Water Weeds

Guide to Aquatic Weeds in King County

King County
Department of Natural Resources and Parks
Water and Land Resources Division
Noxious Weed Control Program
206-477-9333 TTY Relay:711
www.kingcounty.gov/weeds

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PRODUCTION CREDITS:

Content: Sasha Shaw and Katie Messick,
King County Noxious Weed Control Program

Design: Sandra Kraus, King County IT GIS, Visual Communications & Web Group

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Call 206-477-9333 or TTY: 711

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Cover photos:
Brazilian elodea on boat motor (*center*)
Floating primrose-willow (*top right*)
Purple loosestrife (*lower right*)
Parrotfeather (*line drawing, lower left*)

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EMERGENT

FLOATING MAT

FLOATING LEAF

SUBMERGED

To see the complete King County noxious weed list, visit **kingcounty.gov/weeds**

What are aquatic plants?

Plants that grow in water are called aquatic plants. They grow in a variety of forms. Emergent plants are rooted in the soil and grow along shorelines. Floating plants grow in shallow to deep water and either have floating leaves or form floating mats on the surface of the water. Submerged plants grow mostly under water. Many aquatic plants are native to Washington. These species are beneficial to the environment and generally do not cause significant problems. Native aquatic plants developed in the area naturally and usually are kept in check by natural controls such as herbivores, insects and other plants. Native aquatic plants provide food and habitat for native fish, birds, and other wildlife. They protect shorelines from erosion and clean pollution from the water.

What are aquatic noxious weeds?

When aquatic plants are introduced to a new area without the natural checks and balances of their home waters, they can sometimes grow out of control, creating dense monocultures and overwhelming lakes and streams. This guide describes some of these invasive, non-native aquatic plants that have been introduced to Washington's water bodies accidentally or as garden plants. They are all highly aggressive and create significant ecological and economic damage when they are not controlled. These invasive, non-native aquatic plants are called noxious weeds when they are identified by the Washington State Noxious Weed Board as having a significant negative impact on the state's natural and economic resources.

Impacts of invasive aquatic weeds:

- loss of native plants
- disruption of fish and wildlife habitat
- damage to commercial and sport fishing
- reduced recreational activities like boating and swimming
- clogged irrigation and drinking water structures
- decreased water quality

How to use this guide

This guide describes 21 aquatic noxious weeds on the Washington State Noxious Weed List to watch for in King County. The weeds are grouped by growth form: **emergent**, **floating mat**, **floating leaves**, and **submerged**. Many of the weeds in this guide are already widespread in King County, but some of them have only been found in a few locations or only in nearby counties. The guide does not include any native aquatic plants, some of which closely resemble these weeds. If you find a plant that looks like one of the weeds in this guide, we suggest you consult the more detailed references listed at the back of this guide or ask an expert for help with getting a positive identification.

What can we do about aquatic noxious weeds?

Everyone can help prevent new introductions by cleaning boats, trailers and other equipment, by never dumping aquariums into lakes and creeks, and by not planting invasive aquatic plants. Also, early detection of an invasive aquatic weed greatly increases the opportunity for preventing damage. If you find an aquatic noxious weed in a new area, it is important that the responsible agency or landowner is alerted as soon as possible, while there is still a chance to stop its spread. Even when invasive weeds are already widely established in a water body, it is still possible to reduce their impact and contain their spread. For instance, it can help to remove seed heads before they mature or to contain the weed by controlling new satellite populations.

What should I do if I find an aquatic noxious weed that I can't identify?

Mark the location of the plant with a weighted buoy if it's in the water, or a flagged stake if it's on the shore. Carefully collect a specimen including stems, leaves and any flowers or seed pods. Place the specimen in a sealed container with water and store in a cool, dark place. Contact the King County Noxious Weed Control Program to make arrangements for getting the specimen identified. If this is not possible, contact the weed program and we can help determine if a site visit is needed to identify the plant.

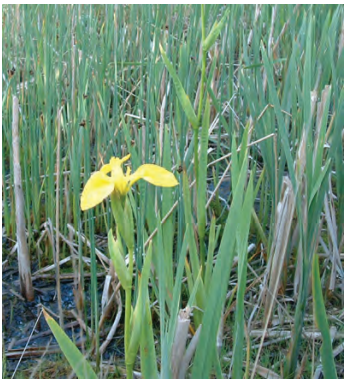
What does the State Noxious Weed Law require for aquatic noxious weeds?

Washington's noxious weed law (RCW 17.10) requires property owners to control and stop the spread of designated noxious weeds on their property, including both aquatic and non-aquatic noxious weeds. The law applies equally to private and public property. However, this requirement does not include noxious weeds that are widespread in the state or the county, but only those weeds that the state weed board believes there is still an opportunity to eradicate from all or part of the state. The noxious weeds are classified by distribution. Class A weeds are the highest priority statewide because they are highly limited in distribution. Class B weeds have a split distribution and control is required only where they are not already widespread. Class C weeds are the most widespread and their control is typically not required, although recommended where possible.

How do I know which weeds have to be controlled?

The King County and Washington State noxious weed lists are available online at **kingcounty.gov/weeds** or by contacting the King County Noxious Weed Control Program. In this guide, the weed classification and any control requirement is provided for each weed described. The classifications can change, so check the current year's lists to be sure.

Are there permit requirements for aquatic weed control?



Since aquatic plants are by definition growing in an easily disturbed, sensitive environment, any work done to remove them is regulated by state and local laws. If the plants are growing in water, at minimum you need a pamphlet Hydraulic Project Approval (HPA) permit from the Washington Department of Fish and Wildlife. This is available free of charge from the WDFW website: **wdfw.wa.gov/licensing/aquatic_plant_removal/**, or by calling **360-902-2534**. Other permits from state and local agencies may be required for work involving bottom barriers, mechanical equipment or herbicides. Rules regarding aquatic herbicide use are administered by the Washington Department of Ecology and the Washington Department of Agriculture. For assistance, contact the King County Noxious Weed Control Program at **206-477-9333** or **noxious.weeds@kingcounty.gov**, the Washington State Department of Regulatory Assistance at **800-917-0043** or **assistance@ora.wa.gov**, and/or your local city government permitting office.

What help does the county provide for aquatic noxious weed control?

The King County Noxious Weed Control Program is available to provide information and advice on identification and control methods for aquatic weeds and to guide property owners through the complex permit regulations that exist when working in aquatic environments. In addition, because of the challenges involved with controlling aquatic weeds, the noxious weed program will help landowners find out about additional resources and may be able to provide direct assistance in some cases for the highest priority aquatic weeds. Call the program for more information at **206-477-9333** or email us at **noxious.weeds@kingcounty.gov**.

Common Reed or Phragmites

Phragmites australis (non-native genotypes)

Identification: 12 foot tall clone-forming grass with large feathery flower head. Leaves are stiff, blue-green, and have a narrow light-colored ridge down the center.

Impacts: Dense, tall growth excludes all other vegetation, dramatically reducing habitat value of shorelines and access to water.

Habitat: Freshwater and brackish wetlands and river corridors. There is a large infestation along the Duwamish River in Seattle, with smaller infestations in a few other spots, including along the Sammamish River and in Union Bay.

Control: Not realistic to control by hand due to six foot deep rhizome mass. Prevent seed production by cutting before seeds mature. A licensed aquatic herbicide applicator can spray actively growing plants with a systemic non-selective aquatic herbicide. Most effective when flowers are first forming.

Look-alikes: The native common reed genotype is very similar. It may be necessary to have an expert examine the plants to be certain. The leaves of the native are more yellow-green, stems are reddish near the base, and flower plumes are sparser. Pampas grass is also tall with feathery plumes, but doesn't grow in wetlands and forms clumps rather than large clones. Reed canarygrass is similar but not as tall, more yellow-green in color, and lacks the feathery plumes.

Legal Status: Class B, control required in King County.

Cordgrass or Spartina

Spartina alterniflora, S. anglica, S. densiflora, S. patens

Identification: These salt-tolerant grasses begin by forming circular patches at the upper edge of tidelands and then spread out to create dense single-species stands covering the mudflats. All cordgrasses have fringed ligules (found at base of leaf where it attaches to stem).

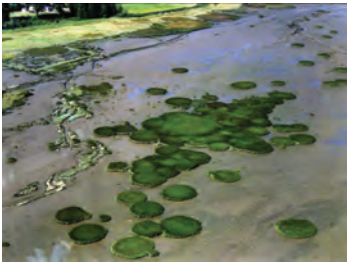
Impacts: Species of spartina can drastically change the nature of Pacific Northwest tidelands, obliterating mudflats that are critical for oysters and other shellfish as well as important habitat for migratory birds.

Habitat: Mudflats, saltwater marshes and estuaries. Common cordgrass (*Spartina anglica*) was found on Vashon Island beaches several years ago but appears to be eradicated. Look for cordgrasses on beaches around Puget Sound.

Control: Pull seedlings and dig out small clumps, removing all the roots and rhizomes. For larger infestations, contact the King County Noxious Weed Control Program. Herbicide should only be applied by a licensed aquatic herbicide applicator.

Look-alikes: Other beach grasses. The Spartina species are the only salt-tolerant grasses that have a ligule that is a fringe of hairs.

Legal Status: Class A, eradication required in King County.



Flowering Rush
Butomus umbellatus

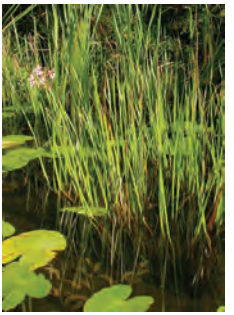
Identification: Emergent form has stiff leaves up to six feet tall that are triangular in cross-section and twist at the tips; submerged form has long ribbon-like, limp leaves that float on the water's surface. Distinctive light pink flowers in umbrella-like clusters atop round stalks. Only blooms sporadically and is difficult to identify without flowers. Blooms June through August.

Impacts: Crowds out native wetland and shoreline vegetation. Interferes with boat propellers, swimming and fishing.

Habitat: Freshwater lakes, ditches, sloughs and wetlands. Emergent in saturated soil or shallow water, and submerged in water up to nine feet deep. Not known to be in King County.

Control: Carefully dig small infestations, making sure to remove all plant parts (spreads vegetatively). Herbicide should only be applied by a licensed aquatic herbicide applicator. If you think you have flowering rush, contact the King County Noxious Weed Control Program for verification.

Look-alikes: Several native aquatic plants have ribbon-like underwater leaves, including species of bur-reed (*Sparganium spp.*), water-plantain (*Alisma spp.*) and arrowhead or duck-potato (*Sagittaria spp.*) Sedge species (*Carex spp. or Scirpus spp.*) and giant bur-reed (*Sparganium eurycarpum*) may have leaves that are triangular in cross-section.



All photos by Ben Legler

Legal Status: Class A, eradication required in King County.

Garden Loosestrife
Lysimachia vulgaris

Identification: Tall perennial wetland plant with showy bunches of five-petalled yellow flowers. Leaves often in whorls of three and usually have tiny black or orange dots on the underside visible with magnification. Stems round and softly hairy. Blooms mid July through August. Difficult to spot when not in bloom.

Impacts: Very aggressive plant outcompetes even hardy natives such as cattails. Crowds out native plants, has little habitat value for native animals and fills in shallow waterways.

Habitat: Wetlands, stream and river corridors, lake margins, ditches, in shallow water or saturated soil. On Lake Washington, Lake Sammamish, Lake Burien, the Sammamish, Snoqualmie and Raging Rivers, and some associated wetlands.

Control: Very difficult to control. At minimum cut the plants at base to prevent seed formation. Dig up small infestations, try to get all the roots. Herbicide should only be applied by a licensed aquatic herbicide applicator unless the plants are growing away from the water. Discard plants in garbage, not yard waste.

Look-alikes: Similar looking garden ornamental *Lysimachia punctata* has flowers in leaf axils and the flowers are larger and more star-like.

Legal Status: Class B, control required in King County.

Hairy Willowherb
Epilobium hirsutum

Identification: Tall, wetland-dwelling relative of the native plant fireweed. Showy magenta flowers and long skinny seed-pods that burst open to release fluffy white seeds. Stems and leaves covered with soft hairs. Flowers have four notched petals and a white center. Leaves opposite, lance-shaped and toothed along the edges. Rhizomes thick and spreading. Flowers in July and August.

Impacts: Pushes out native wetland plants, can grow densely enough to impede water flow, spreads easily to undisturbed wetlands.

Habitat: Places with wet or moist soil, including pastures, meadows, wetlands, streambanks and lakeshores. Can also spread into drier areas.

Control: Dig out small infestations, being careful to get all the roots. Mature plants can be cut off at the base to prevent seed production. Mowing does not work and may spread the infestation. Herbicide should only be applied by a licensed aquatic herbicide applicator unless the plants are growing away from the water. Discard plants in garbage, not yard waste.

Look-alikes: Native fireweed (*Epilobium angustifolium*) is not hairy. Purple loosestrife (*Lythrum salicaria*) is found in the same habitats, but has a square stem, smooth-edged leaves and flowers with five petals.

Legal Status: Class B, control required in King County.

Purple Loosestrife
Lythrum salicaria

Identification: Tall perennial wetland plant with showy, compact spikes of magenta flowers. Stem is square and leaves are opposite, smooth edged and narrow. Blooms mid-July through August.

Impacts: Has up to 2.5 million seeds per plant and also spreads by rhizomes. Outcompetes native plants and provides little habitat for native animals.

Habitat: Wetlands, streams, lakeshores and wet pastures. Fairly widespread in King County.

Control: Dig or pull plants in soft soil or cut plants at base to prevent seed formation. Herbicide should only be applied by a licensed aquatic herbicide applicator unless the plants are growing away from the water. Always throw this plant in the trash, never in compost or yard waste.

Look-alikes: Hardhack (*Spiraea douglasii*) is a native woody shrub with spikes of fuzzy pink flowers and wider, alternate leaves. Fireweed (*Chamerion angustifolium*) is a tall upland native perennial with round stems, alternate leaves and more open flower clusters. Watson's willowherb (*Epilobium ciliatum* ssp. *watsonii*) is a small native plant with similar square stems and opposite leaves, but its leaves are finely toothed and roots are shallow. Plants in the mint family have square stems, but the leaves are usually toothed.

Legal Status: Class B, control required in King County.

Reed Canarygrass
Phalaris arundinacea

Identification: Bright green wetland grass up to six feet tall. Leaves stick out at a wide angle from the stem (like corn) and have a large ligule (thin membrane on stem where the leaf attaches), Flower spikes held high above leaves on tall stems. Forms large, dense stands. Can be found year round.

Impacts: Highly invasive grass. Clogs streams and ditches, destroys wetland restoration sites, degrades wildlife habitat.

Habitat: Wet pastures, ditches, wetlands and shorelines. Common and widespread.

Control: The best long-term control is to shade it out, since it does not do well without full sun. Mowing can reduce its impact but will not kill it. Herbicide should only be applied by a licensed aquatic herbicide applicator unless the plants are growing away from the water. Mowing first and spraying regrowth can be effective.

Look-alikes: Many other grasses, but tends to be taller, more robust and more dense in growth than other grasses that grow in wet areas.

Legal Status: Non-regulated Class C, control not required in King County.

Reed Sweetgrass
Glyceria maxima

Identification: Tall aquatic grass with variegated (green and white striped) leaves to 8.5 feet tall. Striped leaves are very distinctive. Emerges in June, flowers in July and August.

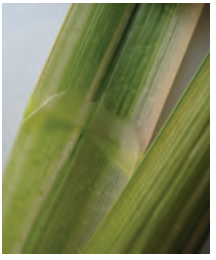
Impacts: Forms dense monocultures in shallow water around lakes, in ponds and along streams.

Habitat: Freshwater lakes, wetlands and river corridors. Known to occur in only a few isolated locations in Washington.

Control: Not realistic to control by hand due to six-foot-deep rhizome mass. Prevent seed production by cutting before seeds mature. Licensed applicators can use an aquatic non-selective herbicide such as glyphosate with appropriate permits. Spraying is most effective when flowers are first forming.

Look-alikes: Variegated reed canary grass and native Glyceria grasses are similar. Other ornamental grasses are variegated but don't grow in the water. Get positive identification before controlling.

Legal status: Class A, eradication required in King County.



Yellow Flag Iris
Iris pseudacorus

Identification: Large yellow iris that grows in water. Bright showy flower, tall leaves in folded, fan-like clusters. Leaves have a raised mid-rib. Dense rhizomes. Blooms late April through June.

Impacts: Forms impenetrable mats. Outcompetes native plants and degrades habitat of native animals. Accumulates sediment and fills in waterways.

Habitat: Lakeshores, wetlands and creeks. Common and widespread in King County.

Control: Difficult to control by hand. Often requires repeated use of heavy tools such as pick-axes or hatchets to remove sections of rhizome. Herbicide should only be applied by a licensed aquatic herbicide applicator unless the plants are growing away from the water. Spray or wipe actively growing plants with a systemic herbicide.

Look-alikes: Cattail (*Typha latifolia*) leaves are not flattened and folded like iris and don't have a mid-rib. Nothing else that grows in water looks like yellow flag Iris in bloom.

Legal Status: Non-regulated Class C, control not required in King County.

Floating Primrose-Willow and Water Primrose

Ludwigia peploides, Ludwigia hexapetala

Identification: Low growing perennial that forms mats in water up to 10 feet deep. Showy yellow five-petalled flowers in leaf axils, smooth-margined ***alternate leaves***, prostrate stems float on water. Blooms late July to August.

Impacts: Clogs waterways, impedes recreation. Ecological pest that outcompetes native plants.

Habitat: Freshwater wetlands and ponds. In King County there is one floating primrose-willow infestation on a tributary to the Cedar River. The one known water primrose infestation was eradicated.

Control: Hand pull or rake up small infestations, being sure to get as many roots as possible (roots will resprout). Herbicide can only be applied by a licensed aquatic herbicide applicator.

Look-alikes: The native water purslane (*Ludwigia palustris*) has inconspicuous green flowers and ***opposite leaves***. No wetland native has showy yellow flowers like this.

Legal Status: Class A and B, control required in King County.

Parrotfeather
Myriophyllum aquaticum

Identification: Spikes of feathery leaves emerging up to a foot above the water. Looks like miniature pine trees or horsetails growing on the water's surface. Emerges in late May and persists into October.

Impacts: Clogs irrigation canals and slow-flowing streams and rivers, filling entire water column. Harms recreation, wildlife habitat, and native plants.

Habitat: Freshwater waterbodies and streams. Currently in a few small private ponds in King County. Still sold as a water garden plant on the internet (illegal to buy or sell it in Washington), so it could potentially be found anywhere.

Control: Very difficult to eradicate. Pull or rake, being very careful to remove all fragments from the water. Manual control requires persistence over many years. Herbicide can only be applied by a licensed aquatic herbicide applicator.

Look-alikes: Underwater stems resemble other milfoil species, but above water stems are very distinctive and hard to confuse with anything else. Horsetail is similar but larger and doesn't grow in water.

Legal Status: Class B, control required in King County.

Fragrant Water Lily
Nymphaea odorata

Identification: Round floating leaves ("lily pads") with the stem attached at a slit in one side. Showy flowers are usually white to pink. Leaves are round and stay floating even as the water level drops (the stems are not stiff like our native pondlily). Leaves emerge in spring and persist until fall. Flowers continuously bloom from June through October.

Impacts: Forms dense mats on the water surface that impede recreation, create ideal mosquito breeding areas, and can alter water quality by increasing water temperature and decreasing dissolved oxygen. Plant die-back in the fall can contribute to algae blooms.

Habitat: Lakes, ponds, slow-moving water up to ten feet deep. Widespread and common in King County.

Control: Long, stout rhizomes are difficult to remove. Pull plants or use bottom barriers to maintain small areas of open water. Use hand or mechanical weed cutters to clear larger areas, making sure to remove cut plants from water. Pull leaves before they reach the water surface to gradually starve the roots. Persistent pulling over several years can result in eradication. Herbicide can be applied by a licensed aquatic herbicide applicator.

Look-alikes: Native yellow pondlily (*Nuphar lutea*) has ball-shaped yellow flowers and large, heart-shaped leaves that stick up as the water level lowers. The native watershield (*Brasenia schreberi*) has oval leaves with no slit, stem attached at center of leaf, and lower leaf surface and stem covered in a slippery gelatinous substance.

Legal Status: Non-regulated Class C, control not required in King County.

Yellow Floating Heart
Nymphoides peltata

Identification: Floating, bottom-rooted perennial with several leaves per stem. The small (3-10 cm) floating leaves are nearly round to heart-shaped with wavy leaf margins and purplish undersides. One to five flowers per stalk are held above the water surface, and they are bright yellow with five distinctly fringed petals. Blooms June thourgh August.

Impacts: Forms dense mats on the water surface that impede recreation, create ideal mosquito breeding areas, and can alter water quality by increasing water temperature and decreasing dissolved oxygen.

Habitat: Wetlands, lakes, ponds, slow-moving water up to 12-feet deep, also can grow in wet mud.

Control: Hand pulling can work with small infestations, but plant fragments will form new plants. Herbicide is effective and can be applied by a licensed aquatic herbicide applicator.

Look-alikes: The native yellow pondlily (*Nuphar lutea)* has ball-shaped yellow flowers and large, heart-shaped leaves that are held out of the water as the water recedes. The native watershield (*Brasenia schreberi*) has oval leaves with no slit, stem attached at the center of leaf, and lower leaf surface and stem covered in a slippery gelatinous substance.

Legal Status: Class B, control required in King County.

Brazilian Elodea

Egeria densa

Identification: Long-stemmed submerged perennial with non-toothed leaves in whorls of four (up to six) and small white, three-petalled floating flowers. Can top out and form mats on the surface. Blooms in summer.

Impacts: Spreads rapidly by fragmentation, clogs waterways, impedes recreation, outcompetes native species, reduces fish habitat, can alter water quality.

Habitat: Lakes, ponds, slow-moving water up to 30 feet deep. Known infestations in lakes Union, Washington, Sammamish, Fenwick and Dolloff. Also in the Sammamish River.

Control: Clean fragments from boats, motors and trailers to prevent spread. Small areas can be cleared by hand-pulling, taking care to remove all plant fragments from the water. Herbicide can only be applied by a licensed aquatic herbicide applicator.

Look-alikes: Hydrilla (*Hydrilla verticillata*) has visibly toothed leaves in whorls of five and grows from tubers. The native American waterweed (*Elodea canadensis*) has smaller leaves in whorls of three.

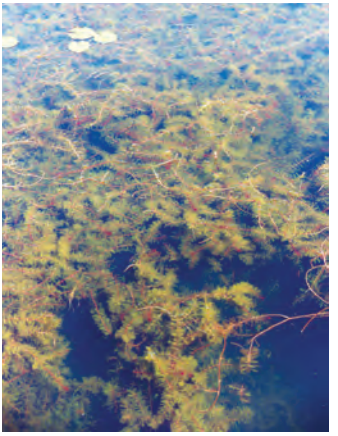
Legal Status: Class B, control required only in selected areas where it is not already well established.

Eurasian Watermilfoil
Myriophyllum spicatum

Identification: Feathery underwater leaves, long reddish or green stems and small emergent spikes of tiny flowers. Can top out and form mats on the surface. Leaf "feathers" have more than 14 leaflet pairs and leaves collapse against stem when plant is removed from water. Blooms in summer.

Impacts: Spreads rapidly by fragmentation, clogs waterways, impedes recreation, outcompetes native species, reduces fish habitat, can alter water quality.

Habitat: Lakes, ponds, slow-moving rivers up to 20-feet deep. Fairly common in King County.

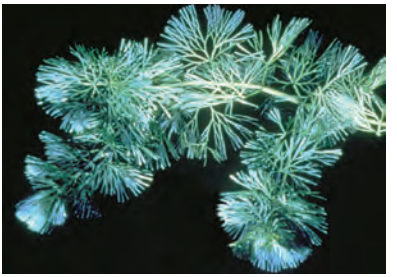


Control: Clean fragments from boats, motors and trailers to prevent spread. Hand pull small infestations, taking care to remove all plant fragments from the water. Dense, whole-lake infestations can be mowed with a mechanical harvester to maintain open water (not recommended for partially infested water bodies). Herbicide can be applied by a licensed aquatic herbicide applicator.

Look-alikes: Native milfoil species, which generally have fewer than 14 leaflet pairs and hold their shape out of water, and variable-leaf milfoil (*Myriophyllum heterophyllum*), a Class A noxious weed not known in King County. All milfoils can be difficult to tell apart. If you think you have an invasive milfoil, contact the King County Noxious Weed Control Program for verification.

Legal Status: Non-regulated Class B, control not required in King County.

Fanwort
Cabomba caroliniana



Identification: Submerged plant with opposite, finely divided fan-shaped leaves on longish stalks and showy pink or white flowers held above the surface of the water.

Impacts: Spreads rapidly by fragmentation, clogs waterways, impedes recreation, outcompetes native species, reduces fish habitat, can alter water quality.

Habitat: Lakes, ponds, ditches, slow-moving water up to 30 feet deep. Not currently known from King County. Only known infestation in Washington is in channels off the Columbia River around Longview and Kelso.

Control: Clean fragments from boats, motors and trailers to prevent spread. Hand pull small infestations, taking care to remove all plant fragments from the water. Herbicide can be applied by a licensed aquatic herbicide applicator. Contact the King County Noxious Weed Control Program if you find this plant.

Look-alikes: Several native aquatic plants. Coontail (*Ceratophyllum demersum*) has divided leaves that are whorled around the stem. Marsh marigold (*Megalodonta beckii*) and water buttercup (*Ranunculus aquatilis*) both have similar looking submerged leaves, but they are smaller and alternate on the stem. Common bladderwort (*Utricularia vulgaris*) has conspicuous round bladders attached to the leaves.

Legal Status: Class B, control required in King County.

Hydrilla
Hydrilla verticillata

Identification: Long-stemmed, submerged, perennial with ***visibly toothed leaves in whorls of five***. Flowers inconspicuous. Grows from small tubers.

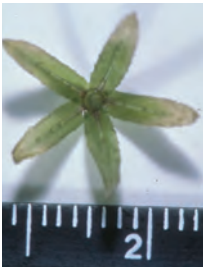
Impacts: One of the top 10 federally listed noxious weeds. Spreads rapidly by fragmentation, clogs waterways, impedes recreation, outcompetes native species, reduces fish habitat, alters water quality. Extremely aggressive and persistent.

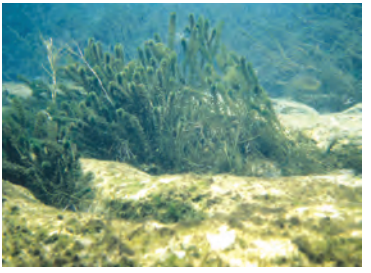
Habitat: Lakes, ponds, ditches, slow-moving water up to 30 feet deep. The only known historical infestation in Washington State was in Pipe and Lucerne lakes in Maple Valley/Covington.

Control: If you find this plant, call the King County Noxious Weed Control Program immediately. Very difficult to eradicate.

Look-alikes: Brazilian elodea (*Egeria densa*) has smooth-edged leaves in whorls of four. American waterweed (*Elodea canadensis*) has smooth-edged leaves in whorls of three.

Legal Status: Class A, eradication required in King County.





What services does the noxious weed program provide to county residents?

- Early detection and eradication of pioneering infestations of high-priority noxious weeds
- Weed surveys and consultations
- Best Management Practices and fact sheets for noxious weeds in the county
- Cooperative Weed Management Area coordination
- Advice on the appropriate use of weed control methods and tools
- Training and coordination of Weed Watcher volunteers to monitor lakes for noxious weeds
- Presentations and slide shows on weed identification and control

What can property owners do?

Prevent weed infestations:

- Follow noxious weed laws and quarantines
- Never put non-native plants or aquarium contents into a natural water body
- Choose non-invasive species for gardens
- Clean boats, trailers, boots, and other equipment before moving between water or wetlands
- Become a Weed Watcher and help find new invaders

Control weed infestations:

- Obtain necessary permits before working in water
- Use integrated pest management and control weeds safely and appropriately
- Follow Best Management Practices for aquatic weeds

- Properly dispose of noxious weeds and weed seeds
- Contact the noxious weed program if you are unsure about what to do
- Monitor the area and follow up as needed to keep the weeds out after the first year of control

Contact us with questions and concerns:
kingcounty.gov/weeds or **206-477-9333**

Resources for additional information

Center for Aquatic and Invasive Plants. University of Florida. plants.ifas.ufl.edu/

Cooke, Sarah Spear, (Ed.) (1997). ***A Field Guide to the Common Wetland Plants of Western Washington and Northwestern Oregon*** Seattle Audubon Society.

DiTomaso, Joseph M. & Healy, Evelyn A. (2003). ***Aquatic and Riparian Weeds of the West.*** University of California Agriculture and Natural Resources, Publication 3421.

Guard, Jennifer. (2010). ***Wetland Plants of Oregon & Washington***. Lone Pine Publishing. (2nd Ed. B.)

King County Noxious Weed Control Program. kingcounty.gov/weeds

Washington State Department of Ecology, (2001, June). ***An Aquatic Plant Identification Manual for Washington's Freshwater Plants.*** Publication 01-10-032. ecy.wa.gov/programs/wq/plants/plantid2/

Washington State Department of Ecology, Aquatic Plants, Algae and Lakes. ecy.wa.gov/programs/wq/links/plants.html

Washington State Department of Fish and Wildlife: Aquatic Plants and Fish. wdfw.wa.gov/licensing/aquatic_plant_removal

Wetland and aquatic plants whose sales are prohibited in Washington State

"The Quarantine List"

SCIENTIFIC NAME	COMMON NAME
Arundo donax	Giant Reed
Butomus umbellatus	Flowering Rush
Cabomba caroliniana	Fanwort
Crassula helmsii	Australian Swamp Stonecrop
Egeria densa	Brazilian Elodea
Epilobium hirsutum	Hairy Willow Herb
Glossostigma diandrum	Mud Mat
Glyceria maxima	Reed Sweetgrass, Tall Manna Grass
Gymnocoronis spilanthoides	Senegal Teaplant
Hydrilla verticillata	Hydrilla
Hydrocharis morsus-rana	European Frog-Bit
Lagarosiphon major	African Elodea
Ludwigia hexapetala	Water Primrose
Ludwigia peploides	Floating Primrose-Willow
Lythrum salicaria	Purple Loosestrife
Lysimachia vulgaris	Garden Loosestrife
Lythrum virgatum	Wand Loosestrife
Marsilea mutica	Australian Water Clover
Murdannia keisak	Marsh Dew Flower
Myriophyllum aquaticum	Parrotfeather
Myriophyllum heterophyllum	Variable-Leaf Milfoil
Myriophyllum spicatum	Eurasian Watermilfoil
Najas minor	Slender-Leaved Naiad, Brittle Naiad
Nymphoides peltata	Yellow Floating Heart
Sagittaria graminea	Grass-Leaved Arrowhead
Sagittaria platyphylla	Delta Arrowhead
Schoenoplectus mucronatus	Ricefield Bulrush
Spartina alterniflora	Cordgrass, Smooth
Spartina anglica	Cordgrass, Common
Spartina densiflora	Cordgrass, Dense-Flowered
Spartina patens	Cordgrass, Salt Meadow
Stratiotes aloides	Water Soldier
Trapa bicornus	Water Caltrap, Devil's Pod, Bat Nut
Trapa natans	Water Chestnut, Bull Nut
Utricularia inflata	Swollen B0ladderwort

Complete quarantine list and more information and photos can be found at Washington State Noxious Weed Control Board, **nwcb.wa.gov**

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Common and Scientific Names

King County
Department of Natural Resources and Parks
Water and Land Resources Division

Noxious Weed Control Program
201 South Jackson Street, Suite 600
Seattle, WA 98104-3855
www.kingcounty.gov/weeds
206-477-WEED (206-477-9333)
TTY Relay:711
email: noxious.weeds@kingcounty.gov