Bog Turtle Business Plan

Executive Summary

**Conservation need:** The Bog turtle is the smallest turtle in the United States and one of the smallest turtle species in the world. It has disappeared from approximately 50 percent of wetlands in which it once occurred and populations north of Virginia have been listed as a threatened species under the Endangered Species Act. It is a characteristic species of early successional wetlands and habitats that are in decline throughout the Northeast.

**Performance targets:** A new investment of $14.8 million over 10 years would succeed in completing 10 percent of rangewide population goals for recovery through work in Massachusetts, New York and Northern New Jersey and another 5 percent of goals through work in Maryland and Pennsylvania. Approximately 35 populations will be made viable through work funded as part of this initiative.

**Key partners:** New York Department of Environmental Conservation, Massachusetts Department of Fish and Game, U.S. Fish and Wildlife Service, The Nature Conservancy, Environmental Defense Fund, State University of New York, and New Jersey Division of Fish and Wildlife.

**Major threats include:** Absence of natural or agricultural disturbance which once created and maintained suitable wetland habitat; expanding land development and human populations that eliminate wetland habitat resulting in increased isolation of remaining wetlands; degraded water quality; and increased populations of native and introduced mammalian predators that increase mortality of bog turtles and other wildlife.

**Implementation plan, key strategies, and annual budget:** Four key strategies will prevent future declines and allow existing populations to have the habitat quality and adequate buffers to grow and be sustainable:

- Restoration and creation of at least 600 acres of high quality wetland habitat and continued management thereafter, including project supervision and planning costs — $450,000/year.
- Management of compatible uses on at least 1200 acres of buffer around core wetlands — $250,000/year.
- Protection of key habitat by securing long term management certainty over 800 acres of core habitat — $4.3 million total.
- Establishment of long-term contracts with farmers sufficient to maintain periodic grazing activity in wetlands to prevent invasive plant and trees from becoming the dominant cover — $350,000/year.

**Significant ancillary benefits:** A number of other wildlife, including Blanding’s turtle, Clayton’s copper butterfly, prairie warbler, golden-winged warbler will benefit from these conservation actions, as will a suite of rare wetland plants.
**NFWF financial leadership:** NFWF will need to provide about 1/3 of annual costs, or about $500,000/year. USDA Natural Resources Conservation Service funding is available to cover a significant share of all permanent easement costs and management costs at these and other sites, to a potential total investment of $1 million/year; Partners for Fish and Wildlife is actively restoring sites, but with less than $60,000/year in expenditures.

**Risk:** There are few significant risks to the potential success of this initiative, however, there is a moderate risk that in some or many locations incompatible uses will come to dominate wetland buffers and make continued management of a sustainable bog turtle population more time intensive and expensive to achieve. In addition, some wetlands are completely and irreversibly isolated from other sites; if agencies decide that this isolation precludes populations from being considered as part of recovery, work in those sites will no longer count as progress.
Bog Turtle Logic Framework

- Demand for turtles
- Inadequate site mgmt.
- Public data on sites
- Poaching
- Increased predation
- Water quantity & quality
- Beaver?
- Incompatible land uses
- Incompatible ag practices
- Changed plant community
- Exotic invasive plants
- Native invasive trees
- Roads/ Barriers
- Reintroduce disturbance
- Road re-engineering

Project Scope: Early Successional Habitat Initiative
- Inadequate survival & recruitment
- Inadequate reproduction
- Inadequate dispersal/ expansion
- Network of bog turtle populations

Legend

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