

THE NEWPORT ARBORETUM



2017
COLLECTIONS MANAGEMENT PLAN

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THE NEWPORT ARBORETUM

Collections Management Plan

Introduction

THE NEWPORT ARBORETUM

The Newport Arboretum is a citywide arboretum in Newport, Rhode Island consisting of trees planted on both public and private property. The mission of the arboretum is to plant, manage and sustain a healthy, growing urban forest in the city of Newport through the engagement and education of the public and private sectors.

We are dedicated to serving the public and improving our environment through citizen forestry, educational programs and display and conservation plantings in support of a healthy urban forest. The Newport Arboretum will be a national and international resource for plant conservation, display, and education, with a special focus on heritage horticulture — the celebration and renewal of Newport’s long history of exploratory arboriculture and its remaining core of historic designed landscapes and plant collections.

From handwritten records of expansive colonial-era hothouses that held specimens from all over the globe, to the scores of Gilded Age landscapes still in cultivation on our island today, Newport is a truly a living museum of American horticulture and landscape architecture. Our goal is to remember and reignite our once burning passion for silviculture by reforesting all four corners of our city with truly special specimen trees planted by private citizens on both public and private property.

Ultimately, we seek to create a citywide arboretum with collections unparalleled in scope and depth—and to do so by designing and implementing sustainable processes that may one day be modeled by communities across the globe.

HISTORY OF THE NEWPORT TREE SOCIETY

The Newport Arboretum is a special project of The Newport Tree Society. The Newport Tree Society was founded in 1987 in response to an aging and ailing urban forest. Its purpose was to

create a sustainable tree protection, maintenance and planting program for the city of Newport. The Society:

- Formed the Newport Tree Commission
- Enacted the Newport Tree Protection, Maintenance & Planting Ordinance
- Negotiated the hiring of an accredited arborist as Newport Tree Warden
- Planted thousands of trees through new planting programs

These achievements qualified Newport to become the second city in the state designated a “Tree City USA.” The city’s public trees began to benefit from formal planning and active regeneration efforts for the first time since the Gilded Age. The majority of the city’s finest specimen trees, however, are found on private landscapes.

In response to the challenge of restoring a forest under the direct care of thousands of private citizens, the Board of the Newport Tree Society launched a new citizen-centered model for citywide reforestation organized around The Newport Arboretum, New England’s first citywide arboretum, established in 2011.

PURPOSE OF LIVING COLLECTIONS MANAGEMENT PLAN

The Living Collections Management Plan serves to guide the development of the living collections, keeping their ongoing evolution in alignment with the goals of the Newport Arboretum Strategic Plan and our long-term vision for our urban forest. The plan will provide focus to those charged with the planning, development and management of the living collections, with the aim of optimizing the use of available resources in realizing our mission and vision through effective and appropriate collections development.

RESPONSIBILITY FOR IMPLEMENTATION AND REVIEW

The identification of specific species acquisition and collection development priorities is the responsibility of the Living Collections Committee, with assistance from the Newport Arboretum Advisory Board. The Living Collections Committee will provide recommendations and oversight to ensure that collections development aligns with conservation, education, and display priorities and other goals of the Newport Arboretum Strategic Plan. The Committee will meet at least quarterly to develop specific recommendations for plant acquisition and deaccessioning.

Collections planning will be ongoing, and will include a comprehensive annual review of Special Collections development progress and plans. Periodic review and recommendations for revision of this Plan is the responsibility of the Living Collections Committee, following formal suggestions from the Board of the Newport Tree Society and the Newport Arboretum Advisory Board.

The Living Collections Committee shall meet at least once every three years, or at the call of its

Chair, to review and recommend revisions to the goals, policies and processes contained within this Collections Management Plan. The administration of the Policy is the responsibility of the Newport Tree Society Executive Director, and the implementation of the Plan is the responsibility of the Director and staff.

The Living Collections

OBJECTIVES & PRINCIPLES

The Living Collections Management Plan will be guided by key strategic objectives and guiding principles that cut across forestry, educational and sustainability goals:

- Celebrate Newport's heritage of exploratory horticulture by collecting and interpreting **rare and exotic trees** and reviving and interpreting **historic landscapes and plantings**.
- Increase our forest's health and resiliency by **expanding represented taxa** citywide and reviving natural forest areas with **native plantings**.
- Increase Newport's **tree canopy coverage**.
- **Engage Newporters in replanting** their urban forest on private as well as public property.

Heritage Education and Conservation Goals. One of the Newport Arboretum's key goals is to preserve, restore and celebrate Newport's rich horticultural history. We will accomplish this through the identification and effective stewardship of historic trees, special collections, cultivated and natural landscapes, and other natural heritage resources. Heritage planting and conservation measures will be combined with increased interpretation and instruction to bring to life Newport's singular history as a center for horticulture and landscape architecture. As always, our goals can only be met through successful partnership with Newport institutions and private property owners who hold Newport's horticultural legacy in their hands.

Taxa Diversity and Conservation Goals. Taxa diversity will be a primary driver in the choice of new accessions to the Living Collections for multiple purposes: celebrating Newport's heritage of exploratory horticulture, increasing forest resiliency, and supporting worldwide conservation efforts. Our predecessors planted for the thrill and enjoyment of experiencing the fullest range of flora the natural world had to offer, and sharing that bounty with other seekers of knowledge. Today, we plant to celebrate that tradition of exploration and experimentation; but we also plant to fight the relentless problem of species extinction and the loss of genetic diversity in plant stocks worldwide. The Newport Arboretum will grow species of trees and shrubs that are considered endangered or threatened with extinction according to the CITES list, as well as cultivating tree varieties that may provide genetically variable material for hybridization in the future. Ultimately, our goal is to not only practice conservation and

promote biodiversity on public land, but to encourage every Newporter to plant for conservation on their own property.

Native Planting Goals. Goals for native flora education and conservation efforts include: restoring existing natural forested areas, expanding sustainable habitat for native fauna and desirable insects, and encouraging Newporters to plant a diverse palette of native species on their own properties. The Living Collections Management Plan will include specific goals for natives planting and restoration, and will outline the phased restoration and management of ‘natural’ sites such as Miantonomi Park, Ballard Park, etc..

Citizen Engagement Goals. The Plan will meet goals for citizen engagement by including planting goals for private as well as public property across Newport. We seek to engage private property owners in planting and stewardship activities through education and open dialogue, and by providing direct practical support to citizen foresters.

HISTORY OF THE COLLECTIONS

By the end of the 18th century, Newport was almost entirely denuded of trees as Aquidneck Island’s forests were lost to fuel needs, construction and farmland, with the final decimating blow occurring during the three-year British occupation of Newport (1776-1779).

Tree hunters working for arboreta and private collectors during the Gilded Age loaded new specimens from across the globe onto ships bound for New England. Propagated at the Arnold Arboretum in Boston, young saplings quickly found their way to the mansions and villas springing up along Bellevue Avenue in Newport. Exotic trees graced grand landscapes designed by legends such as Frederick Law Olmsted and Ernest Bowditch, while Newport gardeners and amateur botanists brought seedlings and cuttings to every part of town, planting a generation of trees that defined our city’s character as surely as our Gilded Age mansions or yacht-speckled harbor.

According to John ‘Echo’ Burrows (1926-2010), former head gardener for the Preservation Society of Newport County, by the end of the Gilded Age, Newport’s collection of specimen trees rivaled that of Boston’s Arnold Arboretum in both number and taxa diversity. This assessment was handed down to Echo by his father, Robert Thompson Burrows, who trained at the Royal Gardens in London before emigrating to America in the early 1920’s to join the ranks of hundreds of professional gardeners working on Newport estates.

In his article, “Living Legends of Newport,” former Newport Tree Warden Peter Simpson estimated that by the time of his induction to office in 1991, our thriving Gilded Age tree canopy had shrunk by half. It is widely known that the hurricane of 1938 razed landscapes across Aquidneck Island, which accounts for certain losses; but more devastating was the lull in plant collecting in Newport in the latter half of the twentieth century, as Newport’s legendary enthusiasm for silviculture was lost along with a generation of scientists and amateur horticulturists. Losses continued as side yards became parking lots in a city that was balancing the blessings of economic development with its unavoidable pressures.

In 1991, the newly-formed Newport Tree Society enacted Newport’s first tree ordinance and hired

Mr. Simpson as its first professional tree warden, triggering a turning of the tide for our ailing urban forest. Since that time, thousands of trees have been planted along Newport city streets and in its public parks. But these public trees represent only a fraction of Newport’s tree canopy. And so, in 2011, the Newport Arboretum was established—New England’s first citywide arboretum, and perhaps the first arboretum in America to include private residential trees in its collections.

“In particular I want to gaze again at the glorious trees of Newport — lofty, sheltered and varied...”

—Thornton Wilder, *Theophilus North*

STATE OF THE FOREST: CURRENT COLLECTIONS

Public Collections. In 2011, when The Newport Arboretum was officially launched, the initial primary Living Collections consisted of all public park and street trees under the care of the City of Newport Forestry Division. This public collection was professionally surveyed in 2012–2013, and the trees (species and location) can be found on our online interactive tree map at www.rhodytrees.org. Following is a total count of the initial 5,940 public trees surveyed, by species:

LATIN NAME	COUNT						
		Cladrastis kentukea	6	Magnolia stellata	6	Quercus phellos	7
Abies balsamea	2	Cornus alternifolia	11	Magnolia virginiana	3	Quercus robur	328
Abies fraseri	3	Cornus florida	31	Malus spp.	116	Quercus rubra	43
Acer campestre	9	Cornus kousa	71	Metasequoia glyptostroboides	13	Rhus typhina	1
Acer griseum	5	Cornus spp.	3	Morus alba	17	Robinia pseudoacacia	18
Acer negundo	1	Corylus colurna	1	Nyssa sylvatica	6	Salix babylonica	4
Acer palmatum	109	Cotinus coggygria	1	Oxydendrum arboreum	1	Salix discolor	4
Acer platanoides	714	Crataegus spp.	29	Parrotia persica	1	Salix nigra	14
Acer pseudoplatanus	261	Cryptomeria japonica	23	Phellodendron amurense	3	Sassafras albidum	1
Acer rubrum	263	x Cupressocyparis leylandii	14	Picea abies	11	Sciadopitys verticillata	4
Acer saccharinum	8	Fagus grandifolia	46	Picea glauca	47	Sorbus americana	1
Acer saccharum	96	Fagus sylvatica	28	Picea pungens	46	Styphnolobium japonicum	28
Acer tataricum ginnala	11	Fraxinus americana	25	Pinus echinata	1	Syringa reticulata	28
Acer triflorum	3	Fraxinus excelsior	13	Pinus nigra	20	Syringa vulgaris	8
Acer truncatum	1	Fraxinus nigra	1	Pinus rigida	1	Taxodium distichum	1
Acer x freemanii	5	Fraxinus pennsylvanica	117	Pinus strobus	19	Taxus spp.	4
Aesculus glabra	2	Ginkgo biloba	19	Pinus sylvestris	1	Thuja occidentalis	199
Aesculus hippocastanum	55	Gleditsia triacanthos inermis	108	Platanus x acerifolia	365	Tilia americana	207
Ailanthus altissima	6	Gymnocladus dioicus	1	Populus alba	8	Tilia cordata	207
Albizia julibrissin	1	Halesia tetraptera	4	Populus deltoides	8	Ulmus americana	32
Alnus glutinosa	2	Hamamelis virginiana	1	Populus tremuloides	18	Ulmus parvifolia	20
Amelanchier spp.	9	Ilex opaca	5	Prunus serotina	104	Ulmus procera	1
Betula nigra	14	Ilex spp.	9	Prunus serrulata	262	Ulmus pumila	150
Betula papyrifera	13	Juglans cinerea	1	Prunus spp.	251	Ulmus rubra	22
Betula pendula	2	Juglans nigra	13	Prunus x yedoensis	1	Ulmus x	34
Betula populifolia	11	Juniperus spp.	37	Pseudotsuga menziesii	1	Zelkova serrata	153
Carpinus caroliniana	67	Juniperus virginiana	31	Pyrus calleryana	265	PLANTING SITES SURVEYED	COUNT
Carya glabra	6	Koelreuteria paniculata	6	Pyrus communis	5	Stump	125
Carya ovata	1	Lagerstroemia indica	4	Quercus alba	10	Vacant site medium	31
Catalpa speciosa	26	Larix decidua	9	Quercus bicolor	13	Vacant site small	381
Cedrus atlantica	1	Ligustrum spp.	1	Quercus cerris	8	Vacant site large	271
Celtis occidentalis	18	Liquidambar styraciflua	47	Quercus laevis	22		
Cercidiphyllum japonicum	8	Liriodendron tulipifera	22	Quercus pagoda	2		
Cercis canadensis	5	Magnolia x soulangeana	15	Quercus palustris	272		

Private Collections. In addition to the public tree collections, the Living Collections include all those private trees catalogued and described for public education purposes (via arboretum tree tag, inclusion in a Newport Tree Walks map, or in our online interactive tree map).

In 2017, the Community Arboreta Accreditation Program was established to assist private property owners who wish to attain Level I professional arboretum accreditation through ArbNet. This program is an effort to further encourage and support private property owners in the professional stewardship of their trees and landscapes, and includes the oversight of the Newport Arboretum Living Collections Committee for any property requiring an arboretum steering committee.

The Newport Arboretum claims no control, ownership, or overt responsibility over any trees residing on private property that are not specifically protected under City of Newport property codes. Collections on private property belong solely to the property owner. The Arboretum welcomes participation of all tree owners in arboretum programs and activities, and urges property owners to take advantage of the knowledge and assistance of Newport Arboretum staff, board and volunteers when planting, maintaining and otherwise caring for their trees.

As of January 2017, 452 species, subspecies, varieties and cultivars are represented in the Living Collections, public and private:

Abies balsamea	Acer rubrum 'Bowhall'	Betula alleghaniensis	SENTINEL
Abies concolor	Acer rubrum 'Frank Jr.'	Betula lenta	Cercidiphyllum japonicum
Abies fraseri	Acer rubrum 'Franksred'	Betula nigra	Cercidiphyllum japonicum 'Pendulum'
Abies grandis	Acer rubrum 'JFS-KW78' ARMSTRONG	Betula nigra 'Heritage'	Cercis canadensis
Abies nordmanniana	GOLD	Betula papyrifera	Cercis canadensis 'Alba'
Acer campestre	Acer rubrum 'Sun Valley'	Betula pendula	Cercis canadensis 'Forest Pansy'
Acer campestre 'Evelyn'	Acer saccharinum	Betula pendula 'Gracilis'	Cercis canadensis 'Rising Sun'
Acer campestre 'Queen Elizabeth'	Acer saccharum	Betula platyphylla japonica 'Whitespire'	Cercis canadensis 'Ruby Falls'
Acer ginnala	Acer saccharum 'Green Mountain'	Betula populifolia	Chamaecyparis nootkatensis
Acer ginnala 'Ruby Slippers'	Acer saccharum 'Hiawatha 1'	Betula utilis	Chamaecyparis nootkatensis 'Aurea'
Acer grandidentatum 'Big Tooth'	Acer saccharum 'Commemoration'	Betula utilis 'Jacquemontii'	Chamaecyparis obtusa
Acer grandidentatum 'Hipazam'	Acer saccharum 'Legacy'	Calocedrus decurrens	Chamaecyparis obtusa 'Filicoides'
Acer griseum	Acer tataricum ginnala	Calocedrus decurrens 'Maupin Glow'	Chamaecyparis obtusa 'Nana Gracilis'
Acer japonica "Red Select"	Acer triflorum	Carpinus betulus	Chamaecyparis obtusa 'Nana'
Acer japonicum	Acer truncatum	Carpinus betulus 'Columnarus'	Chamaecyparis obtusa 'Wells Special'
Acer miyabei 'Rugged Ridge'	Acer truncatum x platanoides	Carpinus betulus 'Frans Fontaine'	Chamaecyparis obtusa crippsi 'Hinoki'
Acer negundo	Acer truncatum x platanoides 'JFS-	Carpinus betulus 'Heterophylla'	Chamaecyparis pisifera
Acer negundo 'Sensation'	KW202' CRIMSON SUNSET	Carpinus caroliniana	Chamaecyparis pisifera 'Filifera Aurea'
Acer nigrum	Acer truncatum x platanoides 'Norwegian	Carpinus caroliniana 'American'	Chamaecyparis pisifera 'Filifera'
Acer palmatum	Sunset'	Carpinus caroliniana 'Fastigiata'	Chamaecyparis pisifera 'Boulevard'
Acer palmatum 'Coral Bark'	Acer truncatum x platanoides	Carya glabra	Chamaecyparis thyoides
Acer palmatum 'Dissectum'	'Warrenred'	Carya ovata	Chamaecyparis thyoides 'Glauc
Acer palmatum 'Sango-kaku'	Acer x freemanii	Catalpa bignonioides	Pendula'
Acer palmatum 'Shishigashira'	Acer x freemanii 'Celzam'	Catalpa bungei	Chionanthus retusus
Acer palmatum dissectum 'Viridis'	Acer x freemanii 'Jeffersred'	Catalpa speciosa	Chionanthus virginicus
Acer palmatum var. dissectum 'Dissectum	Aesculus hippocastanum	Cedrus atlantica	Chionanthus virginicus 'White'
Atropurpureum'	Aesculus x carnea	Cedrus atlantica 'Glauc Pendula'	Cladrastis kentukea
Acer pensylvanicum	Aesculus x carnea 'Briotii'	Cedrus atlantica 'Glauc'	Clerodendrum trichotomum var. fargesii
Acer platanoides	Ailanthus altissima	Cedrus deodara	Clethra barbinervis
Acer platanoides 'Crimson King'	Albizia julibrissin	Cedrus deodara 'Electra'	Cornus alternifolia
Acer pseudoplatanus	Alnus glutinosa	Cedrus deodara 'Snow Sprite'	Cornus controversa
Acer pseudosieboldianum	Amelanchier arborea	Cedrus libani	Cornus controversa 'June Snow'
Acer rubrum	Amelanchier canadensis	Celtis occidentalis	Cornus florida
Acer rubrum 'Armstrong'	Araucaria araucana	Celtis occidentalis 'JFS-KSU1' PRAIRIE	Cornus florida 'White Cloud'

Cornus florida x kousa	Seedless'	Magnolia grandiflora	Pinus parviflora 'Templehoff'
Cornus kousa	Fraxinus pennsylvanica 'Patmore'	Magnolia grandiflora 'Bracken's Brown Beauty'	Pinus peuce
Cornus kousa 'National'	Fraxinus pennsylvanica 'Summit'	Magnolia grandiflora 'Edith Bogue'	Pinus rigida
Cornus kousa 'Samzam'	Ginkgo biloba 'Princeton Sentry'	Magnolia liliflora x sprengeri	Pinus strobiformus
Cornus kousa 'Schmred'	Ginkgo biloba	Magnolia liliflora x sprengeri 'Galaxy'	Pinus strobus
Cornus kousa 'Summer Fun'	Ginkgo biloba 'The President'	Magnolia stellata	Pinus strobus 'Nana'
Cornus kousa var. chinensis	Gleditsia gigantus 'Green Spire'	Magnolia stellata 'Centennial Blush'	Pinus sylvestris
Cornus kousa x florida 'Rutgan'	Gleditsia triacanthos	Magnolia stellata 'Royal Star'	Pinus thunbergii
Cornus kousa x nuttallii	Gleditsia triacanthos var. inermis	Magnolia stellata x liliflora	Pinus thunbergii 'Thunderhead'
Cornus kousa x nuttallii 'KN 30-8' VENUS	Gleditsia triacanthos 'Draves'	Magnolia stellata x liliflora 'Susan'	Pistacia chinensis
Cornus kousa x nuttallii 'KN4-43' STARLIGHT	Gymnocladus dioicus	Magnolia virginiana	Platanus occidentalis
Cornus mas	Gymnocladus dioicus 'Espresso'	Magnolia x 'Elizabeth'	Platanus x acerifolia
Cornus nutallii x florida 'Eddie's White Wonder'	Halesia carolina	Magnolia x brooklynensis	Platanus x acerifolia 'Bloodgood'
Cornus pumila	Halesia tetraptera	Magnolia x loebneri	Platanus x acerifolia 'Exclamation'
Cornus x 'Rutban' Stellar Pink	Hamamelis vernalis	Magnolia x loebneri 'Ballerina'	Poncirus trifoliata
Cornus x 'Rutgan' AURORA	Hamamelis virginiana	Magnolia x loebneri 'Leonard Messel'	Populus alba
Corylus avellana 'Contortar'	Hamamelis x intermedia 'Arnold Promise'	Magnolia x loebneri 'Merrill'	Populus deltoides
Corylus colurna	Hamamelis x intermedia 'Diane'	Malus 'JFS-KW5' ROYAL RAINDROPS	Populus tremuloides
Cotinus coggygria	Heptacodium miconioides	Malus x scheideckeri 'Red Jade'	Prunus blireiana
Cotinus coggygria 'Royal Purple'	Hovenia dulcis	Malus floribunda	Prunus cerasifera
Crataegus viridis	Idesia polycarpa	Malus sargentii 'Sargent'	Prunus cerasifera "Newportii"
Crataegus viridis 'Winter King'	Ilex aquifolium	Malus sylvestris	Prunus cerasifera "Thundercloud"
Cryptomeria japonica	Ilex crenata	Malus transitoria 'Schmidtcutleaf'	Prunus pendula
Cryptomeria japonica 'Black Dragon'	Ilex opaca	GOLDEN RAINDROPS	Prunus persica
Cryptomeria japonica 'Yoshino'	Ilex vomitoria	Metasequoia glyptostroboides	Prunus sargentii
Cupressus arizonica	Juglans cinerea	Metasequoia glyptostroboides 'Ogon'	Prunus sargentii 'Columnaris'
x Cupressocyparis leylandii	Juglans nigra	GOLD RUSH	Prunus sargentii 'JFS-KW58' PINK FLAIR
Davidia involucrata	Juglans regia	Morus alba	Prunus serotina
Davidia involucrata 'Lady Sunshine'	Juniperus chinensis 'Keteleeri'	Nyssa sylvatica	Prunus serrulata
Diospyros virginiana	Juniperus chinensis 'Mountbatten'	Nyssa sylvatica 'JFS-PN Legacy1' GUM DROP	Prunus serrulata 'Kwanzan'
Elaeagnus angustifolia	Juniperus chinensis 'Robusta Green'	Nyssa sylvatica 'Wildfire'	Prunus serrulata 'Mount Fuji'
Enkianthus campanulatus	Juniperus virginiana	Ostrya carpinifolia	Prunus serrulata 'Snow Goose'
Fagus grandifolia	Koelreuteria paniculata	Ostrya virginiana	Prunus subhirtella
Fagus sylvatica	Koelreuteria paniculata 'Summerburst'	Oxydendrum arboreum	Prunus subhirtella 'Autumnalis'
Fagus sylvatica 'Albovariegata'	Laburnum anagyroides	Parrotia persica	Prunus subhirtella 'Pendula'
Fagus sylvatica 'Asplenifolia'	Lagerstroemia fauriei 'Sarah's Favorite'	Parrotia persica 'Kew's Weeping'	Prunus virginiana
Fagus sylvatica 'Atropinacea'	Lagerstroemia indica	Phellodendron amurense	Prunus x 'Snow Goose'
Fagus sylvatica 'Black Swan'	Larix decidua	Phellodendron amurense 'His Majesty'	Prunus x yedoensis
Fagus sylvatica 'Cuprea'	Larix kaempferi 'Diana'	Phellodendron amurense 'Macho'	Pseudotsuga menziesii
Fagus sylvatica 'Dawycck Purple'	Larix x marschlinii	Picea abies	Ptelea trifoliata
Fagus sylvatica 'Dawycck'	Leitneria floridana	Picea glauca	Pterocarya fraxinifolia
Fagus sylvatica 'Fastigiata'	Liquidambar styraciflua	Picea glauca 'Conica'	Pteroceltis tatarinowii
Fagus sylvatica 'Pendula'	Liquidambar styraciflua 'Hapdell'	Picea jezoensis	Pyrus calleryana
Fagus sylvatica 'Purple Fountain'	Liquidambar styraciflua 'Rotundiloba'	Picea orientalis	Pyrus calleryana 'Chanticleer'
Fagus sylvatica 'Purpurea Nana'	Liquidambar styraciflua 'Silver King'	Picea orientalis 'Gowdy'	Pyrus calleryana 'Glen's Form'
Fagus sylvatica 'Purpurea Pendula'	Liquidambar styraciflua 'Slender Silhouette'	Picea pungens	Pyrus communis
Fagus sylvatica 'Red Obelisk'	Liquidambar styraciflua 'Variegata'	Picea pungens 'Bakeri'	Quercus acutissima
Fagus sylvatica 'Riversii'	Liquidambar styraciflua 'Worpleston'	Picea pungens 'Glaucua'	Quercus alba
Fagus sylvatica 'Rohanii'	Liriodendron tulipifera	Pinus bungeana	Quercus bicolor
Fagus sylvatica 'Rotundifolia'	Liriodendron tulipifera 'Glen Gold'	Pinus cembra	Quercus bicolor 'JFS-KW12' AMERICAN DREAM
Fagus sylvatica 'Tricolor'	Maackia amurensis	Pinus echinata	Quercus cerris
Fraxinus americana	Maackia amurensis 'Amur'	Pinus flexilis 'Extra Blue'	Quercus coccinea
Fraxinus excelsior	Magnolia 'Golden Endeavor'	Pinus heldreichii	Quercus dentata 'Pinnatifida'
Fraxinus nigra	Magnolia acuminata	Pinus nigra	Quercus ellipsoidalis
Fraxinus pennsylvanica	Magnolia acuminata 'Butterflies'	Pinus parviflora	Quercus frainetto 'Schmidt' FOREST GREEN
Fraxinus pennsylvanica 'Cimmzam'	Magnolia acuminata x brooklynensis	Pinus parviflora 'Glaucua'	Quercus imbricaria
Fraxinus pennsylvanica 'Marshalls	Magnolia denudata		Quercus laevis

Quercus laurifolia	Salix alba	Thuja occidentalis	Ulmus americana 'Valley Forge'
Quercus marilandica	Salix babylonica	Thuja plicata	Ulmus americana 'Washington'
Quercus mongolica	Salix discolor	Thuja standishii x plicata 'Green Giant'	Ulmus davidiana var. japonica
Quercus obtusa	Salix matsudana 'Tortuosa'	Thujopsis dolabrata	Ulmus davidiana var. japonica 'Morton'
Quercus pagoda	Salix nigra	Tilia americana	Accolade
Quercus palustris	Sassafras albidum	Tilia americana 'Redmond'	Ulmus davidiana var. japonica
Quercus palustris 'Fastigiata'	Sciadopitys verticillata	Tilia amurensis	'Prospector'
Quercus palustris 'Green Pillar'	Sophora japonica 'Halka'	Tilia caucasica	Ulmus glabra
Quercus palustris 'Pringreen'	Sorbus americana	Tilia cordata	Ulmus glabra 'Camperdownii'
Quercus phellos	Stewartia pseudocamellia	Tilia cordata 'Glenleven'	Ulmus minor
Quercus robur	Styphnolobium japonicum	Tilia cordata 'Greenspire'	Ulmus minor 'Atinia'
Quercus robur 'Fastigiata'	Styrax japonica 'Snow Charm'	Tilia cordata 'Summer Sprite'	Ulmus minor x parvifolia 'Frontier'
Quercus robur x alba	Styrax japonicus	Tilia euchlora	Ulmus parvifolia
Quercus robur x alba 'Crimschmidt'	Styrax japonicus 'JFS-D' SNOWCONE	Tilia platyphyllos	Ulmus parvifolia 'Emer II'
CRIMSON SPIRE	Styrax obassia	Tilia tomentosa	Ulmus procera
Quercus robur x alba 'JFS-KW10X'	Syringa meyeri	Tilia tomentosa 'Green Mountain'	Ulmus propinqua 'JFS-Bieberich'
STREETSPIRE	Syringa reticulata	Tilia tomentosa 'Sterling'	EMERALD SUNSHINE
Quercus rubra	Syringa reticulata 'Ivory Silk'	Tilia x euchlora	Ulmus pumila
Quercus shumardii	Syringa vulgaris	Tsuga canadensis	Ulmus rubra
Quercus velutina	Syringa vulgaris 'Donald Wyman'	Tsuga canadensis 'Gentsch White'	Zelkova serrata
Quercus x warei 'Nadler'	Syringa x hyacinthiflora 'Pocahontas'	Ulmus ('Urban' x wilsoniana 'Prospector') 'Patriot'	Zelkova serrata 'Village Green'
Rhus typhina	Taxodium ascendens	Ulmus americana	
Robinia pseudoacacia	Taxodium distichum	Ulmus americana 'Jefferson'	
Robinia pseudoacacia 'Lace Lady'	Taxus baccata	Ulmus americana 'Princeton'	
TWISTY BABY	Taxus baccata 'Fastigiata'		

Records System

INVENTORY AND EVALUATION

The Newport Arboretum is committed to the maintenance of accurate, up-to-date, and pertinent records on its accessioned living collections. Comprehensive surveys and inventories are crucial to a better understanding our forest and how best to care for it over the long term. In addition, we believe that making this data publicly available via an online tree map is a powerful tool for education, allowing citizens and visitors to explore our city's tree collection at their leisure, learning more about species that they may want to plant in their own backyards.

Online GIS-Based Tree Database & Map. Our interactive, collaborative mapping tool, OpenTreeMap (found at rhodytrees.org), allows anyone to map a tree growing anywhere in the city or state, and add new data to existing mapped trees.

As this map is updated by staff and volunteers, a more accurate picture of the 'state of the forest' is gradually emerging, allowing us to proactively manage our tree collection, head off problems and plan for planting years in advance. The benefits of this platform for data collection include:

- Tree surveying provides an opportunity for yearlong, meaningful volunteer work... and participation in mapping efforts has been shown to trigger a deeper interest in trees.

- A citywide tree map integrates with and enhances our Specimen Tree Restoration Program, enabling us to track program success (tree survival rates) over the long term. Program participants can personally upload photos and tree growth statistics.
- Propagators Program members will be able to track the young tree they nurtured from seed or cutting as it leaves their care and is planted elsewhere in the city.
- Donors can more easily be recognized as adopters or sponsors of individual trees, creating new opportunities for donor cultivation.
- Volunteers are able to record which trees have been surveyed for aggressive and dangerous pests such as the Emerald Ash Borer and Asian Long-Horned Beetle.

PROCESSES, ROLES & RESPONSIBILITIES

Overall administration and oversight of the plant records system is the responsibility of the Director of the Arboretum. Recordkeeping at The Newport Arboretum will rely heavily on volunteer staff. It is the responsibility of the Program Director to coordinate the efforts of volunteers in recordkeeping (including tree surveys, pest inspection surveys, young tree care and survival records, etc.), to establish recordkeeping goals, and to periodically conduct sample testing to gauge the accuracy of data collection and make procedural adjustments accordingly.

Information Requirements. Whenever possible, information pertinent to the accession's taxonomic classification, place of origin, provenance type, source, date of acquisition, date planted, and mapped location will be kept on all items in the living collections.

Biennial Review. The Living Collections Committee will oversee the biennial review of the status of collection inventories, and will use the information gleaned to strategically modify recordkeeping and inventorying activities as well as plant propagation and/or acquisition.

Design, Planning & Acquisition

SPECIES SELECTION CRITERIA

Collections development and specific specimens targeted for acquisition and accession will be evaluated according to the following criteria:

- Value in interpreting Newport's natural history and heritage
- Status as a rare or exotic specimen
- Enhancement of a taxonomic, geographical, ecological, thematic, or natural history

collection

- Educational potential
- Value for the support of wildlife
- *Ex situ* and *in situ* conservation of threatened taxa
- Missouri Protocol for invasives
- Susceptibility to EAB/ALB

Ex situ conservation is the conservation and maintenance of samples of living organisms outside their natural habitat, in the form of whole plants, seed, pollen, vegetative propagules, tissue or cell cultures.

In situ conservation is the conservation of species diversity within normal and natural habitats and ecosystems.

The CITES list, produced by the Convention on International Trade in Endangered Species of Wild Fauna & Flora, includes 30,000 species of protected plants.

PROCESSES, ROLES & PROCEDURES

Design, Planning and Collections Management Decisions. The Living Collections Committee will provide oversight of collections development to ensure alignment with research, educational, and display priorities. Such oversight will extend to those properties accredited as Level I arboreta through out Community Arboreta Accreditation program, which will involve semi-annual review of the status, policies and plans for each arboretum.

Acquisition decisions will be preceded by design and planning activities. The Living Collections Committee, comprised of board members, advisory consultants and representatives from the Newport Forestry Division, will meet twice yearly to review and develop recommendations for the development of special collections and general plant acquisition, including evaluation of placement, management, and use of the collections.

Acquisitions & Species Approval Process. Recommendations for acquisitions to the Newport Arboretum Living Collections may be initiated by the Living Collections Committee and their design consultants, staff, board members, volunteers, members of the Newport Arboretum Special Advisory Board or other board committees, or interested members of the general public. Acquisitions of individual plants or a small collection are initiated by submitting an acquisition proposal to the Living Collections Committee. Half of the members of the Collections Committee will constitute a quorum for the purpose of making recommendations concerning accessions. Approval of the species is separate from its actual acquisition.

Propagation

PROCESSES, ROLES & RESPONSIBILITIES

Overall administration and oversight of the Newport Arboretum Propagators Program is the responsibility of the Director of the Arboretum. Propagation activities will rely heavily on vol-

Taxonomic collections are organized along systematic (phylogenetic) lines, i.e. arranged by family or genus.

Geographical collections are dedicated to a particular region or location.

Ecological collections are organized by habitat or ecotype (e.g. alpine).

Thematic collections are plant collections of related or morphologically similar plants (e.g. roses, medicinal plants, etc.)

Natural history collections are collections with historical significance that help tell the story of Newport's rich horticultural heritage.

unteer staff. It is the responsibility of the Program Director to coordinate the efforts of volunteers and to provide them with the information they need to be successful growers.

A Propagator's Handbook will be developed and made available online to all individuals or groups who wish to participate.

Biennial Review. The Living Collections Committee will oversee the biennial review of the status of propagation activities, and will make recommendations for increases (or decreases) in capacity, depending on the status of acquisition fulfillment. Propagators will also be queried annually for feedback on the propagation process and the level of support they are receiving from Arboretum staff.