



TREE MANUAL

SEPTEMBER 2019

“There is ample opportunity to 'retrofit' communities with more sustainable landscapes through strategic tree planting and stewardship of existing trees. Accelerating urbanization hastens the need for landscapes that reduce stormwater runoff, conserve energy and water, sequester CO₂, attract wildlife, and provide other aesthetic, social, and economic benefits in new development.”

--Western Washington and Oregon Community Tree Guide: Benefits, Costs and Strategic Planting

THANK YOU TO: The City of Newport Parks and Recreation Advisory Committee, Gary Lahman, Blake's Coastal Nursery, Ryan Bancroft (GroundFX), Kristin Ramstad, and Anita Albrecht for their valuable input that helped to create this manual.

ACCEPTABLE STREET TREES FOR PLANTING



The following list constitutes the official **Acceptable Street Trees for Planting List** for Newport, Oregon:

SMALL TREES

Flowering Crabapple
Higan Cherry
Japanese Flowering Cherry
Purpleleaf Plum

MEDIUM TREES

European Hornbeam
Ginkgo Biloba (male cultivars only)
Golden Raintree
Japanese Snowbell
Japanese Zelkova
Trident Maple
Washington Hawthorn

LARGE TREES

Douglas-Fir (n)
Grand Fir (n)
Holly Oak
Japanese Black Pine*
Pacific Madrone (n)*

*Suitable West of Highway 101, in high wind and close to the ocean; (n) denotes native species

In accordance with the three species size classes listed here, no trees should be planted closer together than the following: Small Trees, 30 feet; Medium Trees, 40 feet; and Large Trees, 50 feet; except in special plantings designed or approved by a landscape architect.

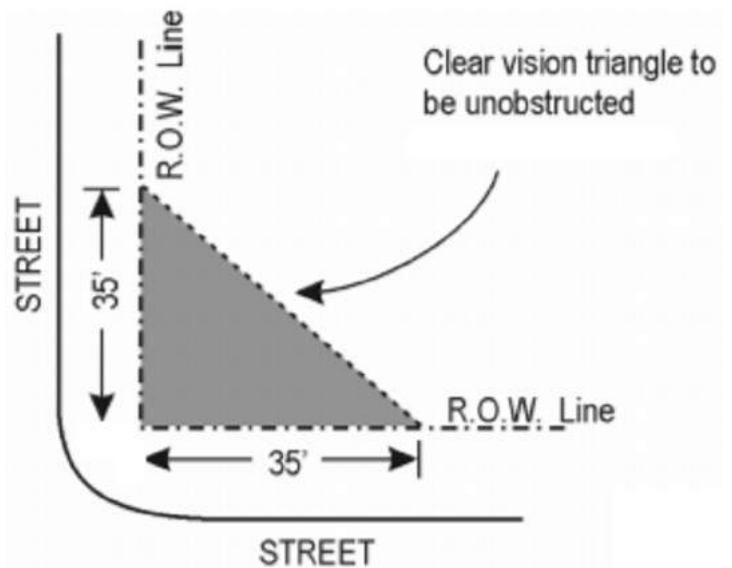
Street Trees are herein defined as any tree planted by the City or authorized to be planted by another party in a Right-of-Way and designated as such. Street Trees do not include existing native or non-native trees or new plantings that are not authorized by the City.

Public Plantings are herein defined as trees, shrubs, bushes, forbs/herbs, grasses and all other woody vegetation in all areas owned by the City to which the public has free access, including public parks having individual names. For a list of acceptable public plantings in Newport, see **Appendix B: City of Newport Acceptable Species for Planting**.

PLANTING DISTANCES

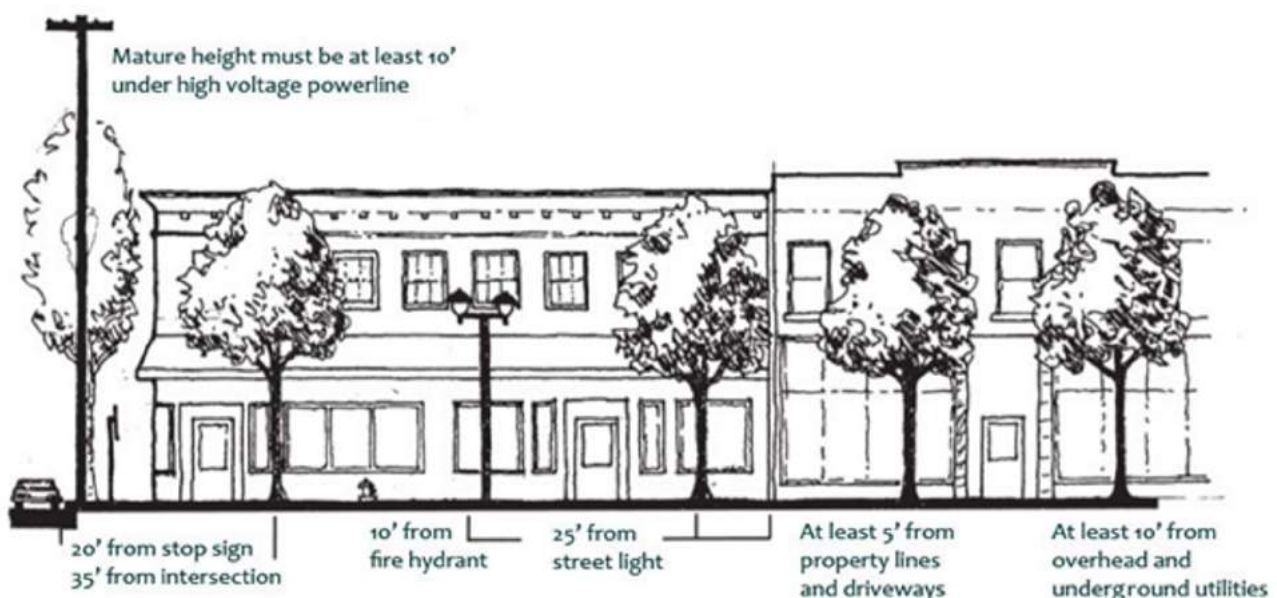
DISTANCE FROM CURB AND SIDEWALK

The distance trees may be planted from curbs or curblines and sidewalks should be in accordance with the three species size classes listed on Page 2. No trees should be planted closer to any curb or sidewalk than the following: Small Trees, three feet; Medium Trees, four feet; and Large Trees, six feet.



DISTANCE FROM STREET CORNERS, HYDRANTS, STREET LIGHTS, SIGNS, AND VISION CLEARANCE

No Street Tree should be planted within the Clear Vision Area closer than 35 feet of any street corner, measured from the point of nearest intersecting curbs, curb lines, or edge of pavement (see graphic above). Existing trees located within a Clear Vision Area should have their branches and foliage removed to the height of eight feet above the grade. No Street Tree should be planted closer than 25 feet from any street light. No Street Tree should be planted closer than 20 feet from any stop or yield sign. No Street Tree should be planted closer than 10 feet from any fire hydrant.



HOW, WHERE, AND WHAT TO PLANT

HOW TO PLANT

Pick your site first and species second. For instance, if you have ample space, it does not make sense to plant a small ornamental tree. Likewise, if you have a narrow space with overhead utilities present, it does not make sense to plant a large conifer.

WHERE TO PLANT

Planting the right tree in the right place is essential if you want to maximize the benefits of trees and avoid future interference with foundations, sidewalks, driveways, and fences. Planting should always be done with consideration for underground and overhead utilities, street signage, street lights, driveways and other infrastructure.

Call: 1-800-332-2344 (or 811) before you dig.



WHAT TO PLANT

When planting, it is essential to consider the future size of trees at maturity, rather than their size at planting. Plant tall columnar trees in narrow open spaces. Smaller rounder trees are the only ones appropriate to plant near overhead utility wires. To maximize benefits—such as energy savings, overall tree canopy, and wildlife habitat—plant large trees such as Northwest natives when space is available. See [Appendix B: City of Newport Acceptable Species for Planting](#) for detailed information about different sizes and characteristics of climate appropriate species for planting.



MAXIMIZE THE BENEFITS OF YOUR TREE

To provide effective shading of your home, trees should be planted within 30 feet of the home, on the south and west sides. Plant at least five feet from property lines and five feet from driveways. Persistent wind comes out of the north in summer on the Oregon Coast. Strong gusty winds come out of the southwest in winter. Consider planting a windbreak, such as a row of conifers, to shield more vulnerable trees and plantings. Take time to observe the patterns of the wind, the sun, the shade and drainage on your site before planting. Remember that trees and their roots and branches do not mix well with buildings and pavement.

WHERE TO PLANT

It is a good idea to think about factors such as soil, water and sunlight requirements as well as exposure to salt and wind in certain areas of Newport. In addition to [Appendix B: City of Newport Acceptable Species for Planting](#), local nurseries and arborists, books, and online resources are great sources for specific tree and site-related information. There are several online references listed in Appendix A of this plan.

PROHIBITED SPECIES

The following tree species **are prohibited from use as street trees** for one or more of the following reasons: 1) their roots cause injury to sewers or pavements; 2) they are particularly subject to insects or disease; 3) they cause safety and visibility problems along streets and at intersections; 4) they create messy sidewalks and pavements.

Fruit and Nut Trees

Ailanthus (Tree of Heaven)
Aspens
Black Locust
Cottonwoods
Goldenchain
Norway Maple
Osage-Orange
Palms
Poplars
Sweetgum
Sycamore Maple
Willows

The following species **should not be planted** and should be controlled within the City of Newport due to their invasive nature:

Butterfly Bush
Cotoneaster
English Hawthorn
English Holly
English Ivy
English Laurel
European Beachgrass
Evergreen Clematis
False Brome
Field Bindweed/Morning Glory
Gorse
Himalayan Blackberry
Irish Ivy
Japanese Sedge
Pampas Grass
Portuguese Broom
Purple Loosestrife
Scotch Broom
Spurge Laurel



GENERAL GUIDELINES

- Avoid planting trees under overhead wires and above underground utilities.
- Do not plant trees near building foundations or walls.
- Do not plant trees that produce nuts or large fruit in pedestrian areas.
- A tree's mature size and shape must be of the proper scale to fit the site and surrounding buildings.
- Trees have roots. Roots spread beyond the branch area of the tree. Most roots are found in the top 18" of soil; most absorbing roots are found in the top 6" of soil.
- Trees crowded in small street spaces may crack sidewalks and paved areas.
- Determine the necessary root growth space for the species you select. Think of clustering trees in a park setting or a parking lot to provide larger soil volumes for safe root growth. Grouping spaces as contiguous pits to provide shared soil volumes is recommended, rather than digging several individual pits. Groupings create their own small environments and may survive better.
- Identify legal restrictions for planting for both public and private property.

PLANTING A BALLED & BURLAPPED TREE

- Prior to placing it in the planting hole, while the burlap is in place, tilt the tree and prune off crossed/broken branches, and smaller branches that may contribute to long-term poor form. You do not need to "balance" the tree crown with the root loss. Keep pruning very light and minimal.
- Carefully remove any wire basket, and unwrap the tree's burlap, leaving it underneath the tree. (You will use the unwrapped burlap to lift and move the tree.)
- Gently remove extra soil from around the top of the root ball until you find the root flare of the highest major root. Protect the root ball from falling apart during this process.
- Dig the planting hole the same depth as the root ball but 2-3 times the width.
- Score the sides of the hole.
- Gently lift the tree using the burlap and lower it into the middle of the hole. The root flare—highest major root—should be level with the soil surface.
- Rock the tree gently to one side while tucking the burlap beneath the tree. Rock the tree gently to the opposite side, enabling you to pull out the burlap from the bottom of the hole. Support the root ball to keep it intact throughout the process.
- Stabilize and straighten the tree with backfill, being careful not to crack or damage the root ball.
- Double check to ensure the highest major root is even with the soil surface.
- Add the rest of the soil back into the hole, gently pressing down as you go to avoid air pockets, but not so hard as to heavily compact the soil.
- After planting, water the tree thoroughly to settle the soil and remove air pockets.

PLANTING A CONTAINERIZED TREE

- Massage the container to loosen the root ball from the pot.
- Massage the roots and loosen up the root ball soil.
- If any roots are circling, lay the root ball on its side and prune the root at the point where it begins to circle.
- Gently remove extra soil from around the top of the root ball until you find the root flare of the highest major root.
- Gently lift the tree by the root ball with a partner and lower it into the middle of the hole. The root flare—highest major root—should be level with the soil surface.
- As with all trees, stabilize and straighten the tree with backfill.
- After planting, water the tree thoroughly.
- If you have mulch, spread it around the base of the tree, keeping it 2-4" away from the trunk.

STAKING

Newly-planted trees do not need to be staked if they are in a safe, gust-free location. Trees should be staked for one year only, loose enough to allow for movement in the wind, if they are in a location where they experience gusts or constant wind or are in any other location where they could be damaged by vehicles or pedestrians.

TREE TRIMMING AND REMOVAL ON CITY PROPERTY

A right-of-way permit is required for pruning or removal of any tree on public property, including rights-of-way. Minor pruning of street trees in the City's right-of-way directly abutting private property to maintain minimum sidewalk and road clearance, as described in NMC Chapter 14.17, Clear Vision Areas, is exempt from this permitting requirement. Contact the Newport Public Works Department for more information about obtaining a right-of-way permit for tree trimming or removal.

APPENDIX A - RESOURCES

Arbor Day Foundation - Trees

<https://www.arborday.org/trees/>

Friends of Trees - Browse Trees

<https://friendsoftrees.org/browse-trees/>

GardenSmart Oregon Guide to Non-Invasive Plants

https://www.invasive.org/gist/products/outreach/gardensmart_oregon_reduced.pdf

Great Plant Picks

<http://www.greatplantpicks.org/>

Habitat Horticulture PNW

<http://habithorticulturepnw.com/>

Missouri Botanical Garden Plant Finder

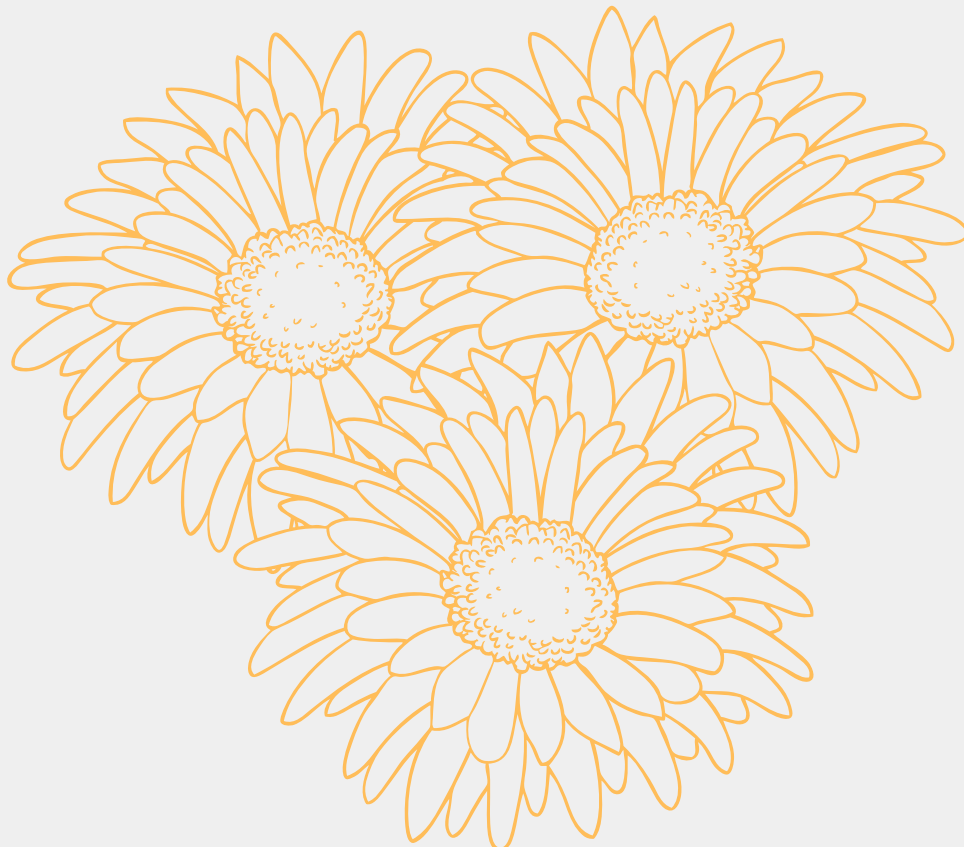
<http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderSearch.aspx>

Trees Are Good

<https://www.treesaregood.org/>

Western Washington and Oregon Community Tree Guide: Benefits, Costs and Strategic Planting [PDF]

https://www.itreetools.org/streets/resources/Streets_CTG/CUFR_164_Pacific_Northwest_CTG.pdf



Appendix B: City of Newport - Acceptable Species for Planting

(n) = native species * = most resistant to wind damage  Full Sun  Part Sun, Part Shade  Full Shade

Common Name	Botanical Name	Form	Height / Width	Wind	Water	Sun	Street Tree	Evergreen / Deciduous
TREES								
Large								
Sitka Spruce* (n)	<i>Picea sitchensis</i>		150' / 30'	H	M			E
Grand Fir (n)	<i>Abies grandis</i>		100' / 20'	L	M		X	E
Coast Redwood	<i>Sequoia sempervirens</i>		100' / 25'	H	M			E
Douglas Fir (n)	<i>Pseudotsuga menziesii</i>		80' / 20'	L	M to H		X	E
Norway Spruce*	<i>Picea abies</i>		80' / 30'	H	L			E
Holly Oak	<i>Quercus ilex</i>		70' / 60'	H	M		X	E
Western Redcedar* (n)	<i>Thuja plicata</i>		70' / 25'	H	M			E
Shore Pine* (n)	<i>Pinus contorta</i>		60' / 25'	H	L			E
Tuliptree	<i>Liriodendron tulipifera</i>		60' / 30'	L	M			D
Western Hemlock* (n)	<i>Tsuga heterophylla</i>		60' / 20'	H	M			E
Bigleaf Maple (n)	<i>Acer macrophyllum</i>		50' / 30'	L	M			D
Japanese Black Pine*	<i>Pinus thunbergii</i>		50' / 20'	H	M		X	E
Pacific Madrone (n)	<i>Arbutus menziesii</i>		50' / 30'	M	L		X	E
Medium								
European Hornbeam	<i>Carpinus betulus 'Fastigiata'</i>		45' / 20'	M	M		X	E
Ginkgo	<i>Ginkgo biloba (male only)</i>		45' / 35'	M	M		X	D
Japanese Zelkova	<i>Zelkova serrata</i>		45' / 30'	M	M		X	D
Bitter Cherry (n)	<i>Prunus emarginata</i>		40' / 30'	M	M			D
Cascara (n)	<i>Rhamnus purshiana</i>		40' / 12'	M	L			D
Leyland Cypress*	<i>Cupressocyparis leylandii</i>		40' / 10'	H	M			E
Scotch Pine	<i>Pinus sylvestris</i>		40' / 35'	M	M			E
Trident Maple	<i>Acer buergerianum</i>		35' / 25'	M	M		X	D
Goldenrain Tree	<i>Koeleruteria paniculata</i>		30' / 30'	M	L		X	D
Japanese Snowbell	<i>Styrax japonica</i>		30' / 30'	M	M		X	D
Monterey Cypress*	<i>Cupressus macrocarpa</i>		30' / 8'	H	M			E
Strawberry Tree	<i>Arbutus unedo</i>		30' / 15'	M	L			E
Washington Hawthorn	<i>Crataegus phaenopyrum</i>		30' / 30'	M	L to M		X	D
Small								
Flowering Crabapple	<i>Malus 'Liset'</i>		25' / 20'	M	M		X	D
Pacific Wax Myrtle* (n)	<i>Myrica Californica</i>		25' / 20'	H	L			E
Higan Cherry	<i>Prunus subhirtella</i>		25' / 20'	M	M		X	D
Purpleleaf Plum	<i>Prunus cerasifera</i>		25' / 20'	L	M		X	D
Flowering Cherry	<i>Prunus serrulata</i>		20' / 20'	M	M		X	D
Japanese Maple	<i>Acer japonicum</i>		20' / 15'	M	M			D
Pacific Crabapple (n)	<i>Malus fusca</i>		20' / 20'	M	M			D
Star Magnolia	<i>Magnolia stellata</i>		15' / 10'	M	M			D
Vine Maple (n)	<i>Acer circinatum</i>		15' / 10'	M	M			D

Appendix B: City of Newport - Acceptable Species for Planting

(n) = native species ● Full Sun ● Part Sun, Part Shade ● Full Shade

Common Name	Botanical Name	Height / Width	Water	Sun	Evergreen / Deciduous
SHRUBS					
Barberry	<i>Berberis</i> sp.	6' / 6'	L to M	● ●	E
Blackhaw Viburnum	<i>Viburnum prunifolium</i>	12' / 12'	M	● ●	D
Bloodtwig Dogwood (n)	<i>Cornus sanguinea</i>	6' / 6'	M	● ●	D
Blue Blossom (n)	<i>Ceanothus thyrsiflorus</i>	5' / 5'	M	● ●	E
Blue Pacific Shore Juniper	<i>Juniperus conferta</i>	1.5' / 8'	M	●	E
Blueberry	<i>Vaccinium corymbosum</i>	12' / 12'	M to H	● ●	E
Ceanothus	<i>Ceanothus griseus horizontalis</i>	3' / 8'	L	● ●	E
Coyote Bush (n)	<i>Baccharis pilularis</i>	4' / 10'	L to M	● ●	E
Creeping Juniper	<i>Juniperus horizontalis</i>	1.5' / 8'	M	●	E
Creeping Mahonia (n)	<i>Mahonia repens</i>	2' / 4'	M	● ●	E
Creeping Rosemary	<i>Rosmarinus prostratus</i>	2' / 3'	L	●	E
Dwarf Oregon Grape (n)	<i>Mahonia nervosa</i>	7' / 7'	L	●	E
Escallonia	<i>Escallonia</i> sp.	8' / 6'	M	● ●	E
Flowering Quince	<i>Chaenomeles japonica</i>	3' / 6'	M	● ●	D
Hairy Manzanita (n)	<i>Arctostaphylos columbiana</i>	10' / 10'	L	●	E
Hawthorn	<i>Crataegus</i> spp.	30' / 30'	L to M	●	D
Heath (many species)	<i>Erica</i> sp.	12' / 6'	M	● ●	E
Hopseed	<i>Dodonaea viscosa</i>	12' / 8'	M	●	E
Huckleberry (n)	<i>Vaccinium ovatum</i>	8' / 10'	L	● ●	E
Hybrid Rhododendron	<i>Rhododendron</i> sp.	8' / 8'	M	●	E
Hydrangea	<i>Hydrangea</i> sp.	5' / 5'	M	●	D
Japanese Honeysuckle	<i>Lonicera japonica</i>	30' / 6'	L to M	● ●	D
Japanese Umbrella Pine	<i>Sciadopitys verticillata</i>	25' / 15'	M	●	E
Kinnikinnick (n)	<i>Arctostaphylos uva-ursi</i>	12" / 15"	L	●	E
Lavender	<i>Lavandula</i> sp.	3' / 4'	L to M	●	E
Lilly of the Valley	<i>Pieris</i> sp.	7' / 7'	M	● ●	E
Mahonia (n)	<i>Mahonia aquifolium</i>	5' / 5'	L	● ●	E
Mediterranean Fan Palm	<i>Chamaerops humilis</i>	15' / 20'	M	● ●	E
Mexican Orange	<i>Choysia ternata</i>	8' / 8'	M	● ●	E
Ninebark (n)	<i>Physocarpus capitatus</i>	8' / 8'	L to M	● ●	D
Nootka Rose (n)	<i>Rosa nutkana</i>	4' / 4'	L	● ●	D
Oceanspray (n)	<i>Holodiscus discolor</i>	10' / 8'	M	●	D
Osoberry / Indian Plum (n)	<i>Oemleria cerasiformis</i>	15' / 10'	M	● ●	D
Pacific Rhododendron (n)	<i>Rhododendron macrophyllum</i>	8' / 8'	L	●	E
Point Reyes Ceanothus	<i>Ceanothus gloriosus</i>	6' / 6'	L to M	● ●	E
Prickly Currant (n)	<i>Ribes lacustre</i>	7' / 5'	L	● ●	D
Pussy Willow	<i>Salix discolor</i>	15' / 12'	M to H	● ●	D
Red Elderberry (n)	<i>Sambucus racemosa</i>	12' / 15'	M to H	● ●	D
Red Flowering Currant (n)	<i>Ribes sanguineum</i>	13' / 7'	L	●	D
Rosemary	<i>Rosmarinus</i> sp.	6' / 4'	M	●	E
Salal (n)	<i>Gaultheria shallon</i>	6' / 8'	M	● ●	E
Silktassel	<i>Garrya elliptica</i>	12' / 8'	L	● ●	E

Appendix B: City of Newport - Acceptable Species for Planting

(n) = native species ● Full Sun ● Part Sun, Part Shade ● Full Shade

Common Name	Botanical Name	Height / Width	Water	Sun	Evergreen / Deciduous
Smokebush	<i>Cotinus coggygia</i>	15' / 15'	M	●	D
Snowberry (n)	<i>Symphoricarpos albus</i>	6' / 6'	L	● ●	D
Spreading Gooseberry (n)	<i>Ribes divaricatum</i>	10' / 3'	L	● ●	D
Twinberry (n)	<i>Lonicera involucrata</i>	10' / 10'	M	● ●	D
Viburnum (n)	<i>Viburnum edule</i>	5' / 5'	M	● ●	D
Wax Myrtle (n)	<i>Myrica californica</i>	20' / 15'	L to M	● ●	E
Western Hazelnut (n)	<i>Corylus cornuta ssp. californica</i>	4' / 8'	M	● ●	D
Western Serviceberry (n)	<i>Amelanchier alnifolia</i>	10' / 10'	H	● ●	D
Western Spirea (n)	<i>Spirea douglasii</i>	7' / 4'	M to H	● ●	D
FORBS/HERBS					
Ajuga	<i>Ajuga reptans</i>	0.75' / 1'	M	● ●	
Aster (n)	<i>Aster chilensis</i>	3' / 3'	L	● ●	
Beach Aster / Fleabane (n)	<i>Erigeron glaucus</i>	1' / 2'	L	● ●	
Beach Pea	<i>Lathyrus japonicus</i>	1' / 1'	M	●	
Beach Strawberry (n)	<i>Fragaria chiloensis</i>	1' / 4'	L	● ●	
Bishop's Hat	<i>Epimedium sp.</i>	1' / 1.5'	L to M	● ●	
Bracken Fern (n)	<i>Pteridium aquilinum</i>	1.5' / 2'	L	● ●	
California Poppy	<i>Eschscholzia californica</i>	2' / 2'	L	●	
Candy Tuft	<i>Iberis sempervirens</i>	1' / 1.5'	M	●	
Checkerbloom (n)	<i>Sidalcea oregana</i>	4' / 4'	M to H	●	
Common Camas (n)	<i>Camassia quamash</i>	2' / 1'	M to H	● ●	
Day Lily (many species)	<i>Heemerocallis sp.</i>	1' / 1'	M	● ●	
Deer Fern (n)	<i>Belchnum spicant</i>	3' / 2'	M to H	● ●	
Douglas Iris (n)	<i>Iris douglasiana</i>	2.5' / 3'	L	● ●	
Dragon's Blood Sedum (n)	<i>Sedum spurium</i>	0.5' / 1.5'	L to M	●	
Drops-of-gold (n)	<i>Prosartes hookeri</i>	3' / 3'	M to H	●	
Fairy Bells (n)	<i>Prosartes smithii</i>	3' / 3'	M to H	●	
Fringecup (n)	<i>Tellima grandiflora</i>	3' / 2'	M to H	● ●	
Fuschia	<i>Fuchsia magellanica</i>	2' / 2'	M	● ●	
Goat's Beard	<i>Aruncus dioicus</i>	6' / 4'	M to H	● ●	
Goldenrod (n)	<i>Solidago canadensis</i>	5' / 3'	L	●	
Gumweed (n)	<i>Grindelia integrifolia</i>	1' / 1'	L to M	●	
Heather (many species)	<i>Calluna sp.</i>	2' / 2'	M	● ●	
Heuchera (n)	<i>Heuchera micrantha</i>	3' / 1'	M to H	● ●	
Ice Dance' Sedge	<i>Carex morrowii</i>	1.5' / 2'	M to H	● ●	
Indian Rhubarb (n)	<i>Darmera peltata</i>	5' / 5'	L	● ●	
Inside-Out Flower (n)	<i>Vancouveria hexandra</i>	1.5' / 1.5'	M	● ●	
Lady's Mantle	<i>Alchemilla mollis</i>	1.5' / 2.5'	M	● ●	
Large Camas (n)	<i>Camassia leichtlinii</i>	1' / 1'	M to H	●	
Lenten Rose / Hellebore	<i>Helleborus sp.</i>	1.5' / 1.5'	L	● ●	
Licorice Fern (n)	<i>Polypodium vulgare</i>	1' / 1'	M	● ●	
Lithodora	<i>Lithodora diffusa</i>	1' / 25'	M	● ●	
Maiden Fern (n)	<i>Adiantum pedantum</i>	2.5' / 1.5'	M	● ●	

Appendix B: City of Newport - Acceptable Species for Planting

(n) = native species ● Full Sun ● Part Sun, Part Shade ● Full Shade

Common Name	Botanical Name	Height / Width	Water	Sun	Evergreen / Deciduous
Matilija Poppy	<i>Romneya coulteri</i>	10' / 20'	L	●	
Phlox	<i>Phlox subulata</i>	0.5' / 2'	M	●	
Piggy-Back Plant (n)	<i>Tolmiea menziesii</i>	0.5' / 0.5'	M to H	● ●	
Purple Leaf Winter Creeper	<i>Euonymus fortunei</i>	0.75' / 3'	M	● ●	
Santolina	<i>Santolina chamaecyparissus</i>	2' / 3'	L to M	●	
Sea Pink	<i>Armeria maritima</i>	1' / 1'	L	●	
Sea Watch (n)	<i>Angelica lucida</i>	3' / 3'	L	● ●	
Seashore Lupine (n)	<i>Lupinus littoralis</i>	1' / 1'	L to M	●	
Shasta Daisy	<i>Leucanthemom x superbum</i>	4' / 4'	L to M	●	
Silver Lace Vine	<i>Polygonum aubertii</i>	25' / 25'	M	● ●	
Silverweed (n)	<i>Potentilla anserine ssp.</i>	1' / 3'	M to H	●	
Slough Sedge (n)	<i>Carex obnupta</i>	2' / 2'	M to H	●	
Snow in Summer	<i>Cerastium tomentosum</i>	1' / 1'	L	●	
Stream Violet (n)	<i>Viola glabella</i>	0.5' / 0.5'	M	●	
Sweet Woodruff	<i>Galium odoratum</i>	1' / 1.5'	M to H	● ●	
Sword Fern (n)	<i>Polystichum munitum</i>	5.5' / 3'	L to M	●	
Thimbleberry (n)	<i>Rubus parviflorus</i>	8' / 8'	M to H	●	
Trillium (n)	<i>Trillium ovatum</i>	2' / 1.5'	M to H	● ●	
Violet (n)	<i>Viola adunca</i>	1' / 1'	M to H	● ●	
Western Geranium (n)	<i>Geranium oreganum</i>	3' / 2'	M	●	
Wild Ginger (n)	<i>Asarum caudatum</i>	0.5' / 1.5'	M	● ●	
Wood Fern (n)	<i>Dryopteris arguta</i>	2' / 2'	L	● ●	
Wooly Thyme	<i>Thymus pseudolanuginosus</i>	0.25' / 1'	L to M	●	
Woundwort (n)	<i>Prunella vulgaris</i>	2' / 0.75'	M to H	● ●	
Yarrow (n)	<i>Achillea millefolium</i>	3' / 1.5'	L	● ●	
GRASSES					
Blue Oat Grass	<i>Helictotrichon sempervirens</i>	3' / 2.5'	L to M	●	
Blue Wild Rye	<i>Leymus racemosus</i> 'Glaucus'	2' / 2'	L to M	●	
Blue-Eyed Grass (n)	<i>Sisyrinchium idahoense</i>	1.5' / 1.5'	M	●	
Feather Reed Grass	<i>Calamagrostis acutiflora</i>	5' / 2.5'	M to H	●	
Maiden Grass	<i>Miscanthus sinensis</i> 'Gracillimus'	7' / 6'	M	● ●	
Oregon Tufted Hairgrass (n)	<i>Deschampsia cespitosa</i>	3' / 3'	M to H	● ●	
Variegated Japanese Silver Grass	<i>Miscanthus sinensis</i> 'Variegatus'	9' / 5'	M	● ●	