

# Consultant Report for Closter Nature Center – 6/12/23

## Meeting Notes from Site Visit June 12, 2023 with Recommendations

**Submitted by Dr. Linda Rohleder and Richard Pillar**

**Target area: Orange trail sector**

### **Goals:**

1. Selection of appropriate locations in the field for tree and shrub replantings with particular focus on the area around the Orange trail. Recommendations and marking out in the field for specific tree and shrub replantings in the selected locations, or placement of plants in the field during a planting event, identification of tree and shrub species, sizes and numbers to be purchased and identification of nursery sources for the chosen plants, and recommendations on the materials and supplies for deer protection for the planned tree and shrub plantings within the constraints of the project grant funding already awarded to CNC.
2. Invasive species field assessment and specific plans for mitigation where possible given the available volunteer and monetary resources. Identification of seasonal timing issues for most effective treatment/removal of certain invasive species along with a target timeline for management activities.
3. Review of the CNC's existing forest management plan and New Jersey Audubon report date March 16, 2023 and recommendations for specific actions or modifications for moving that plan forward including potential marking of trees for removal.
4. Identification of an appropriate restoration site or sites for an anticipated future project with Wild Woods Restoration Project for community involvement through volunteer seed collection and seedling production.

### **Summary of Site:**

We viewed the western section of the property around the Orange trail. This is referred to as Stand 2 in the CNC Forest Stewardship Plan. A C1 Stream runs through the property. Overall the sector has a good proportion of natives vs. invasives. Especially in the wetlands areas. Drier areas are dominated by American beech groves which are declining from Beech Leaf Disease (BLD) and will likely die within the next few years opening large areas to sunlight and shifting the area from forest to open meadow or shrublands unless active intervention is performed. Other species of canopy trees are Red Maple, Red oak, Black gum, Tulip poplar, Linden, Sweetgum. There is heavy deer browse pressure. Virtually all mature Ash trees on the property have died. There is a lack of tree seedlings due to heavy deer browse pressure. Little to no forest regeneration is occurring.

Topography is relatively flat. Soils in this section of the property are classified as Dunellen loam, 3 to 8 percent slopes. Acidic 4.5-5.5 pH. (from Soils report attached to Forest Management Plan prepared by NJ Audubon).

## **Site Management**

The property boundaries are not marked. We recommend deciding on a marking method and marking the boundaries of the property. This can help in the future with neighboring landowners to avoid property boundary disputes and forestall encroachment by neighbors. It also helps volunteers know where the property lines are and therefore where their stewardship work should end. Its also a good idea to make sure the lines you are marking are surveyed lines and are correct. If you aren't able to do this, we suggest using temporary markers.

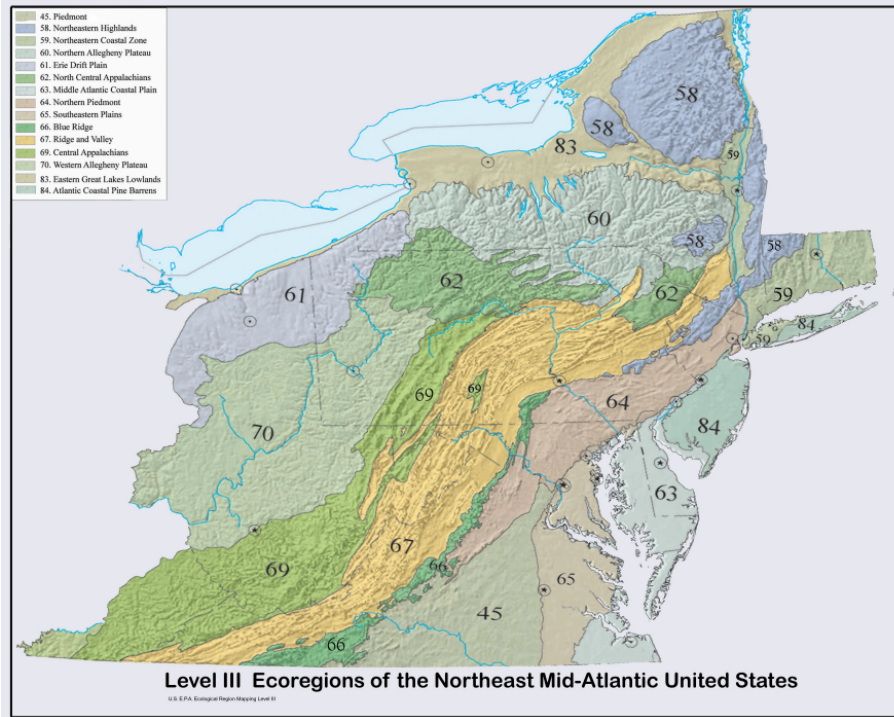
We recommend dividing up the site into manageable chunks possibly based on your existing numbering system along the trail. Place signs with the numbers along the trail. Inconspicuous markers can be devised. This will ensure all volunteers understand exactly where they should be working.

Consider realigning some of the areas of the trails to avoid wetter areas and move them onto higher points nearby. There were several areas we noted on the Orange trail that this would be appropriate.

## **Forest and Trees**

In the sector around the Orange trail, we are recommending CNC obtain and plant more smaller-sized trees and shrubs rather than fewer large-size individuals. Smaller plants are less expensive and typically establish better with less care than larger individuals. In addition, they are easier to transport, handle and plant for volunteers. Based on the amount of forest that is going to need to be replaced, we recommend that you go this route.

CNC is located in Bergen County, NJ in ecoregion 64 (Omernik Level 3) the Northern Piedmont, and within 64e (Level 4) which covers most of Bergen County and Rockland County, NY.



Ecotype-appropriate (ecotypic) plants should be obtained from materials sourced from wild populations located within ecoregion 64 and within the same USDA hardiness zone. For CNC, this means materials from the New Jersey or New York portion of ecoregion 64. As a hedge against climate change, materials from slightly toward the southern part of this area could be favored. It is important that genetically diverse plants be used so that the forest will best be able to adapt to future changing conditions. Be aware that in many commercial nurseries production of woody plants is done by cuttings which is essentially cloning – all individuals have the exact same genetics. When purchasing materials, make sure to specify seed grown or otherwise ensure a variety of genetic sources are obtained.

In addition, a diversity of species is important. As CNC is experiencing now, a forest dominated by one species is vulnerable to a disease or insect attack. One species being killed is essentially going to kill the forest. It is important to try to make sure that several tree and shrub species are cultivated as replacement forest and not lean too heavily on any one species. For example, one rule of thumb used in urban forest planning is the 10-20-30 rule. The 10-20-30 rule is a guideline to reduce the risk of catastrophic tree loss due to pests. The rule suggests an urban tree population should include no more than 10% of any one species, 20% of any one genus, or 30% of any family. This may not be practical or desirable for a natural forest but is given as an illustration of the importance of diversity.

We will provide a list of nurseries that are good sources for ecotypic plant materials.

We will provide a list of recommended tree and shrub species for the habitats in the Orange trail sector based on the following information.

From the Forest Stewardship Plan, common native trees listed for the soil type are

- Black Oak (*Quercus velutina*)
- White Oak (*Quercus alba*)
- White Ash (*Fraxinus Americana*)
- Scarlet Oak (*Quercus coccinea*)
- Northern Red Oak (*Quercus rubra*)
- Tuliptree (*Liriodendron tulipifera*)

In this Stand the Forest Stewardship Plan identifies the following

“Forest Stands 1 & 3 = *Elm/Ash/Red Maple Group, Forest Type #708 Red Maple / lowlands*. Common associates include; white ash, green ash sycamore, American elm, willow and boxelder. Most common sites; moist to wet areas, swamps, gullies, and poorly drained flats. Forest Stands 2 & 4 = *Oak/Hickory Group, Forest Type #519 Red Maple / Oak*. Common associates: some of the wide variety of central hardwood associates including upland oaks, hickory, yellow-poplar, black locust and sassafras. Most common sites; uplands. “

From “Vegetation Communities of New Jersey” the preserve is in Physiogeographic Province, Eastern Broadleaf Forest, 5. Newark Piedmont, Subsection 221Dc. The possible vegetation communities are given as follows. We believe that our target area is transitional between one of the drier Beech and Oak communities and seasonally flooded Red Maple-Ash community we’ve listed, but doesn’t match well. In any case, these give us models to aim for.

**FAGUS GRANDIFOLIA—QUERCUS ALBA—LIRIODENDRON TULIPIFERA—CARYA SPP. FOREST**

American Beech—White Oak—Tuliptree—Hickory species Forest

**Concept:** This central Atlantic Coastal Plain forest of dry-mesic soils is characterized by a mixed canopy of *Quercus alba*, *Quercus falcata*, *Quercus phellos*, *Quercus coccinea*, *Fagus grandifolia*, *Carya glabra*, *Carya alba*, *Liriodendron tulipifera*, *Sassafras albidum*, and *Liquidambar styraciflua*. The subcanopy is characterized by *Ilex opaca*, with *Cornus florida* also typical in Maryland and Delaware. Vines are common, including *Parthenocissus quinquefolia*, *Smilax glauca* and *Toxicodendron radicans*. The shrub layer is characterized by *Viburnum acerifolium*; heaths, such as *Vaccinium* spp. and *Gaylussacia baccata*, may be present and sometimes locally dominant but not generally characteristic. The herb layer is comprised of *Podophyllum peltatum*, *Polystichum acrostichoides*, *Uvularia perfoliata*, *Parthenocissus quinquefolia*, *Cypripedium acaule*, *Mitchella repens*, *Tipularia discolor*, *Goodyera pubescens*, *Eurybia divaricata* (= *Aster divaricatus*), *Chimaphila maculata*, *Carex swanii*, and *Polygonatum biflorum*.

**FAGUS GRANDIFOLIA—QUERCUS ALBA—QUERCUS RUBRA—LIRIODENDRON TULIPIFERA FOREST**

American Beech—White Oak—Northern Red Oak—Tuliptree Forest

[Coastal Oak—Beech—Tuliptree Forest]

**Concept:** This deciduous near-coastal forest of southern New England, New York, and the Inner Coastal Plain of New Jersey is characterized by a mixed canopy of *Fagus grandifolia*, *Quercus alba*, *Quercus rubra*, *Liriodendron tulipifera*, *Quercus coccinea* in varying percentages. Although not generally abundant, both *Acer saccharum* and *Betula papyrifera* are characteristic of this forest, the latter restricted to New York (Hunt 1997). *Cornus florida* is a characteristic understory species, and *Ilex opaca* is a frequent associate. The shrub layer is characterized most commonly by *Viburnum acerifolium*. The herb layer includes *Maianthemum racemosum* (= *Smilacina racemosa*), *Polygonatum biflorum*, *Arisaema triphyllum*, *Geranium maculatum*, *Parthenocissus quinquefolia*, *Carex swanii*. This community is closely related to Coastal Plain forests of this alliance in southern New Jersey and farther south, but is differentiated from them by the presence of *Quercus*

*rubra*, *Betula papyrifera*, and *Acer saccharum*.

**QUERCUS VELUTINA—FAGUS GRANDIFOLIA—SASSAFRAS ALBIDUM / ILEX OPACA FOREST**  
Black Oak—American Beech—Sassafras / American Holly Forest  
[Coastal Oak—Holly Forest]

**Concept:** Northeastern coastal forest sheltered from direct maritime influences by its more inland position. Dominants are *Quercus velutina*, *Fagus grandifolia*, *Quercus alba*, *Quercus coccinea*, *Nyssa sylvatica*. Other associates include *Acer rubrum*, *Amelanchier canadensis*, *Sassafras albidum*. *Ilex opaca* is a characteristic understory species. The shrub layer is characterized by *Vaccinium corymbosum*, *Hamamelis virginiana*, *Viburnum recognitum*, *Kalmia latifolia*. Characteristic herbs include *Trientalis borealis*, *Carex swanii*, *Thelypteris noveboracensis*, *Maianthemum canadense*, *Uvularia* spp. Vines are common but not usually abundant, and include such species as *Toxicodendron radicans*, *Parthenocissus quinquefolia*, *Smilax rotundifolia*, *Smilax glauca*, *Vitis* spp.

**QUERCUS (ALBA, RUBRA, VELUTINA) / CORNUS FLORIDA / VIBURNUM ACERIFOLIUM FOREST**  
(White Oak, Northern Red Oak, Black Oak) / Flowering Dogwood /  
Mapleleaf Viburnum Forest

**Concept:** This northeastern oak—hickory forest occurs on well-drained loamy sand of knolls and upper slopes. This vegetation is ecologically transitional between dry-rich oak—hickory forests of relatively high diversity and dry, acidic oak species-poor forests. *Quercus alba* and *Quercus velutina* are prominent in the canopy, with *Quercus rubra* also important on the New Jersey Coastal Plain and in New England, and *Quercus prinus* and *Quercus coccinea* typical associates in the southern portion of the range. Typical hickory species include *Carya glabra*, *Carya ovata* and *Carya ovalis*. Other canopy associates may include *Acer rubrum*, *Sassafras albidum*, *Amelanchier arborea*, *Ostrya virginiana*, and *Fraxinus americana*. At the northern range limit of this type, *Pinus strobus* and *Betula lenta* also occur as minor associates. *Cornus florida* is a characteristic understory tree. The shrub layer is characterized by *Viburnum acerifolium*, with other frequent associates including *Hamamelis virginiana*, *Vaccinium corymbosum*, *Corylus cornuta*, and *Corylus americana*. A dwarf-shrub layer may be present, characterized by *Vaccinium pallidum* and *Gaylussacia baccata*, with *Vaccinium angustifolium* occurring more frequently to the north. The herbaceous layer is characterized by *Carex pensylvanica*, *Maianthemum racemosum* (= *Smilacina racemosa*), *Aralia nudicaulis*, *Hieracium venosum*, *Solidago bicolor*, *Desmodium glutinosum*, *Desmodium paniculatum*, *Melampyrum lineare*, *Chimaphila maculata*, *Eurybia divaricata* (= *Aster divaricatus*), *Aureolaria* spp., and *Helianthemum canadense*.

**I.B.2.N.e.1. ACER RUBRUM—FRAXINUS PENNSYLVANICA SEASONALLY FLOODED FOREST ALLIANCE**

**ACER RUBRUM—FRAXINUS (PENNSYLVANICA, AMERICANA) / LINDERA BENZOIN / SYMPLOCARPUS FOETIDUS FOREST**

Red Maple—(Green Ash, White Ash) / Northern Spicebush / Skunk-cabbage Forest  
[Red Maple Swamp]

**Concept:** Seasonally flooded red maple swamp influenced by overland flow as well as groundwater seepage. In general, these swamps are acidic and have some seepage indicators, but are not particularly species rich. They may occur on slightly sloping hillsides, along small streams, or in basins that receive overland flooding in addition to groundwater influence. Soils are shallow to moderately deep mucks over mineral soils. *Acer rubrum* dominates the canopy; *Fraxinus pennsylvanica* or *Fraxinus americana* are usually also found in the canopy. *Fraxinus nigra* is not generally associated with this type, and if present occurs only as scattered individuals. The shrub layer may be fairly open to quite dense, depending on the amount of canopy closure. Shrubs include *Vaccinium corymbosum*, *Rhododendron viscosum*, *Clethra alnifolia*, *Lindera benzoin*, and *Ilex verticillata*. The herbs *Symplocarpus foetidus* and *Osmunda cinnamomea* are nearly always present. Other herbaceous species are *Impatiens capensis*, *Carex stricta*, *Veratrum viride*, *Osmunda regalis*, *Onoclea sensibilis*. *Sphagnum* mosses are common on hummocks, but do not in general form extensive carpets.

## **Invasive Plant Management**

We recommend that a group workday is scheduled with volunteers. Focus on the larger shrubs and patches and teaching the individual volunteers to identify seedlings. Recruit volunteers to adopt sections to patrol for seedlings after the workday.

Focus on outlying populations first moving into denser infestations.

Japanese stiltgrass (*Microstegium vimineum*):

In the Orange trail sector, there was only one main dense patch of Japanese stiltgrass. It is high priority to take care of this patch before the stiltgrass spreads along the trail to other areas. This is located at 017 near the property bounds where it abuts a commercial area. There are some desirable sedges (*Carex* sp.) and a few other native plants within this infestations. It is recommended to flag these and hand-pull the stiltgrass around them.

Treatment – Manual: Cut or pull. Weedwacking the stiltgrass in August after it has started to flower but before it sets seed as close to the ground as possible. You should wait until this time period to weedwack. Doing so earlier can result in more germination and subsequent seed production. Weedwacking or mowing frequently throughout the season has been shown to result in the grass adapting to produce flowers and seeds close to ground level.

Chemical: Using herbicides can be very effective. A grass-specific herbicide such as Acclaim Extra can be used in mid-summer to kill existing stiltgrass prior to flowering without impacting established native wildflowers, woody seedlings, and most sedges. This can be combined with a pre-emergent herbicide such as Pendulum 2G in the early spring (March-April) to prevent new germination. This combination has been shown to be very effective and have minimal impact to native vegetation. A licensed pesticide applicator would need to perform the treatment. (Linda is licensed in NJ).

Common Reed (*Phragmites australis*):

In the wetlands there are approximately 3 discreet patches of *Phragmites* (Common Reed) each less than 1 acre. (Patches greater than 1 acre are considered more difficult to eradicate).

To push back Phrag from the boardwalk/trail you can lay down thick rubber membrane to suppress it. Some people have used plywood as well. This just helps keep it back from the trail and requires less maintenance (but not no maintenance, it still needs to be checked).

To remove a Phrag patch, begin with the smallest patch and conduct stem injection treatments with glyphosate-based herbicide. This technique involves introduction of a small amount of herbicide into the center of the stem. The herbicide is then drawn into the roots and kills them. A licensed pesticide applicator would need to perform or oversee the treatment.

The technique I'm recommending is called Hollow Stem Injection on the Roundup Custom label and involves cutting the stem at waist height and using a medicine dropper or syringe to drip herbicide down into the hollow stem. Use of herbicide has to be conducted or supervised by a licensed pesticide applicator. Cut each stem right before dripping the herbicide in, that way you know which have been treated and which are still to be done.

The first step is to confirm that your target is actually the invasive phragmites and not the native. This fact sheet <https://mnfi.anr.msu.edu/pdfs/phragmites-native-non-native.pdf> includes identification characteristics to tell them apart. Characteristics appeared to be consistent with the invasive.

The formulation of glyphosate to use in wetlands is branded as Roundup Custom or Rodeo. <https://www.domyown.com/roundup-custom-aquatic-terrestrial-herbicide-p-10348.html> These formulations do not include the surfactant (an added chemical that helps the glyphosate penetrate and stick to vegetation) which has been found harmful to aquatic organisms.

The Roundup Custom label specifies 5 mL per stem of a 50% solution of product into the second or third internode or into freshly cut stems. No additional surfactant is needed. (A 50% solution is half water and half straight Roundup Custom).

The entire discrete patch of Phragmites should be treated at the same time. Since stems may be connected below ground, leaving one part of the patch untreated may leave it with enough strength to overcome the herbicide application.

#### Japanese barberry (*Berberis thunbergii*)

Only a few larger bushes of Japanese barberry were observed during the site visit. These can likely be dug out successfully.

Many small seedlings can be hand-pulled before they get to be larger shrubs.

Key seedling identification characteristics: long, thin stem on leaf, round leaf with no notch in the tip (notch in the tip is tulip poplar), and a yellow root.

#### Burning bush / winged euonymus (*Euonymus alatus*)

Identification by the "winged" brown ridges along the green stem, opposite leaf and stem arrangement and oval leaves with small serrations. The leaves turn a bright red or pinkish red in the fall which is often a good time to spot them.

Pull small to medium sized plants and leave with roots exposed to air to dry out. For larger shrubs, herbicide is often needed. They resprout strongly when simply cut without treating. Treatment in the fall by applying a 25% active ingredient solution of glyphosate to the surface of the cut stump is usually successful.

#### Multi-flora rose (*Rosa multiflora*)

Same recommendation as for barberry.

Japanese barberry and multi-flora rose should be removed prior to the production of berries in the fall. For few individuals, shake soil off of roots and place on top of log or other shrub with roots in the air to dry out. For more than few, make a pile on top of some woody debris so that roots and branches of the pulled invasive are not in contact with the wet soil.

Dead barberry and multi-flora rose can be used to build mini barriers around desirable vegetation to help protect the desirable vegetation from deer browse.

#### Oriental bittersweet

Seedlings were observed throughout. Hand pulling is very effective before the vine becomes big enough to start climbing other vegetation.

Volunteers need to become adept at identifying seedlings. Key identification characteristics: yellow-green foliage color, round leaves with serrations along edge, and an orange root.

For larger vines, sometimes very mature vines will not resprout when cut at the base. However sometimes that doesn't work and it will resprout unless treated. A glyphosate-based herbicide will be effective at 25% active ingredient solution. A very small amount of herbicide can be used with a foaming applicator such as <https://www.greenshootsonline.com/products/small-foam-herbicide-dispenser> or a bingo dauber style sponge applicator such as <https://shop.naisma.org/collections/buckthorn-blaster> It is a good idea to add a dye such as Hi-lite blue to the mix so you know where you have already treated and do not over apply.

Use of herbicides requires supervision of a licensed NJ certified pesticide applicator unless you are applying on property you own or lease. Treatment in the fall is most successful. Treatment in the spring is not recommended since sap flow pushes the herbicide out of the stem. Since parks and preserves are not owned by individuals, this typically means you have to have a licensed applicator on site during application.

#### Mile-a-minute vine

The infestation level of mile-a-minute vine is low currently in this sector of the preserve. So the recommended method of control is to hand-pull and leave on site. Wear long sleeves and gloves to avoid scratches from prickles on the stem. Once pulled the plants wilt and die quickly. These vines are annuals and grow quickly from seed each year and produce fruits before dying. An individual vine will start to flower at the end of June and produce fruit by early to mid July.

**Management should be conducted by July to avoid letting fruit develop.** Once fruit is produced, hand-pulling is too late. Collection of fruits for disposal is the only management that should be done once fruits form.

Identification – leaves are equilateral triangles with the stalk coming out from the middle of the leaf rather than the edge. The stem is thin with prickles along it. There are two native species



arrow-leaved tearthumb, and halberd-leaved tearthumb which are similar but have different shaped leaves. At least one of these species was observed on the property.

Since mile-a-minute vine is spread by birds, it is likely that individual plants will continue to pop up over time as they are spread from nearby off-site infestations.

## Garlic mustard

Garlic mustard can be successfully controlled by persistent annual pulling. It is important however not to miss any year as this will allow additional seed to be added to the seedbank and set you timeline back.

**Management should be conducted every year before mid-June.** The ideal time is during flowering which can begin as early as late April and last until the end of May or early June. Targeting pulling activities for the first half of May is safe.

Depending on feasibility, the ideal way to dispose of garlic mustard is to bag it and send to the landfill since the plant has chemicals that inhibit beneficial fungi in the soil. If this is not feasible, concentrate the pulled material in piles on top of logs or woody debris to dry out. Monitor these areas in future years for seedlings.

We recommend that you not begin garlic mustard pulls unless you are prepared to conduct them every year in that area for at least 5 years. Garlic mustard pulls can be good introductory experiences for volunteers new to invasive species management. It is easy to do and makes an impression. It also happens early in the season which allows the volunteers to be transitioned to other invasive species work once they are interested.

Garlic mustard is spread by projectile seed pods and carrying on treads of boots and bicycles. Therefore, infestations near trails should take top priority as well as infestations that are near natural transport areas such as streams or drainage ways.

## Seasonal timeline for Invasives control

- March/April – stiltgrass pre-emergent herbicide treatment
- May – garlic mustard pull
- June – mile-a-minute pull, stiltgrass pull or grass-specific herbicide treatment
- May-September – barberry, burning bush, multiflora rose and oriental bittersweet pull or dig out
- August – stiltgrass weedwack
- October – burning bush pull

## Priority Areas for Invasives control

Focus on the best areas first to “clean” them and work your way out from there. “Best” meaning least invaded. Take care of the larger individuals by organizing a group event to sweep through. Then

partition out the area to various volunteers to take care of the smaller individuals within smaller partitioned areas.

Another priority would be areas within which the canopy trees have died and started to open a sunlight gap to the forest floor. These areas are more likely to get invaded and overtaken by invasive plants quickly due to the higher light levels.

Prioritize removing invasives from within deer exclosures since native plants in these areas are best positioned to take advantage of the newly opened space.

### **Dealing with the deer exclosures**

CNC has several 10-acre deer exclosures. One of these is within the focal Orange trail area. The deer exclosures are breached frequently and once breached it is often difficult to remove the deer from inside due to the size of the exclosure.

We discussed several potential remedies to try:

Divide the existing exclosures into multiple smaller exclosures with wildlife corridors through.

Smaller caged areas (square or circular) encompassing new plantings with one or two trees and several shrubs. Scattered throughout the area.

Long narrow exclosures

Double-fenced exclosures

NY Master Forest Owners program said that as long as deer can see the other side fence they are less likely to jump into the exclosure, therefore you can use shorter fencing (5 foot). The recommended distance is no greater than 20-30 feet across for this height of deer exclosure.

Slash walls - In CNC's case, woody debris (specifically downed dead beeches and pulled dead invasive shrubs) can be used to protect native plants and shrubs from browse. This can be a less expensive way to protect individual plantings scattered throughout the site.

Linda will send links to the Wellscroft Anti-Deer Netting.

Exclosure gates should all be self-closing.

### **Management of Woody Debris**

CNC will need to manage large amounts of dead wood/woody debris. Dead ash trees and beech trees. A certain number of standing dead trees is desirable for wildlife habitat. Known as snags. NY Master Forest Owner program recommends about 2-3 snags per acre as optimal. Trees over 12" DBH and not posing a

hazard should be considered to be left standing as snags. Smaller trees and hazard can be felled as necessary.

In addition, woody debris left on the ground is also good habitat for insects and other animals. It also can serve as protection from deer browse as seedlings start to grow. Brush piles can also serve as good cover for birds which will be especially important when there is a lack of a shrub understory.

Smaller caliper tree trunks can be used along the edges of the trails to define the trails and help park users stay on the paths as well as provide clarity as to where the trail is in the fall when leaves have covered the Treadway.

CNC also has the opportunity to use some of these trees to make lumber for its own use for boardwalk or puncheon or benches for example. Recruiting someone with an Alaskan sawmill or portable mill could be useful. There will be a lot of trees dying over the next few years and it would be nice to put some of that wood to use.

Leopold bench style is an easy to build bench that is designed to be easily transportable as planks into the natural area and then assembled on site. CNC might want to consider placing a few benches along the trail to as destinations for park users. We can recommend siting of benches if desired.

<https://www.construct101.com/leopold-bench-plans/>

For any woody debris that is not part of these uses mentioned above. It is good to get it in contact with the ground to help fungal colonization and start the decomposition process. This also helps keep the woods traversable by volunteers involved in planting efforts.

When felling dead trees there is always the possibility that something is using it as a home. Check cavities as carefully as you can in advance. Bats roost under loose sheets of bark. Birds nest during breeding season and roost in the evening in cavities. Bees and flying squirrels may also use cavities.

### **Priorities for Dealing with Dead Trees**

Decide on a marking scheme that covers marking trees to keep as snags, hazard trees, and trees to use as lumber.

First deal with hazard trees along trails and those that will fall on the deer fencing when they come down.

### **Potential Restoration Site for Wild Woods Restoration Project volunteers involvement**

The open clearing area near trail position 017 and commercial site

Inside the deer enclosure(s) around the Orange trail

### **Planting Workdays**

Recommend you purchase two different color wire pin flags. One color to lay out where you want to put the deer fencing and white which will be used for plantings.

Linda and Mary will agree on a date (or dates) for a fall planting. The idea would be that Rich helps lay out where plantings should go. Linda can help run workday if needed.

Rich will put together a plant list. Heavier on shrubs than trees.

CNC should go ahead and get set up a nonprofit account at Pinelands Nursery in preparation for purchasing plant materials there.