NEW ENGLAND COTTONTAIL
WORKING LANDS FOR WILDLIFE
FY16-18 CONSERVATION STRATEGY
EXECUTIVE SUMMARY

The New England cottontail (Sylvilagus transitionalis) is native to the young forests of Connecticut, Maine, Massachusetts, New Hampshire, New York and Rhode Island. The loss of young forests, or early successional habitat, is the primary threat to the rabbit caused by development and aging forests. Fragmentation of habitat further impacts the New England cottontail by reducing the size and connectivity of forests. The maturation of forests after farmlands are abandoned as well as forestry practices that favor older forests have contributed heavily to habitat loss. Urban sprawl and development, especially in coastal areas, has further fragmented prime habitat. Meanwhile, invasive shrubs, vines and trees have also degraded the range and the functions of young forests.

RESTORING YOUNG FORESTS ON PRIVATE LANDS

USDA’s Natural Resources Conservation Service (NRCS) is working with private landowners and conservation partners to restore and protect early successional habitat that aids the cottontail and 60 other species. Since 2012, more than 130 landowners have conserved more than 2,500 acres of habitat through NRCS’ Working Lands for Wildlife (WLFW) partnership. The cottontail prefers forests that are 25 acres or greater, where thickets provide a place to raise young and escape from predators. Early successional habitat has stem densities of more than 20,000 stem-cover units per acre compared with mature forests with a density of as few as 100 trees per acre.

THE AT-LARGE EFFORT

When landowners restore habitat, they can increase their land’s timber value, making improvements to their working forests while providing habitat for desired game and non-game species. NRCS’ efforts align with the Conservation Strategy for the New England Cottontail, a long-term plan to conserve 42,000 acres of early successional habitat for the cottontail by 2030. The strategy, developed by the New England Cottontail Technical Committee, has a goal to support up to 21,000 or more cottontails. NRCS’ efforts are focused on goals for habitat conservation on private lands through WLFW. This WLFW strategy outlines goals for restoring habitat in each state with assistance from Farm Bill conservation programs administered by USDA.

RABBIT ON THE REBOUND

Largely because of the ongoing efforts to aid the New England cottontail, the U.S. Fish and Wildlife Service determined in September 2015 that protections under the Endangered Species Act (ESA) were not warranted. This determination demonstrates the power of voluntary conservation on private lands as well as the strategic approach of the WLFW conservation model.

FY 16–18 CONSERVATION STRATEGY

Earlier this year, NRCS leaders from the six states in the cottontail’s range met to develop a WLFW conservation strategy to guide the agency’s efforts during the next three years. The strategy sets milestones for 2018 that contribute toward goals for 2030 set by the New England Cottontail Technical Committee’s strategy. The WLFW conservation strategy identifies the specific goals each NRCS state office is setting to help meet the 2030 goals of the technical committee’s longer-term strategy. By 2018, NRCS aims to conserve an additional 1,400 acres of habitat, bringing the total amount of habitat restored to nearly 3,700 acres. NRCS’ conservation strategy employs a science-based approach to direct conservation activities where they can net the best biological returns. This coordinated effort leverages support from conservation partners and builds on the agency’s 80-plus year relationship with landowners across the nation.

CONSERVATION ACTION

RESTORING AND RE-ESTABLISHING EARLY SUCCESSIONAL HABITAT

Threat Addressed: Loss and Fragmentation of Habitat

Purpose and Need: The New England cottontail relies on early successional habitat for food and safety. The Northeast has experienced declines in this type of habitat because of aging forests and fragmentation from development.

Conservation Objectives: NRCS and partners will work to restore and re-establish early successional habitat by:
• Controlling weeds, managing for desired brush species, re-establishing native shrubs and encouraging forest regeneration;
• Increasing the connectivity of habitat;
• Restoring wetlands in priority areas;
• Creating patches of young forests amid mature forests;
• Using conservation easements to restore and protect habitat;
• Providing information to landowners on the benefits of managing for young forests; and
• Providing technical assistance to managers of public lands.

Funding Source: Environmental Quality Incentives Program (EQIP), Agricultural Conservation Easement Program (ACEP), Regional Conservation Partnership Program (RCPP) and conservation technical assistance (CTA).
Briers and Brambles. The New England cottontail and many other species depend on early successional habitat, or young forests, for their survival. Photo by U.S. Fish and Wildlife Service.

WLFW Targeting: WLFW strategically invests where conservation returns are highest. This strategy is customized to best meet the challenges and landscape of the six states in the New England cottontail range.

WLFW Outcomes: More than 130 landowners have conserved more than 2,500 acres of habitat funded through EQIP since 2012. Additionally, through conservation technical assistance, NRCS conservationists work with landowners to develop customized management plans to help guide conservation efforts that benefit the landowner, wildlife and natural resources. By restoring and re-establishing early successional habitat, landowners are improving the overall health of their forests through sustainable forestry practices, benefitting both game and non-game species.

FY16-18 Strategy Refinement: By 2018, NRCS aims to conserve an additional 1,400 acres of habitat, bringing the total amount of habitat restored to more than 3,900. In addition to EQIP and technical assistance, NRCS is piloting the use of conservation easements to restore and protect critical cottontail habitat through ACEP. Additionally, NRCS is seeking opportunities to use RCPP, a partner-driven program created with the 2014 Farm Bill, to leverage additional support.

**COMMITMENT TO CONSERVE EARLY SUCCESSIONAL HABITAT**

<table>
<thead>
<tr>
<th>State</th>
<th>Acres</th>
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</thead>
<tbody>
<tr>
<td>Connecticut</td>
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</tr>
<tr>
<td>Maine</td>
<td>250</td>
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<td>Massachusetts</td>
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<td>New York</td>
<td>70</td>
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<tr>
<td>Rhode Island</td>
<td>336</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1,437</strong></td>
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</tbody>
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**State Conservation Objectives:** NRCS and partners will work with Connecticut landowners to restore and re-establish early successional habitat with emphasis on:

- Controlling weeds, managing for desired brush species, re-establishing native shrubs and encouraging forest regeneration. This involves cutting of over-grown habitat to re-create young forests and the desired thicket habitat the cottontail needs.

- Using conservation easements to restore and protect habitat. The habitat can either be re-cut on a recurring basis or rotated through a forest block to enhance forestry activities and desirable wildlife species as well as provide young forest habitat.

- Providing information to landowners on the benefits of managing for young forests. This outreach effort will highlight the positive values of timber management to improve economic values of forests and increase wildlife diversity.

**State Milestones:** As part of this strategy, NRCS aims to conserve 675 acres of habitat by the end of 2018, bringing the total amount of conserved habitat in the state to 1,809 acres. These habitat restoration efforts contribute to the New England Cottontail Technical Committee's 2030 goal of conserving 3,725 acres of habitat in Connecticut to support about 1,860 rabbits through Farm Bill programs.

**Program** | **Acres**
---|---
EQIP     | 400
State Conservation Objectives: NRCS and partners will work with Massachusetts landowners to restore and re-establish early successional habitat with emphases on controlling weeds, managing for desired brush species, re-establishing native shrubs and encouraging forest regeneration. To achieve this, NRCS will use three key strategies:

- Use of prescribed fire to restore forests dominated by pitch pine and scrub oak;
- Restoring young forests lost to succession in the Southern Berkshire Area; and
- Restoring young forests lost to succession in the Southern New England Coastal Plains Area.

State Milestones: As part of this strategy, NRCS aims to conserve 151 acres of habitat by the end of 2018, bringing the total amount of conserved habitat in the state to 415 acres. These habitat restoration efforts contribute to the New England Cottontail Technical Committee’s 2030 goal of conserving 1,250 acres of habitat in Massachusetts to support about 625 rabbits through Farm Bill programs.

CLOSER LOOK AT MASSACHUSETTS’ APPROACH

Strategy 1: Use of Prescribed Fire to Restore Forests Dominated by Pitch Pine and Scrub Oak.
Pitch pine and scrub oak plant communities thrive on lands with coarse, sandy soil that drain rapidly. If the land receives frequent disturbance from fire and other natural processes, these forests are dominated by scrub oak and pitch pine. Because of fire suppression, the forests have changed in character, exhibiting more of a closed canopy structure, which shades understory plants that the cottontail needs. NRCS will work with landowners to thin trees to reduce the fuel load, create fire breaks and conduct prescribed burning. This will help prevent wildfires, improve plant diversity and establish cottontail-friendly habitat.

Strategy 2: Restoring Young Forests Lost to Succession in Southern Berkshire Area
The Southern Berkshire focus area consists predominantly of hardwood forests, both northern hardwoods like maple, beech and birch, and transition hardwoods like oak and hickory. The forest cover in the state is generally 60-90 years old, offering limited diversity to wildlife. In this focus area, NRCS is targeting efforts in forests with low-quality timber and little diversity. Typically, NRCS works with landowners to remove 70-90 percent of the forest canopy, sparking a rapid response by understory shrubs and regenerating trees. This new thicket lasts 10-25 years.

Strategy 3: Restoring Young Forests Lost to Succession in the Southern New England Coastal Plains Area
The Southern New England Coastal Plains focus area is diverse in its characteristics and habitats. Most of the land available for habitat restoration efforts are abandoned farmland or second-growth hardwood forest. Although this focus area is more densely populated, NRCS has partnership opportunities with organizations that have acquired land to preserve open space. Most of the restoration will be done through mechanical cutting and removal of invasive plants.

Strategy Acres
1 - EQIP 25
2 - EQIP 114
3 - EQIP 12
MAINE

State Conservation Objectives: NRCS and partners will work with Maine landowners to restore and re-establish early successional habitat with emphasis on:
• Controlling weeds, managing for desired brush species, re-establishing native shrubs and encouraging forest regeneration. NRCS will focus on working with landowners to develop and begin implementing forest management plans that target habitat creation, enhancement and maintenance. NRCS will also focus on establishing habitat west of I-95 because parcels tend to be larger, and habitat is less fragmented.
• Increasing the connectivity of habitat. In Maine, cottontail populations are isolated from each other because of development, especially along the I-95 corridor. The North-South Connector, one of the strategy’s focus areas, is a powerline that can serve as a corridor to help expand the rabbit’s range.
• Creating patches of young forests amid mature forests. In Maine, about 3 to 5 percent of forests are dense regenerating young forest, which is not enough habitat for the New England cottontail.

State Milestones: As part of this strategy, NRCS aims to conserve 250 acres of habitat by the end of 2018, bringing the total amount of conserved habitat in the state to 539 acres. These habitat restoration efforts contribute to the New England Cottontail Technical Committee’s 2030 goal of conserving 1,795 acres of habitat in Maine to support about 900 rabbits. The New England cottontail is listed as an endangered species by the state, and NRCS is committed to aiding the rabbit’s rebound through Farm Bill programs.

NEW HAMPSHIRE

State Conservation Objectives: NRCS and partners will work with New Hampshire landowners to restore and re-establish early successional habitat with emphasis on:
• Controlling weeds, managing for desired brush species, re-establishing native shrubs and encouraging forest regeneration. Habitat restoration and maintenance will be targeted on key landscapes. Once sites are restored, NRCS will work with partners to determine if the site is suitable for release of New England cottontails bred in captivity.
• Using conservation easements to restore and protect habitat. New Hampshire is the fastest growing state in New England, especially in the southeastern part of the state. Development fragments habitat. NRCS will encourage use of conservation easements to restore and protect habitat in development-prone areas. The easements will secure permanent habitat anchor points across the landscape.
• Providing information to landowners on the benefits of managing for young forests. Targeted outreach will help encourage habitat establishment along corridors and other key habitat blocks.

State Milestones: As part of this strategy, NRCS aims to conserve 230 acres of habitat by the end of 2018, bringing the total amount of conserved habitat in the state to 951 acres. These habitat restoration efforts contribute to the New England Cottontail Technical Committee’s 2030 goal of conserving 1,795 acres of habitat in New Hampshire to support about 440 rabbits through Farm Bill programs.
State Conservation Objectives: NRCS and partners will work with New York landowners to restore and re-establish early successional habitat with emphasis on:

- Controlling weeds, managing for desired brush species, re-establishing native shrubs and encouraging forest regeneration. NRCS will work with New York landowners to encourage young dense growth in forests with a goal of developing more medium- to large-scale parcels of thicket and early successional habitat that will benefit the New England cottontail and other early successional species identified in New York’s State Wildlife Action Plan.
- Increasing the connectivity of habitat. NRCS will use geospatial land-use analysis and collaborative partnerships with other organizations to improve connectivity between quality habitat blocks.
- Using conservation easements to restore and protect habitat. NRCS will work with landowners to restore and protect habitat through establishment of conservation easements as well as assistance managing existing easements to improve cottontail habitat.

State Milestones: As part of this strategy, NRCS aims to conserve 70 acres of habitat by the end of 2018. These habitat restoration efforts contribute to the New England Cottontail Technical Committee's 2030 goal of conserving 1,200 acres of habitat in New York to support about 60 rabbits through Farm Bill programs.

State Conservation Objectives: NRCS and partners will work with Rhode Island landowners to restore and re-establish early successional habitat with emphasis on:

- Increasing the connectivity of habitat. The southern focus area in Rhode Island has existing populations of New England cottontail, and projects here will improve habitat connectivity.
- Using conservation easements to restore and protect habitat. NRCS will encourage use of conservation easements to restore and protect habitat. The easements will secure permanent habitat anchor points across the landscape.
- Providing information to landowners on the benefits of managing for young forests. Through a comprehensive partnership, NRCS is targeting outreach to landowners and land trusts. NRCS will use an outreach and marketing plan to target landowners in priority areas.
- Providing technical assistance to managers of public lands. NRCS will work with land trusts and managers of public lands to provide management plans.

State Milestones: As part of this strategy, NRCS aims to conserve 336 acres of habitat by the end of 2018, bringing the total amount of conserved habitat in the state to 437 acres. These habitat restoration efforts contribute to the New England Cottontail Technical Committee's 2030 goal of conserving 3,500 acres of habitat in Rhode Island to support about 1,750 rabbits through Farm Bill programs.
Natural Resources Conservation Service
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