

# PROBLEMS AND STRATEGIES FOR NEW ENGLAND COTTONTAIL MANAGEMENT IN MAINE

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**Problem 1:** Cost of conservation easements or outright land purchase will be high.

Strategy 1.1: When possible, establish NEC core habitats on existing conservation lands.

Strategy 1.2: Make full use of federal funding sources and landowner incentive programs.

Strategy 1.3: Spread acquisitions out over a number of years to lower costs for any one year.

**Problem 2:** Land/conservation easement purchases by state agencies are often cumbersome, take a long time to process, and may be socially or politically controversial.

Strategy 2.1: Partner with groups with expertise in land and/or easement acquisition such as TNC, Maine Coast Heritage Trust, and local land trusts to obtain conservation easements or outright purchase.

**Problem 3:** Large (at least 25 acres) blocks of land in the correct successional stage may not be available.

Strategy 3.1: Acquire land/conservation easements that can be converted to the correct seral stage, and initiate management.

**Problem 4:** Methods for starting new populations of NEC are untested. However, the best time to release rabbits to start new populations is expected to be in the spring when food is abundant and released animals will have the maximum opportunity to reproduce. Trapping is most efficient in late winter when food is scarce. Thus trapping in late winter for release at "green up" seems most promising. Unfortunately, this is also the time when populations are lowest and trapping will have the greatest impact on the number of breeding animals in the source population. Given that there may be fewer than 400 NEC in the state in winter, finding enough rabbits to start 12 new populations within 10 years, without jeopardizing extant populations, may not be possible.

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Strategy 4.1: Develop and test trap and transfer methods on a few sites before proceeding with all 12+ sites.

Strategy 4.2: Select sites that have the most potential for success for initial transfers.

Strategy 4.3: Select source populations based on the following criteria, in order of preference: (1) populations that are expected to be lost due to habitat loss or are too small to sustain a population for 5 or more years, (2) large isolated populations where animals have little chance of reaching other suitable habitat, and (3) populations from large sites where some animals can be removed with little concern of jeopardizing the local population of rabbits. In the latter case, rabbits may be successfully colonizing surrounding habitat.

Strategy 4.4: If warranted, consider captive breeding or holding rabbits over winter to reduce predation losses before release in the spring.

Strategy 4.5: Consider predator reduction before release, especially if only small numbers of rabbits are available.

Strategy 4.6: Consider winter release with supplemental feeding.

**Problem 5:** Trap and transfer programs, especially initial projects where techniques are being evaluated, and animals are being monitored, may require considerable staff time.

Strategy 5.1: A graduate project would be ideal for studying the methodology and survival of initial trap and transplant attempts. The scope of the graduate project would probably be limited to 3 or 4 sites. Additional studies may be desired to document the reproductive success and dispersal of these new populations into surrounding habitat. Funding to support the graduate student(s) and his/her research would have to be obtained.

Strategy 5.2: Contract workers could be hired to assist with trapping and transplanting rabbits. They also may be used to monitor the survival of these rabbits.

Strategy 5.3: Student wildlife organizations, biology classes, and/or environmental organizations may be interested assisting with the trapping and monitoring rabbits on a voluntary basis.

**Problem 6:** Best management techniques to maintain NEC habitat are uncertain at this time.

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Strategy 6.1: Test methods for creating/maintaining early successional habitat that are cost effective and can be done with equipment easily available to most landowners. When there is a high probability of success, trials may be done on a large scale to quickly create suitable habitat for NEC. If the likelihood of success is uncertain, and could jeopardize existing occupied habitat, test plots should be small or in areas where they are unlikely to adversely effect NEC populations.

Strategy 6.2: Consult with organizations, such as power companies, that have experience maintaining areas in early successional habitat.

Strategy 6.3: Evaluate the benefits or detriments of invasive shrubs for NEC habitat.

Strategy 6.4: Evaluate management rotations that will provide NEC habitat and also provide some income to the landowner.

**Problem 7:** Management for NEC may conflict with management for other species, such as grassland birds.

Strategy 7.1: Where possible, work with large enough blocks so that habitat management will result in a rotation of several seral stages that will provide habitat for a variety of species.

Strategy 7.2: Consult with bird, invertebrate, and herpetile species specialists to determine how to accommodate the needs of other species in a NEC management program.

**Problem 8:** Landowners may not wish to manage for NEC due to concerns about liability for a species that might be listed or concern about possible future use of the land.

Strategy 8.1: Use “Safe Harbors” or “Candidate Conservation Agreement with Assurances Program” to assure landowners that they will not use the future use of their land if they manage for NEC, and they are eventually federally listed as Endangered or Threatened.

Strategy 8.2: If NEC is state listed as an Endangered or Threatened species, develop standard Incidental Take Plans to protect cooperating landowners for the short term. For the long term, work with MDIFW administration and others to develop the necessary legislation and/or rules to establish state versions of the federal “Safe Harbors” and “Candidate Conservation Agreement with Assurances Program.”

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**Problem 9:** The cost may prevent some landowners (including NGOs and governments) from managing for NEC.

Strategy 9.1: Secure WHIP, LIP, PFW and similar funds to reimburse landowners for management activities.

Strategy 9.2: Recruit volunteer labor (MCC, members of Isaac Walton league, Audubon, and other conservation groups, Scouts/4H) for activities like shrub planting or setting back succession.

Strategy 9.3: Evaluate management rotations that will provide NEC habitat and also provide some income to the landowner.

**Problem 10:** Early successional habitats are under-appreciated.

Strategy 10.1: Initiate a public education program to explain the wildlife benefits of early successional habitats. These will likely be most effective if they include information (stories) with high public interest such as rabbit reintroductions or large volunteer efforts.

Strategy 10.2: Incorporate other public values such as wildlife observation, trails, or views into early successional habitat management.

Strategy 10.3: Investigate the role (if any) of NEC habitat in Lyme disease, and initiate public education or mitigation measures if required.

Strategy 10.4: Design and post informational signs on areas being managed for NEC.

**Problem 11:** NEC management activities will require additional MDIFW staff time, which will entail hiring additional staff or reducing commitments to other activities.

Strategy 11.1: Hire contract workers or support a graduate study on NEC.

Strategy 11.2: Use SWG or other grants to fund one or more limited period positions for NEC work.

Strategy 11.3: Use volunteers associated with college level biology classes, other conservation organizations, or the general public when feasible.

**Problem 12:** Habitat fragmentation prevents NEC from moving between occupied patches and colonizing new patches.

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Strategy 12.1: The areas that are selected for the 12 core areas should be adjacent to potential travel corridors such as riparian areas, railroads, power lines, or roadsides whenever possible.

Strategy 12.2: Work with owners/managers of potential corridors to maintain shrubby cover along them.

Strategy 12.3: Procure additional corridors through easements or purchases, and manage to maintain them in shrubby condition.

Strategy 12.4: Work with DOT to develop and install crossing structures for highways.