Tree Restoration Guide for Dzus Fasteners

NEW YORK STATE OF OPPORTUNITY. | Department of Environmental Conservation

This informational packet is provided to give an overview of the planned restoration following the cleanup of the Dzus Fastener Co., Inc. site. The removal of contaminated material requires unavoidable impact (both temporary and permanent) to upland areas, wetlands and waterways throughout the project site. Although the removal of trees and other vegetation was required to access the contaminated materials, the area will be restored with plantings native to the area. The enclosed information provides information regarding the characteristics and wildlife value of each species.

1. Overview
    - Timing - the fence, access road and tree removal happened in advance of the sediment removal timeframe due to restrictions placed on us by our US Corps of Engineers permit, which does not allow us to remove trees between June 1st and July 31st to avoid impacts to the Northern long-eared bat.
    - DEC will replace only limited amounts of backfill in Willets Creek and Lake Capris to promote drainage and minimize future flooding impacts from storm events.
2. Restoration
    - Bigger picture, post remediation DEC is removing the invasive species which have taken over upland areas, the creek or wetland areas and replacing them with plantings native to the area to promote a healthy ecosystem and have high value for wildlife.
    - DEC has heard the requests from property owners to supplement the planned 5-7 feet tall trees (which includes birch, aspen, red maple, etc.) with larger stock, ensure there is a good representation of faster growing stock (quaking aspen, alder, river birch, etc.) and plan a greater density of evergreens (white pine and pitch pine) to help foster privacy.
    - To facilitate understanding of the planned restoration, DEC is developing two-dimensional restoration plans and three-dimensional conceptual renderings of what the restoration may look like from the view point of a residential property owner.
3. Post Restoration
    - The US Corps of Engineers permit requires DEC to implement a 5-year monitoring program.
    - The monitoring program includes a phragmites management plan. Phragmites is a large, coarse, perennial grass that usually forms large, dense stands reducing the diversity of plant and wildlife species. The goal is to allow new plants and native seed stock to successfully populate the wetland area.
    - Appropriate measures to address deficiencies (planted vegetation survivability, control of invasive species, etc.) identified during monitoring will be undertaken by DEC.
4. Stakeholder Involvement
    - DEC desires continued discussion with property owners and other community stakeholders to ensure a successful remediation and restoration of Willets Creek and Lake Capri
    - If you have any concerns with on-going activities on your property, please contact either of the on-site representatives:
        - Kristopher Keenan NYSDEC, 518-225-9691
        - Vinny Barber EA Engineering, P.C. 631-275-0914
    - You may also contact the DEC project manager with any concerns you may have:
        - Sarah Saucier, P.E. 518-402-9675

RIVER BIRCH

The resilient river birch adds to the landscape all year round. During the Fall and Winter, the tree exfoliates its gorgeous cinnamon colored bark. In the late Spring, the tree fruits and provides a wide variety of birds, deer, and other small creatures with a delicious meal. During the Summer months, the lush green leaves help provide shade.

Characteristics:

- Grows up to be 40 to 70 feet tall and has a spread of approximately 40 to 60 feet
- Produces sap in the spring time. Do not prune when sap is flowing from the tree
- Helps with erosion control

Growing Conditions:

- Tolerant to both wet soils and dry Summers
- Does not grow well in alkaline soils
- Grows at a medium-fast rate, growing at approximately 13 -24 inches per year

Wildlife Value:

- The catkins produced by the trees attract redpolls and pine siskins
- During the all the fall months, the foliage attracts deer and other small creatures

SCRUB OAK

The scrub oak, sometimes referred to as bear oak, is a small hardy plant that grows well in deciduous forests. Environmental disturbances, like wildfires, have little to no impact on the life of the scrub oak. During the fall months, the scrub oak's leaves put on a showy display of vibrant red, oranges and purples. This plant serves as a place of refuge for a diverse group of wildlife; from rabbits to wild turkeys.

Characteristics:

- Can grow up to approximately 20 feet tall with a 12 foot wide spread
- Has holly like leaves and produces small acorns

Growing Conditions:

- Grows well in dry, acidic soil and full sunlit areas
- Slow growing

Wildlife Value:

- The acorns produced are almost exclusively eaten by bears however there are no bears in this region
- Provides shelter for smaller wildlife like rabbits, deer, turkeys, and squirrels

ATLANTIC WHITE CEDAR

The luscious Atlantic white cedar tree helps create a natural fence all year round. These trees are adapted to take on the long cold winter months, helping provide shelter from nasty wind and ice storms. Also, during the winter months, deer and other small creatures can be found munching on these trees.

Characteristics:

- Have thin evergreen needles and produce small round cones about ¼ inch long
- Can grow to be about 40 to 60 feet tall and 10 to 20 feet wide

Growing Conditions:

- Since often found alongside wetlands, these trees are adapted to live in a low pH environment
- Grow at a moderate to fast rate

Wildlife Value:

- Preferred food of deer during winter seasons
- Provides shelter for small song birds throughout the year

BEACH PLUM

Native to the Northeastern portion of the United States, the hardy, beautiful beach plum tree, produces a small dense fruit. These trees not only produce vibrant red and orange leaves in the fall but are home to a wide variety of bird species.

Characteristics:

- Small to medium deciduous shrub that produces small white flowers in the spring and small edible jam making fruit in the Summer
- Help ensure sand dune stabilization
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Growing Conditions:

- Tolerant to salty sand,
- Likes a lot of sunlight, moderate amounts of water, and sandy gravelly soils
- Fast Growing,

Wildlife Value:

- Nectar attracts pollinators
- Food source for a wide variety of bird species and small mammals
- Provides shelter for birds and small mammals

QUAKING ASPEN

The quaking aspen is a stunning tree with its beautifully contrasting white bark and yellow foliage in the fall. An assortment of small creatures and birds come to find food and shelter in the branches, leaves, and bark of the quaking aspen. As a native tree species across the east coast of the United States, these trees have been a staple in the New York landscape for hundreds of years.

Characteristics:

- Produces tiny seeds dispersed through cotton tufts
- Can grow to be 40 to 50 feet tall and 20 to 30 feet wide

Growing Conditions:

- Grows well in acidic, moist soil with full sunlight
- Grows at a fast rate at approximately 24 inches per year

Wildlife Value:

- Provide excellent habitat for deer, gophers, squirrels, beavers, rabbits, muskrats, and birds; such as woodpeckers, yellow-bellied sapsuckers and the ruffed grouse

RED MAPLE

The brilliantly colored red maple tree is well-known for adding bright red, orange and yellow leaves to the fall season. This tree is critical for the health of many different song birds, providing excellent nesting sites.

Characteristics:

- A deciduous tree with dense foliage. Leaves are usually about 2 to 5 inches across
- Generally, grows to be approximately 40-70 feet tall however can grow to be over 100 feet tall
- Produces a red hue in almost every season, whether it be its red leaves or red flowers

Growing Conditions:

- Grows well in acidic soil and full sunlight but can adapt to grow in a variety of different conditions

Wildlife Value:

- Important breeding location for a variety of bird species like the purple finch, the yellow-bellied sapsucker, the hooded warbler, the Northern Parula, the Alder Flycatcher, and many others

EASTERN WHITE PINE

The Eastern White Pine is a hardy valuable tree and is commonly used as Christmas trees. These trees help create a luscious barrier all year round. These hardy trees are home to many wildlife creatures such as beavers, woodpeckers, red crossbills, and rabbits.

Characteristics:

- This tree grows at a fast rate, with height increases of more than 24" per year
- Helps provide a natural shield against intense winter winds
- Has long, thin, green needs and grow brown cones that range from 3-8 inches in length

Growing Conditions:

- Grows well in moist, well-drained
- Can grow to be about 50-80 feet with a 20-40 foot wide spread

Wildlife Value:

- Eastern white pine seeds are favored by black bears, rabbits, red squirrels and many birds, especially red crossbills. While potentially damaging to the trees, the bark is eaten by mammals such as beavers, snowshoe hares, porcupines, rabbits and mice. White pines provide nesting sites as well for many birds including woodpeckers, common grackles, mourning doves, chickadees and nuthatches.

PITCH PINE

The pitch pine tree is sturdy tree that is home to several rare species of moths and other common small wildlife. Pitch-pine oak forests originated from Suffolk County and now stretch through the Atlantic Costal Plain. The largest forms of these trees can be seen at the Central Long Island Pine Barrens.

Characteristics:

- Long, skinny, green evergreen needs about 2-5 inches long with rounder cones
- A dominant canopy species and is often found alongside oak trees

Growing Conditions:

- Grow the best with full sunlight and acidic, well-drained soil
- Can survive harsh winter conditions
- Typically grows to be about 30-50 feet tall

Wildlife Value:

- Provides habitat for a wide variety of birds such as warblers during all seasons
- Rare moths such as pine pinion, oblique zale, and pine sphinx utilize pitch pines during the larval stage

HAZEL ALDER

The Hazel Alder is a large deciduous shrub that forms a luscious thicket. Unlike most other plants, the hazel alder produces flowers in the winter time. Similar to other deciduous forest plants, this shrub acts as a respite for songbirds, deer, and other smaller creatures. As necessary for the northern climate, this shrub has the ability to survive the long cold winter.

Characteristics:

- Fast growing, usually grow to be approximately 12-20 feet tall
- Produces small one-inch cones
- Small nodules on the roots helps with the nitrogen fixation process

Growing Conditions:

- Prefer medium to wet soil in either full or partial sunlight

Wildlife Value:

- Alder provides food for the caterpillars of several different moth species, including the alder kitten, pebble hook-tip, the autumnal and the blue bordered carpet moth.

- The catkins produce provide a source of nectar and pollen for bees
- Redpolls, goldfinches, and siskins munch on the alder's seeds

HIGHBUSH BLUEBERRY

The delicious blueberry fruit grows on a hardy bush that can withstand harsh winters, diseases and pests. These plants provide way more then just fresh edible fruit, they also help beautify the area, providing beautiful fall foliage and gorgeous white spring flowers. In the summer time these bushes provide a healthy, enjoyable snack for both humans and birds.

Characteristics:

- Grows to approximately 7 feet tall and 8 feet wide
- Native shrub to the Northeastern region of the United States
- Produces small, white, bell-shaped flowers that turn into blueberries

Growing Conditions:

- Thrive in acidic, well-drained soil
- If it has room, it tends to spread and get larger

Wildlife Value:

- The highly edible blueberry attracts over 30 different species of birds, rabbits, squirrels, and deer
- Incredibly value to the bee population

THE FIGHT AGAINST INVASIVE SPECIES

Invasive species are non-native species that can cause harm to the environment, economy or human health. The NYSDEC is committed to combatting the spread and infestation of these species. At the Dzus Fastener's site four invasive species have been identified; English ivy, multiflora rose, Japanese honeysuckle, and the common reed (phragmites). Through the tree removal process these invasive species will removed and replaced with the species described in this packet. By effectively removing these invasive species, the overall health of the community and ecosystem will potentially greatly improve.