e.g., riparian and shallow water vegetation, downed trees). Measure: Number of property owners encouraged to protect natural shorelines to maintain good habitat (e.g., riparian and shallow water vegetation, downed trees).	2005 WAP Action	1,8,14
Education and Outreach	Educate outdoor users regarding the impacts of litter to GCN species and incorporate this information into programs such as Conservation Education/Firearm Safety, Connecticut Aquatic Resources Education, Master Wildlife Conservationists and No Child Left Inside. Measure: Number of programs (such as CEFS, CARE, MWC, NCLI) that include education to outdoor users about the impacts of litter and the importance of stewardship to GCN species and their key habitats.	Public, Stakeholders, and NGOs	14

Category	Conservation Action	Source	Threats Addressed
Education and Outreach	Increase public outreach and education for private landowners regarding the importance of managing lands to conserve common and uncommon species. Measure: Number of outreach materials developed to increase public awareness and education for private landowners regarding the need to manage lands to conserve both common and uncommon species.	Public, Stakeholders, and NGOs	14
Education and Outreach	Develop outreach materials to inform the public about ways to prevent the spread of wildlife diseases such as white-nose syndrome and ranavirus. Measure: Number of outreach materials developed to address wildlife disease issues.	Public, Stakeholders, and NGOs	8,14
Education and Outreach	Promote public awareness about urban and suburban GCN species and their habitats. Measure: Number of outreach materials developed promoting public awareness and understanding of urban and suburban GCN species, their key habitats, and their behaviors; number of developed outreach materials distributed.	Revised 2005 WAP Action	1,14
Education and Outreach	Engage non-traditional partners, such as business leaders and the business community, in wildlife conservation projects. Measure: Number of non-traditional partners cultivated to engage in wildlife conservation projects; number of wildlife conservation projects where non-traditional wildlife partners are engaged.	Public, Stakeholders, and NGOs	14
Education and Outreach	Develop media outreach initiatives to promote wildlife stewardship ethics. Distribute conservation success stories to the media. Measure: Number of media outreach initiatives developed to promote wildlife stewardship ethics, conservation issues and success stories; number of conservation stories distributed.	Public, Stakeholders, and NGOs	14
Education and Outreach	Increase public awareness of GCN species by installing or enhancing existing signs at state Wildlife Management Areas and incorporating new technology whenever possible. Measure: Number of interpretive signs at state owned lands developed or enhanced by incorporating new technology to increase the public awareness of GCN species.	Public, Stakeholders, and NGOs	13

Category	Conservation Action	Source	Threats Addressed
Education and Outreach	Increase public awareness and stewardship for coastal GCN species' nesting areas using signage and interpretive staff. Measure: Number of interpretive signs and staff at coastal GCN species' nesting areas that increase public awareness and stewardship.	Public, Stakeholders, and NGOs	14
Education and Outreach	Expand the Teaming With Wildlife Coalition to assist with funding sources and policy issues at the local level. Measure: Number of increased Teaming With Wildlife coalition members; number of increased funding sources and policy issues addressed at the local level by Teaming With Wildlife coalition members.	Staff	14
Education and Outreach	Develop educational materials for in-classroom curricula and outdoor activities that emphasize conservation of GCN species and their key habitats. Measure: Number of in-classroom educational materials and curricula developed regarding the conservation of GCN species and key habitats; number of classrooms that request the developed educational materials.	Public, Stakeholders, and NGOs	14
Education and Outreach	Cultivate support for conservation among government leaders. Measure: Number of government leaders cultivated to support conservation; number of conservation projects supported by government leaders.	Public, Stakeholders, and NGOs	14,15
Education and Outreach	Develop a tool kit for use by municipalities and land managers to enhance local land use decisions regarding GCN species and their habitats (partner with DOT and UConn Extension/Nonpoint Education for Municipal Officials). Measure: Number of GCN species and key habitat enhancing tool-kits assembled for municipalities; number of municipalities and land managers that request and use the tool kit.	Staff	1,4,14
Education and Outreach	Develop and implement community outreach programs to enhance conservation and stewardship of native pollinators. Measure: Number of community outreach programs developed and implemented to enhance conservation and stewardship of native pollinators.	Staff	1,14

Category	Conservation Action	Source	Threats Addressed
Education and Outreach	Develop a top ten list of invasive plants and Best Management Practices for removing/treating them. Measure: Number of Best Management Practices developed to remove or treat the top ten invasive plants; number of acres of invasive plants removed or treated.	Staff	8
Education and Outreach	Increase the availability of fishing line receptacles to promote proper disposal of line and educate anglers and the public about the associated risks to wildlife. Measure: Number of additional fishing line receptacles available to promote proper disposal of line and educate anglers and the public about the associated risks to wildlife.	Public, Stakeholders, and NGOs	9,14
Education and Outreach	Develop an online system to enhance reporting of DEEP Natural Diversity Data Base forms and sightings of GCN species by the research community and citizen scientists. Measure: A public on-line distribution and abundance database created for all GCN species with data submitted by the scientific community, and locational information supplied from this database to land planners; number of land planners supplied with locational information.	Public, Stakeholders, and NGOs	12,14
Education and Outreach	Develop a native plant initiative to increase the use of native species in landscape designs. Measure: A native plant initiative developed to increase the use of native species in landscape designs; number of landscape designs using native plant species.	Public, Stakeholders, and NGOs	14
Education and Outreach	Educate sportsmen about pollution and environmental issues.	Public, Stakeholders, and NGOs	6,9,14
Education and Outreach	Develop outreach materials to encourage 'cats indoors' programs and raise awareness about the threats posed by Trap, Neuter, and Release programs.	Public, Stakeholders, and NGOs	14
Education and Outreach	Develop an annual meeting for researchers holding scientific collecting permits to discuss their projects and results.	Public, Stakeholders, and NGOs	12,15
Education and Outreach	Develop and compile a 'tool kit' for use by municipalities and land managers to enhance local decision making as it relates to GCN species and their habitats.	Public, Stakeholders, and NGOs	12,14

Category	Conservation Action	Source	Threats Addressed
Education and Outreach	Develop multi-lingual education and outreach initiatives to promote stewardship of GCN species and their habitats.	Public, Stakeholders, and NGOs	14
Education and Outreach	Expand use of social media to promote outdoor activities to highlight and promote wildlife conservation projects.	Public, Stakeholders, and NGOs	14
Education and Outreach	Hire a professional conservation marketing firm to design a multi-faceted campaign to increase interest in wildlife and fisheries and the necessity to fund actions to support fish and wildlife conservation (seek marketing opportunities using GCN Species).	Staff	14,15
Education and Outreach	Promote public awareness regarding the importance of 'young habitats' for GCN species and enhance awareness of the role of active management in their survival.	Staff	1,7,14
Education and Outreach	Increase cooperation with major private conservation entities within the state.	Public, Stakeholders, and NGOs	15
Education and Outreach	Promote and enhance biologist presentations to the public and conservation partners regarding various programs and issues relating to GCN species and their habitats.	Staff	14
Education and Outreach	Promote public awareness of the vulnerability of Eastern box turtle and wood turtle populations and the negative impacts of removing turtles from the wild.	2005 WAP Action	5,14
Education and Outreach	Promote public awareness about urban GCN mammals and their habitats	2005 WAP Action	14
Education and Outreach	Develop a program for the take back of unwanted exotic pets to prevent release into the wild.	Public, Stakeholders, and NGOs	5,8,14
Education and Outreach	Expand the use of citizen-science and encourage participation of middle and high schools to collect data about GCN species and their habitats.	Staff	14

Category	Conservation Action	Source	Threats Addressed
Education and Outreach	Develop and compile education, training, and outreach programs and resources for municipalities to highlight and encourage habitat enhancement and conservation opportunity areas (e.g., Tree City USA, Native Plant Lists, IPANE).	Public, Stakeholders, and NGOs	12,14,15
Education and Outreach	Educate the public on the negative impacts that high deer populations can have on GCN species and their habitats.	Public, Stakeholders, and NGOs	5,8,14
Education and Outreach	Promote increased stewardship, advocacy, and volunteerism by the public for conservation of GCN species and their habitats.	Public, Stakeholders, and NGOs	14
Education and Outreach	Develop outreach materials regarding alternatives to mechanical and chemically intensive lawn care and pest control practices.	Public, Stakeholders, and NGOs	2,8,9,14
Education and Outreach	Develop programs to engage families in outdoor activities that promote stewardship and conservation of GCN species and their habitats.	Public, Stakeholders, and NGOs	14
Education and Outreach	Compile and distribute information on funding sources for habitat management to land trusts and similar conservation organizations.	Public, Stakeholders, and NGOs	14,15
Education and Outreach	Develop an online system to allow the reporting of wildlife road mortality to enhance information on distribution of difficult to sample species and to identify wildlife crossing hotspots. (e.g., California Roadkill Observation System or Maine Audubon Wildlife Road Watch).	Staff	4,12,14
Education and Outreach	Expand development and publication of fact sheets with an emphasis on conservation status, actions, threats, and habitat and food requirements.	Staff	14
Education and Outreach	Develop outreach materials for homeowners to raise awareness of possible GCN bat use of buildings and manmade structures (e.g., powerwashing, gutterwork, shutters).	Public, Stakeholders, and NGOs	14
Education and Outreach	Develop educational programs that promote responsible stewardship of water resources and associated GCN species.	Public, Stakeholders, and NGOs	14
Education and Outreach	Develop outreach materials to increase awareness of threats posed to GCN birds from window strikes and lighting design.	Public, Stakeholders, and NGOs	14

Category	Conservation Action	Source	Threats Addressed
Education and Outreach	Increase labeling and marking of plant species on state land to promote education.	Public, Stakeholders, and NGOs	13,14
Education and Outreach	Develop information fact sheets about GCN species and their habitats to increase public stewardship of wildlife.	Staff	14
Education and Outreach	Develop a forum to provide technical assistance to media regarding Connecticut's wildlife.	Staff	14
Education and Outreach	Partner with DOT to create and install roadway signage for wildlife viewing areas.	Staff	4,13,14
Education and Outreach	Facilitate municipal cooperation for landscape-level conservation.	Public, Stakeholders, and NGOs	15
Education and Outreach	Develop outreach materials to enhance public understanding of normal vs. nuisance wildlife behaviors.	Public, Stakeholders, and NGOs	14
Education and Outreach	Promote wildlife rehabilitators and volunteers.	Public, Stakeholders, and NGOs	14
Education and Outreach	Increase the availability of fishing line receptacles to promote proper disposal of line and educate anglers and the public about the associated risks to wildlife.	Public, Stakeholders, and NGOs	14
Education and Outreach	Implement natural resource education programs consistent with the Connecticut Environmental Literacy Plan (work with Department of Education).	Public, Stakeholders, and NGOs	14
Education and Outreach	Enhance outreach efforts regarding the dangers of ceremonial releases(e.g., balloons, Chinese lanterns) to GCN species and their habitats.	Public, Stakeholders, and NGOs	6
Education and Outreach	Encourage the planting and growth of key wildlife foods (e.g., crabapples).	Public, Stakeholders, and NGOs	14
Facilities and Areas	Install temporary signs at amphibian crossings.	Staff	14
Facilities and Areas	Install signs for state wildlife management areas similar to signs marking state forests and state parks.	Staff	13

Category	Conservation Action	Source	Threats Addressed
Facilities and Areas	Improve roadway design and encourage installation of amphibian passage ways to reduce mortality of GCN species.	Staff	4,12
Land and Water Acquisition and Protection	Conserve vernal pool breeding sites and their surrounding upland habitats. Measure: Number of vernal pool breading sites and their surrounding upland habitats conserved.	2005 WAP Action	1,4,6
Land and Water Acquisition and Protection	Protect habitat in streams that support coldwater fish communities. Measure: Number of stream habitats protected that support coldwater fish.	2005 WAP Action	12
Land and Water Acquisition and Protection	Identify, conserve, and improve key stopover habitats important to migratory GCN species. Measure: Number of stopover habitats for migratory GCN species identified and conserved.	Public, Stakeholders, and NGOs	1,5,12
Land and Water Acquisition and Protection	Map, prioritize, acquire, and protect key terrestrial and aquatic habitats for GCN species; especially coastal habitats, cold water streams, headwater habitats, grasslands, inland wetlands, connective corridors, and buffers to climate change. Measure: Number of key land and water habitats, of importance to GCN species, mapped, prioritized, protected, or acquired.	Staff	1,11
Land and Water Acquisition and Protection	Acquire important, high quality areas of land to add to the state wildlife management area and forest system that will benefit both common and GCN species. Measure: Number of acres of important, high quality areas of land added to the state wildlife management area and state forest system that will benefit both common and GCN species.	Staff	1,4,15
Land and Water Acquisition and Protection	Develop additional funding sources for in-fee land acquisition purchases to acquire more land to benefit GCN species and their habitats. Measure: A funding source developed to purchase land in fee that benefits GCN species and key habitats.	Staff	1,12,15

Category	Conservation Action	Source	Threats Addressed
Land and Water Acquisition and Protection	Acquire and protect upward migration corridor habitat for coastal habitats.	Staff	1,12,14
Land and Water Acquisition and Protection	Map and acquire land to connect and create corridors for GCN species in critical wildlife habitat areas.	Staff	1,3,4
Land and Water Acquisition and Protection	Prioritize and acquire land and water that is of importance to GCN species and their habitats.	Public, Stakeholders, and NGOs	1,2,4,11
Land and Water Acquisition and Protection	Acquire and protect coastal habitat for GCN species.	Public, Stakeholders, and NGOs	1,11
Land and Water Acquisition and Protection	Acquire and protect cold water streams and headwater habitats.	Staff	1,4,7,15
Land and Water Acquisition and Protection	Identify existing free-flowing aquatic systems at risk.	Revised 2005 WAP Action	1,12
Land and Water Acquisition and Protection	Acquire and protect key grassland areas.	Revised 2005 WAP Action	1,4,7,12
Land and Water Acquisition and Protection	Acquire and conserve high marsh habitat for salt marsh sharp-tailed sparrow and other marsh nesting species.	Staff	1,12,15
Land and Water Acquisition and Protection	Protect habitat in coastal coves and embayments that historically supported bay scallop populations.	2005 WAP Action	1,9,12

Category	Conservation Action	Source	Threats Addressed
Land and Water Acquisition and Protection	Work with municipalities, NGOs, and land trusts to identify and protect critical habitat.	Staff	15
Land and Water Acquisition and Protection	Develop partnerships and cooperation to acquire and protect head-of-tide locations, particularly those that are relatively non-degraded.	Staff	12
Land and Water Acquisition and Protection	Protect critical habitat, groundwater and minimum flows for lakes and streams.	Revised 2005 WAP Action	1,7
Land and Water Acquisition and Protection	Coordinate with USFWS to identify, acquire, and protect critical habitats.	Staff	1,15
Land and Water Acquisition and Protection	Conserve temporary and vernal pool breeding sites and their surrounding upland habitats.	Staff	1,12
Land and Water Acquisition and Protection	Develop strategies to prioritize land acquisition for climate change.	Staff	1,11
Land and Water Acquisition and Protection	Protect cold water streams and head water sites.	Staff	11,12
Land and Water Acquisition and Protection	Identify and prioritize critical habitat for protection	Staff	12
Law and Policy	Develop additional stable funding mechanisms to pay for the conservation of GCN species and habitats. Measure: Stable funding sources developed to protect GCN species and key habitats; number of GCN species and key habitats protected with additional stable funding sources.	Public, Stakeholders, and NGOs	12,15

Category	Conservation Action	Source	Threats Addressed
Law and Policy	Develop and enforce regulations to prevent all-terrain vehicle (ATV) damage to wildlife areas. Measure: Number of regulations developed and enforced to prevent ATV damage to wildlife areas; number of regulations enforced to prevent ATV damage to wildlife areas.	Public, Stakeholders, and NGOs	6,13,15
Law and Policy	Enhance enforcement of off-leash dogs, especially in areas with ground nesting birds. Measure: Number of patrols of ground nesting bird areas, during the nesting season, by law enforcement to enforce leash laws for dogs; number of nests of ground nesting birds preserved.	Public, Stakeholders, and NGOs	6,14
Law and Policy	Develop legal strategies to address the sale of cultivars of prohibited plants and internet trade in prohibited plant species. Measure: Number of legal strategies developed to address the sale of cultivars of prohibited plant species and internet trade in prohibited plant species; number of plant cultivars prohibited for sale and internet trade.	Public, Stakeholders, and NGOs	8,15
Law and Policy	Create or support legal strategies to conserve key habitats. Measure: Number of legal strategies adopted to conserve or preserve key habitats in the state; number of acres of key habitat conserved or preserved by adopted legal strategies.	Staff	1,4,15
Law and Policy	Enhance conservation of illegally collected species by improving monitoring of sites and law enforcement efforts. Measure: Number of law enforcement patrols and monitoring of sites where susceptible and personally and commercially desirable GCN species can be illegally collected; number of collectible GCN species conserved.	2005 WAP Action	5,15
Law and Policy	Promote effective state and local regulations for the conservation of wetlands and other aquatic habitats. Measure: Number of effective local regulations promoted to conserve key wetlands and other aquatic habitats.	2005 WAP Action	1,12,15
Law and Policy	Develop legal strategies to minimize the impacts of residential and industrial development on GCN species. Measure: Number of legal strategies developed to minimize the impacts of residential and industrial development on GCN species; number of impacts on GCN species minimized by legal strategies.	2005 WAP Action	1,4,15

Category	Conservation Action	Source	Threats Addressed
Law and Policy	Continue to develop and promote legislation to protect GCN herpetofauna species.	2005 WAP Action	15
Law and Policy	Tighten and enforce rules regarding ownership of exotic wildlife species.	Public, Stakeholders, And NGOs	5,8,15
Law and Policy	Develop dedicated areas for ATV use to encourage responsible riding and limit damage to critical habitats.	Public, Stakeholders, and NGOs	1,6,9,13
Law and Policy	Legislate a fee on the sale of invasive plants to fund removal and control of non-native invasive on critical habitat.	Public, Stakeholders, and NGOs	8
Law and Policy	Legislate a fee on lawn chemicals to protect and acquire and manage wetland habitat.	Public, Stakeholders, and NGOs	9,15
Law and Policy	Promote changes to local land use policy and regulations to better protect habitats (especially coastal areas) from the impacts of climate change.	Staff	11,12,15
Law and Policy	Tighten regulations and enforce restrictions on the collection of native wildlife species.	Public, Stakeholders, and NGOs	5,15
Law and Policy	Enhance regulations on residential spraying of herbicides and pesticides.	Public, Stakeholders, and NGOs	8,9,15
Law and Policy	Develop best practices for sharing and publication of data to minimize the risk of poaching and collection of rare species.	Staff	5,12,15
Law and Policy	Pass state legislation governing land use planning to conserve GCN wildlife and habitat on lands under development.	Staff	1,15
Law and Policy	Seek means to reduce the use of lead sinkers and lead ammunition.	Public, Stakeholders, and NGOs	5,9,15
Law and Policy	Develop guidelines for towns to plan their land use to mitigate the impacts of climate change to GCN species and their habitats.	Public, Stakeholders, and NGOs	11,12,14,15
Law and Policy	Develop and enforce regulation and oversight of biofuel plants to protect GCN species and their habitats.	Public, Stakeholders, and NGOs	3,15

Category	Conservation Action	Source	Threats Addressed
Law and Policy	Seek means to reduce the use of lead sinkers.	Public, Stakeholders, and NGOs	9
Law Enforcement	Require and conduct comprehensive permit reviews on all regulated activities in head-of-tide habitat.	2005 WAP Action	12,15
Law Enforcement	Increase law enforcement efforts (including interagency cooperation) to stop illegal trade and commercialization of GCN species.	2005 WAP Action	5
Law Enforcement	Enhance enforcement of regulations protecting Long Island Sound (offshore and onshore).	Public, Stakeholders, and NGOs	9,15
Law Enforcement	Enhance enforcement of horseshoe crab harvest regulations.	Public, Stakeholders, and NGOs	5,15
Law Enforcement	Enhance enforcement on the compliance with limits and rules governing the collection of horseshoe crabs.	Public, Stakeholders, and NGOs	5,15
Law Enforcement	Improve law presence and enforcement offshore.	Public, Stakeholders, and NGOs	15
Planning	Develop tools to increase information sharing and integrate the Wildlife Action Plan with other planning efforts, and support decision-making by DEEP and partners. Measure: Number of tools developed; number of other partners' planning efforts that utilize the tools.	Public, Stakeholders, and NGOs	12,14
Planning	Communicate key components of the Wildlife Action Plan to towns and encourage its use at the local level. Measure: Number of key components of the Wildlife Action Plan communicated to towns; number of key components of the WAP utilized at the local level.	Public, Stakeholders, and NGOs	14
Planning	Work with conservation partners to conserve GCN species and key habitats statewide. Measure: Number of GCN species and key habitats conserved statewide with conservation partners; number of conservation partners working to conserve GCN species and key habitats.	2005 WAP Action	1,4,15

Category	Conservation Action	Source	Threats Addressed
Planning	Coordinate the conservation actions in the WAP with those recommended by the Connecticut Climate Preparedness Plan and the Northeast Climate Science Center. Measure: Number of conservation plans that include actions to address potential impacts from climate change.	Staff	11
Planning	Develop comprehensive management plans for public lands that include wildlife diversity conservation. Measure: Number of comprehensive management practices and plans developed for public lands; number of public lands where comprehensive management practices for wildlife diversity are implemented.	Public, Stakeholders, and NGOs	12,14
Planning	Coordinate the conservation actions in the Wildlife Action Plan with other statewide and regional planning initiatives to maximize conservation impacts. Measure: Number of actions identified in the Wildlife Action Plan included in other planning initiatives statewide and region-wide; number of other planning initiatives statewide and region-wide that include the WAP conservation actions.	Public, Stakeholders, and NGOs	12,14,15
Planning	Map and prioritize land acquisitions that will establish buffers and habitat resilience to climate change.	Staff	1,11,12
Planning	Examine and map connectivity corridors and share information with state, local, and private landowners and trusts to enhance wildlife conservation.	Staff	14,15
Planning	Facilitate sharing of resource maps between state and federal agencies, municipalities, and NGOs to enhance access to resource mapping data for management decisions.	Public, Stakeholders, and NGOs	12,15
Planning	Develop a public drinking water supply action plan.	Public, Stakeholders, and NGOs	15
Planning	Coordinate Wildlife Action Plan actions with the Forest Action Plan and other forest management programs.	Public, Stakeholders, and NGOs	15
Planning	Conduct strategic planning sessions for DEEP staff successional planning.	Staff	15

Category	Conservation Action	Source	Threats Addressed
Planning	Work with state and municipal planners to ensure that wildlife resources are routinely incorporated into state and municipal planning in a consistent way.	Public, Stakeholders, and NGOs	14,15
Planning	Identify key GCN bat flight and migratory corridors and enhance roosting, nursery, and feeding habitats, and water resources.	2005 WAP Action	12
Planning	Expand the CT River Watershed NALCC pilot project and combine with species atlas and monitoring.	Public, Stakeholders, and NGOs	7,12
Planning	Identify undeveloped parcels and identify landowners and partners to conserve land without purchasing.	Staff	1,14,15
Planning	Develop appropriate management strategies for lake watersheds to reduce eutrophication including stormwater management.	2005 WAP Action	7,9,12
Planning	Promote effective state and local regulations for the conservation of aquatic habitats.	Public, Stakeholders, and NGOs	14,15
Planning	Implement plan to prioritize and address problems caused by invasive aquatic nuisance species.	Revised 2005 WAP Action	8,12
Planning	Encourage group or cluster development initiatives to protect larger blocks of contiguous habitat.	Public, Stakeholders, and NGOs	1
Planning	Plan development and urban growth to minimize impacts to natural resources and wildlife.	Public, Stakeholders, and NGOs	1
Planning	Implement plan to prioritize and address problems caused by invasive aquatic plants.	Staff	8
Species Management	Increase management of bear population through hunting season.	Public, Stakeholders, and NGOs	5
Species Management	Minimize or eliminate unintentional injury or mortality to resources due to fishing.	2005 WAP Action	5

Category	Conservation Action	Source	Threats Addressed
Species Reintroduction and Stocking	Avoid stocking domestic trout on top of significant wild populations.	2005 WAP Action	5
Species Reintroduction and Stocking	Reintroduce native GCN species as appropriate.	Public, Stakeholders, and NGOs	1,5,12
Species Reintroduction and Stocking	Continue stocking juvenile life stages of Atlantic salmon.	2005 WAP Action	5,12
Species Reintroduction and Stocking	Stock trout strains most likely to establish self-sustaining wild populations into waters selected for special management.	2005 WAP Action	5,7
Species Reintroduction and Stocking	Prevent immediate take of pheasants upon release at stocking locations.	Public, Stakeholders, and NGOs	5
Species Reintroduction and Stocking	Reestablish native fish populations in areas where they have been extirpated.	2005 WAP Action	12
Technical Assistance	Provide Wildlife Action Plan maps and web-based tools such as GIS mapping for use by DEEP personnel and partners. Measure: Number of Wildlife Action Plan maps and web-based tools provided; number of DEEP personnel and partners using the WAP maps and web-based tools.	Public, Stakeholders, and NGOs	12,14
Technical Assistance	Develop standards for road crossings and road designs (e.g., curbs, box culverts) to reduce the mortality of GCN herpetofauna species. Measure: Number of standards for road crossings and road designs developed to reduce the mortality of GCN herpetofauna species.	Public, Stakeholders, and NGOs	4,14

Category	Conservation Action	Source	Threats Addressed
	Provide technical assistance and Best Management Practices to aquatic habitat managers and planners to minimize degradation of habitats and effects on GCN species due to dredging, drawdowns, entrainment (suspended particles), and other habitat alterations. Measure: Number of sites where degradation of aquatic habitats from drawdowns, entrainment and other habitat alterations was minimized as a result of technical assistance and Best Management Practices.	Revised 2005 WAP Action	7
Technical Assistance	Work in partnership with the Natural Resources Conservation Service to deliver programs that provide cost-share incentives for private landowners to manage their lands to benefit GCN species and their habitats. Measure: Number of programs delivered, in partnership with Natural Resources Conservation Service, that provide cost-share incentives for private landowners to manage their lands to benefit GCN species and their key habitats.	Staff	15
	Develop outreach materials to increase public awareness of threats posed to GCN birds from window strikes and lighting design. Develop Best Management Practices for architects, engineers, and building managers to minimize the impacts to GCN birds. Measure: Number of outreach materials developed to increase public awareness of threats posed to GCN birds from window strikes and lighting design; number of Best Management Practices developed to minimize the impacts of window strikes on GCN birds.	Public, Stakeholders, and NGOs	12,14
	Provide technical assistance guidance, developed collaboratively by DEEP and DOT, to local governments and private organizations regarding wildlife conservation considerations for the design of multi-use trails. Measure: Number of multi-use trails designed by local governments and private organizations with technical assistance guidance provided by DEEP and DOT; number of local governments and private organizations requesting technical assistance guidance.	Staff	12

Category	Conservation Action	Source	Threats Addressed
Technical Assistance	Enhance efforts to provide current information and guidance on GCN species and key habitats to land use planners, decision-makers, and the public at the local, regional and statewide scales. Measure: Number of current informational materials or guidance provided on GCN species and key habitats to land use planners, decision-makers, and the public at the local, regional and statewide scales; number of land use planners, decision-makers, and the public requesting .current informational materials or guidance.	2005 WAP Action	14,15
Technical Assistance	Develop, in collaboration with Department of Transportation, Best Management Practices to manage roadside vegetation to reduce impacts to GCN species and their habitats. Measure: Number of Best Management Practices developed to manage roadside vegetation; number of roadside managers requesting or using the developed Best Management Practices.	Public, Stakeholders, and NGOs	4,8,9
Technical Assistance	Develop Best Management Practices for municipalities to address invasive species and encourage the use of reduced risk pesticides. Measure: Number of Best Management Practices developed for municipalities to address invasive species and encouraging the use of reduced-risk pesticides; number of municipalities requesting or using the developed Best Management Practices.	Staff	8,9,12
Technical Assistance	Develop Best Management Practices for GCN bats for use by federal, state, municipal, and private land managers to conserve and enhance bat populations. Measure: Number of Best Management Practices developed for GCN bat species for use by federal, state, municipal, and private land managers that conserve and enhance GCN bat populations.	2005 WAP Action	12,15
Technical Assistance	Develop and implement Best Management Practices to advance green energy initiatives consistent with the conservation of GCN species and their habitats. Measure: Number of Best Management Practices developed for energy applications that facilitate conservation of GCN species and their habitats; number of requests received for the Best Management Practices.	Public, Stakeholders, and NGOs	3,12

Category	Conservation Action	Source	Threats Addressed
Technical Assistance	Develop Best Management Practices and provide technical assistance to municipalities and private landowners regarding the conservation of GCN reptiles and amphibians and their habitats. Measure: Number of Best Management Practices developed and technical assistance provided to municipalities and private landowners to conserve GCN reptiles and amphibians and their key habitats.	Revised 2005 WAP Action	12,14
Technical Assistance	Provide Best Management Practices to benefit GCN species and their habitats to state, municipal, and local landowners and provide guidance on their use. Measure: Number of Best Management Practices benefiting GCN species provided to state, municipal, and local landowners along with education on implementing them.	Public, Stakeholders, And NGOs	14,15
Technical Assistance	Provide technical assistance to regulatory staff to ensure head-of-tide habitats are offered maximum protection from degradation by future development.	2005 WAP Action	1,4,9,12
Technical Assistance	Develop standards for road crossings and road design (e.g., curbs, box culverts) to reduce road mortality of GCN herpetofauna species.	2005 WAP Action	4,14
Technical Assistance	Provide technical assistance to municipalities and the Department of Transportation in order to limit road mortality of GCN amphibians and reptiles by designing and installing under-road culverts and passageways.	Public, Stakeholders, and NGOs	4
Technical Assistance	Develop BMPs for conserving and enhancing GCN bat populations on private lands.	Public, Stakeholders, and NGOs	12,14
Technical Assistance	Provide technical assistance to local municipalities regarding zoning and dividing parcels of land for development in order to conserve GCN species and their habitats. (e.g., encourage group or cluster development initiatives to protect larger blocks of contiguous habitat; plan development and urban growth to minimize impacts to natural resources and wildlife.)	Public, Stakeholders, and NGOs	1,12,14
Technical Assistance	When pesticides must be used, encourage the use of those that have minimal effect on non-target species and the environment.	Staff	9

Category	Conservation Action	Source	Threats Addressed
	Provide technical assistance to regulatory staff to minimize impacts of fish entrainment at industrial water intakes.	2005 WAP Action	7,12
	Develop BMPs for wildlife rehabbers that include releasing animals where they were captured, and controlling the risk of spreading wildlife diseases.	Staff	14
	Provide technical assistance to energy generation and transmission companies to reduce the impacts of wind turbines and transmission lines to GCN species.	Public, Stakeholders, and NGOs	3,12
Technical Assistance	Develop a system to inform DOT and local municipalities about potential impacts of infrastructure projects on GCN species and key habitats. Communicate non-binding recommendations for minimizing those impacts.	Staff	12,14,15
	Develop a portion of the DEEP website where landowners can find BMPs and voluntarily report the use of BMPs or conservation actions that may not be captured through the town permit process.	Public, Stakeholders, and NGOs	12,14
Technical Assistance	Develop statewide BMPs to minimize the impacts of residential and industrial development and encourage a balance of habitat types.	Public, Stakeholders, and NGOs	1,12
	Develop BMPs for making parking lots and surrounding areas more friendly for GCN species and their habitats, including reducing surface runoff and increasing infiltration of water.	Public, Stakeholders, and NGOs	4,12
	Develop BMPs for municipalities to minimize the effects on GCN species of drawdowns, dredging, and other vegetation controls.	Staff	7,8,12
	Provide direction or BMPs for enhancement of habitat to benefit GCN species.	Staff	12
	Provide technical assistance to utilities to manage right-of-ways to benefit GCN species and their habitats.	Staff	12
	Develop a mechanism to connect local nature groups with land managers and planners so that information regarding the distribution and abundance of GCN species can be shared and used.	Public, Stakeholders, and NGOs	14,15

Category	Conservation Action	Source	Threats Addressed
Technical Assistance	Share WAP with local conservation commissions (LCCs).	Staff	14,15
	Provide technical assistance to commercial property owners in order to enhance the land on their campuses to maximize its benefit to GCN species.	Public, Stakeholders, and NGOs	12
	Provide wildlife and habitat evaluation and assessment services to private landowners along with recommendations for best managing their property for GCN species and their habitats.	Public, Stakeholders, and NGOs	12,14
Technical Assistance	Develop Best Management Practices (BMP) for the conservation of GCN herpetofauna species for use by municipalities and land managers.	2005 WAP Action	1
Technical Assistance	Develop BMPs for timing and application of chipseal to local roads.	Public, Stakeholders, and NGOs	4,12
	Develop and enforce BMPs about the annual timing of residential, commercial, and infrastructure development.	Public, Stakeholders, and NGOs	1,4
	Develop BMPs to minimize the impact of wave and tidal energy installations on GCN species and their habitats.	Public, Stakeholders, and NGOs	3,12

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