



*American Kestrel © Sam Swartley*



*Bobolink © Caroline Sampson*



Habitat Assessment and Management  
Recommendations for  
Long Point Corporation, LLC  
Ferrisburgh, VT

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## Introduction and Context

The following report is an initial habitat assessment of the Long Point Corporation (LPC) property in Ferrisburgh, Vermont and provides recommendation options for bird-friendly land management to promote effective avian habitat. The purpose of this report is to describe current site conditions and offer suggested conservation actions to guide future management decisions. This assessment is part of Audubon Vermont's Working Lands Program, which offers recommendations based on habitat requirements of priority bird species that have been identified by the Vermont State Wildlife Action Plan (VSWAP) and the North American Bird Conservation Initiative (NABCI), and are the focus of regional conservation efforts of the Champlain Valley (see Appendix 1). Although this report is concerned primarily with habitat management for birds, numerous non-avian species will also benefit. Recommendations are included for a variety of habitat types, including forest, residential and riparian areas, but the focus is on the grassland fields, which comprise the largest portion of the property. Audubon Vermont's conservation initiatives for priority bird species in [shrubland habitat](#) and [healthy forests](#) are typically geared towards larger habitat blocks, but general best management practices still apply here. These recommendations are not intended to conflict with land management objectives and we recognize landowner goals may take priority over these recommendations. LPC may already practicing some bird-friendly techniques, so this report hopes to identify and prioritize additional steps that could be taken.

LPC lies in the Lower Great Lakes/St. Lawrence Plain Bird Conservation Region (BCR 13), which encompasses a narrow, low-lying plain stretching from the Champlain Valley west to Northeastern Ohio and surrounds the St. Lawrence River, and lakes Erie, Ontario, and Champlain (Figure 1).

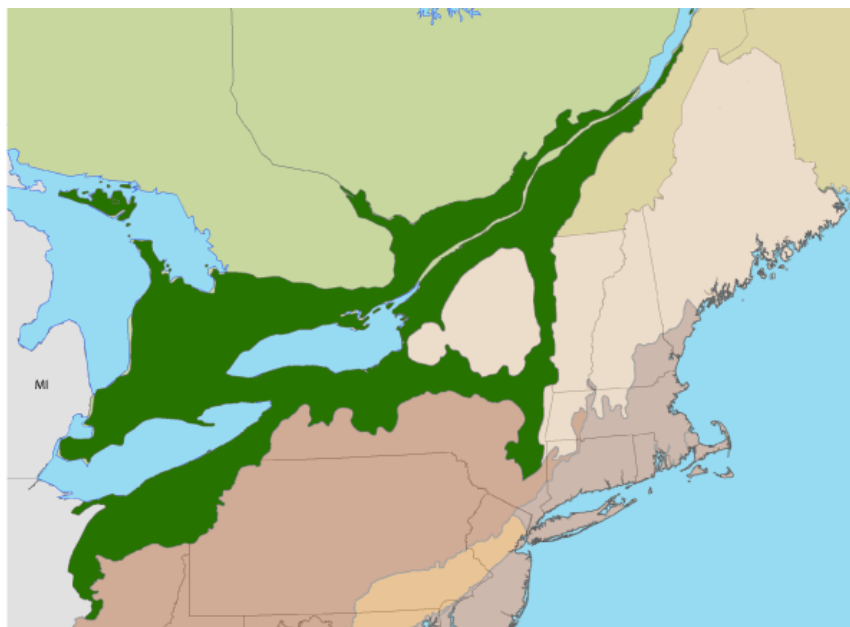


Figure 1. The Lower Great Lakes/St. Lawrence Plain (BCR 13) shown in green.

This BCR is comprised of extensive wetland ecosystems, accompanied by a mosaic of forests, agricultural fields and early successional habitat (abandoned fields reverting to shrubland or young forests). The Champlain Valley of Vermont and New York has been identified as a Focus Area within BCR 13 because its mixed habitat types and open water are home to a number of BCR13's priority bird species.

Siting on the eastern shore of Lake Champlain, the larger landscape surrounding LPC is open water to the west and predominantly open agricultural fields and rural homes with interspersed forest fragments to the north and east. Directly abutting the property to the south is Lewis Creek, part of the [Little Otter Creek Wildlife Management Area](#) owned by the Vermont Department of Fish and Wildlife. Little Otter Creek is a priority waterway identified by the state of Vermont Department of Environmental Conservation for impaired water quality. The wetland and associated riparian and lacustrine habitats have been identified by Audubon Vermont as an [Important Bird Area \(IBA\)](#), serving as a vital breeding location for state endangered and threatened aquatic-dependent species, particularly marsh birds and other priority species including Bald Eagle, Osprey, American and Least Bittern, and American Coot.

The LPC property is a 200-acre seasonal residential home community, comprised of actively managed grasslands for hay crop, walking trails in shrub and forested areas, and a small park. The habitat types at LPC support bird species characteristic of grasslands, early successional habitat types (shrublands and young forest), and riparian areas along the Lewis Creek stream and wetland delta complex. There are many priority bird species identified by Audubon Vermont that are particularly well suited to these habitat types, but some include American Woodcock, Northern Harrier, American Kestrel, Bobolink, and Northern Flicker.

Audubon staff surveyed the property on December 16, 2021 and again on 10 June, 2022 with LPC board members. The June visit occurred when avian breeding activity was high and as a result probability of detection was also high. Bird species observed during the June 10 survey are listed at the end of this report as well as all species observed in the area since 2020 that have been reported to eBird and priority species in the Lake Champlain region.



## Managing for Birds – General Concepts

### Native Plants for Birds

Restoring, creating, and maintaining native plant habitats is vital to preserving the biodiversity of birds, pollinators, and other wildlife. Each area of native plants becomes part of a larger effort to provide habitat for wildlife across the Vermont landscape and contributes to biodiversity.



In landscapes dominated by agriculture, field margins, grasslands, hedgerows, ditches, and surrounding forest patches and riparian areas provide essential foraging and breeding habitat for diverse and healthy bird communities. The presence of structurally heterogeneous (mixed height) hedgerows that incorporate a diversity of native tree, shrub, and perennial species will increase the abundance and diversity of bird species that in turn provide important on-site services, such as seed dispersal and pest control.

When creating and managing habitat for birds, there are some important factors to consider:

- **Size:** *The larger the area, the better.* Audubon recommends setting aside at least a 30-foot-wide area when planting field edges, ditches, hedgerows, or riparian areas. Avoid large gaps between habitats.
- **Bloom times:** *Plant for all of Vermont's blooming seasons.* To ensure that birds can stay in the area and reproduce, they will need food to support them throughout the entire growing season. Pay special attention to species that flower early, such as willows and maples, as well as late-flowering and berry producing species such as asters, goldenrods, dogwoods, and viburnums.
- **Complexity:** *The greater the complexity of structure the better.* Think about the layers of the forest for inspiration. Some tall trees mixed in with medium height trees and shrubs and interspersed with open areas of native grasses and forbs such as goldenrod and asters are ideal.
- **Diversity:** *Diversity is the key to survival.* The greater number of plant species provided, the more diversity. (see more info in table below).

- Keep it Local: *Consider the local neighboring habitats*. Determine what types of trees and plants are established and doing well and can serve as sources for seeds or additional plantings. These habitats will also indicate which species are likely to be using an area.
- Invasive Species Removal: *Invasive plant removal will let native plants thrive*. Where possible, remove invasive plants such as wild parsnip, reed canary grass, honeysuckle, buckthorn, and multiflora rose. See details on the most common invasive plants in the table below and resources at the end of the document.
- Planned uses: *How will this land be used over time?* Consider whether the area will be grazed or managed periodically (i.e., ditched, brush-hogged, etc.). This will help guide decisions about which plants should be established and are likely to thrive in the long term.
- Cutting regimes: consider the timing and frequency of mowing, if mowing is necessary. Where possible, allow native plants to complete blooming and minimize or eliminate mowing directly under trees in open areas so as to provide habitat for beneficial insects. See details later in report for more information on bird-friendly hayfield management.



## Superstar Native Plants for Vermont

Some native plants are more powerful than others when it comes to supporting birds and pollinators. Consider what's already present on your farm's landscape, encourage their growth, and fill the gaps with some more superstars.

FAVOR NATIVE TREES	FAVOR NATIVE SHRUBS	FAVOR NATIVE PERENNIALS	REMOVE INVASIVE PLANTS
<p><b>Oak</b> – Oaks stand out for their biodiversity potential. They serve as larval hosts for hundreds of species of insects, which in turn provide reliable forage for birds. Host to 462 species of caterpillars. Blooms April-May.</p>	<p><b>Shrub Willow</b> - Willows are often the only food sources for early emerging pollinators. A tremendous diversity of shrub willows is native to Vermont. Host to 371 species of caterpillars. Blooms March-May.</p>	<p><b>Joe Pye</b>– An excellent, long-blooming nectar source in mid-summer. Host to 42 species of caterpillars. Blooms July-September.</p>	<p><b>Buckthorn</b> – Takes over and prevents natives from growing. Leaf out earlier in the spring than native species, re-sprouts when cut back, and the seeds remain viable in the soil for several years. The fruits have a laxative property which both spreads the plant and limits birds' ability to absorb nutrients.</p>
<p><b>Black Cherry</b> - Cherries are second only to oaks when it comes to the number of species of insects that they support. Cherry fruits also feed the birds. Host to 390 species of caterpillars. Blooms April-May.</p>	<p><b>Alder</b> – Another essential, early-blooming shrub. Provides food and cover for goldfinches and grouse. Thrives in wet soils. Host to 222 species of caterpillars. Blooms in March.</p>	<p><b>Aster</b> - Provides late-season pollen and nectar to foraging insects. Birds feast on the seeds through the fall and winter. Host to 99 species of caterpillars. Blooms August-September.</p>	<p><b>Honeysuckle</b> – This invasive shrub takes over and crowds out native plants. Produces thousands of berries with several seeds each that can remain viable for 3-5 years. Birds will eat the sugary fruit, but it's not nutritious or fatty enough to sustain long flights during migration.</p>
<p><b>Birch</b> – A favorite tree for birds to forage for insects on the bark. Birch seeds are an important food source for birds. Host to 354 species of caterpillars. Blooms April-May.</p>	<p><b>Dogwoods</b> – Berries of different species of native Vermont dogwoods ripen throughout the summer, providing a steady supply of fruit for birds. Blooms April-May.</p>	<p><b>Goldenrod</b> - Provides even later-season pollen and nectar to foraging insects. Birds feast on the seeds through the fall and winter. Not responsible for seasonal allergies. Host to 125 species of caterpillars. Blooms August-October.</p>	<p><b>Reed Canary Grass</b> – This non-native grass can make a field unsuitable for nesting grassland birds, and because it can outcompete native grasses, it can make it difficult to establish new plants where the grass is present.</p>
<p><b>Red Maple</b> – One of the first flowers to bloom in the spring. Red maples flower every year, providing a reliable food source for early pollinators. Host to 276 species of caterpillars. Blooms March-April.</p>	<p><b>Blueberries</b> – Delicious for humans as well as birds. Host to 276 species of caterpillars. Blooms in May.</p>	<p><b>Sunflowers</b> – While not native to Vermont, sunflowers are a great larval host and a favorite high-fat seed source for birds. Plants will self-seed from year to year, but are an annual, not a perennial. Host to 60 species of caterpillars. Blooms July-September.</p>	<p><b>Wild Parsnip</b> – This invasive forb can take over grassland and edge habitat and outcompete native forbs and grasses. The plant is toxic to humans and livestock.</p>

## Shelter for the Birds

While providing an adequate number of native flowering plants is essential, it is only half of the battle. Birds and other species also need a safe place to build a nest and spend the winter.

- Snags – Standing dead trees -- or snags -- provide great habitat for a variety of insects and birds. If safe, leave snags standing. Woodpeckers excavate nesting cavities which are used as their nesting sites, as well as sites for a wide range of birds, including owls, chickadees, and tree swallows.
- Woody Shrubs – Shrubland birds are declining in general, and providing native shrub habitat for these species is beneficial for both nesting and food resources. In addition, many native bees spend the winter inside stems or branches of shrubs such as raspberries, blackberries, and sumac. They tend to spread very quickly, so if they are encroaching on fields, driveways, or other parts of the property, don't hesitate to prune them back. This is beneficial for the bees, which prefer broken or cut stems since the softer interior is easier to burrow through. Birds can also use these broken stems for nest building in the spring.
- "The messier, the better" – Birds prefer "messy" yards. Piles of scrap wood, logs, leaves, stone walls, rocks, and mounds of soil are all great habitat for solitary bees to nest and for bumblebee queens and other insect larvae to spend the winter. Birds use these sites to forage for food and utilize brush piles for shelter from predators and the cold.
- Bird Nest Boxes – are easy to construct and widely available commercially. Consider erecting nest boxes for birds like American Kestrel, Tree Swallow, and Eastern Bluebird. [Kestrel boxes](#) should be put in a prominent tree near the forest edge or in a field, with any boxes at least half a mile apart. [Swallow and bluebird boxes](#) can be placed along fence lines in close proximity. Many different [design plans](#) are available. All boxes should be cleaned every spring.
- Raptor Perches – Hawks, falcons, and owls can serve as natural pest control on farms by preying on rodents and non-native birds, such as House Sparrows and European Starlings, that tend to form large flocks and are more likely to cause crop damage than a diverse group of solitary native birds. Installing [T-bar platforms](#) will attract raptors for perching and hunting.
- Bat Boxes and Towers— Bats also serve as effective mosquito control. Like many bird and bee species, bats are also declining, with several species in [Vermont](#) listed as endangered or threatened. Provide shelter by mounting a bat [box](#) or [tower](#) on buildings for better temperature regulation, direct sunlight, and less predator access than trees. Clean in late winter before bats return.



Left to right: Pileated woodpeckers in natural cavity nest, American Kestrel box, swift tower, Red-tail hawk on T-bar

## Exercise Care with Insecticides

Even if insecticides are not actively being used on the property, be aware that crop seeds are sometimes treated with neonicotinoids, and harmful compounds can remain with the plant throughout its lifetime. Placing as much distance as possible (minimum 125 feet) between treated crop fields and habitat will ensure that insects will not encounter these chemicals while foraging. If insecticides must be used, be mindful of where and when they are applied. The best times to apply are during the evening on days that have not rained, and just after dark when bees are no longer active.



## Long Point Corporation Habitat Assessment & Recommendations

### Summary of Current Conditions

Current management at LPC consists of seasonal cutting of the grassland for hay in late June/early July and other property maintenance mowing throughout the season for open habitats. There is a community park and garden, hedgerows lining the grassland and access road to homes, residential areas along the lakeshore, and the Lewis Creek fishing access boat launch. Beneficial native tree, shrub, and herbaceous plant species observed on the property include: red and white oak, silver and red maple, American Elm, grey and red-osier dogwood, prickly ash, black walnut, red cedar, poplar, American basswood, goldenrod, raspberry, Virginia creeper, and river grape. Non-native invasive and noxious plants observed include bush honeysuckle and common buckthorn on field and road edges and forested areas as well as wild parsnip in the grassland. The management recommendations listed below are intended to make minor adjustments to existing practices to enhance habitat quality and provide additional resources for wildlife.

### Management Options

Management options are provided for each habitat unit, which for the purpose of this report, have been divided into five categories: 1) open hay fields, 2) hedgerows 3) forested patches, 4) riparian areas, and 5) residential/common areas (Figure 2). These recommendations have been prioritized and are listed in order of potential for greatest conservation impact. General goals and habitat components to achieve include mowing at a time and frequency conducive to breeding grassland birds and greater structural diversity and spatial distribution of early-, mid-, and late-blooming native species in other habitat units. The latter component will enhance habitat quality and offer food and shelter resources over the duration of the growing season evenly across the property.



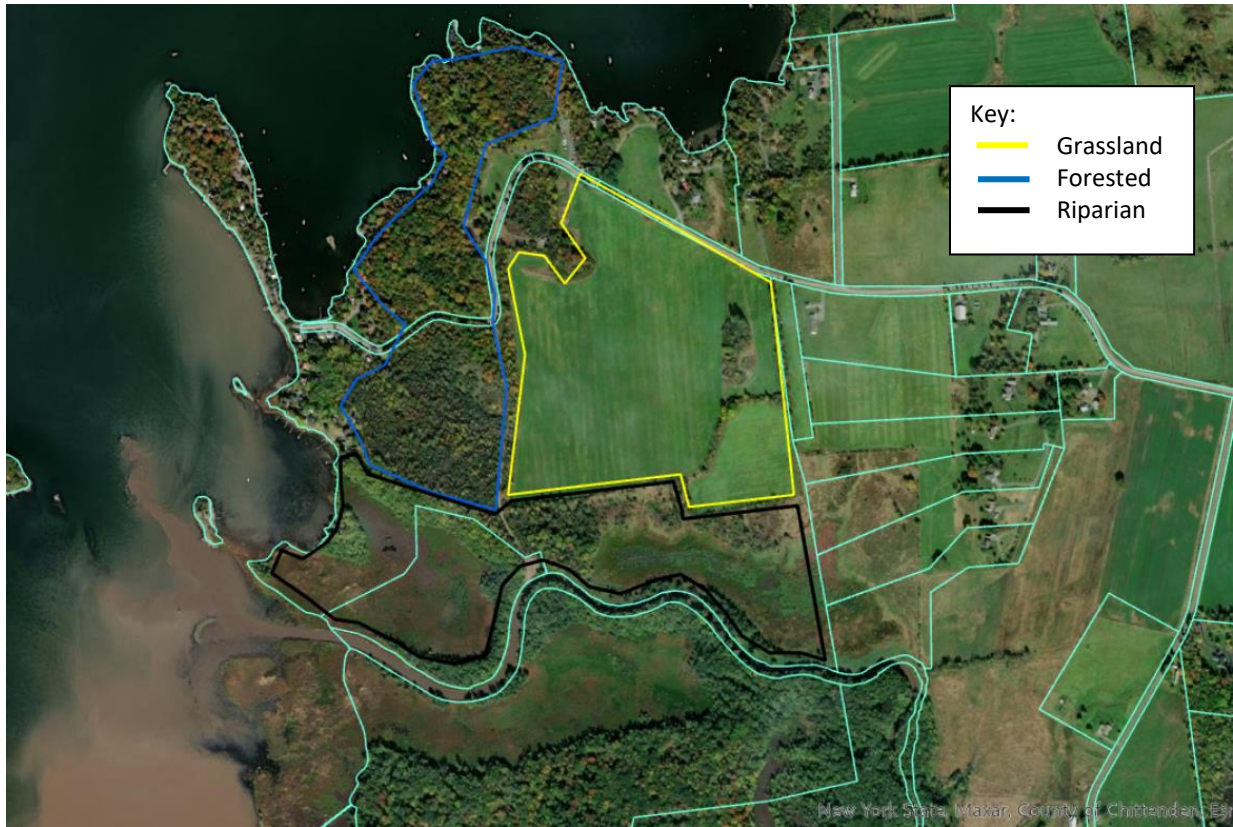


Figure 2. Map of the LPC parcel with habitat units outlined.

### **Open hay fields**

#### *Assessment of current habitat conditions:*

Two open fields make up approximately 85 acres of hayed grassland, with hedgerows dividing a small portion in the southeast corner. Non-native and invasive Wild parsnip is creeping in from most edges, especially along the road and northwest corner. These fields are an appropriate regular shape and large enough (well over the recommended 20-acre minimum) to attract and support breeding grassland birds. Grassland species are some of the most rapidly declining groups of birds. Bobolink, Savannah Sparrows, Northern Harrier, and American Kestrel have all been observed in these LPC-owned hayfields or adjacent fields (eBird reports). No bobolinks were seen using the LPC hayfields during the June 10 site visit. However, bobolinks were seen and heard in the neighbor's uncut field that borders the eastern property line during that visit. These birds may have been using the adjacent field with taller grass as a primary site selected for nesting or may have moved from the LPC fields after an initial nesting attempt and failure as a result of LPC early-season mowing. Therefore, they could be using the surrounding fields later in the season as a refuge or second breeding attempt, but that is difficult to confirm. Currently, LPC fields are mown in late June/early July by a local farmer and hay is brought to a dairy farm in Bristol. These fields have the potential to support grassland bird species including Bobolink, Eastern Meadowlark and Short-eared Owl. The most practical enhancement of the fields while maintaining current use would be to

alter the timing and frequency of hay mowing to allow ground-nesting grassland birds the chance to successfully breed and fledge young. Several options are presented below.



Uncut field neighboring the LPC property, where Bobolinks were observed on June 10, 2022.

*Management recommendations:*

Option A – Delayed Cut

- Perform a delayed cut every 1-2 years after the primary nesting season to maintain grassland habitat and prevent the intrusion of woody species. Optimally, mowing should be completed after **August 1** to accommodate nesting birds, but could be as early as **July 15**.
- This regime will allow the birds to nest successfully and will maintain the grassland habitat, but may allow for invasive plants, such as wild parsnip and spotted knapweed to establish and go to seed. For more information, see Invasive Species Management section below.
- If possible, manage the field to contain 50-75% grasses, limiting the remainder forbs such as goldenrod, asters and milkweed. This habitat structure is most attractive to grassland birds such as Bobolinks and Meadowlarks. Lime and fertilizer may help improve grass growing conditions.
- Remove hay after cutting to provide the best conditions for re-growth of grass. Birds will settle in greener fields in the spring.

- If possible, maintain an uncut buffer of shrubby vegetation as the field transitions to the forested portions of the property. Transitioning from field to forest with a “soft” buffer of early successional shrub species can be a productive area for many bird species.

#### Option B – Early-Late Cut

- Mow field before June 1, then wait a minimum of 65-days for second cut if possible. If mowing is needed prior to this date, the cut should be completed after July 4. These recommendations attempt to minimize negative impacts of agricultural activities to nesting birds while maintaining habitat that could potentially be used by priority bird species. Leaving the field uncut for 65 days after an early cut will allow the birds to re-nest successfully. This cutting regime and/or cutting areas to a height greater than 8 inches tall will benefit grassland species and may be successfully integrated into current agricultural practices.
- Remove hay after each cutting to provide the best conditions for re-growth of grass. Birds will settle in greener fields in the spring.
- If possible, maintain an uncut buffer of shrubby vegetation as the field transitions to the forested portions of the property. Transitioning from field to forest with a “soft” buffer of early successional shrub species can be a productive area for many bird species.

#### Additional Options (can be practiced in conjunction with option A or B, not in place of)

- Where applicable, continue to maintain old fence posts to provide perches for singing male grassland birds.
- Add or maintain nest boxes to provide possible nesting habitat for cavity nesting species such as Eastern Bluebirds, Tree Swallows, and American Kestrels. Boxes should be cleaned every spring (see above for more info).
- Install T-bar perches to encourage use by raptors such as Red-tail Hawks, American Kestrels, and owls.

### **Hedgerows**

#### *Assessment of current habitat conditions:*

Hedgerows lining the perimeter of the hayfields and between the large and small fields are dominated by mature trees at a single canopy height with few mid-age trees and shrub species, including invasive honeysuckle and buckthorn. In general, most of these the hedgerows are narrow (less than 20 feet) in width. Edges of other open areas next to the park may also apply to these recommendations.

#### *Management recommendations:*

- Expand the width of the hedgerows where possible, to create a 30-foot wildlife corridor.
- Soften hard field edges by creating a 10-20-foot transition zone from field to forest, allowing mid-height shrubs and trees to grow in.

- Create vertical and horizontal structural diversity within hedgerows where possible, either by allowing native shrubs to grow, removing invasive shrubs, and/or removing trees that may be shading out the understory.
- Selectively remove invasive woody plant species while retaining native shrubs and forbs such as goldenrod, milkweed, and jewelweed understory.
- Leave snags where safe to do so.

## **Riparian areas**

### *Assessment of current habitat conditions:*

The southern border of the hayfields is shrubby habitat, turning increasingly swampy as it approaches the banks of Lewis Creek and the Little Otter WMA wetland. Much of this wetland area has been identified by the State of Vermont Department of Environmental Conservation as a significant riparian wildlife connectivity corridor and Little Otter Creek to the south is a Vermont priority stream for water quality improvement (Figure 3). Some beneficial native shrubs such as dogwoods, willows, and speckled alder are present, but there are also invasive plants such as honeysuckle and buckthorn. Native herbaceous perennial plants that are good to encourage if already present include Joe Pye weed, milkweed, aster, goldenrod, sunflower, jewelweed, river grape, and creeper vine.



Figure 3. Two maps of the same scale showing the LPC parcel for reference (left) and the areas in purple highlighted as significant riparian wildlife crossing areas identified and mapped by the state (right).

### *Management recommendations:*

- Allow any moisture-tolerant native shrubs to establish themselves along the open edges of the pond/wetland (shrub willow, red osier dogwood, etc.). Allow thickets to grow in size and diameter. Once shrubs reach 10 feet or more, they can be manually removed or cut. This habitat structure provides both nesting habitat and food resources.
- If desired, purchase and plant native trees and shrubs or add [live stake cuttings](#) of native rhizomatous shrubs such as willows, dogwoods, elderberry, and speckled alder to provide [bank stability and water](#)

[quality benefits](#). Native plant species already growing in these areas will do well (e.g., willows, dogwoods, speckled alder, elderberry, Aronia). Other examples of [species ideal for riparian habitat](#) are swamp white oak and fruit-bearing shrubs such as choke cherry, serviceberry, and species in the viburnum genus (e.g., nannyberry and highbush cranberry).

- If possible, periodically brush hog shrubs along the edges after August 1<sup>st</sup> to maintain shrubland habitat near the wetland if they grow too tall. Up to one third can be cut as infrequently as every 3-5 years. Leaving some areas undisturbed every year (i.e., brush hogging in thirds) will provide cover and food for species while disturbed areas regenerate. Avoid brush hogging wet areas with emergent vegetation such as cattails.
- Erect and maintain a waterfowl nest box in the wetland. Wood Ducks are cavity nesters and will use a box if placed near or over open water.
- Work to remove wetland non-native invasive species, such as reed canary grass, *Phragmites* (common reed) buckthorn and honeysuckle, if present. See Invasive Species Section below for more information.
- Retain orchard fruit trees such as apples and pears where applicable. Native shrubs such as dogwoods and orchard fruit trees provide better quality resources than non-native species.

## Forested Areas

### *Assessment of current habitat conditions:*

There are two types of forested areas west and south of the hayfields. A forested habitat area with a walking trail is on the west side of the parcel with some small shrubby areas interspersed on the southern parts of the parcel, closest to riparian areas. The forest patch is composed of silver and red maples, American Beech, American Basswood, Poplar, and other common species. Invasive honeysuckle and buckthorn are also present. The forested area does not appear to have long-term management goals, but several young and mature forest birds likely use this habitat.

### *Management Recommendations:*

- Retain approximately 4 snags per acre to support cavity nesting birds, such as woodpeckers and owls. Trees can be girdled if there are no existing snags.
- If possible, maintain an uncut buffer of shrubby vegetation as the forest transitions to the open field portions of the property. Transitioning from field to forest with a “soft” buffer of early successional shrub species can be a productive area for many bird species that nest and feed in shrubs.
- Monitor invasive species such as buckthorn or honeysuckle to prevent them from establishing themselves along the forest edge and in recently disturbed areas. Native shrubs such as dogwoods and orchard fruit trees provide better quality resources than non-native species. Invasive species can spread or dominate a forest where there has been recent disturbance, creating unsuitable habitat for birds and other wildlife. See Invasive Plant Species section below.

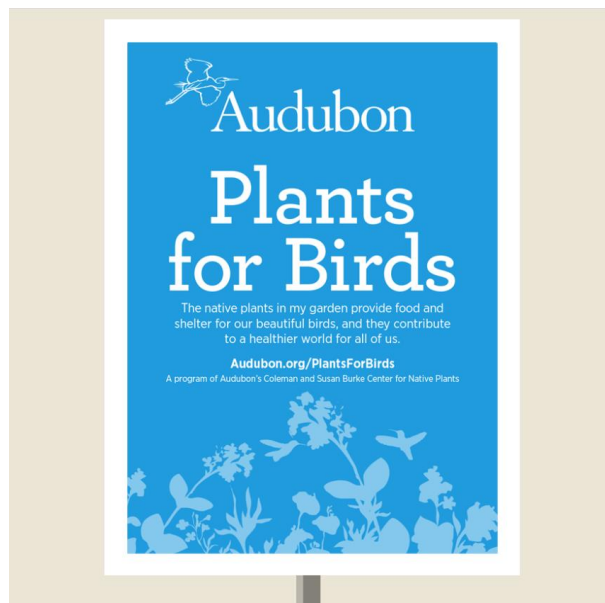
## Residential and Common Areas

### *Assessment of Current Conditions:*

Simple adjustments to LPC's maintenance of common spaces, such as the park, walking trails, and near the community garden as well as personal maintenance of lawns of residential homes can all make a difference. It is common for residential landscaping to contain non-native ornamental plants. Not only are these non-natives not providing any food rewards for native insects or birds, they have the potential to escape into nearby natural areas and compete with native plants (see Richard et al. 2019; Tallamy 2020 in resources)

### *Management Recommendations for LPC maintenance crews and residents:*

- Plant native trees, shrubs, and herbaceous plants where possible. These plants host more insects, make more nutritious berries, nuts, and seeds, and provide suitable nectar for hummingbirds, pollinators and other beneficial insects. Beware of native cultivars that have been bred to be less palatable to insects.
- Reduce lawn mowing frequency and reduce leaf pickup. If possible, avoid raking fallen leaves and woody debris that are an important habitat layer for invertebrates (bird food) and serve as a natural mulch.
- Leave the seeds. Don't "dead-head" your flowering plants after they bloom, as those seedheads can be an important source of food during the fall and winter.
- Build brush piles to provide shelter for birds and other wildlife.
- Avoid pesticide use. A bird-friendly yard is a bug-friendly yard. A diversity of native plants will also attract wildlife that will keep your plant-eating bugs in check: Not only birds but also frogs, toads, bats, and insect predators such as dragonflies, praying mantises and lady bugs will help keep your yard in a healthy balance.
- Keep your cat indoors. Free-roaming domesticated cats kill billions of wild birds every year. Bells placed around an outdoor cat's neck does not always help.
- Prevent window strikes. Mark or cover windows with tape, stickers, netting, or screens. It also helps to turn lights off at night, which disorient migrating birds.



For additional information, read Audubon's articles on [How to Make Your Yard Bird-Friendly](#); why [Yards With Non-Native Plants Create 'Food Deserts' for Bugs and Birds](#); and how to [Post Your Plants for Birds Sign and Spread the Word](#).

## Invasive Species Management:

As with many properties in agriculture and with past agricultural activity, invasive plant species present a unique challenge. As mentioned above, invasive species, such as wild parsnip, reed canary grass, buckthorn, and honeysuckle provide poor habitat for many bird and pollinator species and are all present throughout much of Vermont. Specifically, wild parsnip and reed canary grass pose a threat to grassland birds and will make a field inhospitable to grassland species if not controlled. In addition, wild parsnip is toxic to humans and other domestic animals and therefore is worthwhile to control.

Although complete removal of invasive species would be optimal, the logistics and sustained commitment of accomplishing this task are extremely difficult. This is due in part to the extensive distribution of the plants, as well as the presence of seed sources both in the soil and brought in from neighboring areas. Even if the invasive plants were to be eradicated, a long-term effort would be needed to prevent re-establishment of these species. As a result, a much more intensive work plan, separate from this document, would need to be created to strategically manage invasive plants. In general, however, we recommend that invasive species are removed from areas where they are manageable, accessible, near non-infested areas, or near unique natural communities.

Some general guidelines for invasive plant removal are listed below:

- *Reed Canary grass*: Aside from herbicide use, management includes persistent mowing, grazing, burning, or digging the rhizome by hand. Solarization is also effective, though it may need to be repeated to prevent re-sprouting from the seed bank. Reed canary grass is extremely intolerant to shade and can be successfully managed by introducing a shrub layer. For more information on management strategies, refer to the [NRCS](#).
- *Wild parsnip*: Manage the invasion of wild parsnip by keeping mower blades at a height of 8 inches or more, and cut areas where parsnip is found before the plants go to seed (usually the first or second week of July). A second cut may be needed if the plant re-flowers. If wild parsnip invasion is minimal, it may be possible to remove individual plants by slicing the taproot and removing the top portion by hand (gloves are required to avoid the blister-producing sap). A sharpened spade can be placed near the plant and angled so the blade slices the root a couple of inches below ground. The severed root stub can be pulled up by the stem. The root fragment left behind will die later since it lacks mass and crown buds to re-sprout.
- *Spotted knapweed*: Manually removed from the ground, ideally when the ground is wet, so long as care is taken to remove the entire plant, including the deep taproot. Mowing will reduce the number of flowers and seeds but will not eliminate the plants. Spotted knapweed is poisonous to other plants, creating barren areas where only knapweed grows, spreading and taking over rapidly. It is a threat to pastures, hayfield integrity, and can be a skin irritant.
- *Buckthorn and honeysuckle*: Manage further invasion of these species when brush hogging early successional habitat areas. Annual brush hogging or manual removal of these shrubs can help the establishment of native shrubs such as willow, alder, dogwood, serviceberry, and blackberries. Maintaining native shrubs along forest edges can also help prevent invasive species from establishing themselves in the forest understory. Selectively removing woody invasive shrubs from hedgerow requires yearly vigilance. Detection and identification is easiest in the early spring and late fall since invasives leaf out earlier in the spring than native vegetation and retain their leaves longer in the fall.

For more information about identification and management of these and other invasive plant species, visit: <https://vtinvasives.org/>.



Reed Canary Grass © vtinvasives



Poison Parsnip © Nature Museum/Laurie Danforth

#### Resources:

**Financial Assistance Programs:** Audubon Vermont offers guidance on whether or not you are eligible for funding to support habitat management on your land and can guide you through the application process. Federal assistance programs can provide significant funding to support invasive species control and riparian and hedgerow plantings. The Natural Resources Conservation Service (NRCS) has developed habitat incentive programs that assist landowners in managing their land for wildlife. Your property may be eligible for cost-share support for a variety of practices through the Environmental Quality Incentive Program (EQIP) [http://bit.ly/eqip\\_vt](http://bit.ly/eqip_vt) or other programs such as the Conservation Stewardship Program (CSP) <https://www.nrcs.usda.gov/wps/portal/nrcs/main/vt/programs/financial/csp/> Contact your local natural resource conservation district in Middlebury serving Addison county for further guidance [here](#).

The [Bobolink Project](#) uses donated funds to compensate enrolled farmers who modify their hayfield mowing schedules to a timeline and frequency that is consistent with grassland bird breeding needs so they can successfully raise their young. Learn more about this project jointly operated between Audubon offices in Vermont and Massachusetts at <https://vt.audubon.org/conservation/bobolink-project>.

**Finding Native Plants in Vermont:** A list of local sources to purchase native Plants for Birds and Pollinators in Vermont. <https://vt.audubon.org/plants-birds/finding-native-plants-vermont>

Other resources (websites) for more information:

- Audubon's Native Plants for Birds Database: <https://www.audubon.org/native-plants>
- Audubon's Plants for Birds Program: <https://www.audubon.org/PLANTSFORBIRDS>
- Xerces Society for Invertebrate Conservation: <https://xerces.org/pollinator-conservation>
- [SARE information on insectaries: https://www.sare.org/news/using-flowering-insectary-borders-to-boost-natural-enemies/](https://www.sare.org/news/using-flowering-insectary-borders-to-boost-natural-enemies/)

Tallamy, D.W. (2020). *Nature's Best Hope*. Timber Press. 256 pages.  
Presentation of [Nature's Best Hope](#).



## Bird Checklist from site visit on 10 June, 2022 (31 Species observed)

*Alder Flycatcher	Green Heron
*American Bittern	Grey Catbird
American Crow	Herring Gull
American Goldfinch	Northern Cardinal
American Redstart	*Osprey
American Robin	Ovenbird
*Baltimore Oriole	Pine Warbler
Black-capped Chickadee	Red-eyed Vireo
Blue Jay	Red-winged Blackbird
*Bobolink	Savannah Sparrow
Common Grackle	Song Sparrow
Common Raven	*Tree Swallow
Common Yellowthroat	Turkey Vulture
Eastern Kingbird	*Willow Flycatcher
*Eastern Meadowlark (potential heard)	Yellow Warbler
Eastern Wood-Pewee	

## Additional species observed at adjacent Lewis Creek Fishing Access/Long Point since 2020 reported to eBird

*American Black Duck	Brown Creeper
American Golden-Plover	*Brown Thrasher
*American Kestrel	Brown-headed Cowbird
American Pipit	Bufflehead
American Tree Sparrow	Canada Goose
American Wigeon	Cape May Warbler
*Bald Eagle	Carolina Wren
*Bank Swallow	Caspian Tern
*Barn Swallow	Cedar Waxwing
Barred Owl	*Chestnut-sided Warbler
Bay-breasted Warbler	Chipping Sparrow
Belted Kingfisher	*Cliff Swallow
Black Vulture	*Common Goldeneye
Black-and-white Warbler	Common Loon
Black-bellied Plover	Common Merganser
*Black-billed Cuckoo	Common Redpoll
Blackburnian Warbler	Cooper's Hawk
*Black-crowned Night-Heron	Dark-eyed Junco
Blackpoll Warbler	Double-crested Cormorant
*Black-throated Blue Warbler	Downy Woodpecker
Black-throated Green Warbler	*Eastern Bluebird
Blue-gray Gnatcatcher	Eastern Phoebe
Blue-headed Vireo	Eastern Screech-Owl
*Blue-winged Warbler	*Eastern Towhee
Bonaparte's Gull	European Starling

\*Field Sparrow  
Fox Sparrow  
Gadwall  
Golden-crowned Kinglet  
Great Black-backed Gull  
\*Great Blue Heron  
Great Crested Flycatcher  
Great Egret  
Great Horned Owl  
Green-winged Teal  
Hairy Woodpecker  
Hermit Thrush  
Hooded Merganser  
Horned Lark  
House Finch  
House Wren  
Killdeer  
Least Flycatcher  
Least Sandpiper  
Lesser Scaup  
Lincoln's Sparrow  
Magnolia Warbler  
Mallard  
Marsh Wren  
Merlin  
Mourning Dove  
Nashville Warbler  
\*Northern Flicker  
\*Northern Harrier  
Northern Parula  
Northern Pintail  
Northern Rough-winged Swallow  
Northern Shoveler  
Northern Shrike  
Northern Waterthrush  
\*Peregrine Falcon  
Philadelphia Vireo  
\*Pied-billed Grebe  
Pileated Woodpecker

Pine Siskin  
Purple Finch  
Purple Martin  
Red-bellied Woodpecker  
Red-breasted Nuthatch  
Red-tailed Hawk  
Ring-billed Gull  
Ring-necked Duck  
Rock Pigeon  
\*Rose-breasted Grosbeak  
Rough-legged Hawk  
Ruby-crowned Kinglet  
Ruby-throated Hummingbird  
\*Ruffed Grouse  
Rusty Blackbird  
\*Scarlet Tanager  
Snow Bunting  
Snow Goose  
Solitary Sandpiper  
Spotted Sandpiper  
Swainson's Thrush  
Swamp Sparrow  
Tennessee Warbler  
Tufted Titmouse  
\*Veery  
Warbling Vireo  
White-breasted Nuthatch  
White-crowned Sparrow  
White-throated Sparrow  
Wild Turkey  
Wilson's Snipe  
Wilson's Warbler  
\*Wood Duck  
\*Wood Thrush  
Yellow-bellied Flycatcher  
Yellow-bellied Sapsucker  
Yellow-rumped Warbler  
Yellow-throated Vireo

*\*Denotes priority species*

## Appendix A. Champlain Valley Priority Bird List

### Wetlands

Pied-billed Grebe <sup>1,2</sup>  
American Bittern <sup>1,2</sup>  
Least Bittern <sup>1,2</sup>  
Wood Duck <sup>2</sup>  
Common Goldeneye <sup>2</sup>  
American Black Duck <sup>1,2</sup>  
Sora <sup>1</sup>  
Blue-winged Teal <sup>1</sup>  
Bald Eagle <sup>1</sup>  
Osprey <sup>1</sup>  
Black Tern <sup>1</sup>

### Agricultural Grasslands

American Kestrel <sup>1</sup>  
Northern Harrier <sup>1,2</sup>  
Short-eared Owl <sup>1,2</sup>  
Upland Sandpiper <sup>1,2</sup>  
Sedge Wren <sup>1</sup>  
Vesper Sparrow <sup>1</sup>  
Grasshopper Sparrow <sup>1,2</sup>  
Bobolink <sup>1,2</sup>  
Eastern Meadowlark <sup>1,2</sup>

### Islands

Great Blue Heron <sup>1</sup>  
Black-crowned Night Heron <sup>1,2</sup>  
Common Tern <sup>1,2</sup>

### Shrub/Early Successional

American Woodcock <sup>1,2</sup>  
Brown Thrasher <sup>1,2</sup>  
Eastern Towhee <sup>1</sup>  
Willow Flycatcher <sup>2</sup>  
Golden-winged Warbler <sup>1,2</sup>  
Blue-winged Warbler <sup>1,2</sup>  
Field sparrow <sup>1,2</sup>  
Baltimore Oriole <sup>2</sup>

### Deciduous/Mixed Forest

Scarlet Tanager <sup>1</sup>  
Black-billed Cuckoo <sup>1,2</sup>  
Whip-poor-will <sup>1</sup>  
Veery <sup>1</sup>  
Wood Thrush <sup>1,2</sup>  
Canada Warbler <sup>1,2</sup>  
Ruffed Grouse <sup>1</sup>  
Peregrine Falcon <sup>1</sup>  
Chestnut-sided Warbler <sup>1</sup>  
Black-throated Blue Warbler <sup>1,2</sup>  
Cerulean Warbler <sup>1,2</sup>  
Northern Flicker <sup>2</sup>  
Rose-breasted Grosbeak <sup>2</sup>

<sup>1</sup> Vermont's Species of Greatest Conservation Concern from the Vermont Wildlife Action Plan

<sup>2</sup> Bird Conservation Region 13 (Lower Great Lakes/St. Lawrence Plain) Priority Bird Species from the North American Bird Conservation Initiative