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## ***2014 Conservation Tree & Shrub Seedling Program Plant Descriptions and Information***

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### **Evergreens / Conifers**

**American Arborvitae / White Cedar** (*Thuja occidentalis*) – Slow to moderate growth • Slender, columnar in shape when young, losing lower branches unless managed as a hedge • Single trees can grow to 40 – 50' with a 10-15' spread. • Full sun • Tolerates wet, boggy sites, grows best in high lime, moist, sandy soils • Uses include shingles, rails & posts • Winged seeds are eaten by pine siskin in the NE; foliage and twigs are useful to white-tailed deer • Native to Eastern North America, Nova Scotia to Manitoba, south to North Carolina, Tennessee and Illinois, New York.

**Austrian Pine** (*Pinus nigra*) – Moderate growth • Densely pyramidal when young, becomes a large, flat-topped tree with a rough, short trunk and low, stout, spreading branches • Mature height 50-100' with 20-40' spread • Withstands city conditions better than most other pines • Tolerates a wide range of soil conditions, heat, drought, and wind • Good for wildlife cover and seeds are eaten by songbirds and small mammals • Native of Europe, from Austria to central Italy, Greece and Yugoslavia.

**Scotch Pine** (*Pinus sylvestris*) – Fast irregular pyramidal growth in youth, maturing to open, wide-spreading, flat or round-topped form • Height 30-90' with 30-40' spread • Full sun • Prefers well drained acidic soils • Useful on wastelands; not suitable for underplanting or shelterbelts • Wildlife cover and seed source for songbirds and small mammals • Popular Christmas tree • Native to: Europe, W. Asia and NE Siberia

**White Pine** (*Pinus strobus*)- Fast growth • Symmetrically pyramidal with soft appearance in youth, middle to old age distinctive plume-like outline • Height 50-75' with 20-40' spread – can reach 150' in height • Full sun, can tolerate some shade • Prefers fertile, moist, well-drained soils • Many lumber uses; Christmas tree, Red-breasted nuthatches, black-capped chickadees, red crossbills, squirrels, chipmunks, and mice feed on seeds. Beavers, porcupines, and white tailed deer browse on twigs and foliage • Native to Newfoundland to Manitoba, south to Georgia; Illinois and Iowa, New York.

**Blue Spruce** (*Picea pungens glauca*)- Moderate to slow growth • Broad, dense, pyramidal in youth, opening with age, retains lower branches • Height 40-60' with 10-20' spread • Full sun • Rich, moist soil is drought tolerant • Provides food and cover for birds and small mammals • Uses: windbreaks, screens & Christmas Trees • Native to Southwest United States, Rocky Mtns. from Colorado to Utah to New Mexico and Wyoming.

**Norway Spruce** (*Picea abies*) – Fast growth • Pyramidal with drooping branches; stiff when young to graceful when mature • Height 40-60' with 25-30' spread – can reach 100'+ in height • Full sun • Rich, moist soil • Food and cover for birds and small mammals • Uses: Lumber, Christmas trees, windbreaks • Native to North & Central Europe

**White Spruce** (*Picea glauca*) – Fast growth • Broad densely-pyramidal in youth to tall narrow dense spire with upturned branches • Height 40-60' with 10-20' spread • Full sun – light shade • Moist Loam or alluvial soils • Withstands: heat, wind, drought, crowding • Uses: streambanks, lakeshores, adjacent banks, lumber, pulpwood, windbreaks, Christmas tree • Wildlife cover, deer browse & rabbit, ruffed grouse • Native from Alaska to Montana, Minnesota, and New York.

**Balsam Fir** (*Abies balsamea*)– Moderate growth • Slender, dense, pyramidal shape • Mature height 45-75' with 20-25' spread • Full sun - More shade tolerant than other firs, will not tolerate polluted areas • Well drained, slightly acid, moist soils, tolerates wet soil conditions • Popular Christmas Tree; wildlife cover, songbirds' nesting sites, and browse for deer; squirrels, chipmunks and several songbirds eat the seeds • Native over a wide part of N. America, esp. in the higher altitudes from Labrador to Alberta to Pennsylvania, New York.

**Concolor Fir/ White Fir** (*Abies concolor*) – Slow growth • Conical, densely branched shape with upper branches tending to turn upward while lower branches remain horizontal or deflect downward as trees mature • Mature height 30-100' with 15-30' spread • Full sun • Deep, rich, moist, well drained, gravelly or sandy loam soils; dislikes heavy clay • Drought, heat, cold tolerant • Numerous uses for wildlife: cover and nesting, winged seeds eaten by songbirds, squirrels, and chipmunks • Popular Christmas tree • Native: Colorado to Southern California, Northern Mexico and New Mexico

**Douglas Fir** (*Pseudotsuga menziesii*) – Moderate growth • Spirey pyramidal, densely branched in youth to more open in maturity, upper branches tend to ascend while lower branches drop • Height 40-100' with 12-20' spread • Full Sun • Neutral/slightly acid soils, well-drained and moist, fails on poor soils • Subject to wind damage • Uses: lumber and Christmas tree • Heavily browsed by deer • Native to the Rocky Mountains and Pacific Coast.

**Fraser Fir** (*Abies fraseri*) – Moderate growth • Dense, pyramidal shape with stiff horizontal branches, opening up with age • Height 30-40' up to 70' with 20-25' spread • Full sun or partial shade • Cool, moist, well-drained loamy soil • Suffers in hot dry weather or on heavy, wet clay soils • Uses: Christmas tree, wildlife • Native: Appalachian Mountains of VA, NC, and TN

**Hemlock, Eastern** (*Tsuga canadensis*) – Moderate growth • Softly pyramidal in youth and maturity • Height 40-70' up to 100'+ with 25-35' spread • Prefers shade tolerates full sun with moist well-drained organic rich soil, does not tolerate wind or drought • Moist, well-drained, acid soils, rocky bluffs or sandy soils • Uses: hedges, screening • Winter cover for many species, Favored for nesting by several kinds of northern birds, food for pine siskin, crossbills, chickadees, blue grouse, squirrels, and deer • Native to Nova Scotia to Minnesota south along the mountains to Alabama and Georgia, New York.

**Larch, Japanese** (*Larix kaempferi*) – Moderate to fast growth • Very open and pyramidal shape • Height 70-90' with 25-40' spread • Full sun • Moist, well-drained soils but tolerates shallow acid soils • Intolerant of shade, chalk soils. Susceptible to drought, damage from pollution • leaf is a deciduous flat needle that turns yellowish gold in autumn and drops • Uses: poles, fence posts, railroad ties, interior paneling, pallets and flooring • Spring/Summer cover for Wildlife • Native to Japan.

## Conservation Shrubs

**Black Chokeberry** (*Aronia melanocarpa*) – Slow but may grow faster in good soils and full sun • Multi-stemmed shrub; spreading; open; rounded top; stiff upright habit with a vase shape • Height 3-6' with 3-5' spread; tends to sucker to produce colonies • Leaves and stems are smooth and glossy • Flowers are white to pink 1/3" diameter in 9-to-20-flowered, 2 to 2 1/2" diameter corymbs (clusters). Fruit is a pome, 1/3-to-1/2-inch diameter in cluster, blackish purple in fall lasting into winter • Full sun to partial shade • Prefers soil with drainage but tolerates wide range of soil types – wet and dry • Minor food importance to wildlife: provides browse for white-tailed deer and rabbits; fruits for ruffed grouse, sharp-tailed grouse and prairie chickens; songbirds eat if no other preferred food source is available; shrub colony provides good wildlife shelter • Fruits are unpleasant when raw but when processed they have culinary value. Fruits can be canned whole, the juice can be used in fruit drinks and jelly, and extracts can be used as natural colorants in the food industry. The fruit of black chokeberry has higher levels of antioxidants (anthocyanins and flavonoids) than any other temperate fruit • fibrous roots are good for holding soil • Native from Nova Scotia to Florida, west to Michigan.

**Sargent Crabapple** (*Malus sargentii*) – Moderate growth • Mounded, dense branching, wide spreading • Height 6-8' • Single 3/4 -1" flowers: red in bud, opening white, fragrant • Full sun • Soil: well-drained, moist, acid; adaptable • Small, bright red, 1/4" diameter apples • Fruit is popular with ruffed grouse, ring-necked pheasant, songbirds, and white-tailed deer.

**Redosier Dogwood** (*Cornus sericea*) – Fast, vigorous growth • Broad-spreading, loose, rounded, multistemmed shrub with horizontal branches base, stoloniferous (spreads by underground stems) • Height 7-9' with 10'+ spread • Creamy white flowers, borne 1 1/2 - 2 1/2 clusters late May to early June • White round fleshy fruits in late summer persisting through fall into winter • Full sun to partial shade • Extremely adaptable to wide range of soil and climatic conditions, best in moist soil – found in wet swampy situations • Used for soil stabilization on stream banks; fruits are favored by many songbirds and gamebirds • Native from Newfoundland to Manitoba, south to Virginia, Kentucky & Nebraska, New York.

**American Elderberry** (*Sambucus canadensis*) – Fast growth • Multistemmed shrub, often broad and rounded with branches spreading and arching, suckers profusely • Variable height 5-12' various spread • Creamy white 6-10" wide flat-topped flower clusters in June-July; fruit is purple-black in August-September, berry-like, 1/4" diameter • Full sun • Moist soils, will tolerate dry soils, thrives under acid or alkaline conditions • Fruits are popular for wine, pies, & jellies; fruits are summer food for songbirds, gamebirds, and squirrels, several kinds of browsers feed on the fruits and foliage • Native from Nova Scotia to Manitoba to Florida & Texas, New York.

**Hazelnut (American Filbert)** (*Corylus americana*) – Moderate growth • Multistemmed shrub forming a rounded top with an open base, wide spreading stems • Height 8-15' • Male catkins showy in spring, female catkins inconspicuous • Full sun or light shade • 1/2" long nut maturing in September-October • Well drained, loamy soil, pH adaptable • Good hedgerow or wood border plant • Squirrels, deer, and wild turkey may harvest these nuts (also call filberts) before you do • Native from New England to Saskatchewan and south to Florida, New York.

**Rugosa Rose** (*Rosa rugosa*) – Fast growth • Sprawling, thorny-stemmed shrub spread by stout underground stems • Height 4-6' by 4-6' wide • Perfect, fragrant rose-purple to white blooms, 2 1/2" – 3 1/2" across June through August • Full sun to light shade • Fertile, slightly acid, sandy loam soils; drought and salt tolerant • Produces (rose)hips, 1" across, lustrous brick-red; maturing in August though fall • Useful for difficult and saline environments including roadsides, banks, cuts, fills, and dunes • Wildlife cover and food for game birds and hoofed browsers • Native to Japan

**Shadblow Serviceberry** (*Amelanchier canadensis*) – Moderate growth • Upright multistemmed large shrub or small tree with a rounded crown of many small branches • Height 6-20' with erect stems • White flowers occur in erect 2-3" long racemes in early spring • Full to partial shade • Moist, well-drained, acid soil – will tolerate wide range of soil conditions • Grows in many different habitats • Sweet, black, edible fruit ripens in early summer • Thrushes and many other songbirds, squirrels, chipmunks, & bears relish the fruits • Native from Maine to South Carolina, New York.

**Spicebush** (*Lindera benzoin*) – Slow to medium growth • rounded shrub, somewhat loose and open in wild; dense, full and broad-rounded in full sun • Height 6-12' with a similar spread • Flowers are greenish yellow, early to mid-April • Fruit is an oval drupe, 1/3 to 1/2" long on female plants, bright scarlet in September • Full sun or half-shade • Prefers moist, well drained soils, does adequately in dry soils; coarsely fibrous root system makes transplanting difficult • excellent golden yellow fall color when in sun • Fruits are relished by thrushes, particularly by Wood Thrush and Veery • Native Maine to Ontario and Kansas, south to Florida and Texas, New York.

**Streamco Willow** (*Salix purpurea*) – Fast growth • Rounded, dense, finely branched, forming thickets of many smooth, thin, tough branches • Height 12-15' by 10-12" wide • Full sun – partial or full shade • Slightly acid, damp soils • Excellent choice for stabilizing streambanks or pond margins; suckers and layers producing dense mats that resist erosion • Provides shelter for water birds, aquatic life and small mammals used in basket weaving • Native to Europe, northern Africa to Central Asia and Japan.

## Broadleaf Trees (Deciduous)

**River Birch (*Betula nigra*)** – Fast growth • Pyramidal to oval-headed in youth, often rounded at maturity; trunk usually divides into several arched branches close to the ground • Height 30-40' • Full - partial sun • Makes best growth on sandy, poor, boggy, preferably wet and acid (pH 6.5 or below) soils • Suffers from iron chlorosis on soils of high pH • Fine choice for periodically wet or flooded locations which may be quite dry in summer and fall • Catkins, buds, seeds, and wood may provide food for some animals • Native from Massachusetts to Florida, west to Minnesota and Kansas, New York.

**Paper (White) Birch (*Betula papyrifera*)** – Moderate to fast growth • Generally multi-stemmed forming an oval or rounded crown • Height 50-70' with spread equal to 1/2 or 2/3 of height • Full sun • Prefers well-drained, acid, moist, sandy or silty loam soils; adapted to a wide variety of soils • Creamy-white bark in third to fourth year; peels freely to expose a reddish orange inner bark • Catkins, nuts good for upland game birds, songbirds • Native from Labrador to British Columbia and Washington south to Pennsylvania, Michigan, Nebraska, and Montana, New York.

**Black Cherry (*Prunus serotina*)** – Moderate growth • Pyramidal to conical in youth, maturing with oval crown, drooping branches • Height 50-60' rarely to 100' • White flowers, 1/3" across, born in ¼", pendulous clusters • Full sun • Deep, moist, fertile soils can adapt to dry, gravelly or sandy upland soils • Cherries, 1/3" across ripen in August & September • Used for lumber, wine, and jellies • Flowers attract pollinators (e.g. Bees); fruits feed gamebirds, songbirds, small mammals, and game animals; hooved browsers & rabbits feed on twigs, foliage, and bark • Native from Ontario to N. Dakota, Texas, and Florida, New York.

**Red Maple (*Acer rubrum*)** – Fast growth • Pyramidal or elliptical growth, developing upturned branches; crown matures to irregular oval or rounded shape • Height 40-60' with equal or lesser spread; can reach 100-120' • Full sun to light shade • Prefers slightly acid, moist soils but tolerates almost all • Fall color can vary from greenish-yellow to yellow to brilliant red • Seeds, buds, flowers provide food for many kinds of birds and other animals • Native from Newfoundland to Florida, west to Minnesota, Oklahoma, and Texas, New York.

**Sugar Maple (*Acer saccharum*)** – Slow growth hard wood • Grows upright, oval crown with dense foliage • Height 60-75' up to 100-120', with spread to 2/3<sup>rd</sup> of height • Full sun – partial shade • Prefers well-drained, moderately moist fertile soil; no pH preference, but growth may be greater in slightly acid soil • Tolerates shade well but is susceptible to salt damage; intolerant of air pollution and restricted growing areas • Uses: lumber and maple syrup/sugar production; seeds, buds, flowers provide food for many kinds of birds and other animals • Native from Canada to Georgia, Alabama, Mississippi and Texas, New York

**Northern Red Oak (*Quercus rubella*)** – Moderate – fast growth • Largest, fastest-growing of native N.Y. oaks; usually symmetrical, round-topped at all ages • Height 60-75' up to 100'+, with 60-75' spread • Full sun • Prefers well-drained, slightly acid, sandy loams • Withstands urban pollution • Uses: furniture, pilings, interior finish, ties, general construction purposes; acorns are an important winter food source for wildlife • Native from Nova Scotia to Pennsylvania to Minnesota and Iowa, New York.

**White Oak (*Quercus alba*)** – Moderate to slow growth • Pyramidal youth grows into upright-rounded crown with spreading branches at maturity • Height 50-80' with similar spread, can reach 100'+ in height • Full to filtered sun • Moist, well-drained, deep acid soils, will grow on many soils; not tolerant of compaction • White Oak lumber has many household uses for lumber including veneers, furniture, and wine barrels • Acorns are one of the preferred food sources for wildlife especially during winter months; acorns, foliage, and twigs are utilized for food shelter, and nesting by many songbirds, gamebirds, and game mammals • Native from Maine to Florida west to Minnesota and Texas, New York.

**Hybrid Poplar (*Populus deltoides x nigra*)** – Exceptionally fast growth • Forms a tall, narrow, vertical spire with upright branches • Height 40-50', spreads to 10-15' • Full Sun • Moist, well-drained silty or loamy soils preferred • Adapted to a wide variety of situations, soils, and growing conditions • Fast shade or windbreak; lumber, stabilization of steep banks, pits, landfills and other disturbed areas, can wick-up water in wet areas.

**Sycamore (*Platanus occidentalis*)** – Moderate to fast growth • Large massive, mottled color trunk and wide-spreading open crown of massive, crooked branches, irregular • Full sun to light shade • Prefers deep, moist, rich soils • Used for furniture, boxes, crates and butcher's blocks • Purple Finch may consume pendent seed balls • Native from Maine to Ontario and Minnesota, south to Florida and Texas, New York.

**Tuliptree (Yellow Poplar) (*Liriodendron tulipifera*)** – Fast growth • In open-grown situations matures to an oval-rounded with several large sinuous branches constituting the framework • Height 70-90' can get to 150'+, with 35-50' spread • Greenish-yellow color flowers in May-June in 6-10 year old trees • Full sun • Deep, moist, well-drained loam, slightly acid but pH adaptable • fruit is a cone-like aggregate of samaras (winged seeds), 2-3' long • Used for furniture • Seeds consumed by Purple Finch, Cardinals, and squirrels • Native from Massachusetts to Wisconsin, south to Florida and Mississippi, New York.

**Black Walnut (*Juglans nigra*)** – Fast growth • Full, well formed trunk which is devoid of branches ½ to 2/3 the distance from the ground, crown is oval to rounded and somewhat open • Height 50-75' to a max of 150', 50-75' spread when open grown • prefers deep, rich, moist soil; difficult to transplant due to extensive taproot • Nuts are 1 ½ - 2", round, hairless, light green • Wood is used for lumber, veneer, furniture, cabinets, and gunstocks; nuts are a food source for squirrels • Native from Massachusetts to Florida, west to Minnesota and Texas, New York.

## American Chestnut (*Castanea dentata*)

**American Chestnut** (*Castanea dentata*) - Moderate growth • Mature trees are characterized by massive trunks and branches supporting dense, irregular and wide-spread crowns • Specimens surviving to maturity can reach 70-90' with trunk diameters of 3 to 4 feet • Full sun and open location are preferred • Moist sandy soil • Transplant seedlings are grown from seeds of rare healthy, pure-strain Michigan trees. Not fully resistant to chestnut blight • Wood used as valuable hardwood lumber, nuts are desired food for people and wildlife; planted in plantations to maintain chestnut populations and to try to produce a more blight resistant tree • Originally native from southern Maine to Michigan, south to Alabama and Mississippi, New York.

## Wildlife Attracting Seedling Packs *Species that are already listed will not be repeated in this section.*

**American Beautyberry [American Beauty Bush]** (*Callicarpa americana*) – Fast growth • loose, open habit • Height 3-8' • full sun or light shade • well drained soil, readily transplanted • flowers are light lavender-pink in flat clusters on new growth from June into August • fruit is a berry about 1/4-inch wide, violet to metallic-purple; borne in loose 1 – 1 ½ -inch diameter spherical clusters, ripens in late summer to early fall, fully ripened by October • fruits are sought by birds, notably robin, mockingbird, catbird and brown thrasher • Native from southwest Maryland to North Carolina, Arkansas, south to Mexico and the West Indies. Zone 7 to 10 – may need to treat as an herbaceous perennial in northern areas.

**Butterfly Bush** (*Buddleia davidii*) – Fast growth • Herbaceous perennial which typically dies back to ground in winter; succulent caned, arching growth; flowers on new growth so should be pruned to ground each spring then easily reaches 5-8' in height by fall • Flowers vary in color, fragrant, 4-10" long upright or nodding panicles from June through frost • Full sun • Well-drained, fertile soils • Attracts many butterflies and pollinators • Native to China.

**Butternut [White Walnut]** (*Juglans cinerea*) – Slow growth • Round topped tree with short, forked or crooked trunk with open, wide spreading crown • Height 40-60' with 30-50' spread • Prefer moist, rich, deep soils although it grows well in drier, rocky soils • Full sun • The seeds are sweet and edible. Important timber tree. Native from New Brunswick to Georgia, and west to the Dakotas and Arkansas.

**Honeylocust, Common Thornless** (*Gleditsia triacanthos*) – Fast growth • usually a tree with a short trunk and a rather open spreading crown • Height 30-70' with similar spread • Flowers are not showy • Fruit is a brownish pod, strap-shaped and often twisted, 7-8" long up to 18", about 1" wide which contains shining dark brown very hard seeds • Full sun • prefers moist alluvial soils of river floodplains and streams or soils of a limestone origin; grows poorly on gravelly, heavy clay or shallow soils; prefers high pH but tolerates acid soils; tolerant of drought and salt • Fruits are high in carbohydrates and proteins and attract rabbits, squirrels, deer, opossum, bobwhite, birds, cattle and hogs • dense heavy wood used for fence posts, pallets, crates, general construction, furniture, interior finish, turnery and fuelwood • Native Pennsylvania to Nebraska and south to Texas and Mississippi.

**American or Eastern Larch [Tamarack]** (*Larix laricina*) – Slow-medium growth • open and pyramidal with a slender trunk horizontal branches and drooping branchlets • Height 40-80' with 15-30' spread • Full sun; intolerant of shade and pollution • Moist well-drained acid soils • leaf is a deciduous flat needle that turns golden yellow and drops in fall • Red squirrels and birds eat the seeds, attracts white throated sparrow, song sparrow, veery, common yellowthroat, Nashville Warbler and American Osprey • wood used for pulp products, posts, poles, mine timbers, railroad ties, rough lumber, boxes, crates and fuelwood • Native Northern North America, from the Arctic Circle in Alaska and Canada southwards to northern Pennsylvania, Minnesota and Illinois, New York.

**Lilac, Common** (*Syringa vulgaris*) – Moderate growth • Upright leggy shrub of irregular outline but usually devoid of lower branches after time and forming a cloud-like head of foliage • Height 8-20' with 6-15' spread • Flowers are lilac colored, extremely fragrant, early to mid-May in 4-8" panicles • Full sun • Neutral organic soil • Nectar attracts butterflies • Native to Southern Europe.

**Ninebark, Common or Eastern** (*Physocarpus opulifolius*) – Medium to fast growth • Upright, spreading with stiffly recurved branches, rounded and dense in foliage, peeling brown bark on stems • Height 5-10' with 6-10' spread • Full sun to partial shade • Moist well-drained soil; tolerates wet and dry soils; withstands acid and alkaline soils • White or pinkish flowers of 1/4-to-1/3" diameter, May-June, borne in many-flowered 1-to-2" diameter corymbs, stamens purplish numbering about 30 • Fruit consists of 3-to-5 inflated follicles, each 1/4" long, smooth, and shiny, reddish in September-October • fruit is eaten by many species of birds; excellent nectar source; deer browse branches • Native Quebec to Virginia, Tennessee and Michigan.

**Raspberry** (*Rubus* spp. –*everbearing variety*) – fast growth • erect, semi-erect, or training, generally thorny shrubs, producing renewal shoots from the ground called "canes" • Height 4-8', Spread 4-6' - generally established by training and pruning • Full sun to partial shade • soil — adaptable from sand to clay loams with good drainage and pH of 5-7 • white to pink flowers (1" diameter) borne terminally of several-flowered cymes on current season's growth • self-fruitful and do not require pollinizers • fruit begins in second year —everbearing varieties typically fruit in early summer and again in early fall • fruit is favored by many species of gamebirds, songbirds and, large and small mammals; the thorny brambles have much value as cover for wildlife • Native to North America.

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