Bird's-foot trefoil *(Lotus corniculatus L.)*

Description: Bird's-foot trefoil is an invasive species that creates tangled mats of dense growth that can choke out other plants. The hardy perennial has a stem which can grow to about 2 feet (60 cm). The leaves consist of five oval leaflets, broadest near the tip. The flowers, about 0.8 inches (2 cm) wide, are yellow, sometimes tinged with red, and grow in clusters of 5 – 10. They bloom from June to October. The name 'bird's foot' refers to the appearance of the seed pods on their stalk.

Control: Dig up the plant including all root fragments and place in waste receptacle. Repeated mowing reduces the spread if done continually at 2 inches (5 cm) or less. Spot spraying provides good control. For specific guidelines see the Integrated Pest Management Plan at **www.cleanwaterservices.org.**

Canada thistle *(Cirsium arvense)*

Description: Canada thistle spreads rapidly through roots sprouting new shoots and wind carried seed. Canada thistle is a 2 - 5 foot tall (0.6-1.5 meters) perennial with a grooved stem that branches at the top. Stems are hairy and become more hairy as the plant matures. The leaves are smooth, and characterized by wavy edges with numerous spines along the margins. Numerous purple or sometimes white flowers grow to 0.75 inches (2 cm) in size. The small, light-brown seeds have a tuft of hair loosely attached to the tip which enables wind dispersal.

Control: This plant is difficult to control and prevention of establishment is most effective. Repeated cutting when the plant is 4 - 6 inches (10 - 15 cm) tall (before seeds are present) is moderately effective. Timely spot spray with appropriate herbicide can provide good control. For specific guidelines see the Integrated Pest Management Plan at **www.cleanwaterservices.org.**

Common teasel *(Dipsacus fullonum)*

Description: Common teasel spreads quickly through seed dispersal and invades areas occupied by natives. This tall, fast growing plant is a biennial weed that is easily identified by its large opposite leaves and prickly, hollow stem that supports bristly, egg-shaped heads. Large purple flowers form during July and August. Common teasel can grow to 7 feet (2.1 meters). The plant dies after it flowers the first time.

Control: Digging up the plant and all of its roots is effective if it has not already produced seed. Cutting several times in the summer before seeds are formed is also effective. If the egg shaped head of the plant has lost its blossoms, the plant should be cut, bagged and disposed of to prevent the spread of seeds. Timely spot spray with appropriate herbicide can provide good control. For specific guidelines see the Integrated Pest Management Plan at **www.cleanwaterservices.org.**

Morning glory *(Convolvulus sepium)*

Description: Morning glory is rapidly growing vine usually with white flowers that are 1.5-2.5 inches (4-6.4 cm) wide. The flowers have a sweet vanilla scent and bloom from May until September. The green leaves are 2.5-3.5 inches (4-9 cm) long.

Control: Hand pulling is effective for small areas but works only to control rather than eliminate the population. In hand removal, make sure all pieces of root are removed. Repeated cutting has little effect as it can spread horizontally underground. The seeds can remain viable in the ground for up to 50 years. Timely spot spray with appropriate herbicide can provide good control. For specific guidelines see the Integrated Pest Management Plan at **www.cleanwaterservices.org.**

Himalayan blackberry *(Rubus armenicus)*

Description: This common plant dominates forest edges and disturbed areas. The thorny arching canes produce leaves consisting of five large oval leaflets that are dark green on top and grayish green underneath. The white-pink flowers yield blue-black berries. Canes can exceed 8 feet (2.4 meters) in height.

Control: Hand-pulling and digging is effective for small populations and in sensitive areas, but requires the meticulous removal of all roots. Even very small root fragments are able to re-sprout as new plants. It spreads also though seeds from berries. Cutting during mid-summer followed by spot herbicide in the fall can provide good control. For specific guidelines see the Integrated Pest Management Plan at **www.cleanwaterservices.org.**

Knotweed *(Polygonum sachalinense and P. cuspidatum)*

Description: This fast spreading plant shades out other plants while also damaging wildlife habitats particularly along streams. A perennial with stems that resemble bamboo, knotweed forms large clumps 3-10 feet (1-3 meters) high. It has large heart-shaped leaves and clustered greenish-white flowers that appear in mid-summer. There are several hybrid varieties that are similar looking and equally invasive.

Control: Knotweed is very difficult to control and doing so generally takes several years. New or very small patches may be eliminated through repeated digging and cutting. All cut or dug parts of the plant must be disposed of in the garbage to prevent further spread. The most effective control of established plants is through spot herbicide in the late summer or early fall. For specific guidelines see the Integrated Pest Management Plan at **www.cleanwaterservices.org.**

Reed Canary grass *(Phalaris arundinacea)*

Description: This aggressive wetland grass forms dense stands that alter wildlife habitat and prevent the reestablishment of native species. Its upright stems with flat, green leaf blades 0.8 inches (2 cm) wide grow to 6 feet (2 meters) in height. It, blooms May through June and produces copious quantities of seed.

Control: Multiple yearly cutting has proved effective for control. Shading Reed Canary grass is also effective. This takes several years and is achieved through active control throughout the growing season and the planting and maintenance of dense native tree and shrub plantings. Pulling is effective for small areas if done in extremely wet ground when plants are about 1-2 feet (0.3-0.6 meters) tall. Timely spot spray with appropriate herbicide can also provide good control. For specific guidelines see the Integrated Pest Management Plan at **www.cleanwaterservices.org.**

English ivy *(Hedera helix)*

Description: This common species threatens native areas by smothering the forest floor and climbing and shading trees. Ivy is an evergreen, woody vine with alternate, three or five pointed, waxy leaves and adventitious roots for climbing. The mature form produces dark purple fruit.

Control: Removing berries before they ripen is an effective way to prevent seed being spread by birds. Pulling, cutting and digging of the entire plant can be effective if done with vigilance. Cutting vines all the way around the trunk of the tree will kill the ivy in the upper branches of a tree. Timely spot spray with appropriate herbicide and surfactant can also provide control. For specific guidelines see the Integrated Pest Management Plan at **www.cleanwaterservices.org.**

Scot's broom *(Cytisus scoparius)*

Description: This shrub spreads rapidly in disturbed areas, suppressing or displacing native plant species. Scot's broom grows in thickets with stems up to 10 feet (3 meters) tall and has dark green broom-like leaves and yellow pea flowers that bloom from April to June.

Control: Hand pull, hand hoe or dig out small plants. On much older plants cutting can be effective. The introduction of fast-growing natives has been suggested as a means of shading out new broom seedlings. Timely spot spray with appropriate herbicide and surfactant can also provide effective control. For specific guidelines see the Integrated Pest Management Plan at **www.cleanwaterservices.org.**

Poison hemlock *(Conium maculatum)*

Description: Introduced to North America as an ornamental plant, this tall carrot-like weed is poisonous to animals and spreads quickly by seed. Stems are hollow, ribbed and purple-spotted. Flowering occurs from May to August, when many umbrella-shaped heads (umbels) of small, white flowers develop at the top of the stems.

Control: Hand-pulling, or repeated mowing close to the ground before it goes to seed may eventually kill poison hemlock. When pulling the plants, dig down and remove the entire taproot. Care must be taken to wash hands after handling plants and to avoid ingesting any part of the plant. Timely spot spray with appropriate herbicide and surfactant can also provide effective control. For specific guidelines see the Integrated Pest Management Plan at **www.cleanwaterservices.org.**

Hairy vetch *(Vicia villosa)*

Description: This toxic herb clambers over native plant species and competes for space and sunlight. Hairy vetch's climbing stems can grow up to 6 feet (2 meters) long. The entire plant has a white-woolly appearance due to its long soft hairs. Purple to blue flowers in clusters of 10-20 are borne on long stalks arising at the base of the leaves. Elongated flattened pods contain 2-8 rounded seeds ranging from dark brown to grey-black in color.

Control: Pull small infestations before seeds develop. Hairy vetch can be also be killed by close mowing at peak flower season. This herb is toxic and should not be ingested. Timely spot spray with appropriate herbicide can also provide effective control. For specific guidelines see the Integrated Pest Management Plan at **www.cleanwaterservices.org.**

Nightshade *(Solanum dulcamara)*

Description: This is a toxic plant that invades disturbed land, choking out native plants. Nightshade has a climbing, somewhat woody, branched stem about 2-8 feet (0.6-2.4 meters) long. The dark green leaves are from 2-4 inches (5-10 cm) long and most have two small lobes at the base. Purplish flowers with a yellow center are produced from mid-spring until late summer, followed by bright red poisonous berries.

Control: Hand pull the stems that are close to the ground and pull or dig up roots, taking care not to break them apart. Even a small root or stem fragment left behind can re-sprout. For larger, more mature stands, dig out with a shovel or spade. Timely spot spray with appropriate herbicide can also provide effective control. For specific guidelines see the Integrated Pest Management Plan at **www.cleanwaterservices.org**.

Purple loosestrife *(Lythrum salicaria L.)*

Description: This purple flowered plant is extremely aggressive and displaces native plants, often forming monocultures in wet areas. Plants average 5 feet tall (1.8 meters) and have a showy spike of rose-purple flowers in mid to late summer. The flowers have 5-7 petals. Purple loosestrife has a four sided stem that may appear woody at the base

Control: Individual younger plants (1-2 years old) can be hand pulled. For older more woody stems tools will be necessary. Often they require repeated removal. Make sure seeds are not spread during removal. Timely spot spray with appropriate herbicide can also provide effective control. For specific guidelines see the Integrated Pest Management Plan at **www.cleanwaterservices.org.**

Yellow Flag iris *(Iris pseudacorus)*

Description: This is a fast growing and fast spreading weed that forms dense stands in wet areas. Yellow Flag iris is typically 3-4 feet (0.9-1.2 meters) tall with flattened, sword-like leaves. The plant has a long blooming season and is the only yellow iris in the U.S.

Control: Hand digging of roots and removal of seed heads can provide effective control in small areas. Control in larger areas typically requires the use of herbicide and a surfactant. For specific guidelines see the Integrated Pest Management Plan at **www.cleanwaterservices.org.**

Garlic mustard *(Alliaria petiolata)*

Description: This highly invasive weed is native to Eurasia and spreads via seed move by animals, human activity and streams. Garlic mustard has kidney shaped leaves in the first year and toothed tri-angular leaves in the second. The stems typically produce numerous white four-petaled flowers during April and May. Mature plants are usually 1-4 feet (0.6-1.2 meters) tall. The seeds are black and oblong arranged in a row within a long narrow silique (pod).

Control: Plants with formed or partially form siliques must be bagged. Small patches can easily be pulled by hand. It is important to clean equipment and shoes to stop the spread of seed after working with Garlic mustard. Timely spot spray with appropriate herbicide can also provide effective control. For specific guidelines see the Integrated Pest Management Plan at **www.cleanwaterservices.org.**

Red clover *(Trifolium pretense)*

Description: This introduced plant is used for forage and is adapted to areas with moderate summer temperatures and adequate moisture throughout the growing season. Red clover is a short-lived perennial plant with hairy stems and alternating leaves. Individual leaflets are usually marked with a whitish V. Flower heads, located at the tip of stems, usually have 75-125 individual pinkish-violet flowers. Red clover seeds are mitten shaped, 2-3 mm long and vary in color from yellow to brown to purple. Red clover has a taproot system with many secondary branches.

Control: Hand pull plants, taking care to prevent fragmentation of roots. Even a small root or stem fragment left behind can re-sprout. Repeated mowing will prevent seed set. Timely spot spray with appropriate herbicide can provide effective control. For specific guidelines see the Integrated Pest Management Plan at **www.cleanwaterservices.org.**